

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Main report and annexes

Mission Dates: 23 November to 30 December 2023

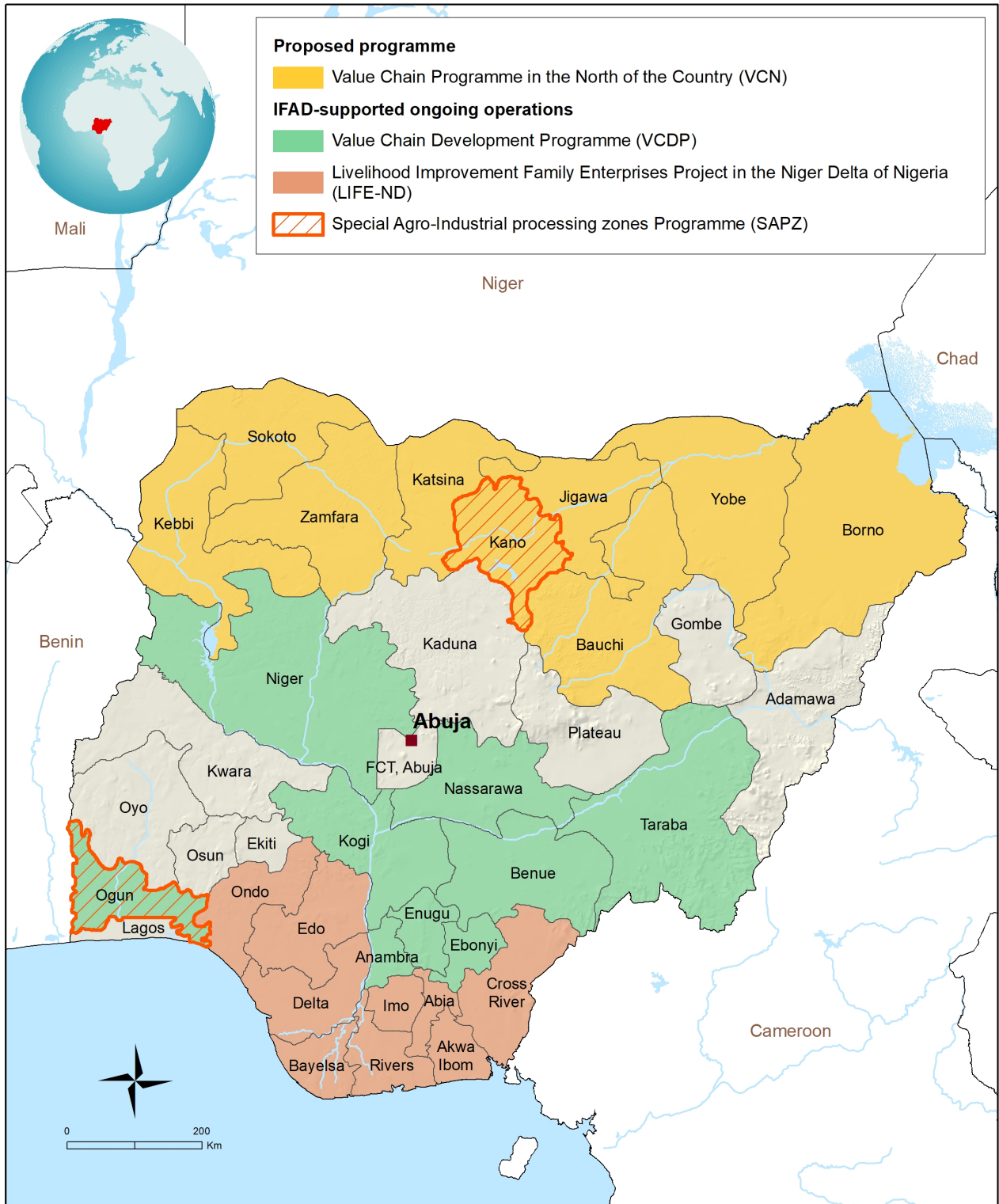
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West and Central Africa Division
Programme Management Department

Map of the Project Area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 19-06-2024

Abbreviations and Acronyms

AFD	Agence Française de Développement
AfDB	African Development Bank
AMIS	Agricultural Market Information System
API	Application programming interface
AWPB	Annual workplan and budget
BOA	Bank of Agriculture
BOI	Bank of Industry
CAF	Commodity Alliance Forum
CASP	Climate Change Adaptation and Agribusiness Support Programme
CBN	Central Bank of Nigeria
CCA	Climate Change Adaptation
CDA	Community Development Association
CRG	Credit Risk Guarantee
CSA	Climate Smart Agriculture
COSOP	Country Strategic Opportunities Programme
FSA	Financial Services Association
ESCMF	Environmental, Social and Climate Management Framework
ESCMP	Environmental, Social and Climate Management Plan
FFS	Farmer Field School
FGN	Federal Government of Nigeria
FI	Financial Institution
FMAFS	Federal Ministry of Agriculture and Food Security
FMF	Federal Ministry of Finance
FMITI	Federal Ministry of Industry, Trade & Investment
FO	Farmer Organization
FSA	Financial Services Association
FSP	Financial Service Provider
GALS	Gender Action Learning System
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GEWE	Gender Equality and Women's Empowerment
GHG	Greenhouse Gas
GIS	Geographic Information System
HH	Household
ICT4D	Information And Communications Technology for Development
IDP	Internally Displaced Person
IFAD	International Fund for Agricultural Development
IITA	International Institute of Tropical Agriculture
IOM	International Organization for Migration
IsDB	Islamic Development Bank
KM	Knowledge Management
LGA	Local Government Area
LIFE-ND	Livelihood Improvement Family Enterprises in The Niger Delta
LR	Landscape Rehabilitation
M&E	Monitoring And Evaluation
MBEP	Ministry Of Budget & Economic Planning
MDDW	Minimum Dietary Diversity-Women

MFB	Microfinance Bank
MG	Matching Grant
MIS	Management Information System
MT	Metric Ton
MTR	Midterm Review
NAIC	National Agricultural Insurance Corporation
NAITS	National Animal Identification and Traceability System
NAVSA	National Adopted Village for Smart Agriculture
NBSAP	National Biodiversity Strategy and Action Plan
NDC	Nationally Determined Contribution
NGN	Nigerian Naira
NiMet	Nigerian Meteorological Agency
NIRSAL	Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
NITDA	National Information Technology Development Agency
O&M	Operation And Maintenance
PESP	Private Extension Service Provider
PHM	Post-Harvest Management
PDO	Programme Development Objective
4Ps	Public-Private-Producer Partnership
PWD	Person With Disability
RAAMP	Rural Access and Agricultural Marketing Project
RAMP	Rural Access and Mobility Project
SAPZ	Special Agro-Industrial Processing Zone
SDG	Sustainable Development Goal
SECAP	Social Environmental Climate Assessment Procedures
SHF	Smallholder Farmer
SLM	Sustainable Land Management
SMEs	Small And Medium Enterprises
SO	Strategic Objective
SWC	Soil And Water Conservation
ToT	Training Of Trainer
UNDSS	United Nations Department of Safety And Security
USD/US\$	United States Dollar
VC	Value Chain
VCDP	Value Chain Development Programme
VCF	Value Chain Financing
VCN	Value Chain Programme in Northern Nigeria
WHH	Women Headed Household

In line with IFAD mainstreaming commitments, the project has been validated as:

Be gender transformative Be youth sensitive Be nutrition sensitive Prioritize persons with disabilities Prioritize indigenous peoples Include climate finance Build adaptive capacity

Executive Summary

The average annual growth rate of Nigeria's economy was less than 2% during 2015-2022, due to multiple shocks such as the COVID-19 pandemic, extensive flooding in 2022, and the War in Ukraine. Real GDP growth fell from 3.3% in 2022 to 2.9% in 2023 and is only expected to rise to 4.1% in 2026, while inflation reached a 24-years high of 31.7% in February 2024. Over 40% of the 218.5 million Nigerians is extremely poor (less than USD 1.90 a day), with 85% of them living in rural areas, and engaged mainly in agriculture which accounts for 23% of the GDP. Through the Renewed Hope Agenda, the new administration at the federal level is undertaking reforms on petrol subsidy, foreign exchange markets, food production, and security. The Nigeria Agenda 2050 aims to graduate the country from a low middle-income country to upper middle-income by 2030 through an average real GDP growth of 7% during 2021-2050. This projected growth rate appears high compared to the actual rates achieved recently.

In 2023, the World Bank included Nigeria on the list "fragile and conflict-affected situations. The level of fragility in the Nigerian context is more pronounced in northern Nigeria, where VCN will operate, driven by: (i) high levels of **unemployment and poverty**, with 72% of the population considered extreme poor, and 17 out of the 19 states with a poverty rate above the national average rate being in the region; (ii) **insecurity** and violence, from Boko Haram insurgency, banditry, and communal and farmers-herders conflicts; (iii) **climate change impact** with associated disaster events, which during 2000-2022, affected 33.8 million people; (iv) **social exclusion** of vulnerable groups such as women, youth and persons with disability (PWDs) from access to resources, market opportunities and leadership roles; (v) **challenges to agricultural productivity** from low access to inputs, extension services, finance and markets, limited technology adoption, high post-harvest losses, and environment and natural resource degradation; (vi) **food insecurity and malnutrition**, with 26.5 million people estimated to need food assistance in 2024.

The March 2024 Cadre Harmonisé report highlights increased food insecurity in Nigeria due to conflicts, climate change, inflation, currency devaluation, and fuel subsidy cuts, with violence in Borno, Adamawa, and Yobe worsening food access. Measures against food hoarding and exports are expected to raise local food prices. The Value Chain North (VCN) initiative aims to address these issues by leveraging existing policies and institutions like the commodity alliance forum (CAF) and promoting social inclusion and women's empowerment in agriculture. It will support modern farming and herding techniques to improve productivity and reduce resource conflicts.

Against this background, the Value Chain Programme in Northern Nigeria (VCN) aims to contribute sustainably to poverty reduction, enhanced nutrition and resilience of rural populations in nine northern states of Nigeria. VCN is a scaling up and sustainability measure for the previous investments under the Climate Change Adaptation and Agribusiness Support Programme (CASP), which was implemented in seven out of the nine states of VCN. The additional state (Kano) is included to strengthen the linkage of the VCN value chains with a robust market in Kano, a major regional market for agricultural produce. Kano is also the project area of another IFAD investment, the Special Agro-industrial Processing Zone (SAPZ) project and market synergies will be sought for between the two projects. The inclusion Bauchi State will help leverage the results and lessons learned of AFD-financed RAAMP.

VCN targets 456,000 rural households in the nine states and will be implemented over an eight-year period at a total cost of USD 158.1 million. IFAD is providing a Performance Based Allocation System (PBAS) loan of USD 56.7 million and Borrowed Resource Access Mechanism (BRAM) resources of USD 30 million. The Agence Française de Développement (AFD) is co-financing VCN with USD 50.8 million. Co-financing by Government is USD 12 million, and by the beneficiaries USD 8.6 million. The Federal Ministry of Finance (FMF) and the Federal Ministry of Agriculture and Food Security (FMAFS) provide oversight at national level to VCN. The FMAFS is the Lead Programme Implementing Agency.

The project aligns with the Renewed Hope Agenda and Nigeria relevant strategies, policies, and programs. These include: (a) **National Development Plan (2021-2025)**, aiming at increasing agricultural productivity and improve food and nutrition security ; (b) **National Agricultural Technology and Innovation Policy (NATIP)** ; (c) **National Climate Change Policy Response and Strategy** ; (d) **National Gender Policy** ; (e) **National Food and Nutrition Policy (2016)** ; (f) **National Multi-Sectoral Plan of Action for Food and Nutrition (2021-2025)** ; (g) **Agriculture Sector Food Security and Nutrition Strategy (ASFSNS) (2016-2025)** ; (h) **National Youth Policy**. To address violence and conflicts, VCN will contribute to social cohesion and peace by supporting the relevant outcomes of the Nigeria peace and security policies such as: (a) **National Counter Terrorism Strategy (NACTEST) 2016**; (b) **National Security Strategy 2014** ; (c) **Policy Framework and National Action Plan for Preventing and Countering Violent Extremism 2017** ; (d) **Terrorism (Prevention) Amendment Act 2013** ; (e) **National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria (2017-2020)**.

The VCN aligns with two Country Strategic Opportunities Programme (COSOP) strategic objectives: (i) **Increasing rural people's productive capacities**; *strengthening the organizational policy frameworks and collaboration with the private sector for inclusive, resilient agri-business value chains (VCs)*, which are in turn aligned to the IFAD SOs related to productive capacities with a thematic focus on nutrition, beneficial market participation, and environmental sustainability and climate resilience. The VCN is also aligned to: (a) Relevant Sustainable Development Goals (SDGs); (b) United Nations Sustainable Development Cooperation Framework-Nigeria under the pillars of Planet and Prosperity; (c) AFD Country Intervention Strategy promoting a competitive, job-creating, and inclusive economy in coordination with government and development partners' investments.

The goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northern states of Nigeria. The goal is to reach 250,800 HHs (55% of the target of 456,000 HHs) reporting improved livelihoods

and reduction in poverty. Information and Communications Technology for Development (ICT4D) will also be mainstreamed in the implementation of all the components. The programme development objective (PDO) is to improve food and nutrition security and income of HHs in northern Nigeria through inclusive and sustainable VC development as an enabler for rural transformation through gender transformative, youth responsive, nutrition sensitive and climate change resilient approaches mainstreamed in all key activities. The project's activities are organized around two programmatic components in addition to programme coordination:

Component 1: Foster climate resilient and nutrition sensitive production (USD 59.58 M), aims to improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs, enhance diet quality and nutrition awareness of the target rural HHs, and strengthen social cohesion and policy/institutional frameworks. This component consists of three subcomponents (a) *Subcomponent 1.1. Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices*; (b) *Subcomponent 1.2. Promote nutrition and gender awareness and practices, aims to provide HHs with targeted support to improve their nutrition, and to reach HHs with the gender transformative GALs methodology*; (c) *Subcomponent 1.3 Promoting social cohesion and an enabling policy/ institutional frameworks for value chain development, as well as empowerment of FOs, management of fragility, enhancement of social cohesion, food and nutrition security, youth and gender equality. VCN will support header and farmers with infrastructure, water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aim to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.*^[1]

Component 2: Enhance inclusive and profitable integration of target groups in the VCs(USD 74.87M). This component aims to: (i) improve post-harvest handling, value addition, and access to markets in supported VCs; (ii) increase entrepreneurial opportunities for youth and women along the target VCs; and (iii) enhancing beneficiaries' access to financial services; Nutrition will be enhanced by promoting fortification, nutrition-sensitive processing of foods, food safety, packaging, and labeling. The component consists of three subcomponents (a)*Subcomponent 2.1. Improving post-harvest, value addition, market linkages and partnerships with VC actors*; (b) *Subcomponent 2.2. Promoting entrepreneurship for women and youth*; (c) *Subcomponent 2.3. Improving access to financial services*.

Component 3Programme coordination and management" (USD 23.70M), aims for efficient programme management with integrated mainstreaming themes, monitoring, evaluation (M&E), and knowledge management (KM). ICT4D will be incorporated throughout. The implementation will be decentralized, involving the community, private sector, and government at various levels. This component also includes a Response to Emergency and Disaster (RED), allowing for quick adaptation to natural disasters. Up to 5% of undisbursed IFAD and AFD funds, plus additional allocations, can be used. The management and coordination of the Programme is based on best practices and lessons learned in fragile situation under CASP and AFD-financed RAAMP and will be carried out using a decentralized approach including (a) National Programme Coordination Office – NPCO and (b) State Programme Coordination Office –SPCO.

VCN will be supervised by FMAFS, FMF IFAD, and AFD, and through annual missions and continuous engagement from the IFAD Country Office (ICO). A midterm review and a Programme Completion mission will be organized in collaboration with the Government and AFD. Best practices in financial management; procurement; planning, monitoring an evaluation (M&E); knowledge management will be leveraged to ensure transparency, effectiveness, efficiency, value for money, accountability and sustainability of the Programme. The success of the Programme management also rests on community participatory approach which is key for sustainable results in fragile settings.

^[1] Livestock Productivity and Resilience Support Project -LPRES World Bank Project Appraisal Document Page 28

Chapter 1: Context

1.1 Project in brief

1. The goal of the Value Chain Programme in Northern Nigeria (VCN) is to contribute sustainably to poverty reduction, enhanced nutrition and resilience of rural populations in nine states in northern Nigeria. The programme development objective (PDO) is to improve food and nutrition security and income of the households (HHs) through inclusive and sustainable value chain (VC) development as an enabler for rural transformation. The programme duration is eight years; total cost is USD 158.15 million, with IFAD providing a Performance Based Allocation System (PBAS) loan of USD 56.7 million and Borrowed Resource Access Mechanism (BRAM) resources of USD 30 million, and the Agence Française de Développement (AFD) co-financing of USD 50.8 million. Co-financing by Government is USD 12 million, and by the beneficiaries USD 8.6 million. The Federal Ministry of Finance (FMF) and the Federal Ministry of Agriculture and Food Security (FMAFS) provide oversight at national level.

1.2 National or Regional Context

2. **Recent political, economic, and social developments**^[1]. The average annual growth rate of Nigeria's economy was less than 2% during 2015-2022, due to multiple shocks such as the COVID-19 pandemic, extensive flooding in 2022, and global supply chain disruptions associated with the War in Ukraine. Real GDP growth fell from 3.3% in 2022 to 2.9%^[2] in 2023 and is projected to rise to 4.1% in 2026, while inflation reached a 24-year high of 31.7% in February 2024. Over 40% of the 218.5 million Nigerians are living in extreme poverty (less than USD 1.90 per capita per day)^[3], with 85% living in rural areas,^[4] and

engaging mainly in agriculture, which accounts for 23% of national GDP. Through the Renewed Hope Agenda, the new administration at the federal level is undertaking reforms on petrol subsidy, foreign exchange markets, food production, and security. The Nigeria Agenda 2050 aims to graduate the country from a low middle-income country to upper middle-income by 2030 through an average real GDP growth of 7% during 2021-2050. This projected growth rate appears high compared to the actual rates achieved recently.

3. **Fragility.** In 2023, the World Bank included Nigeria on the list fragile and conflict-affected situations^[5] The level of fragility in the Nigerian context is more pronounced in northern Nigeria, where VCN will operate. This fragility is driven by: (i) high levels of **unemployment and poverty** ^[6] with 72% of the population considered extremely poor, and 17 out of the 19 states with a poverty rate above the national average rate;^[7] (ii) **insecurity and violence**, stemming from Boko Haram insurgency, banditry, and communal and farmers-herders conflicts;^[8] (iii) **climate change impact** with associated disaster events, which during 2000-2022, affected 33.8 million people;^{[9][10]} (iv) **social exclusion** of vulnerable groups such as women, youth and persons with disability (PWDs) from access to resources, market opportunities and leadership roles;^{[11][12]} (v) **food insecurity and malnutrition**, with 26.5 million people estimated to need food assistance in 2024;^[13] and (vi) **low agricultural productivity** due to inadequate access to farm inputs, extension services, finance and markets, limited technology adoption, high post-harvest losses, and environment and natural resource degradation. At the same time, conflicts have led to substantial destruction of livelihoods, loss of lives, and displacement of people. ^[14] Fragility in the north poses significant risks to Nigeria's development prospects. VCN will seek to address the root causes of fragility, leveraging existing policies and institutions, such as the commodity alliance forum (CAF), for the management of conflict and fragility, and employing innovative methods that ensure social inclusion and women's empowerment within the agricultural sector.
4. With regards to **food insecurity**, the stark increase in the number of people facing severe food insecurity, highlighted in the March 2024 Cadre Harmonisé report, is attributed to conflicts, climate change, inflation, currency devaluation, and fuel subsidy cuts. Violence in Borno, Adamawa, and Yobe exacerbates food access challenges. The country is currently faced with an undocumented amount of food export to neighboring countries, exacerbated by the devaluation of the naira and neighboring countries currency strengthening against the naira, Nigerian food products have become more affordable, leading to widespread smuggling across porous borders^[15], hence the efforts to crack down on food hoarding, banning bulk purchases of grains and exports which could lead to a reduction in domestic supply, thereby escalating food prices locally and aggravating food insecurity in Nigeria.
5. **National strategies, policies and programmes.** The major policies and strategies relevant for VCN include, the: National Development Plan^[16]; National Agricultural Technology and Innovation Policy (NATIP)^[17]; National Food System Transformation Pathways; National Gender Policy^[18]; National Gender Policy in Agriculture^[19]; and National Youth Policy^[20] National Food and Nutrition Policy (2016), National Multi-Sectoral Plan of Action for Food and Nutrition (2021-2025). Others include the: National Agricultural Resilience Framework^[21]; National Climate Change Policy Response and Strategy; National Adaptation Plan^[22]; National Youth Policy and Agricultural Sector Food Security and Nutrition Strategy (ASFNS)^[23]. Finally, Nigeria has several strategies for addressing violence and conflicts, which are major drivers of fragility. The strategies include National Counter Terrorism Strategy (NACTEST) 2016, National Security Strategy 2014, Policy Framework and National Action Plan for Preventing and Countering Violent Extremism 2017, Terrorism (Prevention) Amendment Act 2013, National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria 2017-2024 ^[24].
6. ^[1]<https://www.worldbank.org/en/country/nigeria/overview>
7. ^[2]<https://www.afdb.org/en/countries-west-africa-nigeria/nigeria-economic-outlook>.
8. ^[3]<https://www.statista.com/statistics/1287811/number-of-people-living-in-extreme-poverty-in-nigeria-by-area>.
9. ^[4]<https://nigerianstat.gov.ng/elibrary/read/1241254>
10. ^[5]<https://thedocs.worldbank.org/en/doc/a91e714e0a53291b569c4a41981aa2c5-0090082023/original/FCSList-FY06toFY23.pdf>
11. ^[6] FGN (2021). National Poverty Reduction with Growth Strategy (NPRGS)
12. ^[7]<https://www.statista.com/statistics/1121438/poverty-headcount-rate-in-nigeria-by-state/>
13. ^[8] IFAD (2024). Technical Note on Assessment and Strategies for Promotion of Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict. Annex 13.11 of the PDR.
14. ^[9]<https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf>
15. ^[10] Database from ND-GAIN, 9 March 2023.
16. ^[11] Nigeria food system mapping report 2021.
17. ^[12]https://africa.unwomen.org/sites/default/files/Field%20Office%20Africa/Images/Publications/2020/NE%20Nigeria%20RGA%20digital_compressed.pdf.

18. [13]https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/ch/Fiche_Com_CH_Nov2023.pdf
19. [14] UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.
20. [15]<https://businessday.ng/news/article/government-may-shut-borders-to-address-food-shortage-kyari/>
21. [16]https://nationalplanning.gov.ng/wp-content/uploads/2021/12/NDP-2021-2025_AA_FINAL_PRINTING.pdf
22. [17]<https://fmard.gov.ng/wp-content/uploads/2022/07/National-Agricultural-Technology-and-Innovation-Policy-2022-2027-e-copy.pdf>
23. [18]<https://www.wrapanigeria.org/wp-content/uploads/2023/06/NATIONAL-GENDER-POLICY.pdf>
24. [19]https://docs.google.com/document/d/1swVk2GoPYeZeXmfsH0_JQ86DBNK6G_eQg6eUcnW952c/edit?pli=1
25. [20]<https://www.prb.org/wp-content/uploads/2020/06/Nigeria-National-Youth-Policy-2019-2023.pdf>
26. [21]http://www.fmard.gov.ng/images/uploads/other_media/narf-2014le.pdf
27. [22]<https://napglobalnetwork.org/wp-content/uploads/2021/06/napgn-en-2020-Nigeria-National-Adaptation-Plan-NAP-Framework.pdf>
28. [23]https://ngfrepository.org.ng:8443/jspui/bitstream/123456789/5377/1/Agriculture-FSN-Strategy-2016-25_Printed-Version_1562696265%20%281%29.pdf
29. [24] Assessment and Strategies for Promotion of Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict

1.3 Strategic Alignment

30. The VCN is strategically aligned to the two Country Strategic Opportunities Programme (COSOP)^[1] and its two strategic objectives (SOs): (i) increasing rural people's productive capacities; and (ii) strengthening the organizational policy frameworks and collaboration with the private sector for inclusive, nutrition-sensitive and resilient agri-business value chains (VCs), which are in turn aligned to the SOs of IFAD's Strategic Framework related to productive capacities with a thematic focus on nutrition, benefits from market participation, and environmental sustainability and climate resilience. It is also aligned to: the Sustainable Development Goals (SDGs) of No poverty, Zero hunger, Gender equality, Sustainable production, Adaptation to climate change, and Protection of biodiversity; the United Nations Sustainable Development Cooperation Framework-Nigeria under the pillars Planet, Prosperity; and the AFD Country Intervention Strategy of financing solutions that contribute to the development of a competitive economy that creates jobs and wealth, and to inclusive and resilient development, seeking complementarity with other donor investments^[2].
31. All the national policies mentioned in section 1.2 above are relevant to the VCN which will be not only fully aligned to them but also will represent an instrument to help the government to implement those policies in the project areas taking into account the specific opportunities and the challenges of northern Nigeria. **VCN will support the intervention pillars of Renewed Hope 8 points agenda and of National agriculture and technology innovation policy (NATIP)** including: i) Strengthening VCs for priority crops; ii) Revitalization of extension service delivery, including e-extension systems; iii) Market development; iv) Rural infrastructure; v) Nutrition; vi) Promoting digital and climate-smart agriculture (CSA); vii) Agricultural lending and insurance; viii) Data and information management; ix) Access to quality agricultural inputs; x) Sustainable use of agricultural land and water resources; and xi) Women and youth mainstreaming across the VCs.
32. In addition, in line with the priorities of the **National Food Systems Transformation Pathways**, VCN will promote: a) investment and innovation in food and nutrition security, b) sustainable, responsive, and inclusive food systems, c) Value chain and Market system development for improved productivity, improved livelihoods, and poverty reduction, d) Promotion of enabling environment including peace building and social cohesion for food systems activities. With regards to social cohesion and peace promotion and in line with NATIP and peace and security policies at community level, VCN will contribute to the setup of inclusive platforms to facilitate participation of vulnerable groups, including women and youths in planning and implementation and to help community development associations (CDA) and farmers organizations and other key stakeholders (local authorities, stakeholders' farmers and herders, women and youth as well as to establish and strengthen conflict early warning and resolution systems.
33. **VCN will support the implementation of the National Gender Policy in Agriculture and the National Youth Policy**, by promoting the transformative empowerment of women and the youth entrepreneurship and participation along the selected value chains and in rural communities. Considering the high fragility of the Northeast and Northwest and the strong nexus climate-poverty- conflict, **VCN will contribute to the implementation of the National Climate Change Policy (2021-2030)**^[3] by building the capacity of all stakeholders to adopt and scale up climate smart agriculture practices. Finally, **the VCN will promote the operationalization of the transformative measures of the Presidential Emergency Declaration on Food Security in Nigeria**, which calls for increasing agriculture investment by providing farmers with improved access to finance, technology, and training with a focus on enhancing agricultural productivity, promoting climate-smart practices, and strengthening value chains.
34. **Key actors and institutional arrangements** in the agricultural sector include: FMAFS which oversees policy development and coordinates agricultural activities, FMF, Ministry of Budget and Economic Planning (MBEP), CBN, National Agricultural Insurance Corporation (NAIC), and State Ministries of Agriculture. Others include the Ministry of Youth and Ministry of Women Affairs and the Scaling Up Nutrition (SUN) Unit in the Federal Ministry of Health which acts as the convener for line government ministries on nutrition matters. The institutional arrangements are further amplified in the Key Files Annex.
35. ^[1]IFAD (2024). Nigeria – Country Strategic Opportunities Programme 2024-2029
36. ^[2]AFD (2021). AFD and Nigeria. <https://www.afd.fr/en/ressources/afd-and-nigeria>
37. ^[3] Federal Ministry of Environment, Department of Climate Change National Climate Change Policy (NCCP) for NIGERIA 2021-2030. https://climatechange.gov.ng/wp-content/uploads/2021/08/NCCP_NIGERIA_REVISIED_2-JUNE-2021.pdf
- 38.
- 39.

1.4 Portfolio and Lessons Learned

40. The current IFAD portfolio in Nigeria comprises five projects with total IFAD financing of USD 350.8 million, viz, VCDP, LIFE-ND, SAPZ, NSO Babban Gona, and Zero Hunger Initiative. VCN is the successor of the CASP^[1]. Section 1.4 of the PIM gives further details on the lessons learned.
41. **Successful pro-poor and nutrition sensitive VC development in fragile environments.** VCN will reinforce the following lessons learnt from the implementation of CASP and VCDP: (i) *Strategic partnerships through the commodity alliance forum (CDA/CAF) enabled substantial contribution of CASP and VCDP to Nigeria's food security*^[2]; (ii) *Community-based institutions can be adapted for VC development*^[3]; (iii) *Climate-resilient market infrastructure development improves the livelihoods of smallholder farmers (SHFs).* and (iv) *People's nutrition and diet diversity can be enhanced through several entry points.* VCN will

scale up the CDA/CAF model, use the community development associations (CDAs) and financial services associations (FSAs), scale up infrastructure development, and promote multiple entry points to nutrition along the VCs^[4]. *With regards to achieving higher income, RIA's impact assessment of VCDP indicates that "efforts to capitalize on enhanced productivity to achieve higher income will likely require greater investments in increasing access to market among beneficiaries. Leveraging the lessons learnt from the RIA's VCDP assessment (page 46), VCN will build VCDP "innovative intervention which include CAF, engaging farmers with off-takers, promoting seed entrepreneurs, and developing financial products targeted towards farmers' needs, that take institutional initiatives beyond training and input provision to address market failures. "RIA mentions these interventions are critical to ensure engagement of FOs with value chain actors, and likely to exert long-term impacts that may take several years to materialize.*

42. **Priority must be given to gender transformation through the Gender Action Learning System (GALS) approach and targeting gender sensitive VCs^[5].** This COSOP lesson will be reinforced with the following: (i) *Appropriate targeting is an enabling factor for achieving results in fragile contexts;* and (ii) *Use of the GALS methodology and women-only groups positively impacts gender equality and women's empowerment (GEWE).*
43. The intervention will be offered at group and where relevant community level. In addition, targeted young beneficiaries **were able to mitigate the effects of fragility drivers by diversifying and growing their economic activity.** The increased income earned by the youth helped reduce youth migration, and engagement in crime and vandalism. This lesson is supported by insights gathered during the design of VCN and mid-term review of other IFAD investments in Nigeria; that *Youth empowerment through entrepreneurship interventions shows prospects of keeping youth in agriculture^{[6],[7]}.* Thus, VCN will support youth entrepreneurship.
44. **Scaling up digital solutions and relevant tested technologies can enhance resilience to climate change,** based on CASP's experience on climate information and services, digital agronomic advice, and capacity building of SHFs on simple sustainable land management (SLM) technologies; and from VCDP, promoting climate-resilience technologies (e.g. safe chemical spraying and conversion of waste to wealth) offered livelihood opportunities for youth. VCN will scale up proven technologies and integrate the use of Information and Communications Technology for Development (ICT4D) to enhance efficiency in all the subcomponents.
45. **Financial inclusion: CASP's experience with FSAs demonstrates their potential to provide sustainable community based financial services to SHFs.** VCN will strengthen the FSAs and enhance their linkages with large agro-friendly financial institutions.
46. **Government buy-in to project facilitated policies depends on the extent of alignment of such policies with the priorities of the political leadership at the state level,** e.g. VCDP's use of a private sector-driven approach to VC development, and support to land development reduced the fiscal burden on state governments to support SHFs. For CASP, three state governments made institutional provisions for the sustainability of the project activities because of their appreciation of the CDA serving as a de facto fourth tier of government.
47. **The monitoring and evaluation (M&E) and knowledge management (KM) functions of the projects need to improve substantially for enhanced effectiveness.** With the allocated resources that may tackle the challenge of evidence of attrition of field officers within officers in the targeted region, VCN will better incentivize communities and implementers to support in the development of the participatory MIS-based M&E system from the field level at the planning and monitoring phase. In addition, this will empower them and could strengthen the monitoring of project's progress and document knowledge in these fragility affected areas.
48. ^[1] For more details, please see Part I of Annex 8.
49. ^[2] IFAD. VCDP AF MTR (2022).
50. ^[3] IFAD. CASP PCR (2022).
51. ^[4] Refer to Annex 13.5 - Nutrition Technical Notes for elaborate lessons learnt from CASP, VCDP and field interactions that informed VCN's Nutrition Strategy design.
52. ^[5] Independent Office of Evaluation (IOE, 2023). Sub-regional evaluation of countries with fragile situations in IFAD-WCA. Learning from experiences of IFAD's engagement in the G5 Sahel countries and northern Nigeria.
53. ^[6] IFAD, LIFE-ND MTR (2023). The incubator model trains and mentors youth and women for self-employment in the priority VC activities.
54. ^[7] IFAD Agrihub Nigeria. <https://agrihub.youthagripreneurs.org/>. The project supports youth empowerment through two pillars, imparting skill sets for youth employment, and equipping and backstopping young entrepreneurs.

1.5 Rationale and IFAD's comparative advantage

55. The FGN had requested IFAD and AFD to design a follow-up project to CASP to enhance the resilience capacity of the rural communities to fragility challenges, through a community-led VC development strategy^[1]. For IFAD, VCN offers the opportunity of linking the scaling up of the CASP activities with the SAPZ programme in Kano State, to boost market access of the VCN farmers with agro industries and off-takers in Kano. IFAD and AFD bring into the design of the VCN the following comparative advantages:
56. *For IFAD:* (i) successful partnership with government and farmers organizations (FOs) in inclusive nutrition-sensitive climate-resilient VCs and responses to fragility; (ii) results and knowledge from CASP to address the root causes of the fragility drivers; (iii) successful practices/lessons from other projects such as the CAF linking FOs with the private sector; (iv) partnership with other development partners^[2], the private sector (Babban Gona) and research institutions^[3]; (v) experience promoting agriculture policy development in Nigeria (NATIP, Extension strategy, National Food Pathways); and (vi) leveraging regional experience partnering with governments, development partners and FOs to promote agri-food transformation.
57. *For AFD:* (i) lessons and links with rural markets in Nigeria via the RAAMP; (ii) utilizing the results of the ongoing design of Nigeria's Agri-food Market Development Strategy by Semmaris/FMAFS nationwide; (iii) utilizing the lessons from the Pacte Project in Burkina Faso (contract farming and agroecology); and (iv) successful partnership between IFAD and AFD in designing the Avenir Project in the Democratic Republic of Congo.
58. ^[1]See Annex 13 for the letter of request from FGN to IFAD to design the VCN.
59. ^[2]African Development Bank (AfDB) and Islamic Development Bank (IsDB)
60. ^[3]Such as the International Institute of Tropical Agriculture (IITA) and AfricaRice

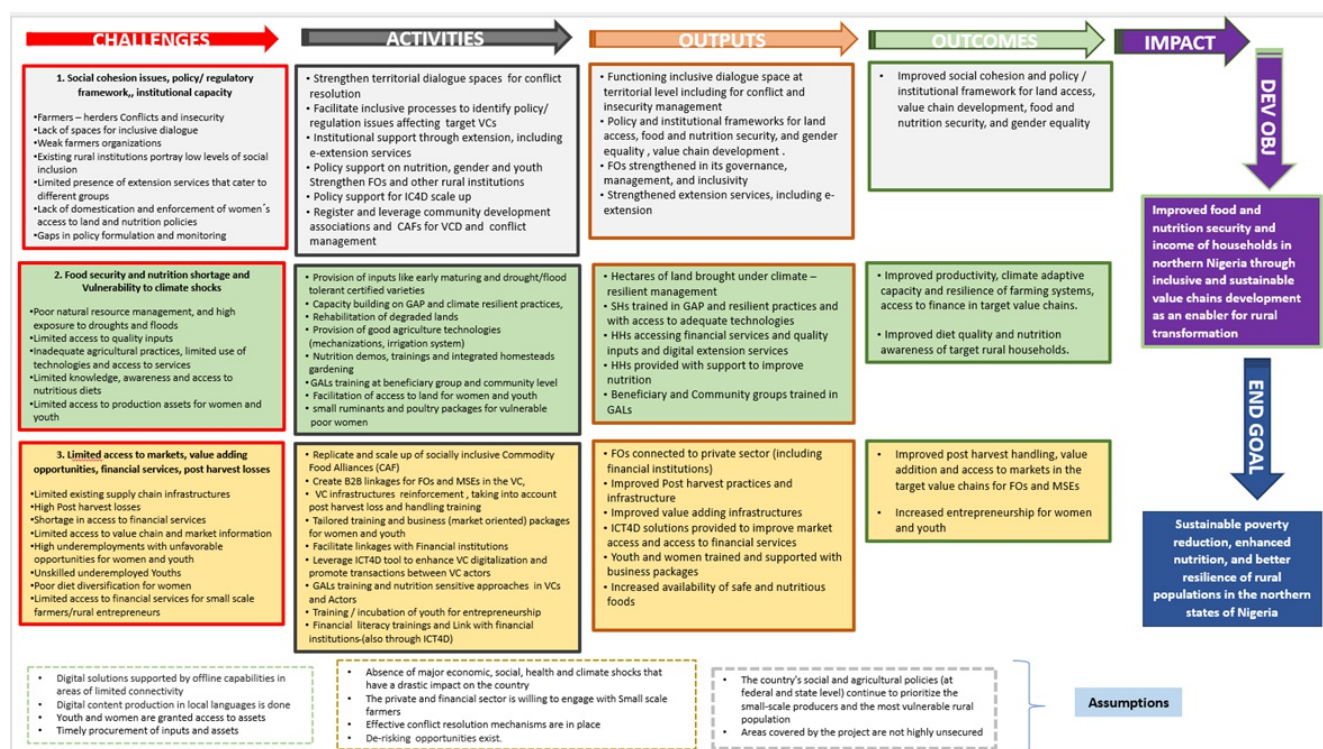
Chapter 2: Project/Programme Description

2.1 Theory of Change

61. VCN will address the high levels of poverty, vulnerability, food and nutrition insecurity, climate shocks, and social and financial inclusion challenges that affect SHFs, women, youth and vulnerable groups (including PWDs and returning IDPs) in the fragile northern Nigerian states. Embedding gender and social inclusion, nutrition, and environment and climate change in all the components, VCN aims to support key target groups (including women, youth, IDPs and PWDs) to overcome the above challenges through three interlinked impact pathways: (1) promoting social cohesion and an enabling policy/institutional framework and mechanisms for conflict management at the local levels; (2) fostering climate-resilient and nutrition-sensitive production; and (3) enhancing inclusivity in profitable VC through deliberate inclusion of target groups.
62. The **first pathway** will promote social cohesion by adopting a **participatory and inclusive approach rooted in local communities and institutions** and by facilitating and strengthening **territorial dialogue spaces for conflict resolution** (including on access to natural resources such as water), as well as to facilitate inclusive processes to **improve, policy/institutional frameworks** for value chain development, food and nutrition security, empowerment of FOs, youth entrepreneurship, gender equality, management of fragility and enhancement of social cohesion. Under this pathway the project will (i) promote participatory, inclusive and demand-driven development processes at the local level, (ii) strengthen institutional capacity, governance and inclusivity in FOs, CAFs and other rural institutions, to ensure a functioning inclusive dialogue space, and identify regulatory and policy matters affecting targeted VCs, in particular inclusion of rural women, youth and vulnerable groups; (iii) leverage on the CAFs for the management of conflict and fragility; (iv) support dialogue to improve policies and their enforcement on nutrition, gender, and support to youth, and facilitate the development of frameworks that enable women and youth to access land for production purposes; and (v) provide institutional support to enhance existing extension services, including the use of digital technologies for e-extension.
63. The **second pathway** aims to achieve two outcomes: (i) improved **productivity, climate adaptive capacity and resilience of farming systems** in target VCs; and (ii) improved **nutrition and gender awareness** among rural HHs targeted. To improve production, VCN will: facilitate women's and youth's access to agricultural inputs, such as early maturing and drought/flood tolerant certified seed varieties and fertilizers, using e-vouchers; provide beneficiaries with tailored capacity building in climate smart agriculture (CSA) and promote the use of digital climate information services by farmers; develop land allocated to women and youth to increase their access, and invest in small irrigation infrastructure in target locations; promote **nutrition-sensitive** VCs and techniques to enhance dietary diversity and nutrition knowledge and attitudes; and use GALS to empower women and promote **gender equality**.
64. The **third pathway** will focus on two outcomes: (i) **improved post-harvest handling, value addition and access to markets**; and (ii) **increased entrepreneurship opportunities for youth and women**. To achieve these outcomes, VCN will: (a) promote partnerships and/or linkages, with the CAF and other mechanisms which foster **business-to-business relationships** and market access between farmers and other VC actors (aggregators, off-takers) and FIs; (b) enhance **VC digitalization** and promote transactions between VC actors; (c) reinforce **VC infrastructures** to reduce post-harvest losses, backed with training on O&M of infrastructure; (d) replicate and **scale up CAF**; (e) provide **technical training** on value addition and product development with a **nutrition lens** (including **biofortification** and **fortification**, where applicable), and create awareness on nutritious foods for consumption; and (f) support women and youth access to productive assets, skills and knowledge for

successful **entrepreneurial activity**; (g) provide farmers' financial literacy training, considering the lower literacy levels among women, and **access to digital financial services**, scale up the experience of CASP with FSAs and strengthen their partnerships with financial institutions (FIs).

65. The **key assumptions** for these impact pathways are: (i) internet and mobile phone coverage in rural areas is ensured and service provider coverage is upgraded; (ii) acceptable level of major economic, social, health and climate shocks that have a drastic impact on the country; (iii) youth and women are granted access to assets; (iv) private and financial sector willing to engage with SHFs/rural entrepreneurs; (v) the social and agricultural policies (at federal and state level) continue to prioritize the most vulnerable rural population; (vi) effective conflict resolution mechanisms are in place to prevent and manage conflict including farmers -headers conflicts and to respond fragilities links to insecurity and terrorism; and (vii) areas covered by the project are not highly insecure (as assessed by UN Security) areas, as was done by CASP to mitigate collateral damage to project staff, beneficiaries and facilities') Digital solutions supported by offline capabilities in areas of limited connectivity ix. Digital content production in local languages is done.
66. If these interlinked impact pathways are adequately implemented, social cohesion, policy, social and institutional frameworks are enhanced and implemented while dialogue spaces for conflict resolution are strengthened; production systems are made more productive and resilient; agricultural production systems are more inclusive (effectively including women, youth and PWDs), and display higher levels of gender equality and nutrition; and post-harvest, processing and marketing are effectively improved; entrepreneurship opportunities are fully exploited by the participating women and youth; and access to financial services expanded, then the VCN will achieve its expected outcomes and development objectives among all social groups targeted while contributing to the implementation of the FGN's National Development Plan (2021-2025), the National Agricultural Technology and Innovation Plan (NATIP 2022-2027) and National Pathways to Food systems Transformation and other key strategies, policies and Programmes ^[1].



2.2 Targeting Strategy

67. The programme's targeting strategy involves geographic targeting, direct beneficiary targeting and VC screening^[1].
68. **Geographic targeting.** VCN will target nine states in northern Nigeria, based on the levels and depth of poverty as well as fragility, including: the seven states previously covered by CASP (Sokoto, Kebbi, Zamfara, Katsina, Jigawa, Borno, Yobe) in response to the FGN strategy for continuity of support to these states; and, Kano State with a prominent West African regional market for agricultural produce which offers important market opportunities and linkages with the IFAD/AfDB financed SAPZ programme. The additional State Bauchi will be included considering it is covered by AFD-financed RAAMP.
69. Specific LGAs will be selected based on the following criteria: (a) CASP/RAAMP targeted; (b) within cluster of LGAs where VCN supported VCs are viable; (c) peace and security using indicators such as the International Organization for Migration (IOM)'s Stability Index^[2]; (d) poverty level and climate vulnerability (geospatial mapping will be used to have updated information on the locations most vulnerable to climate change); and (e) commitment of the State Government and the LGA. During implementation, the mitigation measures to address fragility and resource conflicts recommended by the Social Management Plan of the Social Environmental Climate Assessment Procedures (SECAP) will be evoked.
70. **Direct beneficiary targeting.** A total of 456,000 rural HHs will be directly targeted, representing 456,000 people directly receiving services promoted or supported by VCN on the basis of one person directly targeted per HH.
71. **Target groups**^[3]. VCN targets people living under the poverty line, who can make economic progress with limited programme support, primarily at agricultural production level (farmers) as well as at other levels of the VC (entrepreneurs). Target groups have been classified as follows:
72. **Subsistence and semi-subsistence producers** (very poor/poor HHs) - 40%
73. **Market oriented producers** (poor and HHs vulnerable to poverty) - 30%
74. **Entrepreneurs** (very poor, poor and HHs vulnerable to poverty), with a special focus on women and youth - 30%.
75. The design of VCN follows a socially inclusive perspective with: (a) 40% of all beneficiaries being women, broken down to, 15% women headed households (WHHs), 10% married women, and 15% female youth; 60% men, broken down to, 15% male youth and 45% other males. Thus, youth aged 15-29 years constitute 30% of the beneficiaries; and (c) across these groups 10% will be PWDs. IDP returnees (5%) and host communities will be included as beneficiaries in communities affected by displacement. VCN will also target small and medium enterprises (SMEs) which generate benefits for the programme's core target groups at community level. PWDs and IDPs will benefit from production-based interventions to increase food security, nutrition and income. PWDs will be targeted directly or through the people they depend on when disabilities limit the possibility of individuals to engage in productive activities.
76. **Additional targeting measures.** VCN will target one person per HH^[4]. Representatives of all the target groups will be involved in all stages of the project cycle (project launch, mobilization, beneficiary selection, implementation of activities and M&E) in the target sites. VCN will employ a **self-selection** targeting process whereby interested candidates will apply for programme support. Actual beneficiaries will be selected according to agreed selection criteria. The entry points for the selection of target groups engaged in production activities will be existing FOs, new groups constituted in response to programme mobilization activities, and off-taker out-grower schemes. Inclusive, open and robust beneficiary selection procedures will be employed to avoid the risk of elite capture.
77. **Value chain screening.** The robust crop selection approach developed during the design of VCN, involved: (i) incorporation of the FMAFS, State crop strategies, field consultations, and mainstreaming themes; (ii) development of criteria including, importance to food security and nutrition, market orientation, and potential for inclusion of target groups, and weights for scoring of the VC crops; and (iii) development of a potential crops basket with a mix of: *Staple crops for food security* (Sorghum, Maize, Rice or Millet), *Cash crops for incomes* (Cowpeas, Sesame, Groundnuts or Soyabean), and *Horticulture crops* to improve dietary diversity and health (Fruits, Vegetables). For effectiveness, VCN will support a maximum of seven crops, with flexibility for each state to prioritize a maximum of five crops based on its fragility context and comparative advantage. Complementary market studies will be carried out to support the VC screening.
78. ^[1] see Annex 13.8 for full details
79. ^[2] An example of the stability index report is: <https://dtm.iom.int/reports/nigeria-stability-index-overview-round-3-september-2023>
80. ^[3]The last population census in Nigeria was conducted in 2006 and the figures outdated. With the conflicts and displacements that have taken place in northern Nigeria in the last decade, it is difficult to provide current figures of the rural population in each target category in the programme area.
81. ^[4]Polygamy is widespread in the programme area, and women in polygamous marriages are among the very poor and poor. The dynamics in polygamous HHs would require the assets and benefits of programme intervention received by a woman in a polygamous marriage to be shared with co-wives, thus reducing the likelihood of producing the intended benefits. As an exception to the principle of one beneficiary per HH, VCN may consider specific packages for very poor/poor eligible women in polygamous HHs that account for the number of co-wives who will benefit from programme investments and count each co-wife as a separate HH.

2.3 Project/Programme Objectives

82. The **goal** of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northern states of Nigeria. The goal indicator is 250,800 HHs (55% of the target of 456,000 HHs) reporting improved livelihoods and reduction in poverty.
83. The **programme development objective** (PDO) is to improve food and nutrition security and income of HHs in northern Nigeria through inclusive and sustainable VC development as an enabler for rural transformation.
84. The expected **outcomes** [\[1\]](#) of VCN and their indicators are summarized in the table below.

Outcome	Indicators
Development Objective Improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chains development as an enabler for rural transformation	CI 1.2.8: Women reporting minimum dietary diversity (MDDW)
	HHs reporting increased income;
	IE. 2.1: Individuals demonstrating an improvement in empowerment
	SF.2.1: Households satisfied with project-supported services
	SF.2.2: Households reporting, they can influence decision-making of local authorities and project-supported service providers.
Outcome 1: Improved productivity, climate-adaptive capacity and resilience of farming systems in target value chains. This outcome has 3 subcomponents. See 2.4 (components, subcomponents and activities) for additional details	CI 1.2.2: Households reporting adoption of new/improved inputs, technologies or practices (Target: 273,600)
	CI3.2.1: Tons of greenhouse gas emissions (tCO ² e) avoided and/or sequestered (Target TBD through the ex-ante GHG assessment to prove that the project overall has the potential to be a net sink of GHG emissions, compared to the without-project scenario.
	CI 3.2.2: Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices (Target: 273,600)
	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment
Outcome 2: Enhance inclusive and profitable integration of target groups in the VCs. This outcome has 3 subcomponents. See 2.4 (components, subcomponents and activities) for additional details	CI 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities (Target: 5,400)
	CI 2.2.6: Households reporting improved physical access to markets, processing and storage facilities (Target: 319,200)
	CI 2.2.1: Beneficiaries with new jobs/employment opportunities (Target: 30,800)
	CI 1.2.5: Households reporting using rural financial services (Target: 10,500)

85. The intended duration of VCN up to completion is eight years, followed by six months for administrative closure.

86. [\[1\]](#) In addition to the components related to outcome 1 and 2 above, there is a programme coordination and management

component to ensure efficient and effective management of the project while leveraging ICT4D and lessons learned from CASP.

2.4 Component, Sub-component and Activities

87. **Addressing fragility.** VCN design integrates fragility response into all the components, and will address the root causes of fragility, leveraging existing policies and institutions, and employing innovative methods that ensure gender inclusion^[1] and empowerment within the agricultural sector^{[2],[3],[4],[5]}. The social management plan of the Social Environmental Climate Assessment Procedures (SECAP) and the Environmental, Social and Climate Management Framework (ESCMF) have recommended mitigation measures for fragility and resource conflicts, access to land, and gender inequality and social exclusion issues which often create instability and displacement of people. The measures include integrating conflict management in FOs and CDAs; support regular dialogue on conflicts and land policy, and using access to land for women, youth and IDP returnees as precondition for community participation; promote more women-friendly activities and women only groups, mainstream the GALS strategy; and ensure that PWDs are given priority in the businesses that suit their conditions. A Response to Emergency and Disaster (RED) subcomponent has also been included in VCN to mitigate fragility impact.
88. **Component 1: Foster climate resilient and nutrition sensitive production (USD 59.58 M).** *More details on component 1 and subcomponents are included in the technical notes and in the PIM*
89. This component aims to improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs, enhance diet quality and nutrition awareness of the target rural HHs, and strengthen social cohesion and policy/institutional frameworks. ICT4D will be mainstreamed in the implementation of this component by: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; and (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model.
90. This component consists of three subcomponents (a) *Subcomponent 1.1. Promote sustainable agricultural systems, improved technology/mechanization and climate-resilient agricultural practices*; (b) *Subcomponent 1.2. Promote nutrition and gender awareness and practices, aims to provide HHs with targeted support to improve their nutrition, and to reach HHs with the gender transformative GALS methodology*; (c) *Subcomponent 1.3 Promoting social cohesion and an enabling policy/ institutional framework for value chain development, as well as empowerment of FOs, management of fragility, enhancement of social cohesion, food and nutrition security, youth and gender equality. VCN will support herders and farmers with infrastructure water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aims to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.*^[6]
91. **Under Subcomponent 1.1. Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices (USD33.94M)**, VCN will strengthen the productivity and production for farmers through the **Provision of quality inputs** using diverse financing modalities, the **training of farmers on sustainable agricultural practices (GAP) also using methodologies such as farmers field schools and demonstration plots to promote modern techniques that improve productivity and reduce conflict over resources including with herders**; (c) **Investment in irrigation, waterpoints for herders and communities, land preparation and water-smart practices**; (d) **Promotion of appropriate intercropping and agroforestry systems** (e) **Environment and climate mainstreaming** to build resilience and increase the adaptive capacity of SHFs to climate and environmental change-driven risks; and (f) support to **PWDs** for their involvement in condition-appropriate VC activities **and to returning IDPs**. Fragility will be mitigated for this subcomponent mainly through the Response to Emergency and Disaster (RED) component and the use of digital services.
92. **Strengthen access to digital services:** to enable the implementation of the above activities under this component, VCN will adopt ICT4D to: (a) Contribute towards the FMAFS efforts on the establishment of a centralized integrated digital farmer registry. The registry will support in mapping of intervention areas and production capacity of farmers, facilitate traceability of access to services, and support de-risking access to financial services; (b) Establish an integrated digital agricultural advisory services platform, with e-advisory platforms tailored to specific crops and themes, early warning systems for climate mitigation and adaptation; and (c) Implement a digital e-voucher system to ensure traceability, transparency and efficiency in input access and To ensure access to digital services in areas with limited connectivity the solutions will need to support offline capabilities such as use of voice and SMS for advisory, QRcodes, RFID Cards and Near Field Communication Cards for e-voucher will be explored.
93. **Through this Subcomponent 1.2. Promote nutrition and gender awareness and practices** ^[7] **(USD 21.18M)**, VCN will promote: (a) **nutrition sensitive VC crops** through the selection of the crops with the highest nutrition advantage for each state; (b) **market-oriented nutrition sensitive approaches**, including: supporting cottage/community level small-scale food

Enterprises (SFEs); promotion of bio fortified seeds; development of commodity aggregation centres for nutrition (N-CACs) to facilitate ease of supply to the SFEs; and exploring market linkages for highly demanded nutritious commodities; (c) **Gender sensitive social behavior change communication (SBCC) and nutrition education dimensions** of food consumption, and applying nutrition sensitive GALS tools to strengthen the role of gender dynamics at HH level; (d) **context appropriate homestead food production**, for nutrient rich vegetables, tubers, fruits and food trees, and support with small livestock (goats, sheep, local chickens) starter packages targeting very poor women; and (e) **policy dialogue for nutrition at state and local levels**, including building the capacity of CDAs. Fragility will be mitigated for this subcomponent through enhanced social cohesion measures, including gender targeting using GALS, capacity building, and access to the RED subcomponent in the event of disasters.

94. **Under this Subcomponent 1.3. Promoting social cohesion and an enabling policy, and institutional framework (USD 4.46M)**, the project will strengthen social cohesion by adopting a participatory and inclusive approach rooted in local communities and institutions and by facilitating and strengthening territorial dialogue spaces for conflict resolution (including on access to natural resources such as water), as well as to facilitate inclusive processes to improve, policy/institutional frameworks for value chain development, food and nutrition security, empowerment of FOs, youth entrepreneurship, gender equality, management of fragility and enhancement of social cohesion. The activities under this subcomponent include: participatory planning and formulation of project activities in consultation with local actors and stakeholders, strengthening the capacity of FOs and other local institutions; Supporting fragility and conflict management; strengthening capacities of target groups (starting with women and youth) for policy dialogue and advocacy with relevant government, sector and traditional authorities to support policy reforms (e.g. equitable access to land); and Supporting outstanding policy areas for VC development under VCN. The target is to have three functioning multi-stakeholder platforms supported and three existing/new laws, regulations, policies or strategies proposed to support inclusive, resilient and profitable value chain development as well as nutrition and food security in line with the Agri Food System Transformation Agenda.
95. With regards to conflict and insecurity, the project will establish and strengthen effective conflict management and resolution mechanisms for addressing disputes between smallholder farmers and pastoralists in a timely and peaceful manner. This includes the development by the community development associations (CDA) and CAF and key stakeholders of an action plan for conflict resolution in the participating LGAs, which will be based on lessons learned from VCDP's best practices in the field of violence prevention. Community-based conflict resolution committees, comprised of respected elders, religious and traditional leaders, and local authorities from both farming and pastoralist communities, will mediate disputes, facilitate dialogue between FOs and local peace committees/local conflict resolution committees, facilitate dialogue, and promote reconciliation through culturally sensitive approaches, utilizing local radios and other Information and Communication Technology (ICT) tools. Training community members in conflict resolution techniques and negotiation skills will also empower them to resolve conflicts at the grassroots level before they escalate.
96. **Component 2: Enhance inclusive and profitable integration of target groups in the VCs(USD 74.87M).***More details on component 2 and subcomponents are included in the technical notes and in the PIM.* This component aims at improving post-harvest handling, value addition, and access to markets in supported VCs; increasing business and entrepreneurial opportunities for youth and women along the target VCs; and improving policy/institutional frameworks for value chain development, poverty reduction, empowerment of FOs, management of fragility and enhancement of social cohesion food and nutrition security, and youth and gender equality. Nutrition will be enhanced by promoting fortification, nutrition-sensitive processing of foods, food safety, packaging, and labeling. ICT4D will be mainstreamed in the implementation of this component by: (i) leveraging mobile applications to digitize training content to enable efficient extension of training using an agent assisted delivery model; (ii) promoting access to finance through development of digital products. The component consists of three subcomponents:
97. **Subcomponent 2.1. Improving post-harvest, value addition, market linkages and partnerships with VC actors (USD 47.39M).** The activities under this subcomponent include: i) Acquisition of post-harvest infrastructure to support the farmers to reduce post-harvest losses; Construction/rehabilitation of various market infrastructure, including access roads; ii) FOs mapping, formation and strengthening; iii) Promote collaborative planning using a participatory approach that involves multiple stakeholders in the planning process; iv) Scale up digital platforms (e-marketplace) to provide VC services; and v) Leverage the 4Ps platform for value chain financing, inclusive participation, conflict resolution, capacity building and empowerment, communication and information sharing. Fragility will be mitigated under this subcomponent mainly through development of climate-resilient infrastructure, capacity building of the infrastructure users to operate and maintain the facilities, insurance cover for infrastructure facilities, especially for post-harvest and processing, and the use of digital platforms for the participation of the VC stakeholders.
98. **Subcomponent 2.2. Promoting entrepreneurship for women and youth (USD 10.03M)**, targets the creation of 30,000 jobs among rural women and youth who are not integrated in FOs and whose access to land is limited, for training and support with business packages for entrepreneurship. The activities under the subcomponent include: Promoting entrepreneurial activities in all stages of the supported VCs; and Capacity building and training activities with VCN support for start-up capital for which the beneficiary makes 30% contribution. *Community involvement will be leveraged to foster collaboration and networking among new entrepreneurs, already established businesses, and community members.*
- 99.

100. **Entrepreneurs** will be selected on the following basis from interested applicants (from self-targeting): (i) preferably women, youth and IDP returnees, who may not be integrated in organized producer groups and do have limited access to land or input support from VCN; (ii) have a fairly clear idea, and or experience of potential enterprise to invest in; and, finally (iii) successfully complete the training/capacity building provided by VCN on business management, financial management, business plan preparation etc.
101. **Subcomponent 2.3. Improving access to financial services, targets persons in rural areas to facilitate access to financial services. (USD 17.44M)**, VCN will partner with FSAs and FIs to enhance access to financial services (i.e. savings, working capital and asset loans, guarantees and risk-sharing facilities, insurance) in combination to project's capital grant for FSAs loan revolving funds for youth, women and other vulnerable target group. The strategy will be to use appropriate financing instruments to promote the adoption of technologies and enable target groups to carry out productivity-enhancing investments and ultimately get included in the financial sector^[8].
102. This subcomponent will support: (a) Capacity building of the demand for rural financial services through formal training on financial literacy followed by mentoring by experienced beneficiaries; (b) Linkage of farmers and SMEs with FIs, input suppliers and off-takers after training for proper use of grant and credit; (c) Capacity building of the supply of rural financial services through formal training of FIs including FSAs on the development of new financial products including digital services; (d) De-risking lending to farmers through the Credit Risk Guarantee instrument; (e) Strengthening FSAs and linking them with commercial financial service suppliers to scale up financial inclusion of the target groups. Fragility issues for access to financial services will be mitigated through intensive capacity building of stakeholders both for the supply and demand of financial services, and access to the RED mechanism, which by responding to emergencies and disasters will restore the production base of farmers accessing financial services.
103. **Component 3: Programme coordination and management (USD 23.70M)**. *More details on component 3 are included in the PIM*
104. Through this component, investments and activities will be undertaken to ensure the compliance, efficiency, and effectiveness of the programme, with the core mainstreaming themes and M&E and KM integrated in all aspects of operations. This component will be implemented in line with policy and guidelines for programme management. ICT4D will be mainstreamed in the implementation of all the activities under this component. Building on the experience of CASP, VCN will maintain a decentralized implementation approach down to the community level, with the participation of the farmer organizations, pastoralist organizations, community development associations, private sector, as well as the LGA, State and Federal levels of government.
105. The component 3 also includes a **Response to Emergency and Disaster (RED)**. This mechanism will enable VCN to respond and adapt quickly in case of natural disasters, through a dedicated risk reduction disbursement allocation, not to exceed 5% of the undisbursed amount of the IFAD and AFD financing and any additional IFAD and AFD loans/grants eventually allocated to VCN. Detailed implementation measures are found in the draft PIM, which would be strengthened after project start-up. In summary: a designated government agency determines that a crisis or emergency has occurred; the Borrower representative sends a request to IFAD supported by a Preliminary Assessment of Damages and Needs (PADN) to activate the mechanism; IFAD gives a no-objection (full or partial) to the PADN which contains the list of activities to be implemented, procurement plan, safeguards and targeting mechanisms for the activities; the expense, only for eligible items (details in the PIM), must be incurred and paid during the eligibility period, which is within 12 months of the IFAD no-objection to the PADN.
106. ^[1] The Technical Note on "Assessment and Strategies for Promotion of Gender Equality through Support to VC and Food Security in Northern Nigeria in the Context of Fragility and Conflict" provides guidance for integrating fragility into VCN, while measures to reduce fragility risks are presented in Annex 10.
107. ^[2]<https://documents1.worldbank.org/curated/en/099730003152232753/pdf/P17630107476630fa09c990da780535511c.pdf> 11/04/2024
108. ^[3]<https://www.fao.org/3/i4646e/i4646e.pdf>? 11/04/2024
109. ^[4] IFAD (2023). Fragility Assessment Note, Nigeria COSOP.
110. ^[5] IFAD (2024). Technical Note - Assessment and Strategies for Promotion of Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict.
111. ^[6] Livestock Productivity and Resilience Support Project -LPRES World Bank Project Appraisal Document Page 28
112. ^[7] The subcomponent activities are summarized here, while details are provided in the PIM as well as the Nutrition Technical Note in Annex 13
113. ^[8] The subcomponent activities are summarized here, with details in the PIM, and Technical Notes on matching grant and

financial inclusion in Annex 13.

2.5 Sustainability, Scaling Up and Exit Strategy

114. **Sustainability.** A sustainable VCN will produce outcomes that improve efficiency and effectiveness of project delivery, enhance opportunities for private sector participation and crowd-in for wealth creation, mainstream social inclusion, and generate transformative buy-in from the government that will elicit mainstreaming of the VCN approach into government core ministries' portfolios. In addition, strengthened rural institutions will elicit popular participation and ownership from beneficiaries and communities, and sustainable management of environment and climate change will enhance assets at farm levels, deepen social networks, improve access to basic services, strengthen adaptive capacity and resilience, and enhance nutrition. The major thrust for sustainability of VCN is addressing the high levels of poverty, vulnerability, food and nutrition insecurity, climate shocks, and social and financial inclusion challenges that affect SHFs in the fragile northern Nigeria states. For **climate, environmental and social sustainability**, VCN will ensure: the risk mitigation recommendations in the SECAP safeguard documents are adhered to during implementation; ICT4D is leveraged to deepen digital climate solutions; there is strong women involvement with emphasis on the processing stage of the VC which is more attractive for women; support for home gardens for nutrition; and involvement of PWDs in condition-appropriate VCs.
115. For **institutional sustainability**, building on CASP lessons learned, VCN will leverage ICT4D to drive M&E and ensure a strong MIS System, including integrating GIS to track programme activities; To ensure digital M&E system is used effectively, offline data collection will be ensued and competent staff are recruited and trained for programme implementation and data collection and management; promote strong buy-in of programme activities by the states; promote partnerships with relevant agencies to support programme implementation; (vi) strengthen the technical capacity of the rural institutions; support policy dialogue and engagement to encourage the states to mainstream VCN rural development activities into the core ministry portfolios. For **economic sustainability**, VCN will: adopt the VCDP's 4Ps model, deepen private sector participation and market linkages, and access to finance; promote VC crops that have a market; equip the user community with skills for O&M of market infrastructure; build the capacity of key financial service providers to continue service provision after programme completion; and promote savings by the beneficiaries through their various FSAs, to qualify them to be linked with formal FIs.
116. **Scaling up.** The scaling-up strategy in VCN involves adopting a decentralized approach to scale up innovations; continuous learning and adaptation through regular feedback loops, impact assessments, learning and sharing of experiences; drawing insights from past IFAD and AFD projects to inform the adaptive approach to scaling-up successful activities; and focus on a few key monitorable innovations and results to scale-up. VCN will strategically focus on scaling up: (a) CASP *community development associations (CDA) and CASP promoted model of FSA arrangements to increase across the participating states the number of beneficiaries with access to productive resources including financial services (i.e. savings and credit)*. (b) *the 4Ps model building on the success of the CAF and collaborate BabbanGona for further scaling up innovative approaches*; (c) *e-vouchers for input distribution*; (d) *utilization of the data collected by tech companies as alternative datasets that enhance credit scoring engines*, for farmers to access credit without the need for collateral; (e) *leveraging agricultural credit guarantee facilities to support derisking loan processes for remote rural areas*.
117. **The exit strategy** is linked to the sustainability objectives and will be factored into programme implementation from the stage of selection of the communities and activities, focusing on building the beneficiaries' capacity to utilize the improved knowledge and incomes, and manage the assets to be created under VCN. Key elements of the exit strategy are ownership by the communities, state governments, and the actors; reinforced community institutions; sustained market linkages' system continued after programme completion to assess performance and build knowledge for other projects; and full deployment of **ICT4D** opportunities to manage fragility and insecurity. Strategically, the exit strategy will be formally reviewed at MTR in Year 4, and then in Year 6 to capture emerging opportunities and challenges.

2.6 Project financing

118. **Programme costs.** Total estimated programme cost over the 8-year implementation period is US\$ 158.157 million, comprising base costs of US\$ 147.7 million and price and physical contingencies of US\$ 10.3 million (US\$ 4.8 million and US\$ 5.4 million respectively). Investment costs are estimated at US\$ 142.78 million (90% of base costs) and recurrent costs at US\$ 15.36 million (10% of base costs). Subcomponent 1.1 - Promoting sustainable agricultural systems, improved technology and climate resilient agricultural practices, will fully contribute to IFAD climate finance^[1] with a total amount US\$7 million (43.5 per cent of IFAD funding). Component 1 - Foster Climate-Resilient and Nutrition-Sensitive Agriculture, is allocated US\$ 59.58 million (38% of the total costs), followed by Component 2 - Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs which accounts for US\$ 74.8 million (47%). The remaining US\$ 23.7 million (15%) is for Component 3: Programme Coordination and Management.
119. **Programme financing/co-financing strategy and plan.** The financing of VCN includes: **IFAD PBAS** US\$ 56.7 million (36% of

the total cost); IFAD BRAM US \$30 million (19%); **parallel co-financing loan from AFD US\$ 50.8 million (32%)**; and Domestic co-financing from the FGN/member states and Beneficiaries US\$ 20.6 million (US\$ 12 million and US\$ 8.6 million, respectively) in form of both cash and in-kind contribution. The summary of VCN costs and financing by component/subcomponent and categories is presented in the tables below. Parallel financing loan and there will be one PCU for both financiers (IFAD and AFD). AFD loan approval expected for December 2024 and clarify the timeline for the AFD's funding approval process. AFD will be funding across all components and sub-components including Programme Coordination and Management

120. **Table 1[2]: Programme costs by component (and subcomponents) and financier**

121. (Thousands of United States dollars)

Nigeria

Value Chain North (VCN)

Components by Financiers

(US\$ '000)

	IFAD		IFAD BRAM		AFD		FGN & States		Ben		Total	
	Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		Cash/In-Kind	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture												
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resi	18,518	55	2,694	8	10,672	31	622	2	1,434	4	33,940	22
Promoting Nutrition and Gender Awareness and Practices	8,502	40	5,901	28	6,778	32	-	-	-	-	21,182	13
Promoting Social Cohesion and an Enabling Policy/ Institutional	1,136	26	1,897	43	1,427	32	-	-	-	-	4,461	3
Subtotal	28,156	47	10,493	18	18,878	32	622	1	1,434	2	59,582	38
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs												
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership	15,369	32	9,854	21	16,298	34	1,695	4	4,182	9	47,398	30
Promoting Entrepreneurship For Women And Youth	2,335	23	4,038	40	3,210	32	-	-	448	5	10,031	6
Improving Access to Financial Services	4,476	26	4,793	28	5,582	32	-	-	2,593	15	17,444	11
Subtotal	22,180	30	18,685	25	25,090	34	1,695	2	7,223	10	74,872	47
C. Programme Coordination & Management												
Programme Coordination & Management	6,364	27	822	4	6,833	29	9,683	41	-	-	23,703	15
Response to Emergency and Disaster (RED)	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	6,364	27	822	4	6,833	29	9,683	41	-	-	23,703	15
Total PROJECT COSTS	56,700	36	30,000	19	50,800	32	12,000	8	8,656	6	158,157	100

122. **Table 2: Programme costs by expenditure category and financier**

123. (Thousands of United States dollars)

Nigeria

Value Chain North (VCN)

Expenditure Accounts by Financiers

(US\$ '000)

	IFAD		IFAD BRAM		AFD		FGN & States		Ben		Total		Local		
	Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		Cash/In-Kind		For.	(Excl. Duties & Taxes)	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes	
I. Investment Costs															
A. Consultancies	5,595	59	854	9	3,050	32	9	0.1	-	-	9,509	6	2,385	7,115	9
B. Works	14,083	38	6,860	19	11,620	32	2,317	6	1,771	5	36,650	23	8,508	25,826	2,317
C. Equipment and Materials	1,873	48	744	19	1,232	32	59	2	-	-	3,907	3	553	3,296	59
D. Goods Services and Inputs	14,697	46	7,125	22	10,269	32	35	0.1	-	-	32,127	20	5,976	26,115	35
E. Matching Grant	10,510	27	8,060	21	13,509	35	-	-	6,886	18	38,965	25	9,134	29,831	-
F. Training and Workshops	8,850	42	5,533	26	6,769	32	-	-	-	-	21,152	13	2,215	18,937	-
G. Vehicles	300	63	-	-	141	30	36	8	-	-	478	0	143	299	36
Total Investment Costs	55,908	39	29,178	20	46,590	33	2,456	2	8,656	6	142,788	90	28,914	111,418	2,456
II. Recurrent Costs															
A. Operation and Maintenance	171	8	177	9	548	27	1,151	56	-	-	2,047	1	-	2,047	-
B. Salaries and Allowancies	622	5	645	5	3,663	28	8,392	63	-	-	13,322	8	-	13,322	-
Total Recurrent Costs	792	5	822	5	4,211	27	9,544	62	-	-	15,369	10	-	15,369	-
Total PROJECT COSTS	56,700	36	30,000	19	50,800	32	12,000	8	8,656	6	158,157	100	28,914	126,787	2,456

124. **Table 3: Programme costs by component and year**

125. (Thousands of United States dollars)

Nigeria

Value Chain North (VCN)

Project Components by Year -- Totals Including Contingencies

(US\$ '000)

	Totals Including Contingencies								
	2025	2026	2027	2028	2029	2030	2031	2032	Total
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture									
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resil	2,586	3,958	5,147	5,650	6,660	5,894	2,622	1,423	33,940
Promoting Nutrition and Gender Awareness and Practices	1,469	2,870	2,894	2,920	2,779	2,807	2,835	2,609	21,182
Promoting Social Cohesion and an Enabling Policy/ Institutional	284	690	696	702	709	489	494	395	4,461
Subtotal	4,339	7,518	8,737	9,272	10,149	9,190	5,952	4,427	59,582
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs									
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership	4,097	6,061	6,685	7,976	8,918	6,441	4,496	2,725	47,398
Promoting Entrepreneurship For Women And Youth	1,216	1,225	1,235	1,246	1,258	1,271	1,283	1,296	10,031
Improving Access to Financial Services	1,773	2,223	2,227	2,233	2,238	2,244	2,250	2,256	17,444
Subtotal	7,086	9,509	10,147	11,454	12,415	9,956	8,029	6,277	74,872
C. Programme Coordination & Management									
Programme Coordination & Management	4,083	2,443	2,949	2,621	2,858	2,841	2,892	3,014	23,703
Response to Emergency and Disaster (RED)	-	-	-	-	-	-	-	-	-
Subtotal	4,083	2,443	2,949	2,621	2,858	2,841	2,892	3,014	23,703
Total PROJECT COSTS	15,508	19,470	21,833	23,347	25,421	21,987	16,873	13,718	158,157

129. **Electronic and Financial Analysis** The programme investment profile by semester over the implementation period is provided in Annex 3.

127. [1] As per the [MDB Methodologies for Tracking Climate Adaptation and Mitigation Finance](#)

129. **Summary of benefits and economic analysis**

128. [2] The RED Subcomponent aims to enhance capacity of the programme to respond and adapt quickly in case of natural disasters. The major sources of benefits for the economic and financial analysis (EFA) are: (i) improved productivity as a result of access of farmers to: quality climate-resilient seed, inorganic and organic fertilizers, and small-scale irrigation facilities for year-round production especially for horticulture crops; and (ii) reduction in post-harvest losses due to access to: appropriate equipment/technologies and training for post-harvest handling, agro-processing and aggregation/bulking facilities to preserve and enhance the nutrient quality of the food at farm level and at aggregation centers, value adding infrastructure which result in premium prices for the farmers' produce, as well as a reduction in transport cost and time taken to reach markets as a result of the construction of access roads. These benefits are embedded into the crop models for the with-project and without-project scenarios of the EFA and are aligned to the theory of change.

131. **Beneficiary outreach, cost per beneficiary and adoption rates.** VCN targets 456,000 HHs equivalent to 3,109,920 HH members, assuming 6.8 people per HH. With the overall programme investment of US\$ 158.15 million, the cost per beneficiary HH is estimated at US\$ 347 and per HH member US\$ 51. The adoption rate is assumed at 60%, in line with the log-frame indicator "2.2 Households reporting adoption of new/improved inputs, technologies or practices". This corresponds to a total of 273,600 HHs who will adopt the proposed programme interventions. The beneficiary outreach and cost analysis are summarized in the table below.

132. **Table 4: Programme costs and log-frame indicators**

PROGRAMME COSTS AND INDICATORS FOR LOGFRAME				
TOTAL PROGRAMME COSTS (in million USD)				
Beneficiaries	3,109,920	people	158.2	Million
Cost per beneficiary	51	USD x person	456,000	Households
			USD x HH	347
Components and Cost (USD million)				
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture	59.7			
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs	75.1			
C. Programme Coordination & Management	23.4			
Total	158.2			

133. **Financial analysis.** Nine crop models were developed, based on a land size of one hectare which is the typical land size of beneficiaries in the programme area, to examine the financial impact of programme intervention on incomes at HH level: The crops are: sorghum, maize, rice and millet in the staple food/food security category; cowpea, sesame, groundnut and soyabean in the cash crops/domestic income category; and tomato in the horticulture crops/dietary diversity/health category. The financial analysis demonstrates that the selected VC crop models are profitable from an individual perspective, discounting the incremental benefits at the rate of 4% over a period of 10 years to calculate the present value of the future flows. The table below summarizes the results for the key indicators: financial internal rate of return (FIRR), net present value (NPV), benefits/cost ratio (BCR) and return to family labour. The detailed information is presented in the excel file attached to Annex 4.

134. **Table 5: Summary of financial analysis**

Project Year		Farm models' net incremental benefits (in Naira'000)								
		Staple food for food security				Cash crops				Horticult
		Rice	Maize	Sorghum	Millet	Cowpeas	Sesame	Groundnuts	Soyabean	Tomato
PY1	(215)	(193)	(81)	(56)	(117)	(96)	(82)	(84)	(113)	
PY2	(152)	(71)	(41)	(43)	11	(12)	(39)	(26)	58	
PY3	181	89	(17)	114	53	29	25	(28)	63	
PY4	204	187	103	253	205	187	289	58	279	
PY5	204	187	103	253	205	187	289	58	279	
PY6	204	187	103	253	205	187	289	58	279	
PY7	204	187	103	253	205	187	289	58	279	
PY8	204	187	103	253	205	187	289	58	279	
PY9	204	187	103	253	205	187	289	58	279	
PY10	204	187	103	253	205	187	289	58	279	
IRR	41%	42%	40%	111%	73%	69%	86%	24%	101%	
NPV (Naira 000) @10%	886	813	410	1,340	1,024	907	1,427	177	1,468	
B/C Ratio	1.42	1.75	1.88	1.55	1.34	1.63	1.93	1.11	1.76	
Return to Family Labour	3.5	7.6	6.9	5.0	3.7	4.8	7.2	1.2	4.5	

135. **Economic analysis.** VCN is projected to yield a baseline Economic Internal Rate of Return (ERR) of 27% with a positive NPV of US\$130.3 million (Naira 101.6 billion (1 US\$=780 Naira)). All quantifiable benefits have been discounted over a period of 20 years including 8 years of project implementation period using a rate of 14.4%, the rate on 10-year Government long-term bonds in Nigeria^[1]. The baseline ERR is higher than the discount rate used for the economic analysis which confirms the justification of the proposed VCN investment. The BCR for the whole investment is estimated at 10.7. The details of the economic analysis are in Annex 4.

136. **Sensitivity analysis, risks and assumptions.** To test the robustness of the overall programme analysis, a sensitivity analysis was carried out to measure variations due to unforeseen factors and relevant risks presented in the IPRM. A change in benefits by 20%, an increase in costs and a decrease in benefits by the same proportion, both scenarios yield an ERR of 25% positive NPV of US\$117.2 million and US\$91 million, respectively. An increase in programme benefits by either 10% or 20% yields a higher ERR of 28% and 29% respectively, both with positive NPV. A delay in programme benefits by one and two years still yields ERR of 24% and 22%, with positive NPV. The results of the sensitivity analysis indicate that VCN remains economically viable under the various assumptions considered. The details of the sensitivity analysis are presented in Annex 4.

137. ^[1][10-year government bond yield by country 2023 | Statista](#)

Chapter 3: Organisation and Management

3.1 Organisational set-up and Governance

138. At the federal level, a **National Steering Committee** (NSC) to be chaired by the Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Director of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Finance, Ministry of Budget and Economic Planning, Water Resources and Sanitation, Environment and Ecological Management, Women Affairs, Health and Social Welfare, and Labour and Employment, CBN, and a representative of Youth Group, will provide oversight to the implementation of VCN and approve the annual work plan and budget (AWPB). The National Programme Coordinator (NPC) will serve as Secretary to the NSC which is expected to meet once per year.
139. The experience with the ongoing IFAD projects is a rapid approval of the state level AWPBs, but in some years, especially when there is a change of national ministers, a slight delay in approval of the overall AWPB. Considering that the FGN as the Borrower has responsibility under the Financing Agreement for compliance with fiduciary requirements, including the approval of the AWPB, IFAD has mitigated the delay in AWPB approval at the national level through capacity building of both the national project coordinating units and the PCU of the FMAFS; and agreeing on a monitorable schedule for AWPB preparation by the NPCO, review by the PCU and approval by the FMAFS before submission to IFAD for no objection.
140. **The National Programme Coordination Office** (NPCO) based in Abuja will report to the FMAFS, and be responsible for: (a) developing the AWPB; (b) coordinating the procurement of goods, works and services for the implementation of programme activities; (c) integrating and up-scaling the successes recorded by previous and ongoing IFAD and AFD projects; (d) undertaking the M&E and knowledge management and communication (KMC) of programme activities; (e) reporting on implementation progress and results to IFAD, AFD and FMAFS; (f) facilitating policy dialogue; and (g) establishing linkages and partnerships with relevant national and regional research institutes and other key actors. The NPCO shall comprise the NPC and other competitively recruited staff. Other specialist skills required at the NPCO will be recruited as consultants on specific terms of reference and assignment duration. All recruitment and secondment to the NPCO shall be subject to IFAD no-objection.
141. At the state level, a **State Programme Steering Committee** (SPSC) chaired by the Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGOs and FIs, will provide oversight function on VCN and approve the AWPB. The SPSC will also facilitate the effective participation of relevant actors in the programme.
142. Each participating state will have a **State Programme Coordination Office** (SPCO) responsible for the coordination and supervision of programme activities in the state. Headed by the State Project Coordinator (SPC), the SPCO will have relevant professional staff. Other subject matter specialists will be hired when the need arises.
143. At the LGA level, VCN will maintain a **Desk Office** in the Department of Agriculture. The Local Government Desk Officer (LGDO) will be responsible for sensitization and advocacy at the community level under the guidance of the SPCO and will also participate in the selection of programme beneficiaries. At the **community level**, to address fragility in the planning process, VCN, through a community-participatory approach will ensure that beneficiaries are involved in all the processes including the planning in the targeted communities through a standardized systemic approach. Furthermore, VCN will strengthen the existing CDAs and FSAs through capacity building and promote the formation of new CDAs and FSAs where they do not exist to increase the outreach of project among poor SHF and scale up agribusiness among youth and women.
144. **Readiness and start-up plans:** to mitigate the risk of start-up delays, a start-up advance estimated at USD 500 000 will be provided for in the financing agreement to enable the project to meet the conditions precedent to first disbursement. The advance will be disbursed as a lump sum based on the approved budget. In addition, AFD will also be providing some funds for baseline and feasibility studies to be conducted prior to effective start of project activities.

3.2 IFAD Supervision

145. **Supervision.** VCN will be directly supervised by IFAD jointly with AFD and the FGN. Supervision and implementation support missions will be organized annually to review progress and assist implementing partners and the NPCO in improving programme implementation. Standard IFAD procedures for project supervision will be used covering all aspects of implementation including SECAP requirements. Annual supervision missions will be complemented by continuous engagement from the IFAD Country Office (ICO), supported by consultants, regarding strategic elements of VCN.
146. **Midterm and completion.** A joint Midterm Review (MTR) will be carried out in the fourth programme year and a Programme Completion Report (PCR) prepared by the end of the programme. VCN will undertake more in-depth surveys that are in compliance with IFAD Core Indicator Guidelines to evaluate whether the programme is on track to achieve its goal and development objective. At MTR, more comprehensive corrective action can be undertaken to align programme activities with intended outcomes and impacts. The annual missions as well as the MTR and PCR missions will be supported by full progress reports by the NPCO that will be submitted to IFAD at least two weeks before the missions are deployed. The progress reports will include comprehensive M&E data on outputs, outcomes and impacts, and documentation on financial and physical progress against the AWPB.
147. **Government role.** All the missions will have the participation of the FMARD, especially the PCU, and FMF, especially its International Economic Relations Department (IERD). Proposals for restructuring or extension of the programme will be initiated by the FMARD and endorsed by the FMF before a consideration by IFAD

3.3 Planning, Monitoring and Evaluation

148. **AWPB.** The planning of activities will be inclusive, and collaborative starting at the community level and led by the staff in the LGA. It will be based on the needed activities to achieve the Theory of Change and the targets of the projects. AWPBs will clearly specify: (i) key activities; (ii) specific unit targets; (iii) expected outputs the activity is contributing to; (iv) timeline for each activity; and (v) responsible reporting parties. The LGDO staff will be responsible to compile a plan of the agreed activities and share it with the SPCO responsible for consolidating all the planned activities and the required budgets from the LGAs. The State M&E Officer is responsible and accountable for this consolidation activity and to ensure that the State AWPBs are in line with the VCN AWPB templates and submission timelines. All SPCOs will submit their AWPB to the NPCO for review, consolidation, validation, and timely submission to the financiers for official approval.
149. **M&E.** The VCN M&E system will: (i) better inform the Federal and State Governments, NSC, NPCO, and implementing partners on the progress in implementation; (ii) provide reports of results-based evidence in assessing the programme development effectiveness through routine monitoring of outputs and outcomes that are attributed to the Theory of Change; and (iii) ultimately, inform decision making. Most importantly in this context, VCN will engage in conflict monitoring by developing a digitized and standardized real time reporting tool that will flexibly inform timely decision making for the Project team and immediate stakeholders to take action if need be. VCN will also build multistakeholder platforms that will serve also for participatory monitoring and evaluation mechanisms to assess the progress and the impact of the project.
150. The M&E system will leverage on the key national agenda that aims to develop efficient and integrated digitalized systems of development interventions. With guidance from IFAD and the IFAD ICT4D team, VCN will develop an MIS-based system that will be used for data storage, analysis and reporting. The MIS will have a planning module that will allow the AWPB planning process to be digitized. Moreover, the project MIS will be linked to data collections tools such as Kobo toolkits, ODK, etc. to ensure consistent field data collection. The design of VCN has allocated an adequate M&E budget to ensure that required M&E-specific capacity building investments and activities are conducted. These activities include baseline, mid-term, and completion outcome surveys, thematic studies, etc. The M&E system will align seamlessly with the mainstreaming approaches guiding VCN, incorporating disaggregated data (by gender and age), and will also measure progress towards targeting quotas and performance of different target groups. The data gathered will be used to finetune the VCN's guiding principles and operational strategies. Finally, VCN will benefit from the lessons learned and experiences of the country portfolio on M&E including the success story of VCDP which benefited from impact assessment in IFAD11.
151. **M&E Plan.** A lesson learned from previous and existing projects in the IFAD portfolio, is that most projects have had challenges in having a strong operational M&E plan that guides how M&E will be conducted throughout the project period. Guidelines have been provided in the PIM for the development of an M&E plan. In addition, sufficient budget allocation has been made to support the development of a robust M&E plan. The PIM also provides a glossary of the IFAD core indicators definitions and methods of measurement and reporting to ensure that the definitions and means of measurement of indicators are well understood.
152. **Core Outcome Indicators (COIs) surveys.** VCN will conduct mandatory periodic core outcome surveys at baseline, midterm and endline. These surveys will be in line with the IFAD COI guidelines and methodologies provided in the PIM. The baseline must be conducted within the first quarter of implementation in the first year. VCN should ensure that a baseline is conducted covering treatment and control groups. In addition to the COI surveys, after MTR, VCN will conduct thematic studies on the targeted value chains. The findings of the studies will be used for policy engagement and partnerships in the context of planning the exit strategy of the project. These activities are adequately and specifically budgeted for in the project COSTAB.

3.4 Knowledge Management and Country Level Policy Engagement (CLPE)

153. **Knowledge management, communication (KMC) and learning.** Lessons have shown that knowledge management (KM) is improving in the IFAD-funded projects in the portfolio. VCN will develop a KMC Strategy which will reference the experience of other projects and provide tools to ensure the dissemination of information about the programme, visibility of programme interventions and achievement, knowledge transfer, and participation of key stakeholders and programme beneficiaries. The strategy should elaborate on the following KM areas: (i) provide programme beneficiaries with the necessary material to sustain the technical knowledge acquired with the support of VCN through production of training materials and communication platforms for sensitization, and continuously assess their adoption; (ii) generate evidence-based knowledge acquired from the experience of the VCN in various fields based on the information collected as part of the monitoring of results or thematic studies to inform decision making at implementation and evaluate the Theory of Change; and (iii) share this knowledge in the form of tailored KM products with the technical departments of the FMAFS, IFAD, AFD, other donors, and implementing partners using various dissemination strategies, which will help to complement the policy support activities under Component 2. The IFAD KM Resource Centre (<https://ifadkmcentre.weebly.com/>) will be one of the key reference sources for VCN's KM activities and intervention.
154. The KMC Strategy will aim to develop and create channels of policy influence and dialogue through lessons, case studies, analysis of M&E impact data, and policy briefs/strategies to be disseminated to an audience of high-level policy stakeholders in the agricultural VC sector at the local governments, state, and national levels. For knowledge dissemination, VCN will reach targeted audiences through learning events, policy discussions, and contribution of lessons and knowledge to IFAD knowledge platforms for dissemination beyond the country.
155. The KMC will also support VCN policy work on: (a) strengthening institutional capacities of FOs and CAF in supporting inclusive, resilient nutrition sensitive agriculture VCs in partnership with private sector and FOs; (b) youth and women off and on-farm entrepreneurship; (c) transformative measures to boost women's voice and influence; (d) scaling up of digital solutions for small holder farmers; (e) sustainable and inclusive land tenure arrangements and climate resilience; (f) scaling up public and private investment in enhancing production capacity and reducing post-harvest loss; (g) enhanced access to financial services; and (h) local mechanisms for prevention and management of fragility, conflict and insecurity. The KM budget envisions the development of at least 2 evidence-based KM Policy briefs/notes/strategies that will be developed, attributed, and disseminated to policy-makers, within the 8 year period.

3.5 Target group engagement

156. **Target group engagement and feedback.** All target groups will be engaged throughout the project cycle through their representatives using participatory processes. People participating in these venues will be selected by their local constituencies and provided with all necessary information to ensure they can actively participate in relevant programme related processes. Information disseminated by VCN, and agreements made with communities will be made available in the LGA offices, and institutions representing the interests of all target groups for a period of three months. Quality of beneficiary participation will be assessed taking into account the selection process of existing and new FOs. The process of selection of the beneficiaries, LGAs, and communities will be in line with criteria defined in the PIM, and at the end of the process, it will be possible to assess the level of participation of beneficiaries and other key stakeholders. During the implementation of activities, VCN will engage the various community groups to confirm the needs, priorities and constraints of the beneficiaries, as well as issues such as access to land and other in-kind contributions, and capture beneficiary views around areas that require greater attention.
157. The **stakeholder engagement plan (SEP)** has identified the key stakeholders including Project Affected Parties (PAP), Interested Parties, and Disadvantaged and Vulnerable Persons and Groups. It has also identified their levels of influence and interests. The identified PAP include: host communities in project area, community members in the project host communities, crop farmers, livestock farmers and pastoralists (who will benefit from water source provision), CDAs, FOs, women groups, other community associations and groups, etc. This group have low influence, but high interest in VCN. They are mainly potential project beneficiaries. The vulnerable or disadvantaged groups in the context of this project, include elderly people above the age of 65, female headed HHs, PWDs, people living in extreme poverty (e.g., unemployed youths), IDPs, orphans, migrant laborers, etc. This group of people also have high interest but low influence on the project. Efforts to engage with stakeholders for the VCN Project has started from the PCN stage and extended during the field visits during the project design mission. Public consultations were held with the key line ministries at Federal and State levels (Agric and Food Security, Finance, Women Affairs and Social Development, Environment, etc.). Stakeholder engagements were convened in Sokoto, Kebbi, Katsina, Kano, Borno and Yobe states (with representatives from Yobe converging in Borno). The stakeholders consulted potential project beneficiaries (and likely project affected parties that include vulnerable people) including farmers organization, women organizations, PWDs, NGOs and CSO, traditional/community leaders, private sectors operators (including banks, insurance, large scale processors and off takers) and development agencies.
158. Without focused assistance, the PAP and vulnerable or disadvantaged groups may not be able to participate in the decision-making process of VCN. The plan is to focus efforts on these groups of stakeholders throughout the project cycle, involving them in regular consultations, ensuring adequate use of the grievance redress and feedback channels to engage and keep them in the loop on decisions that will influence project design and implementation. The Interested Parties are made up of stakeholders who may not be directly or indirectly impacted by the project but have the potential interest to influence the project outcomes through their statutory functions and mandates or other factors. They include Ministries, Departments and Agencies (MDAs) with statutory roles in the implementation of VCN in the participating states. They include the FMAFS, FMF, and other interested MDAs at federal levels, and the Office of the State Governor and MDAs related to Agriculture, Finance, Environment, Water Resources, Women Affairs, Humanitarian Affairs, etc., at the state level. This group also includes NGOs, CSOs, CBOs, and traditional/community leaders, etc.

159. **Grievance redress.** The Grievance Redress Mechanism (GRM) identifies potential issues that may necessitate grievance redress and mitigation, providing access to information on a regular basis to help prevent grievances from arising in the first place, or from escalating to a level that can potentially undermine project performance. The potential issues include community member not adhering to cut-off date as announced during consultation, dispute about ownership of assets, delay in disbursement and improper distribution of assistance, land acquisition, restriction of access and displacement, non-inclusion of community members as project beneficiary and paid labour/workforce; unclear beneficiary inclusion/exclusion criteria, unrealistic corporate social responsibility (CSR) expectations from the client or contractors by community members, omission of eligible PAPs, delay in execution of sub-projects leading to breakdown of trust, non-implementation or discrepancies in the implementation of safeguard documents, and potential risk of GBV (SH and SEA) as a result of project implementation.. The GRM will meet internationally accepted criteria^[1]. VCN will activate IFAD's GRM procedure as well as the GRM procedure and plan developed for the VCN (see GRM document under Annex 5) that allow affected complainants to have their concerns resolved in a fair and timely manner through an independent process. The NPCO, the SPCOs and IFAD will be committed to: (i) working proactively with the affected parties to resolve complaints;(ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions^[2]; and giving specific attention (in line with IFAD guidelines) to SH/SEA This includes developing a specific protocol for any case of GBV that contemplates: a) protecting survivors with prompt interaction, empathy and information; and b) holding perpetrators associated with the project accountable in line with national legislation.
160. **Information Disclosure.** The VCN SEP will make provision for disclosure of safeguard documents to project-affected and other interested stakeholder mapped during stakeholder's identification exercise.
161. ^[1]Office of the High Commissioner on Human Rights (OHCHR) (2011), UN Guiding Principles on Business and Human Rights, Geneva, pp.33-34. The criteria include: (a) Legitimate: enabling trust from the concerned stakeholder groups (b) Accessible: being known to all concerned stakeholder groups; (c) Predictable: providing a clear and known procedure with an indicative time frame for each stage; (d) Equitable: seeking to ensure that aggrieved parties have reasonable access to sources of information, advice and expertise; (e) Transparent: keeping parties to a grievance informed about its progress, to build confidence in its effectiveness; and (f) Rights-compatible: ensuring that outcomes and remedies accord with internationally recognized human rights.
162. ^[2]IFAD(2016), Managing Risks to Create Opportunities. IFAD's SECAP (IFAD: Rome), p.12

3.6 Strategic partnerships

163. In line with the COSOP's approach of supporting the national food system transformation agenda, VCN will foster strategic partnerships with: (i) the AFD-funded Rural Access and Agricultural Marketing Project (RAAMP), ongoing IFAD projects – Value Chain Development Programme (VCDP), Livelihood Improvement Family Enterprises Project in the Niger Delta (LIFE-ND) and the SAPZ Programme with African Development Bank and Islamic Development Bank, as well as relevant projects of other development partners such as the German Agency for International Development (GIZ), World Bank, and United States Agency for International Development (USAID), Japan international cooperation agency (JICA); (ii) the FarmSettlements Scheme for youth and women, established in all the states by the MBEP; (iii) public sector agencies including the Agricultural Development Programme (ADP) in each state; (iv) private sector actors such as CAF, off-takers, agro-input dealers, and ICT4D agritech/fintech/ climatetech firms; (v) non-sovereign operations (NSO) like Babban Gona, which promotes sustainable access to markets and digital solutions; (vi) CSOs, including gender advocacy groups; (vii) research organizations for technology development; and (viii) Food and Agriculture Organization (FAO) for linkage with the UN Food Systems Summit Coordination Hub, World Food Programme (WFP) for linkage of VCN farmers to the agency's promotion of supplementary food production from local materials, and the United Nations Children's Fund (UNICEF) which supports the implementation of the National Plan of Action on Food and Nutrition, and in the northern states, supports community level nutrition centers, and UN Women for collaboration on women empowerment and gender equality. Partnership will be built with Global Center on Adaptation (GCA) to promote climate change adaption. Cooperation will be further enhanced with IITA to foster innovation. Partnership will be developed with Heifer international to leverage its experience in fragile areas and among the poorest. Details of VCN's strategic partnerships are in Key Files Table 6.

3.7 Financial Management

164. The FM arrangements for VCN have been designed with consideration for the fragile and conflict situation in the North while considering the IFAD's minimum requirements; which describes the overall guidance on FM considerations. The FM system of VCN must be capable of: (i) correctly and completely recording all transactions related to the project; (ii) facilitating the preparation of regular, timely and reliable financial statements; (iii) safeguarding the project's assets; and (iv) being subject to auditing diligences as required by IFAD. The arrangements also aim to facilitate disbursements and ensure effective use of project resources while using the country's own systems to the extent possible. Regular risks assessments will continue to inform risk-based IFR disbursement adopted by IFAD. Proper ring-fenced NPCO, and SPCOs will be set up to uphold IFAD's fiduciary responsibilities. Additional efforts will be made to ensure that project staff, implementing partners, and stakeholders, are familiar with IFAD and national anti-corruption policies.
165. **Organization and staffing.** The FM coordination provided by the NPCO includes: (i) budget planning, consolidation and monitoring; (ii) budget execution and treasury management; (iii) financial reporting to Government and IFAD; (iv) FM information system implementation and customization; (v) coordination of internal/external audit; (vi) compliance with IFAD's processes and procedures; and (vii) securing FM operational continuity along the project decentralized structure. Considering the project's organizational set up, the FM set-up at NPCO will consist of a full-time Financial Controller, a Senior Accountant, a Senior Finance Officer, and an Accounting and Admin Assistant. FM responsibilities at the SPCO will be handled by an Accountant, and Finance Officer; both reporting to the Financial Controller.
166. **Budgeting.** A joint (IFAD, AFD) AWPB will be developed by the NPCO in collaboration with relevant stakeholders. The state budgets will be approved by the SPSC, consolidated by the NPCO at the federal level and submitted to the NSC for approval, and subsequent NO by the co-financiers.
167. **Funds flow/disbursement arrangements.** Separate designated accounts (DA) will be opened for each IFAD financing source, Performance Based Allocation System (PBAS) and Borrowed Resource Access Mechanism (BRAM) at the CBN in US Dollars. In order to allow the FGN to monitor the income of funds, the DA will be a sub-account under the FGN Treasury Single Account (TSA). From the DA, the funds will flow to the programme operational accounts (drawdown account for each financing source) in Naira. The federal counterpart funds will be deposited in a separate federal counterpart fund account. Modalities for operating project bank accounts will be contained in the financial management and control letter.
168. **Internal controls.** The NPCO and SPCOs will be assisted to establish strong internal controls including budget controls, asset management and contract management, backed by FM and accounting manuals. The FM capacity of all implementing partners will be assessed prior to entering into any agreements.
169. **Accounting and financial reporting.** The basis of maintaining the financial accounts will be the *International Public Sector Accounting Standards* (IPSAS) cash basis of accounting. The accounting systems and policies and financial procedures used by VCN will be documented in the project's administrative, accounting, and financial manual. The NPCO will acquire and install a project accounting software to meet the project requirements.. The IFRs will be prepared every quarter and submitted to IFAD regularly (for example, 30 days after the end of each quarter) and on time.
170. Any source of in-kind co-financing from FGN, States and Beneficiaries including the private sector (e.g. foregone taxes, buildings, land, labour, etc.), as well as any in-cash Beneficiaries' contribution (flowing outside VCN bank accounts), will be mapped/valued by the project.
171. The **internal audit** function will be headed by a Senior Internal Auditor at NPCO level and Internal Auditors at SPCO level. The State Programme Internal auditors will report to the Senior Internal Auditor. The internal audit function will report functionally to the NSC.
172. **External audit.** The Office of Auditor General for the Federation (OAUFGF) will undertake the statutory audit of VCN. The TOR for the statutory audits will be finalized in consultation with IFAD and AFD. The annual audit report will be furnished to IFAD within six months of the end of each financial year. IFAD will continue to provide feedback to the OAUFGF on any areas of improvement.

3.8 Procurement

173. Nigeria uses the Public Procurement Act of 2007 (PPA) for public procurement procedures. The Act provides the legal basis for the scope, processes, procedures and arrangements for procurement. The Act establishes the Bureau of Public Procurement (BPP) and applies to the FGN and all its agencies and entities, except where the government has specifically agreed that other regulations may be used as when a programme is funded by an international financial institution (IFI) or multilateral development bank, such as IFAD and Agence Française de Développement (AFD).
174. **Procurement oversight structure:** For the VCN, co-funded by AFD and IFAD, IFAD will exercise oversight over procurement activities, including the review and approval of the annual procurement plan, bidding documents, evaluation reports, contracts and the monitoring of the implementation of contracts, including approval of procurement decisions pursuant to the approval matrix in the Procurement Arrangements or the Handbook, or as escalated or referred. A Procurement Implementation Manual has been prepared to provide guidance and direction for the procurement process.
175. **Procurement governance:** All procurements for the VCN shall be governed by the IFAD Project Procurement Guidelines and by extension the IFAD Procurement Handbook. The standard solicitation documents provided by IFAD shall be used for all procurement activities for goods, works, consulting and non-consulting services. For certain states suffering from conflicts or fragile situations the Simplified Project Procurement Procedures for Fragile and Conflict Affected Situations in short FCAS might be applied as per Project Procurement Arrangement PPA letter. There will be as well a requirement to evaluate UNGC membership and using scores in order to apply section Annex 10 of the PIM.
176. **Procurement staffing:** The NPCO shall have a National Procurement Specialist (NPS) and two National Procurement Assistants (NPA). The NPS shall undertake all procurements planned for the NPCO, supported by the NPAs, and provide oversight and supervise the state procurement officers. Each SPCO shall have a State Procurement Officer (SPO) and a State Procurement Assistant (SPA). The NPS should have a relevant master's degree and a minimum of 8 years' relevant experience in public procurement. The NPA should have a relevant bachelor's degree and at least 3 years' experience in public procurement. The SPO shall have relevant qualifications and at least 3 years' experience in public procurement. In order to equip the procurement staff and project coordinator with an additional knowledge of public procurement processes, the BUILDPROC procurement certification program provided by the ITCILO.
177. **Procurement planning:** VCN will have an initial 18-month Procurement Plan (PP), following which, as part of the AWPB, each SPCO shall annually prepare and submit for approval a 12-month PP using the Online Procurement End to End System OPEN IFAD. Each PP will specify, among other things, the procurement activity, its method, the level of review and the estimated budget. The NPCO shall prepare its own PP also using the IFAD PP template. A consolidated plan covering both NPCO and SPCO PPs will be submitted for IFAD's no objection. NPCO may combine procurement of similar items of NPCO and SPCOs if it is assessed that this will offer better value and/or better technical outcomes. In such cases, the PP(s) must indicate this and IFAD's no objection should be attained.
178. **Procurement thresholds and risk:** Based on the procurement risk matrix and the substantial risk rating the thresholds applicable will be inserted in the PPA and in the new OPEN system. The Prior Review and procurement thresholds are set taking into consideration this risk assessment and the thresholds of the other IFAD supported projects in Nigeria. While the NPCO and SPCOs have the same thresholds all ICB, QCBS and QBS procurements will be managed by the NPCO.
179. **Debriefing and protest procedures** for all procurement activities shall be based on the procedures laid down in the IFAD Procurement Handbook including the requirements to issue a Notice of Intent to Award and the application of a standstill period.
180. **Arrangements for Fragile and Conflicted Affected Situations (FCAS):** Based on this, some procurement initiatives are allowed. These include shorter bidding periods when justified, electronic procurement initiatives, direct contracting or sole source methodology for certain procurements under justification, proceeding with less-than-3 quotations for Shopping, use of remote bid openings, use of NCB methods even for ICB procurements that have strong national peculiarities, online evaluations and procurements through UN agencies. More information on the FCAS initiatives is provided in the PIM.

3.9 Risks and Risk Management

181. In view of the expected continuation of the fragile context both in the programme area and in the country as a whole during the implementation of VCN, the overall inherent and residual risk is rated **High**. The risk categories and subcategories rated high or substantial are summarized below, while further details of the risks and their mitigation measures are provided in the IPRM in Annex 10.
182. **Risks external to VCN**
183. As mitigation of the external risks is largely beyond the scope of VCN, the PDR will focus on adaptation to these risks. Under the **country context risks** category, the Macroeconomic and Fragility and security subcategories are rated High, while the Political commitment was rated Substantial and Governance subcategory rated high. VCN will adapt to the high *Fragility and security risks* in northern Nigeria by addressing the fragility drivers of poverty, youth unemployment, and climate change, and deepening the use of ICT4D tools for programme monitoring. The project will adapt GIS, remote sensing and Artificial intelligence integrated digital solutions that will support mapping of fragile areas, provide predictive analytics for early warning both from climatic changes advisory as well as data and evidence for programme level monitoring and decision support. For the substantial *Political commitment risk* arising from governments increased focus on food security and other emergency actions as a result of socio-economic crisis, VCN will support national food and nutrition security priorities while investing in inclusive sustainable food systems transformation. On the high *Governance risk* associated with the high perception of corruption in the country, IFAD ICO will explore collaboration with the Office of the Auditor General of the Federation to strengthen compliance to rules of borrowing

and project implementation. VCN will also mitigate the risk for the project by leveraging the CPAT expertise to strengthen the capacities of the programme management in financial management, procurement, audit and M&E to reinforce compliance.

184. Under the **Sector Strategies and Policies** category, the inherent and residual *Policy development and implementation* risk is Substantial in northern Nigeria as a result of economic inequality, insecurity, and cultural barriers that increase gender inequality and limit access to services and opportunities within the community. VCN will mitigate this risk by: promoting policy and regulatory framework fostering inclusivity and creating spaces for open dialogue; implementing programme activities that create opportunities for all community members; empowering community members to have a voice in decision-making processes; promoting gender transformative approach through GALS methodology; and ensuring that decision-making bodies and community leadership reflect the diversity of the population.

185. Project risks

186. The most critical project risks that could directly affect the success of VCN include: (i) substantial **Implementation arrangements** risks, including: weak staff capacity following the gap between the closing of CASP and the start of VCN. This risk will be mitigated by open recruitment of qualified staff. The High risk rating for **M&E arrangements** will be mitigated by ensuring that an adequate budget for M&E, that considers issues of conflict and fragility, is outlined in the COSTAB and guidance provided in the PIM to improve data collection, analysis and reporting.

187. The two Substantial risk categories under **Procurement** are *Accountability and transparency* and *public procurement processes*. The mitigation measures proposed for VCN including the use of IFAD's Standard Solicitation Documents across the board for all advertised procurement, and the IFAD Handbook for contract management are expected to lower the overall procurement risk to moderate. The High **Financial Management** risk will be mitigated through: ensuring that VCN has a solid internal controls framework and FM arrangements for accurate and timely record keeping and financial reporting; recruiting qualified FM staff for the NPCO and SPCO; IFAD providing hands-on capacity building on FM and internal audit on a regular basis to VCN; and implementation of hybrid (cloud-based and desk) accounting software for accounting record keeping, financial reporting and accounts reconciliations.

188. **Environment and Social category**. The VCN's Environmental and Social Category is rated '**Substantial**' based on the IFAD Environmental and Social Safeguards Screening Checklist in the ORMS. VCN being a natural resource dependent VC project, which includes agricultural intensification and/or expansion of crop production clusters in non-sensitive areas as well as the development of medium-sized agro-processing centres, the risk of environmentally unsustainable production is substantial, via unsustainable land management, agrochemical use issues, unsustainable drawdown of groundwater resources for irrigation, the use of firewood in processing. The risks of biodiversity losses and physical and economic displacement are low. The ESCMF and ESCMP have been developed to enable mitigation/remediation/considerable reduction of potential risks as appropriate. Sub-project-specific Environmental and Social Management Plan (ESMP) will be required for land development and development of market infrastructure on a case-by-case basis. VCN is not envisaged to negatively affect indigenous peoples or sites of historic, religious, or cultural significance, and will not support the opening of lands in virgin forests, sensitive areas, and protected areas. The processing systems offer opportunities for creating additional VCs, such as making use of crop waste for fuel and animal feed.

189. The social risk is also **Substantial** across the states due to insurgency, banditry, and kidnapping by non-state actors, as well as resource conflicts (especially between farmers and pastoralists) and related threats to human security. The VCN will build on existing channels including CAF and the CDAs, as well as the LGA conflict resolution committees established by government in some of the states to deepen conflict resolution. It will also support mechanisms to compensate farmers and processors for conflict-related damages. VCN will prioritize women in targeting and support policy dialogue to ensure that women have secure access to land tenure and land tenure security within production areas that are safe as a mitigation strategy for both land access for women (being a gender transformative project, as well as conflict management. and discourage child labour and unpaid women labour, sensitize on community health and safety, and establish an open and well publicized grievance reporting channel and redress mechanism. Various safeguard documents have been developed with the PDR, and VCN will develop an Integrated Pest Management Plan and Labour Assessment and Management Plan at the early stage of programme implementation. The financial intermediaries will be required to submit their environmental and social governance (ESG) framework at the early stage of implementation. The co-financier (AFD) will also be required to disclose their ESG framework to ensure compliance with IFAD's SECAP framework.

190. **Climate Risk classification**. VCN's climate risk is **Substantial** based on the IFAD Climate Screening Checklist in the ORMS. The programme area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and market infrastructure. The risk of water scarcity leading to drought for agriculture is substantial. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, unsustainable land management practices, and operation of environmentally unfriendly processing machines. The VCN target group is substantially dependent on climate-sensitive rainfed agricultural plots. All parts of the project area have been subjected to extreme flooding in the recent past. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability, that could lead to increased dry spells and high intensity rainfall leading to pluvial floods, erosion and landslides, and risk of river damage to road infrastructure. Increased local processing further represents a greater risk of use of firewood with concomitant GHG emissions from deforestation.

191. VCN has the potential to integrate climate resilience measures without extensive additional costs. Upscaling the achievement of CASP in resilience-enhancing practices including capacity building programmes in climate-smart agricultural production, collaboration with extension services and NiMET to promote weather/climate monitoring and agro-climatic information, use of climate resilient seed varieties, partnerships to enable farmers to get access to market linkages and information, and investment in market infrastructure could strengthen the resilience of SHFs. Investment in rural renewable energy technologies including

conversion of cereal into briquettes and biochar will reduce GHG emission, and micro-insurance to cover losses to floods will be promoted. VCN will promote the critical adaptation options indicated by the Targeted Adaptation Assessment to strengthen the resilience of the beneficiaries across the target states.

3.10 Implementation Readiness

192. The target is to obtain IFAD Board Approval for VCN in September 2024, complete the financing agreement negotiations during Q4/2024, and achieve readiness for first disbursement in Q1/2025. A comprehensive draft Programme Implementation Manual (PIM) has been prepared as a part of the design process, as well as a draft AWPB and a draft procurement plan for the first 18 months of programme implementation. These documents aim to ensure that the programme implementation starts as scheduled, without unnecessary delays during the first programme year.

193. An approval of VCN in September 2024 will offer an auspicious window for the programme to pass through parliamentary endorsement, in time for the submission of the federal and state draft budgets to parliament late in November, against parliamentary approval of the programme budget, as part of the budget for the FMAFS in December. The draft AWPB in this PDR will facilitate the budgeting process.

194. A robust start-up workshop is planned for the recruited staff in January/February, building on the lesson in the CASP PCR that the lack of a formal orientation of the staff at the start of the programme contributed to the capacity lapses during implementation. The potential delay of start of VCN will be mitigated by close involvement of the FMF and FMAFS in the review process of the PDR, the financing agreement negotiations and in timely preparation for fulfilling the effectiveness conditions, especially the recruitment of the key staff and the signing of subsidiary loan agreements between the FGN and the participating states.

195. It is not anticipated to apply for a Facility for faster Implementation of Project Start-up (FIPS). The project will benefit from a start-up advance of USD 500 000. The below summarizes the proposed next steps for VCN.

Activity	Responsibility	Time frame
Signing of Financing Agreement	IFAD/FGN	March 2025
Development of 1st AWPB	FGN	May 2025
Recruitment of Key NPCO staff	FGN	September 2025
Start-up workshop/Training	IFAD/FGN	November 2025
Development and Finalization of the PIM	FGN/IFAD	November 2025
Development and finalization of VCN targeting strategy	NPCO	Q4 2025
Development and finalization of the M&E and KM strategies	NPCO	Q4 2025
Procurement/ Installation of FM system	NPCO	Q4 2025
Signing of State Level Agreements	FGN/Respective states	Q4 2025

196.

Footnotes

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex 1: Key Files

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 1: Key Files

Table 1: Rural poverty and agricultural sector issues (key file table 1)

Priority areas	Affected group	Major issues	Actions needed
Access to quality farm inputs	Poor smallholder farmers	<ul style="list-style-type: none"> - Fertilizers, pesticides and seeds are not affordable not available. - Fertilizers, pesticides and seeds with unstable quality. - Volume of production does not attract service provider and cashless credit is difficult - Mechanization is difficult as unit cost is high 	<ul style="list-style-type: none"> - Formation of producer groups and capacity building to strengthen them - Assist the producer groups to form apex organizations to enable bulk procurement of inputs - Strengthen groups capacity to invest in internal savings mobilization - Link groups to microfinance institutions for credit - Facilitate linkage with off-takers for cashless credit for inputs - Support youths to establish rural farmer inputs shops in remote communities - Create an enabling environment for agro-input suppliers to work in areas where market access is good - Support community seed production system to make improved seed available and affordable - Support capacity to enforce standards and ensure quality of agro-inputs - Invest in land development to improve access to land
Crop production and productivity	Poor farmers in all the regions of Nigeria	<ul style="list-style-type: none"> - Poor access to finance - Lack of organized market - Limited access to quality seeds - Narrow range of options for high value crops - Poor access to land, and insecurity about investment decisions in agricultural crops 	<ul style="list-style-type: none"> - Formation of producer groups and strengthening the group to have bargaining power, improve their savings and credit mobilization behaviour - Change the orientation and capacity of farmers to think agribusiness and generate market surplus - Link the farmer groups to service providers including market operators and input dealers - Develop community seeds growers among the farming community - Introduce small-scale irrigation farming - Introduce simple machineries to facilitate mechanization

Priority areas	Affected group	Major issues	Actions needed
		<ul style="list-style-type: none"> - Limited knowledge about best practices - Climate change effects and uncertainly from weather effect - Little irrigation 	<ul style="list-style-type: none"> - Promote economic options in the growing of high value crops - Demonstrate best practices (agro-forestry, intercropping, organic farming) on farmers' fields to show good practices - Target training to poor farmers on cultivation techniques. - Adopt climate change adaptation measure such as use of drought resistant varieties, water tolerant varieties, early maturing varieties, weather reading instruments, flood control measure, tree planting, woodlot establishment, intercropping with legume, etc.
Livestock production	Pastoralists and small crop farmers	<ul style="list-style-type: none"> - Traditional grazing methods with competition for land and water resources resulting in conflict - Low market orientation - Limited access to feed, animal drugs and veterinary services 	<ul style="list-style-type: none"> - Information, communication, training to introduce potential for development of livestock towards the market. - Animal fattening through intensive (sedentary) method - Facilitate para-veterinary clinics in livestock villages - Demonstrate best practices regarding return on investment from sedentary livestock production system - Development of pastoralist–farmer conflict management strategy
Post-harvest	Poor farmers	<ul style="list-style-type: none"> - Lack of post-harvesting tools - Lack of knowledge of post-harvest techniques 	<ul style="list-style-type: none"> - Offering training to smallholder farmers, women and youth, on post-harvest techniques. - Investment in village-based infrastructures including processing and preservation unit
Product selling/marketing	Poor farmers	<ul style="list-style-type: none"> - Low prices for their products - Individual farmers with little bargaining power - Absence of standard weight and measures which breeds conflict and loss of money 	<ul style="list-style-type: none"> - Form farmers organizations that bulk their produce for the market - Cultivate high value and premium varieties to drive the market - Facilitate linkages with credible off-takers for assured markets - Facilitate regulation and contracting between producer groups and private sector player like banks, input dealers, produce off-takers - Support an operational market information system - Organize knowledge sharing events between poor farmers, traders and government

Priority areas	Affected group	Major issues	Actions needed
		<ul style="list-style-type: none"> - Lack of market price information for main agricultural products. - Missing market linkages 	<ul style="list-style-type: none"> - Create a policy dialogue and commodity transaction platform to facilitate farmers engagement with the private sector
Agricultural extension	All farmers, particularly poor farmers	<ul style="list-style-type: none"> - Weak public extension system and limited private sector participation - Not tailored towards farmers needs - No adequate trainings on GAP - Extension agents are not always timely updated with latest research results. - Limited capacity of extensionists, especially on marketing - Extension is still production oriented 	<ul style="list-style-type: none"> - Work with the government to support private extension services - Mainstream private extension particularly where there is market access - Provide capacity building to the public extension to strengthen a bottom-up approach and market orientation - Providing training on peer-to-peer extension to local champions for extension in their communities - Assist the local government to strengthen their extension system and use e-technology - Involve the CSOs to monitor progress and provide feedback to the government system

Table 2: Organizational capabilities matrix (key file table 2)

Organization	Strengths	Weaknesses	Opportunities	Threats
Federal Ministry of Agriculture and Food Security	<p>It is the focal point of IFAD's project/ programme conceptualization and delivery in the agricultural sector.</p> <p>It has a Project Coordinating Unit with experienced staff that oversees funded project</p>	Long chain of reporting leading to long turnaround time	<p>Manages other development partners funded projects and can ensure cooperation and synergy.</p> <p>Possibility of leverage on its extensive networks at state and local levels for quick mobilization of rural people</p>	Subject to higher political decisions
Federal Ministry of Finance, Budget and National Planning	It is the borrower and signatory for IFAD's loan resources to Nigeria as approved by the Federal Executive Council	Long chain of reporting leading to long turnaround time	Manages funding portfolio of other donor funded projects and can ensure adherence to Nigeria's fiscal aspirations	Subject to higher political decisions
Federal Ministry of Environment	It has the mandate to develops policies to safeguard the environment and response to climate change	Long chain of reporting leading to long turnaround time	<p>Has potential to catalyze climate finance.</p> <p>Has the departments of environmental assessments and climate change critical for climate mainstreaming and environmental sustainability in projects</p>	Subject to higher political decisions
Federal Ministry of Women's Affairs	Has the mandate to promotes women's right and ensures that women are equal beneficiaries of projects funded by development partners	Long chain of reporting leading to long turnaround time	Its national network presents opportunities for partnership for realistic women targeting and social inclusion	Subject to higher political decisions
Federal Ministry of Youth and Sports Development	promotes youth empowerment and creates opportunities for youth to be involved in decision-making processes in project delivery	Long chain of reporting leading to long turnaround time	Its national network presents opportunities for partnership for realistic youth targeting	Subject to higher political decisions

Organization	Strengths	Weaknesses	Opportunities	Threats
State Governments	<p>They are potential co-borrowers of sovereign loan investments.</p> <p>They contribute counterpart funding.</p> <p>They provide logistical support to projects when smallholder farmers in their states are beneficiaries</p>	Sometimes, some of the states may be reluctant in paying counterpart funding, and requires consistent follow-up	Wide network and presence at community levels to facilitate project mobilization	The level of cooperation could be subject to political decisions and relationship with the Federal Government
Local Governments (LGA)	They are potential partners for sustainability of rural market infrastructure provided through project intervention	They are poorly funded and may have no financial contributions	Wide presence at community levels to facilitate community mobilization	
Universities and research institutes	They have pool of experts that can provide training and capacity building for project staff and beneficiaries on various thematic areas.	They are poor at reach-out, and thus the project may have to go to them	Dependable potential strong partners for research and development in projects	Some of them are also subject to political decisions from the governing council.
The state Agricultural Development Programmes (ADP)	The ADPs are critical for rural extension support to improve the productivity of smallholder farmers.	They are poorly motivated and needs support	They have experienced staff and extension agents across wide rural areas	
Farmers' Organisations (FOs)	FOs have been the entry point for most IFAD projects in Nigeria.	They may be difficult to manage	They have capacity for integrating several different organizations including, women's organizations, youth organizations and disability organizations and different enterprise groups	Grievances and internal conflicts is always likely

Organization	Strengths	Weaknesses	Opportunities	Threats
Community Development Associations (CDAs)	CDAs are vehicles for rural community drive development.	They may not be very appropriate for value chain projects	Capacity to accommodate community committees including operation and maintenance (O&M), Water users, Financial Saving Associations (FSAs), ecdtc.	They may be complex to manage
The Community Alliance Forum (CAF)	They bring together various stakeholders including producers, processors and marketing groups, service providers, off-takers/aggregators, and representatives of public sector agencies including security, and other social actors competing for resources and attention.	They are mere platform for discussions and transactions.	CAFs are effective medium for private-public-producer partnership (4P) to facilitate stakeholder dialogue.	They may be complex to manage

Table 3: Complementary donor initiatives / partnership potential (key file table 3)

Projects / Programmes	Donor / Agency	Geographical Area	Target groups	Components / Outcomes / Value Chains	Remarks - Areas of Complementarity / synergies with VCN
<p>Programme for integrated development and adaptation to climate change in the Niger Basin (PIDACC) 2019-2024</p>	<p>AfDB</p>	<p>Benin, Burkina Faso, Cameroon, Ivory Coast, Guinea, Mali, Niger, Nigeria and Chad</p>	<p>Smallholder farmers and vulnerable groups (women and young people)</p>	<p>Components</p> <p>(i) Building the resilience of ecosystems and natural resources; (ii) Building the people's resilience</p> <p>Outcomes/Outputs</p> <p>(a) the recovery of 140 000 ha of degraded land; (b) the construction of 209 water infrastructure systems for agro-pastoral and fish farming activities; (c) the implementation of 450 sub-projects for agricultural chain development purposes and 184 youth SMEs; (d) climate change (CC) adaptation capacity building for 1 000 000 households; and (e) the operationalization of a sustainable financing mechanism for sustainable natural resource management activities</p>	<ul style="list-style-type: none"> - Forests and grazing land - Irrigation/livestock/fisheries infrastructure - Dissemination of climate change adaptation practices - Training of farmers on CSA - Community-based CC adaptation plans developed
<p>Special Agro-Industrial Processing Zones Program – Phase I (SAPZ I) 2022-2026</p>	<p>AfDB, IFAD, IsDB, GCF,</p>	<p>7 states: Cross River, Imo, Kaduna, Kano, Kwara, Ogun, and Oyo + Federal Capital Territory (FCT)</p>	<p>Private sector agribusinesses and agro-processors, smallholder farmers, agripreneurs and agro-dealers</p>	<p>Outcomes/Outputs</p> <p>a) development of infrastructure for 8 Agro-Industrial Processing Hubs (AIHs); b) 15 Agricultural Transformation Centers (ATCs); c) 2,300ha of irrigated lands and farm to market access roads; d) supply of certified agricultural inputs and extension services; e) skills development for farmers and Micro, Small and Medium Scale Enterprises (MSMEs)</p> <p>Selected value chains</p> <ul style="list-style-type: none"> - Tomato, Rice and Oil Seed (Groundnuts and Sesame) in Kano State - Beef and Dairy in the FCT 	<ul style="list-style-type: none"> - Trained enterprises on food safety and quality standard - Increasing yield - Construction of Aggregation Centers (ACs) - Construction of Agricultural Transformation Centre - Rehabilitation/extension of irrigable land - Rehabilitation/construction of feeder roads - Provision of certified inputs

Projects / Programmes	Donor / Agency	Geographical Area	Target groups	Components / Outcomes / Value Chains	Remarks - Areas of Complementarity / synergies with VCN
				<ul style="list-style-type: none"> - Cassava, Rice and Poultry in Ogun State - Cassava, Rice and Soybean in Oyo State - Tomato, Maize, Soybeans & Ginger in Kaduna State - Beef and Dairy in Kwara State - Cocoa, Cassava and Rice in Cross River State - Beef and Dairy in Imo State 	<ul style="list-style-type: none"> - Farmers, MSMEs and service providers using digital applications to enhance productivity - Business development services to MSMEs - Information and Communication Technology (ICT) platform including a database of producers - E-wallet for agro-inputs
Value Chain Development Programme (VCDP) 2012-2024	IFAD	Anambra, Benue, Ebonyi, Enugu, Kogi, Nasarawa, Niger, Ogun, and Taraba	Rural smallholder households	<p>Components</p> <p>(i) Agricultural market development to enhance the profitability of smallholder farmers and small-scale agro-processors</p> <p>(ii) Smallholder productivity enhancement to enhance smallholder farmer productivity on an economically and environmentally sustainable basis</p> <p>Selected value chains</p> <p>Cassava, Rice</p>	<ul style="list-style-type: none"> - Profiling of households - Commodity alliance forum (CAF) and 4Ps - Capacity building of FOs in technical and business areas - Facilitation of access to productions inputs - Innovation platform - Value addition - Agric. Market Information Systems (AMIS) - Feed roads - Construction /rehabilitation of processing centers and market facilities - Water scheme for production and drink - Capacity building of FOs - Nutrition mainstreaming

Projects / Programmes	Donor / Agency	Geographical Area	Target groups	Components / Outcomes / Value Chains	Remarks - Areas of Complementarity / synergies with VCN
Livelihood Improvement Family Enterprises Project in the Niger Delta of Nigeria (LIFE-ND) 2017-2025	IFAD	Abia, Bayelsa, Cross River, Delta, Edo, Ondo Akwa Ibom, Imo, Rivers	Unemployed and underemployed youth (aged 18-35) Women headed households with children under the age of 15	<p>Outcomes/Outputs</p> <p>At least 80percent direct beneficiaries (20,400) have increased their food security (reduction in length of lean/hungry season, increased number of meals a day, increased food diversity and quality) by at least 50percent.</p> <p>At least 80percent of direct beneficiaries (20,400) have increased their assets (measured by an increased assets ownership index, based on additional assets -RIMS indicator) by at least 50 percent.</p> <p>At least 25,500 youth or women owned Agri-enterprises representing decent and gainful jobs are created, profitable and strengthened.</p> <p>At least 25,500 direct LIFE-ND beneficiary households (the same as iii above) have stable income for enhanced food security and sustainable livelihood.</p> <p>At least 50percent increase in volume of produce by beneficiary agri-entrepreneurs is realized and also marketed.</p> <p>At least 50 percent of rural institutions promoting youth</p> <p>Selected value chains</p> <p>Cassava, Rice, Plantain, Palm Oil, Cocoa, vegetable, Fisheries, Poultry (broiler/layer), Pig, Beekeeping</p>	<ul style="list-style-type: none"> - Rural agri-business incubation - Improved marketing of agric. Products - Production and market infrastructure - Promotion of PPP models - Feeder road - Processing equipment at farm level - Facilitation of access to finance - Strengthening of rural institutions including capacity building,
Rural Access and Agricultural	World Bank, AFD	States: Kano, Katsina, Sokoto, Kebbi, Bauchi, Plateau, Kwara, Abia, Akwa	Rad and market users;	<p>Outcomes/Outputs</p> <ul style="list-style-type: none"> - Rural Access (population living within 2 km of an all-season road in participating states) 	<ul style="list-style-type: none"> - Upgrading or spot improvement of rural roads - Improvement of agro-logistics centers (

Projects / Programmes	Donor / Agency	Geographical Area	Target groups	Components / Outcomes / Value Chains	Remarks - Areas of Complementarity / synergies with VCN
Marketing Project (RAAMP) 2020-2026		Ibom, Kogi, Ogun, Oyo, Ondo	<p>Small traders and small farmers;</p> <p>Small and medium enterprises;</p> <p>Buyers and sellers in the improved markets;</p> <p>Women, children, the poor, persons with physical disabilities</p>	<ul style="list-style-type: none"> - Marketed volume of locally produced agricultural commodities by smallholder farmers in improved agro-logistics centers - Agro-logistics centers improved - 	<ul style="list-style-type: none"> - construction of open market shades and multiple small-storage-facilities) - Enhancing agro-logistics performance - Support to farms and cooperatives to reduce post-harvest losses and support to the SMEs at the agro-logistics centers - Support to resolution of issues faced by - issues faced by female entrepreneurs and market users - Support to agriculture product processing and packaging - - Institutional development
Agro-Climatic Resilience in Semi-Arid Landscapes (ACReSAL) 2022-2028	World Bank	Northern Nigeria	<p>Communities and households that are most dependent on natural resources for their survival</p> <p>Vulnerable and marginalized groups, including women, youth, the elderly, persons with disabilities, internally displaced people, and ethnic and</p>	<p>Outcomes/Outputs</p> <ul style="list-style-type: none"> - Improved dryland management practices, agreed through a shared multisectoral vision, adopted at landscape-level in selected watersheds - Community dryland management capacity improved, social cohesion capacity improved - Improved multisectoral dryland management and climate-smart agriculture practices adopted at community-level in selected watersheds - Institutional and policy environment aligned with an agreed long-term national framework for drylands management 	<ul style="list-style-type: none"> - Rainwater harvesting - New/improved irrigation or drainage services - Integrated landscape management - Extension services for improved climate-smart sustainable agriculture systems - Financial and business development services to Women-led/owned enterprises, cooperatives, and farmer groups

Projects / Programmes	Donor / Agency	Geographical Area	Target groups	Components / Outcomes / Value Chains	Remarks - Areas of Complementarity / synergies with VCN
			religious minorities		
Transforming Irrigation Management in Nigeria 2014-2024	World Bank	Northern Nigeria (Sokoto, Rima, Hadejia Jama'are, Gongola)	Basin stakeholders, irrigation and drainage entities, water user associations, farmers, and villagers	Outcomes/Outputs <ul style="list-style-type: none"> - Area provided with irrigation and drainage services - Rivers with discharge gauging stations - Operational water user associations created and/or strengthened - Clients who have adopted an improved agri. technology promoted - Commercial partnerships established with off taker 	<ul style="list-style-type: none"> - Improved irrigation and drainage services - Construction/Rehabilitation of Dams - Water Users Association - Promotion of new technology for improved agric. Productivity - Support to agricultural productivity and market linkages - Matching Grant Mechanism
Agro-Processing, Agricultural Productivity Enhancement and Livelihood Improvement Support Project (APPEALS) 2017-2023	World Bank	States: Kogi, Enugu, Lagos, Cross River, Kano, Kaduna	Small and medium scale farmers Individual and farm household members	Outcomes/Outputs <ul style="list-style-type: none"> - Increase in processed output of priority value chains by project beneficiaries - Increase in processed output by medium to larger processing units under BA/Outgrower - Increase in productivity of agricultural produce of priority value chains - Clients who have adopted an improved agri. technology promoted by the project - Aggregation facilities constructed or rehabilitated 	<ul style="list-style-type: none"> - Promotion of business alliances and out-grower scheme - Acquisition and dissemination of about 100 improved climate-smart and nutrition-sensitive technologies - Matching grant mechanism to farmers and farmers' groups - Construction/rehabilitation of aggregation facilities

Projects / Programmes	Donor / Agency	Geographical Area	Target groups	Components / Outcomes / Value Chains	Remarks - Areas of Complementarity / synergies with VCN
				<ul style="list-style-type: none"> - Farmers reached with agricultural assets - Agribusiness alliances and out-grower schemes supported - Agribusiness clusters linked to infrastructure - Women and Youth empowered through grants, start-ups and mentorship <p>Selected value chains</p> <p>Maize, Cassava, Rice, Wheat, Aquaculture,</p>	<ul style="list-style-type: none"> - Provision of equipment for cottage processing, storage, and quality assurance facilities - Business development services - Business planning, grants to finance sub-projects, and mentorship for start-up or consolidation of existing women and youth led businesses - Market development and linkage to business services - Commodity aggregation and cottage processing
Women Entrepreneurs in Nigeria or We-Fi Nigeria ¹	World Bank IFC		Women-led/owned SMEs (WSMEs)	<ul style="list-style-type: none"> - Leverage public and private sector initiatives to enable women entrepreneurs to start and grow firms - 50,000 WSMEs supported - Expanding Financial Services - 	<ul style="list-style-type: none"> - Developing innovative solutions to improve access to finance for WSMEs - Strengthening Entrepreneurial Ecosystems - Capacity building packages designed to improve credit-worthiness of WSMEs - Improving Market Access - Digital cash flow lending product
					-

¹ https://we-fi.org/wp-content/uploads/2022/06/World-Bank_-We-Fi-Booklet_-2022.pdf

Table 4: Target Group Typology, Priority needs and Potential responses

Typology	Poverty level and causes	Coping strategies	Priority needs	Support from other programs	Potential response
Men (in rural areas)	General high poverty level for men in rural areas based on the MDPI	Depends on subsistence agriculture	Support to improve farming		Support with farming inputs and services
Women (in rural areas)	Very high poverty levels. Caused by lack of source of income compounded by social exclusion	Depends mainly on the provision from male partners and subsistence farming	Source of income and assess to assets to improve their livelihoods		Involvement in the value chain process
Youth	High poverty caused by lack of jobs and access to skills and resources	Depends on subsistence agriculture and labour services	Training in skills and support to gain access to assets		Involvement in the value chain process
Women headed households	Very High poverty level, less access to support from other sources	Menial jobs and little subsistence farming	Access to capacitate them to earn income and livelihood		Involvement in the value chain process
People with disability	Very high poverty level due to social exclusion and lack of access to life-skills and means of livelihood	Begging and menial jobs	Training and capacitation		Involvement in the value chain process
Marginalised people (orphans, IDPs, women and girls associated with insurgency and banditry)	High poverty level due to social exclusion and stigma	Begging and menial jobs	Training and capacitation		Involvement in the value chain process
Indigenous groups	May be poor due to lack of assets and social exclusion	Have their indigenous livelihood means	Inclusion in programmes		Access to markets
Rural people	Generally poor due to limited economic opportunities beyond farming and access to markets	Combine farming with off-farm activities	Inclusion in rural access and agric improvement programmes		Improved farming technology and access to markets
Urban people	Fairly improved conditions due to access to formal sectors and alternative incomes	Businesses, formal and informal sectors, and alternative incomes	Macroeconomic policy improvement to expand opportunities and create prosperity		Economic policy dialogue

Typology	Poverty level and causes	Coping strategies	Priority needs	Support from other programs	Potential response
Cooperatives	Consists of rural men and women who are poor due to limited opportunities	Depend on cooperative loanable resources	Capacitating members to earn income and livelihood		Involvement in the value chain process
Producers, processors, marketers	Consists of men and women who are currently engaged in the agric value chain	Play as individual smallholder producers, processors and markets	Capacity strengthening to participate in value chain		Involvement in the value chain process
Offtakers	They are not poor. They have access to assets to offtake agric products	Through agric product aggregation and offtaking	Formalized linkage with smallholder producers		Linkage with value chain actors
Private sectors (Financial service providers, MSMEs, Insurers, AgriTech companies, etc.)	These are service providers with lots of resources	They deal with individual actors to stave off investment risks	De-risking the smallholder value chain actors for better and bigger interactions		Linkage with value chain actors

Table 5: Project actors and roles (key file table 5)

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
<p>1.1 Promoting sustainable agricultural systems, improved technology and agricultural practices integrating the fight against climate change</p>	<ul style="list-style-type: none"> ● development of (small) irrigation scheme tailored to existing farming systems, ● timely provision inputs like early maturing and drought/flood tolerant certified varieties ● provision of agriculture machineries and mechanization services ● capacity-building on good agricultural practices including climate and water smart agriculture practices ● development of seed multiplication centers and collaboration with existing ones. ● The promotion of production of organic fertilizer ● promoting animal traction package ● promote mechanization and e-mechanization services ● extension and e-extension services and digital climate smart agriculture advice ● promotion of nutrition education for youth and women 	<p>IFAD</p> <p>FMARD</p> <p>State Governments</p> <p>PIUs</p>	<p>LGAs</p> <p>ADPs</p>	<ul style="list-style-type: none"> ● National Water Resources Institute (NWRI) ● IITA and AfricaRice ● National Agricultural Seeds Council (NASC) ● Nigerian Meteorological Agency (NiMET) ● Sasakawa Africa Association ● Heifer International provides new agricultural technologies. ● National Cereal Research Institute (NCRI) ● AfricaRice + IITA ● Standard Organization of Nigeria (SON) ● National Centre for Agricultural Mechanization (NCAM)

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
1.2 Improving access to finance and digital financing solutions.	<ul style="list-style-type: none"> ● Partner with the Bank of Agriculture, commercial Banks, microfinance institutions and private sector ● support for the Financial Services Association (FSAs) ● Special financing scheme for activities that take into account climate change and nutrition aspects ● Facilitating access to digital technologies and finance ● training on financial literacy, record keepings and business management. 	IFAD FMARD State Governments PIUs	Bank of Agriculture Financial Services Associations Microfinance institutions Private sector (venture capital, banks)	<ul style="list-style-type: none"> ● Sasakawa Africa Association ● GIZ/Agfin project ● International Institute for Local Development (IILD) ●
2.1 Improving the marketing of the selected agricultural product	<ul style="list-style-type: none"> ● Organization of farmers into producer groups, or the groups identified reinforced and linked to aggregators and up takers. ● Scale up CASP Commodity Alliance Forum (CAF) and “food corridors” from RAAMP. ● Establish platform for exchange of information on prices, markets and actors. ● Capacitating farmers and SMEs on packaging, labelling, grading their products to match the market needs. ● Explore opportunities for cross-borders trades and linkage with IFAD financed project FARMTRAC. 	IFAD FMARD State Governments PIUs	AFD	Sasakawa Africa Association Major off-takers (Olam Nigeria, Popular farms (Stallion Rice), Nigeria Starch Mills Plc, Onyx Rice Mill, JOSAN, Harvest Feed, Ebonyi Rice World), etc. CILSS West African Association for Cross-Border Trade in Agro-forestry-pastoral and Fisheries Products (WACTAF)

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
2.2 Reducing post-harvest losses and promoting processing agricultural products	<ul style="list-style-type: none"> ● supporting rural infrastructure investments (storage facilities, processing facilities, market sheds and last mile roads) that can add market and nutritional value, guarantee food safety, extend shelf life etc. ● promote appropriate technology for youth and women, functional and easy to adapt. ● enhancing the nutrition aspects of selected value chains and beneficiaries 	IFAD FMARD AFD State Governments PIUs		Heifer International provides new agricultural technologies National Agency for Food and Drug Administration and Control (NAFDAC) Standard Organization of Nigeria (SON) Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)
2.3 Enabling environment and Policy Support	<ul style="list-style-type: none"> ● development, review and update of policies and strategies in areas identified as game changing solutions for the Nigeria's Food System Transformation roadmap. ● facilitate mechanisms for conflicts resolution and interaction among the actors and between the territory to find solutions to common problems. 	IFAD FMARD AFD State Governments PIUs		

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex 2: Logframe

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Value Chain Programme in Northern Nigeria

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach VCN	1 Persons receiving services promoted or supported by the project				Programme M&E System	Quarterly Annual	Coordination Unit & IFAD	Average HH 6.82 persons/H. It is considered that VCN will account for one (max.) beneficiary per household. One HH member per household is a direct beneficiary. Maintain existing CASP beneficiaries and identification of new VCN beneficiaries in the new and old targeted states.
	Males		218880	273600				
	Females		145920	182400				
	Young		109440	136800				
	Not Young							
	Non-Indigenous people							
	Total number of persons receiving services		364800	456000				
	Male		60	60				
	Female		40	40				
	Young		30	30				
	Persons with disabilities		36480	45600				
	1.a Corresponding number of households reached				Programme M&E System	Quarterly Annual	Coordination Unit & IFAD	
	Households		25536	68400				
	1.b Estimated corresponding total number of households members				Programme M&E System	Quarterly Annual	Coordination Unit & IFAD	
	Household members		2487936	3109920				
	Persons receiving services promoted or supported by the project				Project M&E System	Annually	National Programme Coordination Office (NPCO)	
	Internally Displaced Persons - IDPs		5	10				
Women Headed Households - Number.		31920	68400					

Results Hierarchy	Indicators				Source	Means of Verification		Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency	Responsibility	
	Women Headed Households -Percentage		7	15				
	Persons living with Disabilities - Percentage (%)		5	10				
	Internally Displaced Persons- IDPs		5	10				
Project Goal Contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria	Percentage contribution in prevalence of severe food insecurity in the targeted population during the Project years				IFAD, FAO, UN - The State of Food Security and Nutrition in the World Reports	Baseline / Mid term/ Endline	NPCO, IFAD	Acceptable level of major economic, social, health and climate shocks that have a drastic impact on the country especially on the VCN targeted area.
	Reduction	21.3	20	18				
Development Objective Improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chains development as an enabler for rural transformation	1.2.8 Women reporting minimum dietary diversity (MDDW)				COI Survey	Baseline, Midterm, Completion	NPCO	Beneficiaries will have consistent and sufficient access and use of resources including adopting climate-resilient inputs/supplies/ technologies for improved livelihoods Youth and women are granted access to assets; Effective conflict resolution mechanisms are in place.
	Women (%)		38	75				
	Women (number)		138624	342000				
	Households (%)		38	75				
	Households (number)		138624	342000				
	Household members		945416	2332440				
	Non-indigenous							
	Non-women-headed households							
	Households reporting increased income				Project M&E System	Baseline, Midterm, Completion	NPCO	
	HH reporting increased income		182400	364800				
	Household		50	80				
	Total number of Household		1243968	2487936				
IE.2.1 Individuals demonstrating an improvement in empowerment				COI Survey	Baseline/Midterm/Endline	PMU in consultation with IFAD		

Results Hierarchy	Indicators				Source	Means of Verification		Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency	Responsibility	
	Total persons		22	44				
	Total persons		80000	200000				
	Females		50	55				
	Females		40000	110000				
	Males		50	45				
	Males		40000	90000				
	SF.2.1 Households satisfied with project-supported services				COI Survey	Baseline/Midterm/Endline	PMU in consultation with IFAD	
	Household members		1243968	2798928				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)		50	90				
	Households (number)		182400	410400				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI Survey	Baseline/Midterm/Endline	PMU in consultation with IFAD	
	Household members		621984	1865952				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)		25	60				
	Households (number)		91200	273600				

Results Hierarchy	Indicators				Source	Means of Verification	Responsibility	Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency		
Outcome Outcome 1 Improved productivity, climate-adaptive capacity and resilience of farming systems in target value chains	1.2.2 Households reporting adoption of new/improved inputs, technologies or practices				COI survey /Thematic studies	Baseline/Midterm /Endline	NPCO and IFAD	Beneficiaries will have consistent and sufficient access and use of resources including adopting climate-resilient inputs/supplies/ technologies for improved livelihoods Youth and women are granted access to assets; Effective conflict resolution mechanisms are in place.
	Total number of household members		1243968	1865952				
	Households		50	60				
	Households		182400	273600				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI survey /Thematic studies	Baseline/Midterm /Endline	NPCO and IFAD	
	Total number of household members		995174	2176944				
	Households		40	70				
	Households		145920	319200				
	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment				COI survey /Thematic studies	Baseline/Midterm /Endline	NPCO and IFAD	
	Number		1	3				
Output Output 1.1 Increased land brought under climate/water resilient management and good agricultural practices , including Improved access to agricultural inputs and advisory services	3.1.2 Persons provided with climate information services				M&E system	Annual	NPCO	
	Males		114000	228000				
	Females		109440	182400				
	Young		54720	136800				
	Persons provided with climate information services		223440	410400				
	Persons with disabilities		18240	45600				
	3.1.4 Land brought under climate-resilient practices				M&E System and Progress reports	Quarterly Annual	PMU	
	Hectares of land		7000	17500				
	1.1.2 Farmland under water-related infrastructure constructed/rehabilitated				M&E system	Annual	NPCO	
	Hectares of land		4892	7756				

Results Hierarchy	Indicators				Source	Means of Verification	Responsibility	Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency		
	1.1.3 Rural producers accessing production inputs and/or technological packages				Project M&E system	Annually	NPCO	
	Males		218880	273600				
	Females		145920	182400				
	Young		109440	136800				
	Total rural producers		364800	456000				
	Persons with disabilities		36480	45600				
	Number of persons accessing digital extension services to increase production and productivity				M&E system	Annual	NPCO	
	Male		218880	273600				
	Female		145920	182400				
	Young		109440	136800				
	Persons living with disabilities		36480	45600				
	Internal Displaced Persons - IDPs		36480	45600				
	Total persons accessing digital extension services - Number of people		364800	456000				
	Output Output 1.2 Increased targeted action to improve nutrition diet diversity and gender transformative approaches	1.1.8 Households provided with targeted support to improve their nutrition				M&E system Progress Reports	Quarterly Annual	
Total persons participating		0	159600	319200				
Males		0	54264	136800				
Females		0	105336	182400				
Households			159600	319200				
Household members benefitted			1088472	2176944				
Non-Indigenous people								

Results Hierarchy	Indicators				Source	Means of Verification		Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency	Responsibility	
	Young		47880	95760	M&E system	Annual	NPCO	
	Not Young							
	Women-headed households		1915	4104				
	Non-women-headed households							
	Number of persons with disabilities		15960	31920				
	Households reached in the Gender Action Learning System (GALS) methodology							
	Households		36480	182400				
	Households		10	40				
	Total number of household members - Number of people		248794	1243968				
Output Output 1.3 Dialogue spaces supported at territorial level	Policy 2 Functioning multi-stakeholder platforms supported				Progress Reports / M&E system	Annual	NPCO	Effective participation and involvement of key stakeholders (FO, herders, women, youth, men PwD, IDP returnees, private sector, value chain actors, traditional/religious leaders) particularly for community participatory action plan, prevention and management of conflicts, policy and regulatory frameworks improvement for food and nutrition security, gender equality, youth inclusion, value chain development, land access.
	Number		1	3				

Results Hierarchy	Indicators				Source	Means of Verification		Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency	Responsibility	
Outcome Outcome 2 Improved post harvest handling and value addition, and inclusive policies that support access to markets and entrepreneurial opportunities for youth and women along the target value chains.	2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities				COI survey /Thematic studies	Baseline/Midterm /Endline	PMU in consultation with IFAD	The social and agricultural policies (at federal and state level) continue to prioritise the most vulnerable rural population; Community buy-in and willingness to formalise business processes/systems. Proper uses and maintenance of climate resilient of community/social/market infrastructure
	Percentage of POs		80	100				
	Number of POs		4590	5400				
	Women in leadership position		30	40				
	Number of POs - crop		4590	5400				
	2.2.6 Households reporting improved physical access to markets, processing and storage facilities				COI survey /Thematic studies	Baseline/Midterm /Endline	PMU in consultation with IFAD	
	Households reporting improved physical access to markets		30	70				
	Size of households		746381	2176944				
	Jóvenes		109440	319200				
	Women-headed households		22344	47880				
	Households reporting improved physical access to markets		109440	319200				
	Total households reporting improved physical access		109440	319200				
	2.2.1 Persons with new jobs/employment opportunities							
	Males		5400	18000				
	Females		3600	12000				
	Young		6435	19500				
	Total number of persons with new jobs/employment opportunities		9000	30000				
Persons with disabilities		450	3000					

Results Hierarchy	Indicators				Source	Means of Verification		Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency	Responsibility	
Output Output 2.1 Improved access to market infrastructure and post-harvest practices and facilities (storage, processing, food safety)	2.1.6 Market, processing or storage facilities constructed or rehabilitated				M&E system Progress Reports	Quarterly Annual	PMU	Community buy-in and support for the construction and rehabilitation of market infrastructure
	Total number of facilities		87	217				
	Market facilities constructed/rehabilitated		32	81				
	Processing facilities constructed/rehabilitated		15	37				
	Storage facilities constructed/rehabilitated		40	99				
Output Output 2.2 POs, Youth, and women trained and supported with business packages for entrepreneurship and professional partnership	2.1.2 Persons trained in income-generating activities or business management				M&E system	Annual	NPCO	Youth and women are granted access to entrepreneurship training activities and business start-up packages.
	Males		2268	5400				
	Females		1287	3600				
	Young		2349	6300				
	Persons trained in IGAs or BM (total)		3555	9000				
	Persons with disabilities		322	715				
	2.1.3 Rural producers' organizations supported				M&E system Progress Reports	Quarterly Annual	PMU	
	Total size of POs		363920	456000				
	Rural POs supported		4590	5400				
	Males		218000	273600				
	Females		145920	182400				
	Young		109440	136800				
	Persons with disabilities		36480	45600				

Results Hierarchy	Indicators				Source	Means of Verification Frequency	Responsibility	Assumptions
	Name	Baseline	Mid-Term	End Target				
Output Output 2.3 Improved uptake of agri-finance and digital services	1.1.5 Persons in rural areas accessing financial services				M&E system	Annual	NPCO	Financial Services Associations (FSA) strengthened institutionally and financially, linked with financial institutions, and empowered with digital solutions to scale up delivery of quality financial service to SHFs, FOs and rural entrepreneurs including for strengthening climate-resilience i.e loan for climate-smart inputs/ equipment. Private and public financial institutions willing to work with VCN to scale up access to responsive financial services (i.e credit, savings, weather-based index insurance, digital finance, climate finance) to FSA, FO, SHFs/rural entrepreneurs. Beneficiary are willing to build their financial literacy capacity leveraging training provided through the VCN programme. Beneficiaries maintain a level of trust and are willing to do business with participating financial institutions. Digital solutions supported by offline capabilities in areas of limited connectivity.
	Total number of accesses to financial services		149840	300000				
	Women in rural areas accessing financial services - savings		72240	144480				
	Young people in rural areas accessing financial services - savings		39600	79200				
	Men in rural areas accessing financial services - savings		47760	95520				
	Men in rural areas accessing financial services - credit		11840	23880				
	Women in rural areas accessing financial services - credit		18000	36120				
	Young people in rural areas accessing financial services - credit		9900	19800				
	Total persons accessing financial services - savings		120000	240000				
	Total persons accessing financial services - credit		29840	60000				
	Farmers accessing digital e-voucher for production inputs				M&E system	Annual	NPCO	
	Male		109440	273600				
	Female		72960	182400				
	Young		54720	136800				
	Persons living with Disabilities		18240	45600				
	Internally Displaced Persons - IDPs		18240	45600				

Results Hierarchy	Indicators				Source	Means of Verification		Assumptions
	Name	Baseline	Mid-Term	End Target		Frequency	Responsibility	
	Total Farmers		182400	456000				Digital content production in local languages is done.
	Households		182400	456000				
	Households		160	100				
	Total number of household members		1243968	3109920				

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex 3: Project Cost and Financing

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 3: Programme cost and financing: Detailed costs tables

I. Overview:

1. The annex presents the anticipated costs and financing for Value Chain North (VCN) Programme over a period of 8 years of implementation.

II. Summary of programme costs:

2. VCN programme costs, including price and physical contingencies over an 8 years implementation period, is estimated at US\$158.15 million. This includes base costs of US\$147.7 million and estimated price and physical contingencies of US\$10.3 million (US\$4.8 million and US\$5.4 million respectively).
3. Investment costs have been estimated at US\$133.1 million (90% of base costs) with recurrent costs at US\$14.6 million (10% of base costs). Sub-component 1.1; promoting sustainable agricultural systems, improved technology and climate resilient agricultural practices will fully contribute to IFAD climate finance¹ with a total amount US\$ 37.7 million (43.5 per cent of IFAD funding). The summary of the project costs by components/sub-component, expenditure categories & year showing base costs and totals with contingencies is presented in tables below.

Table 1: Summary of costs by components & subcomponents: base costs & contingencies

Nigeria

Value Chain North (VCN)

Components Project Cost Summary

	(Naira '000)			(US\$ '000)			%	% Total
	Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture								
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resi	22,446,160	2,494,018	24,940,178	28,777	3,197	31,975	10	22
Promoting Nutrition and Gender Awareness and Practices	13,467,530	1,496,392	14,963,922	17,266	1,918	19,185	10	13
Promoting Social Cohesion and an Enabling Policy/ Institutional	2,847,270	316,363	3,163,633	3,650	406	4,056	10	3
Subtotal	38,760,959	4,306,773	43,067,733	49,694	5,522	55,215	10	37
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs								
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership	24,145,993	10,348,283	34,494,275	30,956	13,267	44,223	30	30
Promoting Entrepreneurship For Women And Youth	6,384,269	709,363	7,093,632	8,185	909	9,094	10	6
Improving Access to Financial Services	9,300,644	3,985,990	13,286,635	11,924	5,110	17,034	30	12
Subtotal	39,830,906	15,043,636	54,874,542	51,065	19,287	70,352	27	48
C. Programme Coordination & Management								
Programme Coordination & Management	15,554,379	1,775,031	17,329,410	19,942	2,276	22,217	10	15
Response to Emergency and Disaster (RED)	-	-	-	-	-	-	-	-
Subtotal	15,554,379	1,775,031	17,329,410	19,942	2,276	22,217	10	15
Total BASELINE COSTS	94,146,245	21,125,441	115,271,685	120,700	27,084	147,784	18	100
Physical Contingencies	3,500,455	769,665	4,270,121	4,488	987	5,475	18	4
Price Contingencies	3,163,288	657,723	3,821,011	4,055	843	4,899	17	3
Total PROJECT COSTS	100,809,988	22,552,829	123,362,817	129,244	28,914	158,157	18	107

¹As per theMDB Methodologies for Tracking Climate Adaptation and Mitigation Finance

Table 2: Summary of costs expenditure accounts: base costs & contingencies

Nigeria								%	% Total
Value Chain North (VCN)								Foreign	Base
Expenditure Accounts Project Cost Summary		(Naira '000)			(US\$ '000)			Exchange	Costs
		Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs									
A. Consultancies		5,108,338	1,694,974	6,803,312	6,549	2,173	8,722	25	6
B. Works		20,310,219	6,064,592	26,374,811	26,039	7,775	33,814	23	23
C. Equipment and Materials		2,408,746	398,269	2,807,015	3,088	511	3,599	14	2
D. Goods Services and Inputs		18,632,547	4,239,717	22,872,264	23,888	5,436	29,323	19	20
E. Matching Grant		22,452,213	7,033,822	29,486,035	28,785	9,018	37,803	24	26
F. Training and Workshops		13,577,698	1,589,562	15,167,260	17,407	2,038	19,445	10	13
G. Vehicles		243,844	104,504	348,348	313	134	447	30	-
Total Investment Costs		82,733,604	21,125,441	103,859,045	106,069	27,084	133,153	20	90
II. Recurrent Costs									
A. Operation and Maintenance		1,520,064	-	1,520,064	1,949	-	1,949	-	1
B. Salaries and Allowances		9,892,577	-	9,892,577	12,683	-	12,683	-	9
Total Recurrent Costs		11,412,641	-	11,412,641	14,632	-	14,632	-	10
Total BASELINE COSTS		94,146,245	21,125,441	115,271,685	120,700	27,084	147,784	18	100
Physical Contingencies		3,500,455	769,665	4,270,121	4,488	987	5,475	18	4
Price Contingencies		3,163,288	657,723	3,821,011	4,055	843	4,899	17	3
Total PROJECT COSTS		100,809,988	22,552,829	123,362,817	129,244	28,914	158,157	18	107

4. The summary of programme costs by components/subcomponents and year is presented below:

Table 3: Total project costs by components & subcomponents, and programme year

Nigeria										
Value Chain North (VCN)										
Project Components by Year – Totals Including Contingencies										
(US\$ '000)		Totals Including Contingencies								
		2025	2026	2027	2028	2029	2030	2031	2032	Total
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture										
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resil		2,586	3,958	5,147	5,650	6,660	5,894	2,622	1,423	33,940
Promoting Nutrition and Gender Awareness and Practices		1,469	2,870	2,894	2,920	2,779	2,807	2,835	2,609	21,182
Promoting Social Cohesion and an Enabling Policy/ Institutional		284	690	696	702	709	489	494	395	4,461
Subtotal		4,339	7,518	8,737	9,272	10,149	9,190	5,952	4,427	59,582
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs										
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership		4,097	6,061	6,685	7,976	8,918	6,441	4,496	2,725	47,398
Promoting Entrepreneurship For Women And Youth		1,216	1,225	1,235	1,246	1,258	1,271	1,283	1,296	10,031
Improving Access to Financial Services		1,773	2,223	2,227	2,233	2,238	2,244	2,250	2,256	17,444
Subtotal		7,086	9,509	10,147	11,454	12,415	9,956	8,029	6,277	74,872
C. Programme Coordination & Management										
Programme Coordination & Management		4,083	2,443	2,949	2,621	2,858	2,841	2,892	3,014	23,703
Response to Emergency and Disaster (RED)		-	-	-	-	-	-	-	-	-
Subtotal		4,083	2,443	2,949	2,621	2,858	2,841	2,892	3,014	23,703
Total PROJECT COSTS		15,508	19,470	21,833	23,347	25,421	21,987	16,873	13,718	158,157

III. Financing Plan:

5. VCN will be financed as follows: IFAD financing is projected at US\$56.7 million (36% of the total project costs). IFAD BRAM US \$30 million (29%). Parallel co-financing from Agence Française de Développement (AFD) is projected at US\$ 50.8 million (32%).

Domestic co-financing from the Federal Government of Nigeria and Beneficiaries is estimated at US\$20.6 million (US\$12 million and US\$8.6 million respectively) in form of cash and in-kind contribution.

6. **Component/Subcomponent allocation:** Out of the overall project costs, Component 1; Foster Climate-Resilient and Nutrition-Sensitive Agriculture has been allocated US\$59.5 million (38% of the total financing). Component 2: Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs which has been allocated US\$78.8 million, equivalent to 47% of the total VCN financing. The remaining 15% (US\$23.7 million) has been allocated to Component 3: Programme Coordination and Management. The summary of VCN financing by component/subcomponent and categories is presented in the tables below.

Table 4: Total project costs by components & subcomponents, and financier

Nigeria
Value Chain North (VCN)
Components by Financiers
(US\$ '000)

	IFAD		IFAD BRAM		AFD		FGN & States Cash/In-Kind		Ben Cash/In-Kind		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
	A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture											
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resi	18,518	55	2,694	8	10,672	31	622	2	1,434	4	33,940	22
Promoting Nutrition and Gender Awareness and Practices	8,502	40	5,901	28	6,778	32	-	-	-	-	21,182	13
Promoting Social Cohesion and an Enabling Policy/ Institutional	1,136	26	1,897	43	1,427	32	-	-	-	-	4,461	3
Subtotal	28,156	47	10,493	18	18,878	32	622	1	1,434	2	59,582	38
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs												
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership	15,369	32	9,854	21	16,298	34	1,695	4	4,182	9	47,398	30
Promoting Entrepreneurship For Women And Youth	2,335	23	4,038	40	3,210	32	-	-	448	5	10,031	6
Improving Access to Financial Services	4,476	26	4,793	28	5,582	32	-	-	2,593	15	17,444	11
Subtotal	22,180	30	18,685	25	25,090	34	1,695	2	7,223	10	74,872	47
C. Programme Coordination & Management												
Programme Coordination & Management	6,364	27	822	4	6,833	29	9,683	41	-	-	23,703	15
Response to Emergency and Disaster (RED)	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	6,364	27	822	4	6,833	29	9,683	41	-	-	23,703	15
Total PROJECT COSTS	56,700	36	30,000	19	50,800	32	12,000	8	8,656	6	158,157	100

Table 5: Total project costs by expenditure accounts and financiers.

Nigeria

Value Chain North (VCN)

Expenditure Accounts by Financiers

(US\$ '000)

	IFAD		IFAD BRAM		AFD		FGN & States				Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	
	Amount	%	Amount	%	Amount	%	Cash/In-Kind	Ben Cash/In-Kind	Amount	%					
I. Investment Costs															
A. Consultancies	5,595	59	854	9	3,050	32	9	0.1	-	-	9,509	6	2,385	7,115	9
B. Works	14,083	38	6,860	19	11,620	32	2,317	6	1,771	5	36,650	23	8,508	25,826	2,317
C. Equipment and Materials	1,873	48	744	19	1,232	32	59	2	-	-	3,907	3	553	3,296	59
D. Goods Services and Inputs	14,697	46	7,125	22	10,269	32	35	0.1	-	-	32,127	20	5,976	26,115	35
E. Matching Grant	10,510	27	8,060	21	13,509	35			6,886	18	38,965	25	9,134	29,831	-
F. Training and Workshops	8,850	42	5,533	26	6,769	32			-	-	21,152	13	2,215	18,937	-
G. Vehicles	300	63	-	-	141	30	36	8	-	-	478	0	143	299	36
Total Investment Costs	55,908	39	29,178	20	46,590	33	2,456	2	8,656	6	142,788	90	28,914	111,418	2,456
II. Recurrent Costs															
A. Operation and Maintenance	171	8	177	9	548	27	1,151	56	-	-	2,047	1	-	2,047	-
B. Salaries and Allowancies	622	5	645	5	3,663	28	8,392	63	-	-	13,322	8	-	13,322	-
Total Recurrent Costs	792	5	822	5	4,211	27	9,544	62	-	-	15,369	10	-	15,369	-
Total PROJECT COSTS	56,700	36	30,000	19	50,800	32	12,000	8	8,656	6	158,157	100	28,914	126,787	2,456

Table 6: Programme disbursement by semester and financier

Nigeria Value Chain North (VCN) Disbursements by Semesters and Government Cash Flow (US\$ '000)		Financing Available				Total	Costs to	FGN & States	
		IFAD Amount	IFAD BRAM Amount	AFD Amount	Ben		Financed	Cash/In-Kind	
					Cash/In-Kind		Project	Cumulative	
					Amount		Costs	Cash Flow	Cash Flow
1	4,001	198	2,483	424	7,107	7,754	-647	-647	
2	4,001	198	2,483	424	7,107	7,754	-647	-1,295	
3	5,207	198	3,136	504	9,045	9,735	-690	-1,985	
4	5,207	198	3,136	504	9,045	9,735	-690	-2,675	
5	5,949	198	3,490	515	10,153	10,917	-764	-3,439	
6	5,949	198	3,490	515	10,153	10,917	-764	-4,203	
7	5,029	1,466	3,739	600	10,833	11,674	-840	-5,043	
8	5,029	1,466	3,739	600	10,833	11,674	-840	-5,884	
9	4,326	2,688	4,084	700	11,797	12,711	-913	-6,797	
10	4,326	2,688	4,084	700	11,797	12,711	-913	-7,711	
11	1,729	4,283	3,528	621	10,161	10,994	-832	-8,543	
12	1,729	4,283	3,528	621	10,161	10,994	-832	-9,375	
13	1,187	3,303	2,726	528	7,744	8,437	-692	-10,068	
14	1,187	3,303	2,726	528	7,744	8,437	-692	-10,760	
15	922	2,668	2,213	436	6,239	6,859	-620	-11,380	
16	922	2,668	2,213	436	6,239	6,859	-620	-12,000	
Total	56,700	30,000	50,800	8,656	146,157	158,157	-12,000	-12,000	

IV. IFAD Financing (PBAS and BRAM):

- IFAD financing for both PBAS and BRAM of US\$ 86.75 million (55% of total project costs) will be spread among the three components as follows: Component 1 - Foster Climate-Resilient and Nutrition-Sensitive Agriculture, 45% (US\$ 38.6 million); Component 2 – Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs, 47% (US\$ 40.8 million); and Component 3 – Programme Coordination and Management, 8% (US\$ 7.1 million).

Table 7: Summary of IFAD financing by component/subcomponent

Nigeria

Value Chain North (VCN)

Components by Financiers

(US\$ '000)

	IFAD		IFAD BRAM		Total	
	Amount	%	Amount	%	Amount	%
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture						
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resi	18,518	87	2,694	13	21,212	55
Promoting Nutrition and Gender Awareness and Practices	8,502	59	5,901	41	14,403	37
Promoting Social Cohesion and an Enabling Policy/ Institutional	1,136	37	1,897	63	3,033	8
Subtotal	28,156	73	10,493	27	38,649	45
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs						
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership	15,369	61	9,853	39	25,222	62
Promoting Entrepreneurship For Women And Youth	2,335	37	4,038	63	6,373	16
Improving Access to Financial Services	4,476	48	4,793	52	9,269	23
Subtotal	22,180	54	18,685	46	40,864	47
C. Programme Coordination & Management						
Programme Coordination & Management	6,364	89	822	11	7,187	100
Response to Emergency and Disaster (RED)	-	-	-	-	-	-
Subtotal	6,364	89	822	11	7,187	8
Total PROJECT COSTS	56,700	65	30,000	35	86,700	100

V. Detailed Cost Tables

8. The detailed cost tables for each sub-component have been prepared and have been attached to this annex. These have been arranged as follows:
 - Detailed Table 1.1: Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resilient Agricultural Practices
 - Detailed Table 1.2: Promoting Nutrition and Gender Awareness and Practices
 - Detailed Table 1.3: Promoting Social Cohesion and an Enabling Policy/ Institutional
 - Detailed Table 2.1: Improving Post-Harvest, Value Addition, Market Linkage, and Partnership
 - Detailed Table 2.2: Promoting Entrepreneurship for Women and Youth
 - Detailed Table 2.3: Improving Access to Financial Services
 - Detailed Table 3.1: Programme Coordination & Management

Detailed Table 1.1: Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resilient Agricultural Practices

Nigeria

Value Chain North (VCN)

Table 1.1. Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resilient Agricultural Practices

Detailed Costs

	Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)									
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																					
A. Provision of Quality Inputs																					
Deployment of quality certified seed (50 kg/ha rice, 5 kg/ha millet, 30 kg/ha sorghum)	Tonnes	809.2	809.2	809.2	809.2	1,162.8	1,162.8	1,162.8	1,162.8	7,888	250	212	212	212	212	305	305	305	305	2,071	
Deployment of quality inorganic/organic fertilizers to farmers through 10 extension agents	Kilogram	11,480	11,480	11,480	11,480	11,480	11,480	11,400	11,400	91,680	60	756	762	768	775	783	791	793	801	6,229	
Subtotal												969	974	981	988	1,088	1,096	1,098	1,106	8,300	
B. Extension support to farmers on GAPs																					
Private extension service providers (PESP) engaged /b	Number	9	9	9	9	9	9	9	9	72	1,250	12	12	12	12	12	12	12	12	95	
Re-fresher training of extension agents (existing CASP Extension Agents)	Number	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	8,640	10	11	11	11	11	11	11	11	11	91	
Step down training of farmers on GAPs including production of training materials	Number	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	8,640	50	57	57	57	57	57	57	57	57	454	
Subtotal												80	80	80	80	80	80	80	80	639	
C. Access to ICT4D: Digital extension advisory services to farmers																					
1. Needs assessment and system requirements for deployment of wheat and sorghum production systems																					
1. Needs assessment and system requirements for deployment of wheat and sorghum production systems	Service	-	1	-	-	-	-	-	-	1	50,000	-	53	-	-	-	-	-	-	53	
2. Develop systems requirements documents define the scope for data collection, cleaning and validation and integration of data	Lumpsum	-	1	-	-	-	-	-	-	1	20,000	-	21	-	-	-	-	-	-	21	
3. Technical Assistance to the Project for Support on ICT4D/ Digital Information Systems	Per Year	-	-	1	-	1	-	-	1	3	8,100	-	-	9	-	9	-	-	9	26	
4. Recruitment of ICT4D Consultant to Support towards ICT4D implementation	Per Month	12	12	12	12	12	12	-	-	72	3,000	38	38	38	38	38	38	-	-	227	
5. CENTRALISED INTEGRATED FARMER & VALUE CHAIN REGISTRY																					
Consultative Workshop on system Requirements for Integrated Farmer & Value Chain Registry	Lumpsum	1	-	-	-	-	-	-	-	1	30,000	32	-	-	-	-	-	-	-	32	
Conduct a comprehensive review of the existing digital registries for integrated Farmer & Value Chain Registry	Lumpsum	-	1	-	-	-	-	-	-	1	20,000	-	21	-	-	-	-	-	-	21	
Workshop on Dissemination of Recommendations for integrated Farmer & Value Chain Registry	Lumpsum	-	1	-	-	-	-	-	-	1	20,000	-	21	-	-	-	-	-	-	21	
Profile value chain actors and Farmers across the 9 states with Agritech	Lumpsum	1	1	-	-	1	-	-	-	3	160,000	168	168	-	-	168	-	-	-	504	
Procurement of Desktop computers to support data aggregation and integration of data	Number	-	45	-	-	-	-	-	-	45	2,500	-	118	-	-	-	-	-	-	118	
Procurement tablets for data collection, cleaning and validation and integration of data	Number	-	240	-	-	-	-	-	-	240	1,500	-	378	-	-	-	-	-	-	378	
Support for cloud hosting services to NITDA and FMAFS for the Farmer & Value Chain Registry	Per Year	-	1	1	1	1	1	1	1	7	50,000	-	53	53	53	53	53	53	53	368	
Integrate emerging technologies to enhance the functionalities of the Farmer & Value Chain Registry	Per Year	-	-	1	-	-	-	-	-	1	50,000	-	-	53	-	-	-	-	-	53	
Conduct training programs for farmers, lead farmers as digital champions	Number	-	3	3	3	-	-	-	-	9	20,000	-	63	63	63	-	-	-	-	189	
Connectivity for Pilot and Scale including management of the Farmer & Value Chain Registry	Per Year	1	1	1	1	1	1	1	1	8	3,000	3	3	3	3	3	3	3	3	25	
Hire consultancy firm to support NITDA tailor the digital registry to access data	Lumpsum	-	1	-	-	-	-	-	-	1	20,000	-	21	-	-	-	-	-	-	21	
Subtotal												203	846	171	119	224	56	56	56	1,729	

Detailed Table 1.1: Continued

Nigeria
Value Chain North (VCN)
Table 1.1. Promoting Sustainable Agricultural Systems, Improved Tech
Detailed Costs
(US\$)

Unit	Quantities										Unit Cost	Totals Including Contingencies ('000)									
	2025	2026	2027	2028	2029	2030	2031	2032	Total	2025		2026	2027	2028	2029	2030	2031	2032	Total		
I. Investment Costs																					
6. INTEGRATED AGRICULTURAL ADVISORY SERVICES																					
Conduct Consultative workshop in collaboratuon with NIMet, NITDA an	Lumpsum	-	1	-	-	-	-	-	-	1	20,000	-	21	-	-	-	-	-	21		
Engage atleast two Agritech / Climatech partners (for example Digital	Lumpsum	-	-	1	1	1	1	1	-	5	75	-	-	0	0	0	0	-	0		
Backend Services for Managemet of Advisory Platform	Lumpsum	-	-	1	1	1	1	1	-	5	5,000	-	-	5	5	5	5	5	26		
"Procure a consultant to develop a database of nutritional information	Lumpsum	-	-	1	-	-	-	-	-	1	30,000	-	-	32	-	-	-	-	32		
Procurement of an M&E firm to Implement analytics tools to track user	Lumpsum	-	-	-	1	1	1	-	-	3	20,000	-	-	-	21	21	21	-	63		
leverage the two procured Agritech footprint to create campaigns to pr	Number	-	-	-	2	-	-	-	-	2	50,000	-	-	-	105	-	-	-	105		
Training and Capacity Building: Conduct training sessions for farmers,	Training	-	4	4	3	3	2	-	-	16	30,000	-	126	126	95	95	63	-	504		
Development and periodic update of Content for advisory	Per Year	1	1	1	1	1	1	1	1	8	25,000	26	26	26	26	26	26	26	210		
Development of E-advisory platforms - Collaborate with Department of	Number	-	1	-	-	-	-	-	-	1	15,000	-	16	-	-	-	-	-	16		
Subtotal												26	189	189	252	147	116	32	977		
7. Improve Farmers access to Quality Inputs																					
In Collaboration with NITDA Conduct feasibility study on input distribur	Number	-	1	-	-	-	-	-	-	1	30,000	-	32	-	-	-	-	-	32		
In collaboration with NITDA , procure Agritech offering E-voucher syste	Lumpsum	-	-	1	-	-	-	-	-	1	300,000	-	-	315	-	-	-	-	315		
Pilot the Integarted e-voucher system within two states to test function.	Lumpsum	-	1	1	-	-	-	-	-	2	100,000	-	105	105	-	-	-	-	210		
scale up the e-voucher system to cover all the 9 states targeted /m	Lumpsum	-	-	-	2	-	-	-	-	2	150,000	-	-	-	315	-	-	-	315		
Subtotal												-	137	420	315	-	-	-	872		
8. Improving Farmers' Access to Output Markets and Fair Prices:																					
procure form to undertake a Comprehensive assessment of existing ma	Lumpsum	-	1	-	-	-	-	-	-	1	20,000	-	21	-	-	-	-	-	21		
Annual Data Collection and update of market Prices for all value chair	Per Year	-	1	1	1	1	1	1	1	7	5,000	-	5	5	5	5	5	5	37		
Procure an agritech partner with an e-market place to be scaled across	Lumpsum	-	1	-	-	-	-	-	-	1	250,000	-	263	-	-	-	-	-	263		
Hire Consultant to support assess the capability of existing Agriculture	Lumpsum	-	-	-	1	-	-	-	-	1	30,000	-	-	-	32	-	-	-	32		
Hire Consutancy firm to Implement a robust monitoring and evaluation	Lumpsum	-	-	1	-	-	-	-	-	1	50,000	-	-	53	-	-	-	-	53		
Subtotal												-	289	58	37	5	5	5	404		
Subtotal												267	1,571	884	760	422	214	92	96	4,307	
D. Small Scale Irrigation System																					
Tube wells for irrigation with solar pumps /o	Number	-	-	949	949	1,423	1,423	-	-	4,744	500	-	-	498	498	747	747	-	2,491		
Wash bore wells for irrigation with solar pumps /p	Number	-	-	296	296	445	445	-	-	1,482	400	-	-	124	124	187	187	-	622		

Detailed Table 1.1: Continued

		Quantities									Totals Including Contingencies ('000)									
Unit		2025	2026	2027	2028	2029	2030	2031	2032	Total	Unit Cost	2025	2026	2027	2028	2029	2030	2031	2032	Total
I. Investment Costs																				
construction/Rehabilitation of small earth dams with solar irrigation pumps	Number	-	-	36	71	107	107	36	-	357	5,000	-	-	189	373	562	562	189	-	1,874
On-farm lined ponds for supplemental irrigation /r	Number	-	-	53	107	160	160	53	-	533	2,000	-	-	111	225	336	336	111	-	1,119
Small flood control works /s	Number	-	-	59	119	178	178	-	-	534	200	-	-	12	25	37	37	-	-	112
Subtotal												-	-	935	1,245	1,869	1,869	300	-	6,219
E. Small Scale Irrigation System																				
Tube wells for irrigation with solar pumps /t	Number	-	-	949	949	1,423	1,423	-	-	4,744	500	-	-	498	498	747	747	-	-	2,491
Wash bore wells for irrigation with solar pumps /u	Number	-	-	296	296	445	445	-	-	1,482	400	-	-	124	124	187	187	-	-	622
construction/Rehabilitation of small earth dams with solar irrigation pumps	Number	-	-	36	71	107	107	36	-	357	5,000	-	-	189	373	562	562	189	-	1,874
On-farm lined ponds for supplemental irrigation /w	Number	-	-	53	107	160	160	53	-	533	2,000	-	-	111	225	336	336	111	-	1,119
Small flood control works /x	Number	-	-	59	119	178	178	-	-	534	200	-	-	12	25	37	37	-	-	112
Subtotal												-	-	935	1,245	1,869	1,869	300	-	6,219
F. Promote climate and hydrological information for early warning																				
Support for NIMET for step down climate information production and s	Per Year	9	9	9	9	9	9	9	9	72	10,000	95	95	95	95	95	95	95	95	756
Support for NIHSA for hydrological and dflood outlook production and s	Per Year	9	9	9	9	9	9	9	9	72	5,000	47	47	47	47	47	47	47	47	378
Support for NIMET and NIHSA /y	Number	-	5	5	5	5	3	-	-	23	4,500	-	24	24	24	24	14	-	-	109
Subtotal												142	165	165	165	165	156	142	142	1,243
G. Promotion of nature-based sustainable land management solutions																				
Training and Technical demonstration of soil and water conservation /z	Number of CDAs/VAs	122	130	130	130	130	129	129	-	900	950	122	130	130	130	130	129	129	-	898
Training and technical demonstration of Nature Based erosion remediation /aa	Number of CDAs/VAs	122	130	130	130	130	129	129	-	900	950	122	130	130	130	130	129	129	-	898
Training and technical demonstration of integrated soil fertility management /ab	Number of CDAs/VAs	122	130	130	130	130	129	129	-	900	950	122	130	130	130	130	129	129	-	898
Subtotal												365	389	389	389	389	386	386	-	2,693
H. Awareness and capacity building through extension services																				
Awareness raising and capacity building in sustainable land management /ac	Number of CDAs/VAs	122	130	130	130	130	129	129	-	900	650	83	89	89	89	89	88	88	-	614
Capacity building and empowerment in waste valorization and sustainable land management /ad	Number of CDAs/VAs	122	130	130	130	130	129	129	-	900	1,000	128	137	137	137	137	135	135	-	945
Subtotal												211	225	225	225	225	223	223	-	1,559
I. Environmental and Social Safeguards	Lumpsum	1	1	1	1	1	-	-	-	5	526,000	552	552	552	552	552	-	-	-	2,762
Total												2,588	3,958	5,147	5,650	6,660	5,894	2,622	1,423	33,940

Detailed Table 1.2: Promoting Nutrition and Gender Awareness and Practices

Value Chain North (VCN)

Table 1.2. Promoting Nutrition and Gender Awareness and Practices

Detailed Costs

(US\$)	Unit	Quantities								Unit Cost	Totals Including Contingencies ('000)								Total	
		2025	2026	2027	2028	2029	2030	2031	2032		Total	2025	2026	2027	2028	2029	2030	2031		2032
I. Investment Costs																				
A. Promotion of nutrition sensitive value chain crops																				
Scale up improved high-yield varieties developed for different agro-ecological z	Per Year	-	1	1	1	1	1	1	1	7	25,000	-	27	28	28	28	28	29	29	197
Sensitize smallholder producers to the dangers of unregulated chemicals when	Number	-	20	20	20	20	20	20	20	140	1,000	-	22	22	22	22	23	23	23	157
Promote safe storage practices, such as use of PICS bags and improved hygier	Per Year	-	1	1	1	1	1	1	1	7	100,000	-	109	110	111	112	113	115	116	787
Promote pest-resistant varieties to reduce loss	Training	-	1	1	1	1	1	1	1	7	5,000	-	5	6	6	6	6	6	6	39
Promote the use of biofortified varieties as they are developed and released	Training	-	1	1	1	1	1	1	-	6	25,000	-	27	28	28	28	28	29	-	168
Support acquisition of drying technologies to assist in drying commodities like gr	Lumpsum	-	1	1	1	1	1	1	1	7	100,000	-	109	110	111	112	113	115	116	787
Promote processing methods that prevent discoloration, which is associated wi	Training	-	1	1	1	1	1	1	1	7	20,000	-	22	22	22	22	23	23	23	157
Promote labor-saving technologies for hulling and milling to free up women's tim	Training	-	1	1	1	1	1	1	1	7	15,000	-	16	17	17	17	17	17	17	118
Diversification of food production through integrated farming systems, incorpor	Per Year	10	10	10	10	10	10	10	10	80	1,000	11	11	11	11	11	11	11	12	90
Nutrition education and behaviour change communication on consumption and a	Per Year	50	50	50	50	50	50	50	50	400	1,000	54	55	55	56	56	57	57	58	448
Production and promotion of different types of food products including blended	Lumpsum	-	1	1	1	1	1	1	1	7	50,000	-	55	55	56	56	57	57	58	394
VC related cross cutting issues on WASH (water, sanitation and health)	Lumpsum	-	1	1	1	1	1	1	1	7	20,000	-	22	22	22	22	23	23	23	157
Subtotal												65	481	485	490	494	499	504	480	3,499
B. Gender sensitive social behavior change communication and nutriti																				
Conduct a nutrition formative study to validate findings of the gender fragility stu	Study	1	-	-	-	-	-	-	-	1	50,000	54	-	-	-	-	-	-	-	54
Targeted nutrition education for community's household members and communit	Training	50	100	100	100	100	100	100	100	750	3,000	163	328	331	334	337	340	344	347	2,524
Nutrition education for extension workers and integration of nutrition modules in	Number	50	100	100	100	100	100	100	100	750	3,500	190	383	386	389	393	397	401	405	2,945
Cooking classes for nutrient retention and promotion of healthy diets	Number	50	100	100	100	100	100	100	100	750	2,000	109	219	221	223	225	227	229	231	1,683
Recipe books development	Number	10	10	10	10	10	10	10	-	70	2,500	27	27	28	28	28	28	29	-	195
Collaboration with local media for breastfeeding, maternal and child care and co	Per Year	-	36	36	36	36	36	36	36	252	1,000	-	39	40	40	40	41	41	42	283
Hygiene, health and Water, Sanitation and Hygiene (WASH) campaigns leveragi	Campaign	-	1	1	1	1	1	1	-	6	20,000	-	22	22	22	22	23	23	-	134
Consumers' awareness campaigns	Campaign	-	1	1	1	1	1	1	1	7	10,000	-	11	11	11	11	11	11	12	79
Promotion of domestic labour reduction technologies targeting women	Training	-	1	1	1	1	1	1	1	7	15,000	-	16	17	17	17	17	17	17	118
Gender and women empowerment through nutrition sensitive GALS trainings	Training	50	50	50	50	50	50	50	50	400	2,000	109	109	110	111	112	113	115	116	896
Subtotal												651	1,155	1,164	1,175	1,186	1,198	1,210	1,170	8,910

Detailed Table 1.2: Continued

Value Chain North (VCN)

Table 1.2. Promoting Nutrition and Gender Awareness and Practices

Detailed Costs

(US\$)

Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)									
	2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																				
C. Promotion of context appropriate homestead food production																				
Backyard gardens for nutrient rich vegetables, tubers, fruits and food trees in a	Lumpsum	1	1	1	1	1	1	1	1	8	100,000	109	109	110	111	112	113	115	116	896
Adoption of climate-resilient backyard gardening technologies /b	Lumpsum	1	1	1	1	1	1	1	1	8	187,000	203	205	206	208	210	212	214	216	1,675
Support with starter packages for small livestock (goats, sheep, local chickens)	Lumpsum	1	1	1	1	1	1	1	1	8	236,000	256	258	260	263	265	268	270	273	2,114
Subtotal												568	572	577	582	588	593	599	605	4,684
D. Promotion of market oriented nutrition sensitive approaches along																				
Promotion of post-harvest practices aimed to preserve and enhance nutrient qu	Training	-	50	50	50	50	50	50	50	350	1,000	-	55	55	56	56	57	57	58	394
Support with appropriate equipment/technologies and training to FOs/ SFEs on c	Lumpsum	-	1	1	1	1	1	1	1	7	100,000	-	109	110	111	112	113	115	116	787
Support for food safety, quality control, certification and implementation of hygie	Lumpsum	-	1	1	1	1	1	1	1	7	15,000	-	16	17	17	17	17	17	17	118
Awareness creation on nutritious products/foods for consumption by HHs and :	Training	-	50	50	50	50	50	50	50	350	1,000	-	55	55	56	56	57	57	58	394
Support with public, private farmer organizations partnerships to increase mark	Lumpsum	-	1	1	1	1	1	1	1	7	30,000	-	33	33	33	34	34	34	35	236
Subtotal												-	268	270	273	275	278	281	284	1,928
E. Promotion of policy dialogue for nutrition at state and local levels																				
Establishment of Farmer Organizations Nutrition Dialogue Centres (FONDICs) in 1	Number	-	30	30	30	30	30	30	30	210	1,000	-	33	33	33	34	34	34	35	236
Support FOs to have a voice in nutrition fora at local and state levels	Per Year	-	1	1	1	1	1	1	1	7	15,000	-	16	17	17	17	17	17	17	118
Policy engagement and advocacy on food security and nutrition	Per Year	-	1	1	1	1	1	1	1	7	5,000	-	5	6	6	6	6	6	6	39
Promotion of policy dialogue for nutrition at state and local government levels	Per Year	-	1	1	1	1	1	1	1	7	5,000	-	5	6	6	6	6	6	6	39
Support policy domestication at state and LGA levels contributing to improved ni	Per Year	-	1	1	1	1	1	1	1	7	5,000	-	5	6	6	6	6	6	6	39
Subtotal												-	66	66	67	67	68	69	69	472
F. GALS Empowerment for Gender																				
GALS manual development	Number	1	-	-	-	-	-	-	-	1	20,000	22	-	-	-	-	-	-	-	22
Promotion of gender equality and the socioeconomic progression of HHs targete	Training	150	150	150	150	150	150	150	-	1,050	1,000	163	164	165	167	169	170	172	-	1,170
Develop a socially inclusive vision of the groups in CAFs	Ls	-	1	1	1	-	-	-	-	3	100,000	-	109	110	111	-	-	-	-	331
Support the development of a common vision for community reconstruction	Training	-	1	1	1	-	-	-	-	3	50,000	-	55	55	56	-	-	-	-	165
Subtotal												185	328	331	334	169	170	172	-	1,688
Total												1,469	2,870	2,894	2,920	2,779	2,807	2,835	2,609	21,182

Detailed Table 1.3: Promoting Social Cohesion and an Enabling Policy/ Institutional

Nigeria

Value Chain North (VCN)

Table 1.3. Promoting Social Cohesion and an Enabling Policy/ Institutional

Detailed Costs

(US\$)

	Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)								
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total
I. Investment Costs																				
A. Support women and youth equitable access to land as other social gro	Lumpsum	200	200	200	200	200	-	-	-	1,000	1,000	217	219	221	223	225	-	-	-	1,104
B. Strengthening the capacity of FOs to have a voice in policy dialogue, th	Training	50	50	50	50	50	50	50	50	400	1,000	54	55	55	56	56	57	57	58	448
C. Supporting fragility and conflict management																				
Capacity building of farmers for effective conflict resolution at the commu	Training	200	200	200	200	200	200	200	200	1,600	60	13	13	13	13	13	14	14	14	107
Capacity building and advocacy with government for inclusive and resilier	Workshop	-	20	20	20	20	20	20	20	140	14,000	-	305	308	311	314	317	320	323	2,198
Support dedicated services by CAF to their members in conflict and fragili	Lumpsum	-	10	10	10	10	10	10	-	60	9,000	-	98	99	100	101	102	103	-	604
Subtotal												13	417	420	424	428	433	437	337	2,909
Total												284	690	696	702	709	489	494	395	4,461

Detailed Table 2.1: Improving Post-Harvest, Value Addition, Market Linkage, and Partnership

Nigeria

Value Chain North (VCN)

Table 2.1. Improving Post-Harvest, Value Addition, Market Linkage, and Partnership

Detailed Costs

(US\$)

	Unit	Quantities								Total	Unit Cost	Totals Including Contingencies ('000)								Total
		2025	2026	2027	2028	2029	2030	2031	2032			2025	2026	2027	2028	2029	2030	2031	2032	
I. Investment Costs																				
A. Post harvest and Value addition																				
Studies/assessments, designs & supervision /a	Studies	1	1	1	-	-	-	-	-	3	386,000	425	429	432	-	-	-	-	-	1,286
Farmer Organization capacity building for O&M and O&M /b	Lumpsum	1	-	-	-	-	-	-	-	1	460,000	499	-	-	-	-	-	-	-	499
Market stalls /c	Number	-	10	15	16	24	16	16	-	97	48,000	-	530	801	862	1,306	879	888	-	5,266
Aggregation/bulking facilities with solar powered bore hole for human consumption	Number	-	10	10	20	30	20	10	-	100	50,000	-	547	551	1,113	1,685	1,135	573	-	5,603
Agro Processing facilities constructed or rehabilitated with solar powered bore hole	Number	-	4	4	7	11	7	4	-	37	70,000	-	306	309	545	865	556	321	-	2,902
Subtotal												925	1,811	2,093	2,520	3,856	2,570	1,782	-	15,557
B. Rehabilitation of last mile rural roads																				
Project implemented access roads /f	Kilometre	23	46	46	68	46	-	-	-	229	25,000	624	1,258	1,268	1,891	1,292	-	-	-	6,333
Community implemented access roads /g	Kilometre	-	16	31	31	47	47	-	-	172	10,000	-	175	342	345	528	533	-	-	1,923
Drainage infrastructure including water storage (culverts, etc) /h	Number	-	20	40	69	70	80	-	-	279	7,000	-	153	309	537	550	635	-	-	2,185
Subtotal												624	1,586	1,919	2,774	2,370	1,169	-	-	10,441
C. Matching grant for climate-smart and environmental friendly processing and value	Lumpsum											1,625	1,625	1,625	1,625	1,625	1,625	1,625	1,625	13,000
D. Promote collaborative planning by the VC actors (FOs, outgrowers, input dealers	Lumpsum	1	1	1	1	1	1	1	1	8	200,000	217	219	221	223	225	227	229	231	1,791
E. FO formation and strengthening	Lumpsum	-	1	1	1	1	1	1	1	7	100,000	-	109	110	111	112	113	115	116	787
F. Promote market-oriented VC crops	Lumpsum	5	5	5	5	5	5	5	5	40	130,000	706	711	717	723	730	737	745	752	5,821
Total												4,097	6,061	6,685	7,976	8,918	6,441	4,496	2,725	47,398

/a A provision of 5% of the infrastructure budget for the studies & designs.

/b A provision of 2% of the infrastructure budget for community capacity building

/c Selected based on agreed upon criteria

/d Selected based on agreed upon criteria

Detailed Table 2.2: Promoting Entrepreneurship for Women and Youth

Nigeria

Value Chain North (VCN)

Table 2.2. Promoting Entrepreneurship For Women And Youth

Detailed Costs

	Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)									
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																					
A. Promote entrepreneurial activities /a	Lumpsum	50	50	50	50	50	50	50	50	50	400	10,000	543	547	551	556	562	567	573	579	4,478
B. Capacity building, including training and incubation/mentoring on technical aspects of the enterprises	Lumpsum	20	20	20	20	20	20	20	20	20	160	31,000	673	678	684	690	696	703	710	718	5,553
Total													1,216	1,225	1,235	1,246	1,258	1,271	1,283	1,296	10,031

/a Including seed multiplication, equipment hire and maintenance, community-level agri-input trade, extension/advisory services, and spraying gangs at the production stage; threshing, storage, processing, milling, and packaging at the post-harvest and value a

Detailed Table 2.3: Improving Access to Financial Services

Nigeria

Value Chain North (VCN)

Table 2.3. Improving Access to Financial Services

Detailed Costs

	Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)									
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																					
A. Access to Finance																					
Value chain financing (4Ps model)	Lumpsum	5	5	5	5	5	5	5	5	40	15,000	81	82	83	83	84	85	86	87	672	
Technical support to FOs and farmers to enhance financial literacy and use of digital fi	Per Year	-	2	2	2	2	2	2	2	14	10,000	-	22	22	22	22	23	23	23	157	
Technical intermediation between FOs/rural enterprise and agri-friendly FIs	Per Year	2	2	2	2	2	2	2	2	16	20,000	43	44	44	45	45	45	46	46	358	
Technical Support to FSAs for their linkage with commercial financial service suppliers	TA	-	5	5	5	5	5	5	5	35	28,000	-	153	154	156	157	159	160	162	1,102	
Promoting access to finance through development of digital products	Lumpsum	-	5	5	5	5	5	5	5	35	50,000	-	273	276	278	281	284	286	289	1,968	
Capital grant for FSAs loan revolving funds	Lumpsum											1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	13,187	
Total													1,773	2,223	2,227	2,233	2,238	2,244	2,250	2,256	17,444

Detailed Table 3.1: Programme Coordination & Management

Nigeria

Value Chain North (VCN)

Table 3.1. Programme Coordination & Management

Detailed Costs

(US\$)

	Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)								
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total
I. Investment Costs																				
A. Monitoring and Evaluation (M&E)																				
Baseline survey	Survey	1	-	-	-	-	-	-	-	1	100,000	109	-	-	-	-	-	-	-	109
Midterm survey	Survey	-	-	-	1	-	-	-	-	1	100,000	-	-	-	111	-	-	-	-	111
End-line survey	Survey	-	-	-	-	-	-	-	1	1	100,000	-	-	-	-	-	-	-	116	116
Field monitoring missions	Per Year	-	7	7	7	7	7	7	7	49	25,000	-	191	193	195	197	199	201	203	1,377
Thematic studies	Per Year	-	1	1	1	1	1	1	1	7	20,000	-	22	22	22	22	23	23	23	167
Profiling of project beneficiaries	Per Year	1	1	1	1	1	-	-	-	5	30,000	33	33	33	33	34	-	-	-	166
Consultancy for M&E support	Per Year	-	5	5	-	5	5	5	5	30	30,000	-	164	165	-	169	170	172	174	1,014
Training of Field Staff	Per Year	3	-	3	-	-	-	-	-	6	40,000	130	-	132	-	-	-	-	-	263
Procurement and development of MIS system	Lumpsum	1	-	-	-	-	-	-	-	1	400,000	434	-	-	-	-	-	-	-	434
Maintenance and update of MIS system	Per Month	12	12	12	-	12	12	12	12	84	2,000	26	26	26	-	27	27	28	28	188
Data collection tablets	Number	15	-	-	-	-	-	-	-	15	1,500	24	-	-	-	-	-	-	-	24
Hiring data enumerators	Per Year	-	-	10	10	10	10	10	10	60	30,000	-	-	331	334	337	340	344	347	2,033
Monitoring and evaluation activities (rapid outcome surveys)	Per Year	1	1	1	-	-	1	1	-	5	20,000	22	22	22	-	-	23	23	-	111
Subtotal												778	458	925	695	785	782	790	890	6,103
B. Knowledge Management (KM)																				
Development of VCN website	Lumpsum	1	-	-	-	-	-	-	-	1	35,000	38	-	-	-	-	-	-	-	38
Project documentary	Lumpsum	-	-	-	-	-	-	-	1	1	25,000	-	-	-	-	-	-	-	29	29
Promotion materials	Per Year	1	1	1	-	1	1	1	-	6	20,000	22	22	22	-	22	23	23	-	134
Capturing lesson learnt	Per Year	3	3	3	-	3	3	3	-	18	5,000	16	16	17	-	17	17	17	-	100
Development of visibility products	Per Year	1	1	1	-	1	1	1	1	7	15,000	16	16	17	-	17	17	17	-	118
Knowledge Management consultant support on KM products (Policy br	Per Year	-	-	1	-	-	-	1	-	2	20,000	-	-	22	-	-	-	23	-	45
Knowledge Management (KM) follow-up survey/s and lessons learned	Per Year	1	1	1	-	1	1	1	1	7	10,000	11	11	11	-	11	11	11	12	78
Layout and printing booklets	Per Year	2	2	2	-	2	2	2	2	14	8,000	17	17	18	-	18	18	18	19	125
Translation of materials	Per Year	1	1	1	-	1	1	1	1	7	8,000	9	9	9	-	9	9	9	9	63
Subtotal												129	92	115	-	94	95	119	86	730

Continued

Nigeria

Value Chain North (VCN)

Table 3.1. Programme Coordination & Management

Detailed Costs

(US\$)

	Unit	Quantities									Unit Cost	Totals Including Contingencies ('000)									
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																					
C. Audits																					
Annual Audit	Per Year	1	1	1	1	1	1	1	1	1	8	10,000	11	11	11	11	11	11	12	90	
D. Technical Assistance																					
Rural Finance Specialist	Per Year	-	1	1	1	1	1	1	1	1	7	5,000	-	5	6	6	6	6	6	39	
Nutrition and Food Consultant to support the nutrition formative study	Lumpsum	1	-	-	-	-	-	-	-	-	1	100,000	109	-	-	-	-	-	-	109	
Nutrition monitoring and evaluation support consultancy	Per Year	1	-	-	-	1	-	-	1	3	30,000	33	-	-	-	34	-	-	35	101	
Conduct a partner assessment at inception to identify relevant implem	Lumpsum	1	-	-	-	-	-	-	-	1	30,000	33	-	-	-	-	-	-	-	33	
Subtotal													174	5	6	6	39	6	6	41	281
E. Office Equipment																					
National Programme Coordination Office (NPCO)	Lumpsum	1	-	-	-	-	-	-	-	1	150,000	163	-	-	-	-	-	-	-	163	
State Programme Coordination Office (SPCO)	Lumpsum	9	-	-	-	-	-	-	-	9	50,000	488	-	-	-	-	-	-	-	488	
Subtotal													651	-	-	-	-	-	-	651	
F. Vehicles																					
National Programme Coordination Office (NPCO)	Number	2	-	-	-	-	-	-	-	2	40,000	87	-	-	-	-	-	-	-	87	
State Programme Coordination Office	Number	9	-	-	-	-	-	-	-	9	40,000	391	-	-	-	-	-	-	-	391	
Subtotal													478	-	-	-	-	-	-	478	
Total Investment Costs													2,220	567	1,056	712	930	894	926	1,028	8,333
II. Recurrent Costs																					
A. Salaries and Allowancies																					
1. National Programme Coordination Office (NPCO)																					
National Programme Coordinator (NPC)	Per Month	12	12	12	12	12	12	12	12	12	96	1,300	16	16	16	17	17	17	17	17	133
Financial Controller	Per Month	12	12	12	12	12	12	12	12	12	96	1,000	12	12	13	13	13	13	13	13	102
Programme Accountant	Per Month	12	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
National Infrastructure Engineer - Specialist	Per Month	12	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
MIS Specialist	Per Month	12	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
M&E Specialist	Per Month	12	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
National Administrative and HR Officer	Per Month	12	12	12	12	12	12	12	12	12	96	1,000	12	12	13	13	13	13	13	13	102
Procurement Assistant	Per Month	12	12	12	12	12	12	12	12	12	96	900	11	11	11	11	12	12	12	12	92

Continued

M&E Assistant	Per Month	12	12	12	12	12	12	12	12	96	900	11	11	11	11	12	12	12	12	92
Accounting and Finance Assistant	Per Month	12	12	12	12	12	12	12	12	96	900	11	11	11	11	12	12	12	12	92
National Programme Finance Officer	Per Month	12	12	12	12	12	12	12	12	96	1,000	12	12	13	13	13	13	13	13	102
National Internal Auditor	Per Month	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
Procurement Specialist	Per Month	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
Value Chains and Rural Development Specialist	Per Month	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
Gender and Social Inclusion specialist	Per Month	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
Climate and Environment Specialist	Per Month	12	12	12	12	12	12	12	12	96	1,200	15	15	15	15	15	16	16	16	123
Drivers/Clerks /a	Per Month	24	24	24	24	24	24	24	24	192	200	5	5	5	5	5	5	5	5	41
Subtotal												226	227	229	231	234	236	238	241	1,863
2. State Programme Coordination Office (SPCO) - 9 States																				
State Project Coordinator	Per Month	108	108	108	108	108	108	108	108	864	1,040	116	117	118	119	120	121	123	124	958
Agribusiness Promotion Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Rural Infrastructure Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Institution & FOs Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Nutrition & Food Security Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Gender & Youth Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Climate and Environment Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
M&E Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
MIS Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
KMC Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
State Programme Accountant	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
State Finance Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Procurement Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Administration & Logistics Officer	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
State Programme Internal Auditor	Per Month	108	108	108	108	108	108	108	108	864	800	89	90	91	92	92	93	94	95	737
Drivers/Clerks	Per Month	108	108	108	108	108	108	108	108	864	200	22	22	23	23	23	23	24	24	184
Subtotal												1,389	1,399	1,411	1,424	1,437	1,452	1,466	1,481	11,459
Subtotal												1,615	1,627	1,640	1,655	1,671	1,688	1,705	1,722	13,322
B. General Operating Costs																				
National Programme Coordination Office (NPCO) /b	Per Year	1	1	1	1	1	1	1	1	8	60,000	62	62	63	64	64	65	65	66	512
State Programme Coordination Office (SPCO) /c	Per Year	9	9	9	9	9	9	9	9	72	20,000	186	187	189	191	193	195	196	198	1,535
Subtotal												248	250	252	254	257	259	262	265	2,047
Total Recurrent Costs												1,863	1,877	1,892	1,909	1,928	1,947	1,967	1,986	15,369
Total												4,083	2,443	2,949	2,621	2,858	2,841	2,892	3,014	23,703

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 4: Economic and Financial Analysis

I. Introduction:

1. Overview: This annex reports the detailed results of the Financial and Economic Costs Benefits Analysis for the Value Chain North (VCN) project in Nigeria. The Economic and Financial Analysis (EFA) assessment has been based on the project development objective which is *“Improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chains development as an enabler for rural transformation”*.

2. **Structure of the analysis:** The financial analysis, including crop and enterprise financial models, is reported in section II. The overall project economic analysis, which includes the aggregated incremental benefits, is described in section III. For economic analysis, net benefits derived from the activity level models in the form of incremental benefits have been aggregated considering the scale of the project period and its targets (number of households) to assess overall benefits generated from proposed project interventions. The aggregated benefits have then been compared with the project economic costs (estimated from the project budget using costab software) to assess overall project performance indicators. The financial and economic crop models, as well as a detailed economic analysis is available in the excel worksheets attached to this report.

II. Financial Analysis

3. **Objectives of the financial analysis:** The main objective of the financial analysis is to assess the individual cost benefits analysis by examining the impact of Project interventions on the incomes of the households (HHs) targeted. The analysis is also aimed at establishing a baseline for the economic analysis of the Project, which will complement the financial analysis to justify the overall investment to a society as a whole (see section III).

4. For financial analysis, a realistic range of crop budgets for the selected key crops in the target areas of implementation has been assessed considering land size of 1 hectare, which is assumed to be the typical land size of beneficiaries under the VCN implementation area. They include: Sorghum, maize, rice and millet under staple food category for food security. Cowpeas, sesame, groundnuts and soya-bean under cash crops for domestic income and tomato for investment under horticulture crops to improve dietary diversity and health. The incremental financial benefits have been discounted using a rate of 4% over a period of 10 years in order to calculate the present value of the future flows. The summary results are presented in the table below, which include the following indicators; financial internal rate of return, net present value, benefits/cost ratio and return to family labour. The detailed information is presented in the excel file attached to this annex.

Table 1: Summary of financial analysis

Project Year		Farm models' net incremental benefits (in Naira'000)								
		Staple food for food security				Cash crops				Horticulture
		Rice	Maize	Sorghum	Millet	Cowpeas	Sesame	Groundnuts	Soyabean	Tomato
PY1	(215)	(193)	(81)	(56)	(117)	(96)	(82)	(84)	(113)	
PY2	(152)	(71)	(41)	(43)	11	(12)	(39)	(26)	58	
PY3	181	89	(17)	114	53	29	25	(28)	63	
PY4	204	187	103	253	205	187	289	58	279	
PY5	204	187	103	253	205	187	289	58	279	
PY6	204	187	103	253	205	187	289	58	279	
PY7	204	187	103	253	205	187	289	58	279	
PY8	204	187	103	253	205	187	289	58	279	
PY9	204	187	103	253	205	187	289	58	279	
PY10	204	187	103	253	205	187	289	58	279	
IRR		41%	42%	40%	111%	73%	69%	86%	24%	101%
NPV (Naira 000) @10%		886	813	410	1,340	1,024	907	1,427	177	1,468
B/C Ratio		1.42	1.75	1.88	1.55	1.34	1.63	1.93	1.11	1.76
Return to Family Labour (Naira '000)		3.5	7.6	6.9	5.0	3.7	4.8	7.2	1.2	4.5

5. The financial analysis demonstrates that the selected value chain crop models are profitable from an individual perspective illustrating the financial effectiveness of project investments aimed at supporting innovation adoption.

6. The major sources of benefits for the EFA are improved productivity and reduction in post-harvest losses. These benefits have been assessed using the selected value chain crop models that will be supported by the project in the target implementation area. The EFA benefits are aligned to the theory of change and a summary is presented in the table below;

Table 2: Sources of benefits (outcomes) in relation to TOC and cost tables

Output	Source of benefits (Outcomes)
	<ul style="list-style-type: none"> <u>Improved productivity, diet quality and nutrition as a result of the following:</u> <ul style="list-style-type: none"> ➤ Access to improved certified quality seeds: VCN will facilitate access of producers to quality climate resilient seeds¹ (early maturing, flood/drought resistant, and insect/ disease tolerant varieties) which will contribute to about 20-30% of crop productivity at household levels. The use of recycled seeds in the without project and improved seeds in the with-project situation is reflected in the crop models respectively.
1. Foster climate resilient and Nutrition Sensitive Agriculture	<ul style="list-style-type: none"> ➤ Access to quality inorganic and organic fertilizers: VCN will also explore the use of liquid organic fertilizers alongside organic manure (cow-dung, litter and plant leftovers, poultry wastes, and compost) by farmers in their farms. The use of quality fertilizers has also been reflected in the crop models in the with-project situation. ➤ Access to small-scale irrigation system: Availability of water for farm and domestic use under small irrigation schemes (boreholes, tube wells, wash bores) to facilitate year-round production, thus an increase in productivity mainly for horticulture crops. This has been reflected in the crop models in the with-project situation compared to the low productivity in the without project situation.
2. Enhance Inclusive and Profitable Inclusion of	<ul style="list-style-type: none"> • <u>Improved post-harvest handling, value addition and access to markets the target value chains for FOs and SMEs.</u>

¹Quality climate resilient certified seed can contribute about 20-30% of crop productivity.

Target Groups in the VCs

- Reduction in post-harvest losses as a result of access to appropriate equipment/technologies, and training. Benefits from these investments are already embedded into the crop models as a result of reduction in post-harvest losses in the with-project scenario compared to the high post-harvest losses in the without project scenario.
 - The project will also support construction of agro processing and aggregation/bulking facilities in the selected target areas aimed to preserve and enhance nutrient quality of food produced at farm level and at aggregation centers.
 - Support to construction of value adding infrastructure will result into increase in premium prices the farmers will receive as a result of improved post-harvest handling. The increase in prices has been reflected in the crop models.
 - Reduction in transport costs and quick access to markets as a result of constructing/rehabilitating community access roads. A model has been developed to demonstrate benefits deriving from community investments and has also been integrated into the overall economic analysis.
-

7. **Method used in the financial models:** The method is based on the activity and Household (HH) models which simulate the implementation of farming practices for the selected crops grown in the VCN implementation area. The activity models simulate the financial budget and estimate the performance indicators namely; gross margin, net margin and return to family labour) that are the instruments for assessing the impact of project intervention on economic activities of the target HH. Gross margin cash-flows have been computed as a difference between total revenue and total operating costs.

8. The total revenue has been computed considering all farm production which is valued using farm gate market prices. The operating costs for the individual models include the costs for running activities conducted every year during the intervention period, and thereafter during the operational phase of the project. They include both family labour and hired labour. The net margin has been derived by subtracting the total production costs from the gross margin. Returns to family labour are computed as the ratio between the gross margin and the quantity of family labour days involved in the production activity.

9. The WOP models are representative of the current situation farmers do not adopt suitable technologies and improved agricultural practices, and yields are below the potential. The WP scenario simulates the impact on the project beneficiaries of the activities funded through the project. In such scenario, beneficiaries will adopt improved agricultural practices, e.g. use of liquid organic fertilizers and organic manure (cow-dung, litter and plant leftovers, poultry wastes, and compost) & improved seeds.

10. The financial net incremental benefits have been derived from the activity level models, by computing the difference between the with-project (WP) and the without project (WOP) gross margins (baseline). The incremental benefits have been over a period of 10 years using a discount rate of 4% to enable the comparison of the value of money in different time periods. The gross margins have been computed as a difference between the annual revenue and the production costs.

11. **Data used in the financial models:** Quantities and costs of inputs used in the agricultural models, including labour utilised in different operations, and output farm-gate prices have been collected during the design mission. All the data used for this analysis including WOP & WP yields, self-consumption, and estimated post-harvest losses was

obtained through engagement with experts from the ministry of Agriculture (Agronomist) during the in-Country field mission.

12. **Assumptions:** The assumptions used in the financial analysis models include; discount rate, with-project yields, percentage for own consumption and post-harvest losses in both without project and with project scenarios, input and output prices. A summary of assumptions used in crop models is presented below

Table 3: Main assumptions and shadow prices

MAIN ASSUMPTIONS & SHADOW PRICES					
	Output	Yields (Annually) Kg			
		Land Size	WOP	WP	Price (Naira'000)
FINANCIAL	Rice	Ha	650	1,200	0.8
	Maize	Ha	2,650	5,000	0.2
	Sorghum	Ha	2,400	3,200	0.3
	Millet	Ha	700	1,200	0.7
	Cowpeas	Ha	800	1,500	0.5
	Sesame	Ha	600	1,000	0.8
	Groundnuts	Ha	800	1,400	0.7
	Soyabean	Ha	850	1,300	0.4
	Tomato	Ha	1,500	2,500	0.4
	Economic	Standard Conversion Factor	0.97	Discount rate for Financial Analysis	
Labour Conversion Factor		0.96	Discount rate for Economic Analysis		

13. The discount rate used for financial analysis is 4%², which is the current interest rate on savings accounts in Nigeria. The purpose of discounting the benefits is to enable the comparison of the value of money in different time periods.

14. **Post harvest losses:** It is assumed that post-harvest losses will reduce in the with-project scenario compared to the without project scenario, thanks to the project intervention. The high post-harvest losses in the without project scenario can be attributed to; lack of value adding infrastructures, agro-processing and aggregation facilities, delayed access to markets facilities due to high transport costs as a result of poor community access roads. It is assumed that the above challenges will be fixed and the post-harvest losses are expected to go down in the with-project situation. Benefits from reduction in post-harvest losses are already embedded into the crop models.

15. **Own consumption:** A percentage for own consumption has been applied to different crop models purposely to indicate how income is spent on food for various enterprises, but has not been deducted from the incremental cash-flow.

16. **Beneficiary no phasing:** The beneficiary phasing is consistently aligned to the annual budget allocation of the project. The nature of the project is such that it will need heavy investments in the first five years of project implementation. The summary is presented in the table below.

²[Central bank increases Interest rates to 4.2% | Nairametrics](#)

17. **Beneficiary outreach and adoption rate:** The direct target household (HH) beneficiaries for VCN in the selected target areas of project implementation are projected at 456,000 (HH) translating into 3,109,920 HH members, assuming 6.8 people per HH. A 60 percent adoption rate has been used for beneficiary phasing which is in line with log-frame indicator "1.2.2 Households reporting adoption of new/improved inputs, technologies or practices". This corresponds to a total of 273,600 HHs who will adopt the proposed project interventions. The summary of beneficiary phasing by year is presented in the table below.

Table 4: Beneficiary aggregation phasing by year

Household Phasing	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Total	
Beneficiaries under Agricultural Production	456,000	47,046	61,867	65,098	71,272	76,418	59,816	42,752	31,732	456,000
Cumulative Number of Beneficiaries	47,046	108,913	174,010	245,282	321,700	381,517	424,268	456,000		456,000
Adoption Rate (LF Indicator 1.2.2)	60%									
Beneficiary Aggregation										
Beneficiaries in Y1	28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039		
Beneficiaries in Y2		28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039	
Beneficiaries in Y3			28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039
Beneficiaries in Y4				28,227	37,120	39,059	42,763	45,851	35,890	25,651
Beneficiaries in Y5					28,227	37,120	39,059	42,763	45,851	35,890
Beneficiaries in Y6						28,227	37,120	39,059	42,763	45,851
Beneficiaries in Y7							28,227	37,120	39,059	42,763
Beneficiaries in Y8								28,227	37,120	39,059
Beneficiaries in Y9									28,227	37,120
Beneficiaries in Y10										28,227
Total Beneficiaries	28,227	65,348	104,406	147,169	193,020	228,910	254,561	273,600	273,600	273,600

18. **Cost per beneficiary:** The cost per beneficiary has been derived from total project costs divided by the number of the target HHs to be supported by the project. With the overall project costs for VCN estimated at US\$158.2 million, and 456,000 target households, the cost per HH is therefore computed at US\$347 and US\$51 for each household member assuming 6.8 people per HH. The analysis is presented in a summary table below.

Table 5: Programme costs and log-frame indicators

PROGRAMME COSTS AND INDICATORS FOR LOGFRAME				
TOTAL PROGRAMME COSTS (in million USD)				
Beneficiaries	3,109,920	people	158.2	Million
Cost per beneficiary	51	USD x person	456,000	Households
			USD x HH	347
Components and Cost (USD million)				
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture	59.7			
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs	75.1			
C. Programme Coordination & Management	23.4			
Total	158.2			

III. Economic analysis:

19. **Objectives of Economic Analysis:** The economic analysis has been carried out to: (i) determine the economic viability and overall cost effectiveness of the project, estimated from a societal level, through comparison of aggregated economic benefits and the total project economic costs (derived from the project budget using costab software). (ii) Perform sensitivity analysis to measure the robustness of the proposed investment and measure the variations in the overall Economic Rate of Return (ERR) and Net Present Value (NPV) due to risks and unforeseen factors.

20. **Method used in the economic analysis:** The economic analysis has adopted the same method used in the financial analysis. The incremental benefits have been derived from the activity level models, by calculating the difference between the with-project (WP) and the

without project (WOP) gross margins (baseline), using the Cost Benefits Analysis (CBA). The incremental benefits have then been aggregated with the number of benefits adopting the proposed VCN investment. It is worth noting that, the incremental benefits used in the economic analysis have been adjusted economic terms using appropriate computed coefficient/standard conversion factor (SCF) for both labour and tradable goods to calculate the economic value using standard IFAD guidelines for economic and financial analysis.

21. **Assumptions used in the economic analysis:** The main assumptions for economic analysis include; discount rate, and standard conversion factors (SCF) for both goods and labour costs. The discount rate for economic analysis is 14%³, which is the current rate on a 10-year government bond in Nigeria. The conversion factors used for economic analysis have been computed as shown in the table below:

Table 6: Standard conversion factor computation

Years		2015	2016	2017	2018	2019	2020
		US\$	US\$	US\$	US\$	US\$	US\$
X	Export of goods/ Free On Board	57,710,000,000	40,220,000,000	48,920,000,000	66,270,000,000	66,980,000,000	45,100,000,000
M	Import of goods/Free On Board	31,780,000,000	24,930,000,000	29,690,000,000	34,500,000,000	37,190,000,000	34,280,000,000
Tm	Import Taxes	2,383,500,000	1,869,750,000	2,226,750,000	2,587,500,000	2,789,250,000	2,571,000,000
Tx	Export Taxes						
		0.97	0.97	0.97	0.97	0.97	0.97
		0.97					
	OER	780					
	SER	758.7					
	SCF (SER/OER)	0.973					
	CF for labour	0.958					
	Import tax rate	7.50%					

22. **Results of economic analysis:** VCN is projected to yield a baseline Economic Internal Rate of return of 27 percent with a positive Net Present Value of US\$130.3 million (NGN101.6 billion – rate: 1 US\$=NGN780). All quantifiable benefits have been discounted over a period of 20 years including 8 years of project implementation period using a rate of 14.4 percent which is the rate on 10 years Government long term bonds in Nigeria⁴. The baseline ERR of 27 per cent is higher than the discount rate used for economic analysis which confirms the justification of the proposed project investment. The benefits/cost ratio for the whole investment is estimated at 10.7. The overall project economic analysis is summarized in the table below:

³10-year government bond yield by country 2023 | Statista

⁴10-year government bond yield by country 2023 | Statista

Table 7: Overall Economic Analysis

Project year	Project Incremental Economic		Incremental Fam Benefits (Naira million)	Economic Project Costs (Naira million)				Cash-flow
	Farm Benefits	Benefits from Infrastructure gains (roads)		Investment Costs	Recurrent Costs	Add back - Costs already included in models	Total Economic Costs	
PY1	(3,157)	3	(3,155)	7,579	1,595	2,466	6,708	(9,862)
PY2	(13,273)	10	(13,262)	11,846	1,595	2,465	10,976	(24,238)
PY3	(14,364)	20	(14,345)	13,525	1,595	2,508	12,612	(26,957)
PY4	(8,084)	32	(8,052)	15,433	1,595	2,366	14,662	(22,714)
PY5	(40)	43	3	18,026	1,595	2,392	17,229	(17,226)
PY6	11,182	49	11,231	13,429	1,595	1,829	13,195	(1,964)
PY7	31,335	49	31,384	7,499	1,595	1,825	7,269	24,115
PY8	50,891	49	50,940	4,618	1,595	1,809	4,404	46,536
PY9	64,760	49	64,809		478		478	64,330
PY10	79,547	49	79,596		478		478	79,118
PY11	79,547	49	79,596		478		478	79,118
PY12	79,547	49	79,596		478		478	79,118
PY13	79,547	49	79,596		478		478	79,118
PY14	79,547	49	79,596		478		478	79,118
PY15	79,547	49	79,596		478		478	79,118
PY16	79,547	49	79,596		478		478	79,118
PY17	79,547	49	79,596		478		478	79,118
PY18	79,547	49	79,596		478		478	79,118
PY19	79,547	49	79,596		478		478	79,118
PY20	79,547	49	79,596		478		478	79,118
NPV@ 14.47% (Naira' million.)								101,643
NPV@ 14.47% ('millionUSD)								130.31
EIRR								27.0%
BCR			995,110				92,797	10.7

23. **Costs used in the economic analysis:** The economic costs used in the overall economic analysis are estimated at NGN104.7 billion (US\$134.2 million) over a period of 8 years of implementation. The costs have been transformed into economic terms using the costab software, by deducting taxes that are expected to be incurred during the project implementation. No investment costs are considered after the implementation period. Operating costs (assumed up to 30% percent of the recurrent costs) have been included from year 9 to year 20 as it is assumed that these costs will have to be incurred if project benefits are to be sustained

24. **Double counting of costs:** In order to avoid double counting of costs, all costs already included in estimation of the net incremental cash-flow of the enterprise models (i.e. costs farm inputs like fertilizers, seeds, have been excluded in the overall analysis as they are already incorporated in the value chains

25. **Aggregation of economic benefits:** The aggregation of economic benefits has considered the number of phased beneficiaries by year which is consistently aligned to the annual budget allocation of the project and a weighted average of incremental benefits from the individual crop models. The nature of the project is such that it will need heavy investments in the first five years of project implementation. The summary is presented in the table below.

Table 8: Beneficiary phasing and aggregation of benefits

Household Phasing	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
Beneficiaries under Agricultural Production	456,000	47,046	61,867	65,098	71,272	76,418	59,816	42,752	31,732
Cumulative Number of Beneficiaries	47,046	108,913	174,010	245,282	321,700	381,517	424,268	456,000	
Adoption Rate (LF Indicator 1.2.2)	60%								
Beneficiary Aggregation									
Beneficiaries in Y1	28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039	
Beneficiaries in Y2		28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039
Beneficiaries in Y3			28,227	37,120	39,059	42,763	45,851	35,890	25,651
Beneficiaries in Y4				28,227	37,120	39,059	42,763	45,851	35,890
Beneficiaries in Y5					28,227	37,120	39,059	42,763	45,851
Beneficiaries in Y6						28,227	37,120	39,059	42,763
Beneficiaries in Y7							28,227	37,120	39,059
Beneficiaries in Y8								28,227	37,120
Beneficiaries in Y9									28,227
Beneficiaries in Y10									
Total Beneficiaries	28,227	65,348	104,406	147,169	193,020	228,910	254,561	273,600	273,600
Summary of Incremental Farm Benefits (Naira '000)									
Average Farm Size for each HH under VCN	1	Ha							
Rice	(209)	(147)	176	198	198	198	198	198	198
Maize	(187)	(47)	87	204	204	204	204	204	204
Cowpeas	(113)	11	52	200	200	200	200	200	200
Sorghum	(78)	(17)	(16)	101	101	101	101	101	101
Millet	(43)	(31)	120	256	256	256	256	256	256
Sesame	(75)	26	87	280	280	280	280	280	280
Groundnuts	(73)	10	195	423	423	423	423	423	423
Soyabean	(79)	(21)	(22)	63	63	63	63	63	63
Tomato	(94)	109	126	386	386	386	386	386	386
Average Incremental Farm Benefits	(952)	(107)	806	2 111	2 111	2 111	2 111	2 111	2 111
Weighted Incremental benefits									
				Average Weight					
Rice	22%	138%	22%	9%	9%	9%	9%	9%	9%
Maize	20%	44%	11%	10%	10%	10%	10%	10%	10%
Cowpeas	12%	-11%	6%	9%	9%	9%	9%	9%	9%
Sorghum	8%	16%	-2%	5%	5%	5%	5%	5%	5%
Millet	5%	29%	15%	12%	12%	12%	12%	12%	12%
Sesame	8%	-24%	11%	13%	13%	13%	13%	13%	13%
Groundnuts	8%	-9%	24%	20%	20%	20%	20%	20%	20%
Soyabean	8%	20%	-3%	3%	3%	3%	3%	3%	3%
Tomato	10%	-103%	16%	18%	18%	18%	18%	18%	18%
Weighted Incremental Farm Benefits	(132)	(361)	146	287	287	287	287	287	287
Incr. Benefits Aggregation/Year									
Incremental farm benefits phasing	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
Aggregated benefits	enefits 000								
Incremental Benefits in Y1	(132)	(3,718,502)	(4,889,965)	(5,145,316)	(5,633,305)	(6,040,102)	(4,727,879)	(3,379,088)	(2,508,081)
Incremental Benefits in Y2	(361)	(10,182,764)	(13,390,705)	(14,089,959)	(15,426,269)	(16,540,246)	(12,946,848)	(9,253,310)	(6,868,142)
Incremental Benefits in Y3	146		4,131,432	5,432,983	5,716,690	6,258,868	6,710,839	5,252,898	3,754,326
Incremental Benefits in Y4	287			8,112,586	10,668,345	11,225,439	12,290,075	13,177,578	10,314,725
Incremental Benefits in Y5	287				8,112,586	10,668,345	11,225,439	12,290,075	13,177,578
Incremental Benefits in Y6	287					8,112,586	10,668,345	11,225,439	12,290,075
Incremental Benefits in Y7	287						8,112,586	10,668,345	11,225,439
Incremental Benefits in Y8	287							8,112,586	10,668,345
Incremental Benefits in Y9	287								8,112,586
Incremental Benefits in Y10	287								
Net Incremental Benefits	(3,718,502)	(15,072,729)	(14,404,590)	(6,177,695)	3,031,249	14,997,113	32,681,349	48,965,529	62,674,932

26. **Sensitivity analysis, Risks and Assumptions:** To test the robustness of the overall project analysis, a sensitivity analysis has been carried out to measure variations due to unforeseen factors and relevant risks presented in the integrated project risk matrix (IPRM).

27. **Results of sensitivity analysis:** A change in benefits by 20% increase in costs and decrease in benefits using the same proportion, both scenarios yield an ERR of 25% with positive NPV of US\$117.2 million and US\$91 million respectively. An increase in project benefits by either 10% & 20% yields a higher ERR of 28% & 29% respectively both with positive NPV. A delay in project benefits by 1 & 2 years still yields positive results as it yields 24% and 22% with positive net present values. Results of the sensitivity analysis indicate

that the project remains economically viable under the various assumptions considered. The summary of the sensitivity analysis is presented in the tables below.

Table 9: Sensitivity analysis matrix (linked to the IPRM)

Sensitivity analysis matrix				
	%	IRR	NPV (US\$) Million	Link between EFA and IPRM
Base Scenario		27%	130.3	
Decrease of Project benefits	-10%	26%	110.74	The existence of difficult semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. in project area triggered by natural processes and unsustainable land management practices. Flooding leading to wiping out farmers' investments during the short rainy season in the region
	-20%	25%	91.16	
	-30%	23%	71.59	
Cost Increase	10%	26%	123.77	Increase of rate of inflation has been on the rise in the past 3 due to the effect of Covid-19 pandemic, the Russia-Ukraine war with its concomitant global chain disruption which has affected the prices of agricultural inputs.
	20%	25%	117.23	
	50%	23%	100.44	
Delay of benefits	1 Year	24%	99.59	Changes in Government administration whereby the new administration which has been inaugurated is likely to take a keener look at loan and counterpart funding proposals at both national and states levels whose agenda may not significantly align with existing commitments and priorities of the out gone government which may result in some delays
	2 Years	22%	72.76	
Increase of benefits	10%	28%	149.89	High adoption rates compared to what has been anticipated in the overall economic analysis
	20%	29%	169.46	

Table 10: Detailed sensitivity analysis

Year	1	2	3	4	5	6	7	8	9	10	.11-20
Incremental Benefits	(3,155)	(13,262)	(14,345)	(8,052)	3	11,231	31,384	50,940	64,809	79,596	79,596
benefits +10%	(3,470)	(14,589)	(15,779)	- 8,857	3	12,354	34,522	56,034	71,290	87,556	87,556
benefits +20%	(3,786)	(15,915)	(17,214)	- 9,662	4	13,477	37,661	61,128	77,770	95,515	95,515
Mild scenario	(2,839)	(11,936)	(12,910)	- 7,247	3	10,108	28,245	45,846	58,328	71,636	71,636
Medium scenario	(2,524)	(10,610)	(11,476)	- 6,442	2	8,985	25,107	40,752	51,847	63,677	63,677
High scenario	(2,208)	(9,284)	(10,041)	- 5,636	2	7,862	21,969	35,658	45,366	55,717	55,717
Project Costs	6,708	10,976	12,612	14,662	17,229	13,195	7,269	4,404	478	478	478
costs +10%	7,378	12,074	13,873	16,128	18,952	14,514	7,996	4,844	526	526	526
costs +20%	8,049	13,171	15,134	17,594	20,675	15,834	8,723	5,285	574	574	574
costs +30%	10,061	16,464	18,918	21,993	25,844	17,153	9,450	5,725	622	622	622
Net cash flow											
base scenario	(9,862)	(24,238)	(26,957)	(22,714)	(17,226)	(1,964)	24,115	46,536	64,330	79,118	79,118
costs +10%	(10,533)	(25,336)	(28,218)	(24,180)	(18,949)	(3,283)	23,388	46,096	64,282	79,070	79,070
costs +20%	(11,204)	(26,434)	(29,479)	(25,647)	(20,672)	(4,603)	22,661	45,655	64,234	79,022	79,022
costs +30%	(13,216)	(29,726)	(33,262)	(30,045)	(25,841)	(5,922)	21,934	45,215	64,187	78,974	78,974
benefits +10%	(10,178)	(25,565)	(28,391)	(23,519)	(17,226)	(841)	27,253	51,630	70,811	87,077	87,077
benefits +20%	(10,493)	(26,891)	(29,826)	(24,325)	(17,226)	282	30,391	56,724	77,292	95,037	95,037
benefits -10%	(9,547)	(22,912)	(25,522)	(21,909)	(17,227)	(3,087)	20,976	41,442	57,849	71,158	71,158
benefits -20%	(9,231)	(21,586)	(24,088)	(21,104)	(17,227)	(4,210)	17,838	36,348	51,368	63,198	63,198
benefits -30%	(8,916)	(20,260)	(22,653)	(20,298)	(17,227)	(5,333)	14,699	31,254	44,888	55,239	55,239
benefits delayed 1 year	(6,708)	(14,131)	(25,874)	(29,007)	(25,281)	(13,192)	3,962	26,980	50,462	64,330	79,118
benefits delayed 2 years	(6,708)	(10,976)	(15,767)	(27,924)	(31,574)	(21,247)	(7,266)	6,827	30,905	50,462	64,330
Discount rate	14%										
Sensitivity Analysis	Base case	Costs Increase			Benefits Increase		Decrease of Benefits			Delay of Benefits	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year	2 years
IRR (%)	27%	26%	25.1%	23%	28%	29%	26%	24.6%	23%	24%	22%
NPV (Naira) Million	101,643	96,540	91,437	78,344	116,910	132,178	86,375	71,108	55,841	77,684	56,753
NPV (USD) Million	130.31	123.77	117.23	100.44	149.89	169.46	110.74	91.16	71.59	99.59	72.76

Attachments to this annex:

- Overall Economic and Financial Analysis
- Beneficiary phasing and aggregation
- Sensitivity analysis matrix
- Detailed sensitivity analysis
- Crop Models
- Rice – Financial and Economic models
- Maize – Financial and Economic models
- Sorghum – Financial and Economic models
- Millet – Financial and Economic models
- Cowpeas – Financial and Economic models
- Sesame – Financial and Economic models
- Groundnuts – Financial and Economic models
- Soya bean – Financial and Economic models
- Tomato – Financial and Economic models

Overall Economic and Financial Analysis

Project Year		Farm models' net incremental benefits (in Naira '000)								
		Staple food for food security				Cash crops				Horticult
		Rice	Maize	Sorghum	Millet	Cowpeas	Sesame	Groundnuts	Soyabean	Tomato
PY1	(215)	(193)	(81)	(56)	(117)	(96)	(82)	(84)	(113)	
PY2	(152)	(71)	(41)	(43)	11	(12)	(39)	(26)	58	
PY3	181	89	(17)	114	53	29	25	(28)	63	
PY4	204	187	103	253	205	187	289	58	279	
PY5	204	187	103	253	205	187	289	58	279	
PY6	204	187	103	253	205	187	289	58	279	
PY7	204	187	103	253	205	187	289	58	279	
PY8	204	187	103	253	205	187	289	58	279	
PY9	204	187	103	253	205	187	289	58	279	
PY10	204	187	103	253	205	187	289	58	279	
IRR	41%	42%	40%	111%	73%	69%	86%	24%	101%	
NPV (Naira 000) @10%	886	813	410	1,340	1,024	907	1,427	177	1,468	
B/C Ratio	1.42	1.75	1.88	1.55	1.34	1.63	1.93	1.11	1.76	
Return to Family Labour (Naira '000)	3.5	7.6	6.9	5.0	3.7	4.8	7.2	1.2	4.5	

4%

B)

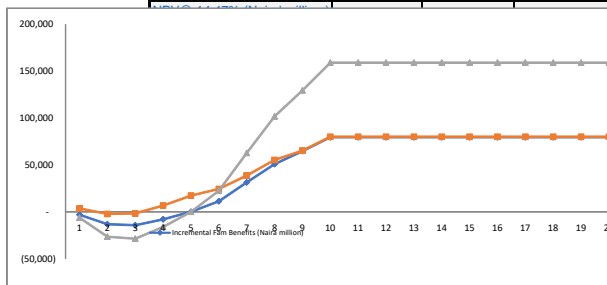
PROGRAMME COSTS AND INDICATORS FOR LOGFRAME			
TOTAL PROGRAMME COSTS (in million USD)			
Beneficiaries	#####	people	158.2 Million
Cost per beneficiary	51	USD x per	Househol
		USD x	347
Components and Cost (USD million)			
A. Foster Climate-Resilient and Nutrition-		59.7	
B. Enhance Inclusive and Profitable Inclusion of Targ		75.1	
C. Programme Coordination & Management		23.4	
Total		158.2	

MAIN ASSUMPTIONS & SHADOW PRICES				
Output	Land Siz	Yields (Annually) Kg		Price (Naira'
		WOP	WP	
Rice	Ha	650	1,200	0.8
Maize	Ha	2,650	5,000	0.2
Sorghum	Ha	2,400	3,200	0.3
Millet	Ha	700	1,200	0.7
Cowpeas	Ha	800	1,500	0.5
Sesame	Ha	600	1,000	0.8
Groundnuts	Ha	800	1,400	0.7
Soyabean	Ha	850	1,300	0.4
Tomato	Ha	1,500	2,500	0.4

Economic	Standard Conversion Factor	0.97	Discount rate for Financial Analysis
	Labour Conversion Factor	0.96	Discount rate for Economic Analysis

D. OVERALL ECONOMIC ANALYSIS (Naira million)

Project year	Project Incremental Economic		Incremental Fam Benefits (Naira million)	Economic Project Costs (Naira million)			Total Economic Costs	Cash-flow
	Farm Benefits	Benefits from Infrastructure gains (roads)		Investment Costs	Recurrent Costs	Add back - Costs already included in models		
PY1	(3,157)	3	(3,155)	7,579	1,595	2,466	6,708	(9,862)
PY2	(13,273)	10	(13,262)	11,846	1,595	2,465	10,976	(24,238)
PY3	(14,364)	20	(14,345)	13,525	1,595	2,508	12,612	(26,957)
PY4	(8,084)	32	(8,052)	15,433	1,595	2,366	14,662	(22,714)
PY5	(40)	43	3	18,026	1,595	2,392	17,229	(17,226)
PY6	11,182	49	11,231	13,429	1,595	1,829	13,195	(1,964)
PY7	31,335	49	31,384	7,499	1,595	1,825	7,269	24,115
PY8	50,891	49	50,940	4,618	1,595	1,809	4,404	46,536
PY9	64,760	49	64,809		478		478	64,330
PY10	79,547	49	79,596		478		478	79,118
PY11	79,547	49	79,596		478		478	79,118
PY12	79,547	49	79,596		478		478	79,118
PY13	79,547	49	79,596		478		478	79,118
PY14	79,547	49	79,596		478		478	79,118
PY15	79,547	49	79,596		478		478	79,118
PY16	79,547	49	79,596		478		478	79,118
PY17	79,547	49	79,596		478		478	79,118
PY18	79,547	49	79,596		478		478	79,118
PY19	79,547	49	79,596		478		478	79,118
PY20	79,547	49	79,596		478		478	79,118
								101,643
								130.31
								27.0%
								92,797
								10.7



14%

Beneficiary phasing and aggregation

Household Phasing	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Total	
Beneficiaries under Agricultural Production	456,000	47,046	61,867	65,098	71,272	76,418	59,816	42,752	31,732	456,000
Cumulative Number of Beneficiaries	47,046	108,913	174,010	245,282	321,700	381,517	424,268	456,000		456,000
Adoption Rate (LF Indicator 1.2.2)	60%									
Beneficiary Aggregation										
Beneficiaries in Y1	28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039		
Beneficiaries in Y2		28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039	
Beneficiaries in Y3			28,227	37,120	39,059	42,763	45,851	35,890	25,651	19,039
Beneficiaries in Y4				28,227	37,120	39,059	42,763	45,851	35,890	25,651
Beneficiaries in Y5					28,227	37,120	39,059	42,763	45,851	35,890
Beneficiaries in Y6						28,227	37,120	39,059	42,763	45,851
Beneficiaries in Y7							28,227	37,120	39,059	42,763
Beneficiaries in Y8								28,227	37,120	39,059
Beneficiaries in Y9									28,227	37,120
Beneficiaries in Y10										28,227
Total Beneficiaries	28,227	65,348	104,406	147,169	193,020	228,910	254,561	273,600	273,600	273,600
Summary of Incremental Farm Benefits (Naira '000)										
Average Farm Size for each HH under VCN	1	Ha								
Rice	(209)	(147)	176	198	198	198	198	198	198	198
Maize	(187)	(47)	87	204	204	204	204	204	204	204
Cowpeas	(113)	11	52	200	200	200	200	200	200	200
Sorghum	(78)	(17)	(16)	101	101	101	101	101	101	101
Millet	(43)	(31)	120	256	256	256	256	256	256	256
Sesame	(75)	26	87	280	280	280	280	280	280	280
Groundnuts	(73)	10	195	423	423	423	423	423	423	423
Soyabean	(79)	(21)	(22)	63	63	63	63	63	63	63
Average Incremental Farm Benefits	(952)	(107)	806	2 111	2 111	2 111	2 111	2 111	2 111	2 111
Weighted Incremental benefits										
	Average Weight									
Rice	22%	138%	22%	9%	9%	9%	9%	9%	9%	9%
Maize	20%	44%	11%	10%	10%	10%	10%	10%	10%	10%
Cowpeas	12%	-11%	6%	9%	9%	9%	9%	9%	9%	9%
Sorghum	8%	16%	-2%	5%	5%	5%	5%	5%	5%	5%
Millet	5%	29%	15%	12%	12%	12%	12%	12%	12%	12%
Sesame	8%	-24%	11%	13%	13%	13%	13%	13%	13%	13%
Groundnuts	8%	-9%	24%	20%	20%	20%	20%	20%	20%	20%
Soyabean	8%	20%	-3%	3%	3%	3%	3%	3%	3%	3%
Tomato	10%	-103%	16%	18%	18%	18%	18%	18%	18%	18%
Weighted Incremental Farm Benefits	(132)	(361)	146	287	287	287	287	287	287	287
Incr. Benefits Aggregation/Year										
Incremental farm benefits phasing	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Aggregated benefits	Benefits 000									
Incremental Benefits in Y1	(132)	(3,718,502)	(4,889,965)	(5,145,316)	(5,633,305)	(6,040,102)	(4,727,879)	(3,379,088)	(2,508,081)	
Incremental Benefits in Y2	(361)		(10,182,764)	(13,390,705)	(14,089,959)	(15,426,269)	(16,540,246)	(12,946,848)	(9,253,310)	(6,868,142)
Incremental Benefits in Y3	146			4,131,432	5,432,983	5,716,690	6,258,868	6,710,839	5,252,898	3,754,326
Incremental Benefits in Y4	287				8,112,586	10,668,345	11,225,439	12,290,075	13,177,578	10,314,725
Incremental Benefits in Y5	287					8,112,586	10,668,345	11,225,439	12,290,075	10,314,725
Incremental Benefits in Y6	287						8,112,586	10,668,345	11,225,439	12,290,075
Incremental Benefits in Y7	287							8,112,586	10,668,345	12,290,075
Incremental Benefits in Y8	287								8,112,586	10,668,345
Incremental Benefits in Y9	287									8,112,586
Incremental Benefits in Y10	287									
Net Incremental Benefits	(3,718,502)	(15,072,729)	(14,404,590)	(6,177,695)	3,031,249	14,997,113	32,681,349	48,965,529	62,674,932	78,503,196

Sensitivity analysis matrix

Sensitivity analysis matrix				
	%	IRR	NPV (US\$) Million	Link between EFA and IPRM
Base Scenario		27%	130.3	
Decrease of Project benefits	-10%	26%	110.74	The existence of difficult semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. in project area triggered by natural processes and unsustainable land management practices. Flooding leading to wiping out farmers' investments during the short rainy season in the region
	-20%	25%	91.16	
	-30%	23%	71.59	
Cost Increase	10%	26%	123.77	Increase of rate of inflation has been on the rise in the past 3 due to the effect of Covid-19 pandemic, the Russia-Ukraine war with its concomitant global chain disruption which has affected the prices of agricultural inputs.
	20%	25%	117.23	
	50%	23%	100.44	
Delay of benefits	1 Year	24%	99.59	Changes in Government administration whereby the new administration which has been inaugurated is likely to take a keener look at loan and counterpart funding proposals at both national and states levels whose agenda may not significantly align with existing commitments and priorities of the out gone government which may result in some delays
	2 Years	22%	72.76	
Increase of benefits	10%	28%	149.89	High adoption rates compared to what has been anticipated in the overall economic analysis
	20%	29%	169.46	

Detailed sensitivity analysis

Year	1	2	3	4	5	6	7	8	9	10	.11-20
Incremental Benefits	(3,155)	(13,262)	(14,345)	(8,052)	3	11,231	31,384	50,940	64,809	79,596	79,596
benefits +10%	(3,470)	(14,589)	(15,779)	- 8,857	3	12,354	34,522	56,034	71,290	87,556	87,556
benefits +20%	(3,786)	(15,915)	(17,214)	- 9,662	4	13,477	37,661	61,128	77,770	95,515	95,515
Mild scenario	(2,839)	(11,936)	(12,910)	- 7,247	3	10,108	28,245	45,846	58,328	71,636	71,636
Medium scenario	(2,524)	(10,610)	(11,476)	- 6,442	2	8,985	25,107	40,752	51,847	63,677	63,677
High scenario	(2,208)	(9,284)	(10,041)	- 5,636	2	7,862	21,969	35,658	45,366	55,717	55,717
Project Costs	6,708	10,976	12,612	14,662	17,229	13,195	7,269	4,404	478	478	478
costs +10%	7,378	12,074	13,873	16,128	18,952	14,514	7,996	4,844	526	526	526
costs +20%	8,049	13,171	15,134	17,594	20,675	15,834	8,723	5,285	574	574	574
costs +30%	10,061	16,464	18,918	21,993	25,844	17,153	9,450	5,725	622	622	622
Net cash flow											
base scenario	(9,862)	(24,238)	(26,957)	(22,714)	(17,226)	(1,964)	24,115	46,536	64,330	79,118	79,118
costs +10%	(10,533)	(25,336)	(28,218)	(24,180)	(18,949)	(3,283)	23,388	46,096	64,282	79,070	79,070
costs +20%	(11,204)	(26,434)	(29,479)	(25,647)	(20,672)	(4,603)	22,661	45,655	64,234	79,022	79,022
costs +30%	(13,216)	(29,726)	(33,262)	(30,045)	(25,841)	(5,922)	21,934	45,215	64,187	78,974	78,974
benefits +10%	(10,178)	(25,565)	(28,391)	(23,519)	(17,226)	(841)	27,253	51,630	70,811	87,077	87,077
benefits +20%	(10,493)	(26,891)	(29,826)	(24,325)	(17,226)	282	30,391	56,724	77,292	95,037	95,037
benefits -10%	(9,547)	(22,912)	(25,522)	(21,909)	(17,227)	(3,087)	20,976	41,442	57,849	71,158	71,158
benefits -20%	(9,231)	(21,586)	(24,088)	(21,104)	(17,227)	(4,210)	17,838	36,348	51,368	63,198	63,198
benefits -30%	(8,916)	(20,260)	(22,653)	(20,298)	(17,227)	(5,333)	14,699	31,254	44,888	55,239	55,239
benefits delayed 1 year	(6,708)	(14,131)	(25,874)	(29,007)	(25,281)	(13,192)	3,962	26,980	50,462	64,330	79,118
benefits delayed 2 years	(6,708)	(10,976)	(15,767)	(27,924)	(31,574)	(21,247)	(7,266)	6,827	30,905	50,462	64,330
Discount rate	14%										
Sensitivity Analysis	Base case	Costs Increase			Benefits Increase		Decrease of Benefits			Delay of Benefits	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	-30%	1 year	2 years
IRR (%)	27%	26%	25.1%	23%	28%	29%	26%	24.6%	23%	24%	22%
NPV (Naira) Million	101,643	96,540	91,437	78,344	116,910	132,178	86,375	71,108	55,841	77,684	56,753
NPV (USD) Million	130.31	123.77	117.23	100.44	149.89	169.46	110.74	91.16	71.59	99.59	72.76

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex 5: SECAP Review Note

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

The SECAP Review note should build on the preliminary note mentioned above, draw on the results of the screening exercise and be informed by the issues raised during the design mission, the stakeholders interviews, publicly available tools and dataset, and environmental, social or climate-related studies that inform on the characteristics of the project location. The SECAP review note includes the revised ESMP and should be attached to the Project Design Report, integrated in Draft Project Implementation Manual (PIM) and COSTAB and shall be submitted to Design Review Meeting (DRM) or IRC (for NSOs).

1. Introduction

1. The objective of the SECAP Review Note for the Value Chain in the North (VCN) Project Design Report is to conduct a situational analysis of climate, environmental and social priorities, define and validate the final social, environmental and climate risk categories of the project, and produce the relevant plans including stakeholder engagement and grievance redress mechanism. This note identifies opportunities and risks associated with the VCN and proposes the steps and actions for the Environmental, Social, and Climate Management Framework (ESCMF), Environmental, Social, and Climate Management Plan (ESCMP) and the Target Adaptation Assessment (TAA). It also makes the case for disclosure of the SECAP studies as necessary.
2. The note was produced through review of literature on the proposed project area, review of documents on ongoing and completed IFAD projects, especially the Climate Change and Agribusiness Support Programme (CASP) which was implemented in the study area, and stakeholder consultations in the project area during the concept note and design missions. The VCN project is to be implemented in **9 States of the 13 states of the semi-arid northern Nigeria**. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states (Fig 1).
3. The 13 states of the semi-arid northern Nigeria cover about 323, 3299 km² (about 35.4% of Nigeria land area) with about 120.2 million people (about 59.7% of national population) consisting mostly of the rural poor. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc coupled with low adaptive capacity) result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.
4. ^[1] NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>
5. ^[2] National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.
6. ^[3] Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."
7. **Figure 1: The Semi-Arid Northern Nigeria**



2. Situational analysis and potential project impacts

8. The sections below present a detailed analysis of the situation from a socio-economic, environmental and climatic perspectives.

2.1 Socio-economic assessment

a. Overall poverty situation

9. **Overall poverty situation.** Nigeria is home to 200 million people; 70% of the country’s population lives in rural areas^[1]. 40.1% of Nigerian’s are poor according to the national poverty line (137,430 naira per person per year). Sharp spatial differences in poverty are found between southern and northern Nigeria and even across States within regions. Also, poverty levels are higher and deeper in rural areas; 52% of the rural Nigerians live under the poverty line (against 18% in urban areas)^[2]. Over 72% of the extreme poor live in Northern Nigeria^[3].

State	Population / # people (xxx)	Economic poverty level / % (2018)	Average HH size / # people (2018)
Kebbi	5,200,000	50.2	6.39
Sokoto	6,400,000	87.7	5.93
Zamfara	5,300,000	74.0	6.54
Katsina	9,500,000	56.4	6.80
Jigawa	6,800,000	87.0	8.15

Kano	15,900,000	55.1	7.10
Bauchi	7,700,000	61.5	6.79
Yobe	3,900,000	73.3	6.87
Borno	3,100,000	Information not available	Information not available

Sources:

Population: obtained from the project concept note, exact citation to be obtained and inserted here;

Poverty headcount: WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians;

HH size: NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

10. Age, gender, education, reliance on rainfed agriculture and shocks are the primary drivers of poverty in Nigeria^[4]. Young people and those with lower levels of education are common among the poor due to lacking capital and not having the means to engage in lower risk or diversified income generating streams. Women with young children are likely to be poorer than their male counterparts due to the combined effects of gender norms, being youth and their multiple responsibilities. External shocks such as the negative effects of climate change, low resilience and conflict have profound effects on HH wellbeing.
11. Also, 65% of people living in the North of the country are multidimensionally poor, that is, affected with deprivations associated to health, education, living standards, employment, and shocks^[6].
12. ^[1] NBS, 2023. Nigeria Multidimensional Poverty Index (2022).
13. ^[2] WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.
14. ^[3] FGN, 2021. National Poverty Reduction with Growth Strategy (NPRGS).
15. ^[4] NBS, 2023. Nigeria Multidimensional Poverty Index (2022).
16. ^[6] Ibid.

b. Gender

17. **Gender.** Women and girls represent half of Nigeria's population with women accounting for about 49,3% of the population. Gender inequalities remain pervasive in Nigeria, fuelled by traditions, customs, gender stereotyping and cultural prejudice. According to the OECD's Social Institutions and Gender Index (SIGI), Nigeria is among the top 10% of countries worldwide that exhibit the highest levels of gender discrimination. Nigeria also falls in the group of countries with the highest gender inequality in human development outcomes with a Gender Development Index value of 0.868 and is classified in group 5, which includes countries with very low levels of human development^[1]. While the participation of women in agricultural value chains is generally low compared to male participation, women are overrepresented as unpaid family members engaged in farming. Women involved in farming are mostly working in the areas of harvesting, processing and marketing of farm produce^[2].
18. Women face the challenge of lack of access to land for production more than their male counterpart. Access to capital/credit, limited access to information on project opportunities and poor literacy also limit women's participation in agricultural development projects and ownership of businesses in agricultural value chains. According to a World Bank study in 2019^[3], approximately 28 percent of girls between the ages of 15-19 are already married, and 23 percent in that age group are already mothers or pregnant with their first child. The incidence of early marriage and childbearing is even higher in the states of the semi-arid northern Nigeria with the youngest ages of marriage seen in the Northwest, Northeast, and North Central regions. Early childbearing is strongly correlated with maternal and child mortality. Millions of adolescent girls (10-19 years)^[4] are currently out of school; they have never enrolled or dropped out early. According to the NLSS 2019/2019, approximately 7% of girls ages 15-19 are out-of-school in Northern states. The low proportion of girls attending secondary schools is particularly concerning, given that attaining this level of education is associated with fewer unwanted pregnancies and reduced infant mortality.
19. Anecdotal evidence collected during the design mission indicates that poor women, especially poor women headed HHs provide cheap labor to others. In some locations the surplus of supply of cheap labor by poor women could be resulting in women receiving less than they would in situations without conflict and / or instability.
20. The group indicated that many women are becoming widowed given the high rate of polygamy; one man dies, 2-4 women become widows and highly vulnerable. Men do not want to marry a woman with several children in a situation of important levels of widowhood.
21. The project should consider the high number of women headed households (WHH); according to local participants these represent about 40% of HHs who are live under the poverty line; and their extremely high levels of vulnerability given that women have extremely limited access to assets such as land, low participation, and influence in collective and public spaces. Measures need to be devised to ensure that this segment of the population is targeted at scale and considered in all decision-making processes and spaces supported by the project.
22. Adolescent girls and women in a situation of high levels of poverty (very poor) can find no option to feed their children than sexual transactional exchanges. Also, sexual harassment, exploitation and abuse are common in a situation of displacement, according to local participants in the group, from IDP camp staff, other men in a situation of power. The same applies to when resettling back to communities into precarious shelter with men holding positions of power. These cases often go unreported through conventional channels and are known in through specific inquiry by entities specifically interested in protecting women's rights.
23. To overcome these challenges, VCN is intends to be gender transformational, integrating therefore all dimensions. Indeed, focusing only on targeting women may not be relevant to lead to the desire changes in terms of gender equality and women's empowerment. As highlighted by the 2023 CCR^[5], it needs to be rather backed by interventions (such as GALS methodology) that address gender dynamics within households and give women a voice in decision making as demonstrated by other projects, such as VCDP and CASP. During the design phase, more information will be collected to better understand the challenges face by women in the Northern part of Nigeria, in terms of workload, access to resources, participation, voice, etc. A study will be conducted to inform the design, and suitable pathways for policy engagement on GEWE.
24. ^[1] Country Partnership framework Nigeria FY21-FY25 World Bank Group
25. ^[2] Thompson, O. A. and Amos. T. T. (2016): Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark
26. ^[3] ditto
27. ^[4] Definition: padata.org
28. ^[5] Nigeria COSOP Completion Review 2023

c. Youth

29. Youth.

30. Generally, Nigeria has one of the youngest and largest working-age populations in the world. Youth in Nigeria constitute people aged between 15-29 years according to the new youth policy (2019)^[1] and make up the largest demographic group after children, accounting for 23 percent of the total population at 41 million, a figure that is set to rise to 84 million by 2050^[2].
31. The International Labour Organization estimates that some 60% of young people between the ages of 15 - 24 in Nigeria are in working poverty^[3], youth unemployment (15-35 years) 42.5% and underemployment rate 21%^[4]. Engagement of youth in agriculture is a priority for the government. Youth have an untapped potential to become the food producers of the present and the future. However, targeting youth often focuses on male youth of different ages because they are more visible than female youth, especially in more conservative communities. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Youth with education are thus a low hanging fruit. Without deliberate efforts rural youth with low education, especially females can often be missed by development interventions.
32. A large segment of the youth is in northern Nigeria where both youth unemployment and underemployment is higher due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. Not enough jobs are being created for the youth, who are characterized by lower human capital relative to adults.
33. *Fragility and conflicts*. Nigeria is listed by the World Bank Group as one of 37 “fragile and conflict-affected” countries^[5]. Nigeria has a situation described as a “complex crisis” with a “very high” risk index (at 6.5) by the INFORM Risk Index Report for 2021^[6]. The World Risk Index report for Nigeria also has a very high rating of 12.66^[7]. Monguno (2021) notes that Nigeria’s Global Peace Rating has slid, and poor governance has contributed. For more than a decade the Boko Haram insurgency in the **northeast** and banditry and kidnapping in the **northwest**, have been growing problems. This is also complemented by the increasing farmer-herder conflict as populations have risen and natural resources have become increasingly contested. Discussions with stakeholders in Sokoto state suggest that access to a significant proportion of arable lands in the state has been cut-off by Bandits occupation, thus depriving farmers of good arable land for farming. Conflict in the semi-arid northern Nigeria is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, which are in turn exacerbated by population growth and poverty. As in any conflict situation, women (and children) have been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps. The conflicts also stem from stake for land ownership, distribution of resources, corruption, proliferation of arms and ethnic and religious tensions.
34. ^[1] Federal Republic of Nigeria. National Youth Policy (2019-2023). Enhancing Youth Development and Participation in the context of Sustainable Development.
35. ^[2] World Bank Group, 2019. Nigeria on the Move: A Journey to Inclusive Growth. Nigeria Systematic Country Diagnostic. June 2019.
36. ^[3] Based on ILO estimates (percentage of employed living below US\$1.90 PPP).
37. ^[4] NBS, 2021. Q4 2020 Unemployment Report <http://nigerianstat.gov.ng/elibrary> Accessed 1st January 2024.
38. ^[5] <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>
39. ^[6] Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.
40. ^[7] World Risk Report, 2021. Bündnis Entwicklung Hilft, Ruhr University Bochum – Institute for International Law of Peace and Conflict 2021. <https://weltrisikobericht.de/weltrisikobericht-2021-e>.

d. Indigenous peoples

41. **Indigenous peoples**. There are no indigenous people according to the UN classification whose existence is threatened by the project.

e. Marginalised groups

42. **Marginalised groups**. IDPs and PWDs are two additional social groups often facing increased vulnerability and difficulty in

accessing sustainable development opportunities, thus becoming marginalised.

43. **PWDs.** In Nigeria, it is estimated that approximately 15% of the population of Nigeria lives with at least one disability^[1]. Yet, anecdotal evidence in States affected by insurgency indicates that many people have acquired a disability because of terrorist attacks. As such, many more PWD are likely to be present in northern States than documented in recent population data.
44. 71% of people living in HHs with at least one member living with a disability are multidimensionally poor^[2]. PWDs in Nigeria receive limited support from the government and rely strongly on family members and non-governmental organizations and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their households or can be abandoned leaving PWDs in a situation of using begging to survive^[3].
45. The Joint National Association of People with Disabilities (JONAPWD) created in 1992 is an umbrella organization of PWDs established in Nigeria to promote the rights and development of Nigerians with disabilities. The organization represents the interests of the teeming population of PWDs at the local and international level. JONAPWD is a full-fledged member of the international body called Disabled People’s International (DPI). Also, in 2019, Nigeria passed the Discrimination Against Persons with Disabilities (Prohibition) Act in 2019^[4] and created the National Commission for Persons with Disabilities (NCPWD) pursuant to section (31) of the Discrimination Against Persons with Disability (Prohibition) Act 2018^[5].
46. **IDPs.** In November 2023, a total of 2,295,534 people were internally displaced in Nigeria’s Northeastern Region of which 94% as a result of insurgency; and 1,190,293 in the North West and North Central Regions. In addition, over 240,000 Nigerians from Sokoto, Yobe and Borno and have sought refuge in Chad and Niger^[6]. Formal and informal IDP camps and host communities have received those internally displaced by conflict and violence in northern Nigeria.

State	# IDPs	State	# IDPs	State	# IDPs
Kebbi	-	Katsina	174,000	Bauchi	68,400
Sokoto	72,000	Kano	25,000	Borno	1,800,000
Zamfara	156,400	Jigawa		Yobe	172,300

Source: UNHCR, September 2023. Nigeria: Education Dashboard 2022-2023 Schoolyear.

47. The Federal Government of Nigeria is intensively engaged in achieving peace, safety and security in affected States in VCN’s target States resulting in the start of a progressive return of displaced populations to their communities of origin. Anecdotal evidence however indicates that even in these locations absolute reduction of all risks of violence has not been achieved in all communities resulting in movement restrictions beyond a perimeter of 5 or 10 kms from the community center. In this context, land available for farming can be limited in communities affected by conflict and violence resulting in increased competition over land.
48. Consistent with existing reports^[7], interviewees reached during the design mission indicated that displaced women in Northern States are often subjected to sex in exchange for food, shelter, water, and others by men in positions of relative power controlling decisions related to access to these basic human rights. Survivors are primarily women but can also include their children. Anecdotal evidence also indicates that PWDs are, due to their vulnerability, also more acutely affected by situations of conflict, as well as by sexual exploitation and abuse (SEA).
49. ^[1]<https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law> Accessed 1st January 2024.
50. ^[2] NBS, 2023. Nigeria Multidimensional Poverty Index (2022).
51. ^[3]<https://borgenproject.org/disabilities-in-nigeria/> Accessed 1st January 2024.
52. ^[4]<https://drive.google.com/file/d/12459t6medwbLvSunXgk6o9x9nnpnXG6W4/view> Accessed 1st January 2024.
53. ^[5]<https://ncpwd.gov.ng> Accessed 1st January 2024.
54. ^[6] UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.
55. ^[7] Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.global2p.org/countries/nigeria/> Accessed 30th December 2023.

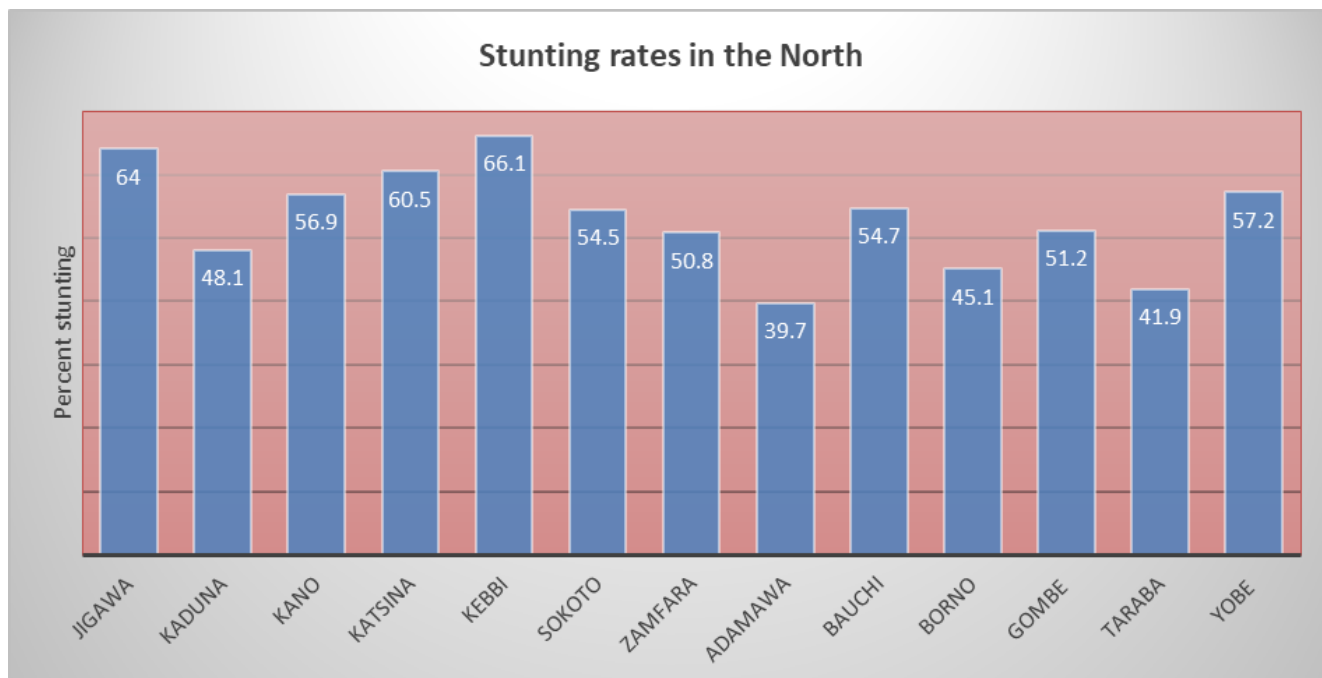
56. UNHCR, 2020. Assessment of Trafficking Risks in Internally Displaced Persons Camps in North East Nigeria. <https://data2.unhcr.org/en/documents/details/75273> Accessed 10th of December 2023.

f. Nutrition

Nutrition and food security. Nigeria has the highest population in Africa with an estimated 223.8 million people by the year 2023 according to UN data (UNFPA,2023)[1]. The country has one of the highest fertility rates, currently estimated at 5.1 children per woman resulting in a rapid population surge with an annual growth rate of 2.6 percent[2]. The population is projected to reach approximately 440 million by the year 2050 but the human development index (HDI) remains low at 0.534 ranking it 158th out of 189 countries and territories[3]. There is recent evidence to show that malnutrition and nutrition related issues remain a major public health concern in Nigeria[4]. The country recognizes that reducing malnutrition is an important goal of development as spelt out in the National Development Plan (NDP,2021-2025) which aims at improving food and nutrition security, achieving dietary diversity and access to quality food with an emphasis on food safety practices.

Among key efforts of the Federal Government of Nigeria to fight against malnutrition in all its forms, is the provision of the National Policy on Food and Nutrition which guides all investments by government and partners on nutrition. Moreover, the National Multi-Sectoral Plan of Action for Food and Nutrition (NMPFAN) sets out strategies and interventions for improving the nutritional status of all Nigerians with specific emphasis on the most vulnerable groups. Further, Nigeria is in a quest to accelerate the achievement of the Sustainable Development Goals (SDGs) on nutrition by the year 2030 as demonstrated by the government’s commitment to the implementation of priority actions spelt out in the Food Systems Transformation Pathways Implementation Plan[5]. The overarching goals of this plan is reduction of poverty, hunger, food insecurity, malnutrition, unemployment among the youth and to increase Women’s Empowerment in Agriculture Index as well as increase Environmental Performance Index score.

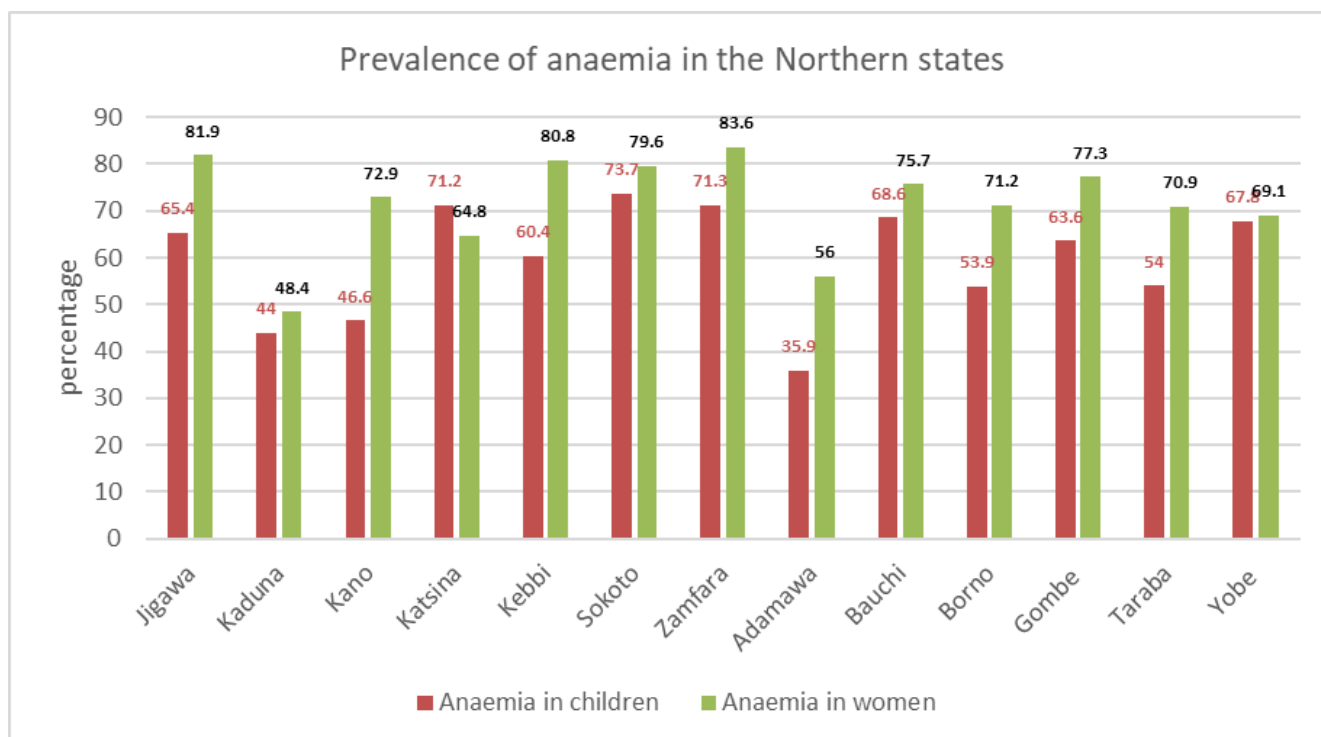
Despite the robust policy environment for nutrition improvement in Nigeria, the country still grapples with the triple burden of malnutrition[6]. According to NDHS (2018)[7], 37% of all children under five years are stunted which is higher than the Africa average of 30.7%[8]. Additionally, 7% of children under five years are wasted while 22% are underweight. Children are mostly affected by undernutrition during the first 1000 days of life as evidenced by increase in prevalence of stunting from 19% by 6 months of age to 47% by 24 months of age. High prevalence of malnutrition is more predominant in the Northern states where stunting rates are higher than country average (figure 1). Generally, the prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively)[9].



57. Figure 2: Prevalence of stunting among children under five years in the Northern states (source: NDHS, 2018)

58. Anaemia affects children and women in the rural areas more than in urban areas. The NDHS shows that 68% of children below five years and 58% of women of reproductive age (15-49) are anaemic[10]. The report confirms that children in rural areas (73%) are more likely to be anaemic than those in urban areas (62%). The northwestern states (Zamfara, Kebbi and Sokoto) are the most affected by anaemia in the country with very high prevalence rates (78%-84%). Dietary diversity is poor among women and children while feeding practices are sub-optimal. Only 11% of all children under five years were fed a minimum acceptable diet. The proportion of women who consumed five or more food groups is lower in the northern zones[11] than in the southern

zones[12] with the lowest proportion reported in the North Central zone (47%). Children in the northern zones consume fewer foods rich in vitamin A and iron than those in the southern zones.



59. Figure 3: Prevalence of anaemia in Children under five years and women 15-49 years in the Northern states (source: NDHS, 2018)

60. Seventy-nine percent of households in Nigeria are food insecure. More than half of households in the North East (57.3%) and North west (51.5%) zones experience stressed food consumption whereas a significant proportion of households in the North are considered to be in a crisis food consumption state[13]. A complex web of factors contributes to food insecurity and malnutrition in Nigeria. Inadequate care for infants and young children leaves them vulnerable to illness and poor nutrition, especially before their second birthday. Access to healthcare, clean water, and proper sanitation remains limited, further hindering basic health and wellbeing. For instance, sanitation and hygiene practices are poor with less than standard toilets and open defecation still common. Usage of unimproved toilets is more prevalent in the Northern zones[14] with 21.5 per cent of households practicing open defecation system. The practice is more prominent in the rural areas (34.5 percent) than in the urban areas (7.4 percent)[15]. Anecdotal evidence from field visits in the North revealed frequent occurrence of water borne diseases because of water contamination.

61. Armed conflict, primarily in the north, disrupts food production and access, while erratic rainfall patterns wreak havoc on harvests. Widespread unemployment and poverty trap many in a cycle of food insecurity. While chronic and seasonal food shortages plague the entire country, volatile food prices exacerbate the situation. In the northeastern zone, frequent conflicts further worsen these pre-existing vulnerabilities, pushing food insecurity to acute levels. In most instances, food insecurity is inversely related to the level of education of women at household level[16]. There is generally poor implementation of nutrition and food security related policies at State and Local Government levels.

62. Women in urban areas are substantially more likely than those in rural areas to consume meat, fish, and poultry (84% versus 59%); eggs (22% versus 11%); sugary foods (19% versus 13%); and sugar-sweetened (32% versus 13%). Consumption of biofortified crops (yellow cassava, orange fleshed sweet potatoes and orange maize) by women of reproductive age is generally low[17]. Nigerian rural households consume much less than 20% of fortified foods compared to urban households[18]. The proportion of women who consumed five or more food groups generally increases with increasing education and wealth. For example, 48% of women with no education consumed five or more food groups, as compared with 70% of women with more than a secondary education.

63. Complementary feeding is mainly characterized by consumption of foods made from grains (78% and 90% among breastfeeding and non-breastfeeding children aged 6 to 23 months respectively). There is low consumption (27%) of meat, fish, and poultry among breastfeeding children as well as fruits and vegetables rich in vitamin A (37%) and eggs (13%). (source: NDHS 2018).

64. VCN potential social impacts and risks

65. *Fragility and security.* The semi-arid northern Nigeria where the VCN project is proposed currently faces **high level risk** of complex fragility problems. this includes the Boko-Haram insurgency in the northeast and the banditry and kidnapping crisis in the northwest. In both regions, natural resource induced crisis by different social actors (including between farmers and

pastoralists) have elevated human insecurity risks. There are pockets of communal clashes and armed robbery across communities. This security and fragility problems can wipe-off investments due to farmers abandoning their fields, constrain effective project management, increase project management cost, and undermine the achievement of the project development objectives.

66. *Women's access issues to land.* Experience from CASP shows that there is a **substantial** risk that female beneficiaries may not be able to access land and materialise project and their investments without explicit project facilitation and commitment from local governments.
67. *Cultural heritage.* This is a **low level** Some of the communities in the project area have invaluable material and non-material cultural heritages (mountains, ruins and buried monuments), geodiversity and geoheritage and long history of culture, traditions, values, and festivals that enrich their heritages. However, the chances that the project will negatively impact cultural heritage of the people is low.
68. *Indigenous people.* This is a **low level** There are no indigenous people according to the UN classification whose existence is threatened by the project. However, there are several distinct tribes and cultures spread across the project area. The risk of exclusion of marginalised and itinerant tribes (such as the nomadic Fulanis) and those with weak political representation is real.
69. *Labour and working conditions.* The total fertility rate, family size and number of children out of school is high in the VCN States. Poverty is also very high and literacy level is low. The risk of forced labor was assessed as being **low** on all value chains and states selected. Nevertheless, there is a **moderate** risk on the use of child laborers for some of the value chains. But the use of child laborers on farms by smallholder farmers is permitted by both the Nigeria Labour Act 1990 and the Nigerian Child Rights Act 2003. Section 59(1a) of the Nigerian Labour Law 1990 (with concurrence of Section 28(1b) of the Child Rights Act 2003) states that: *No child shall be employed or work in any capacity except where he is employed by a member of his family on light work of an agricultural, horticultural, or domestic character.* Section 59 (3) further states: *A young person under the age of fourteen years may be employed only-(a) on a daily wage;(b) on a day-to-day basis; and(c) so long as he returns each night to the place of residence of his parents or guardian, or a person approved by his parents or guardian.* Thus, the key issue here is to continually monitor the project during implementation to ensure that the provisions of children working with parents and guardians and on daily wage are not abused.
70. *Community health and safety.* This is a **moderate** Productivity of the rural population is hampered by ill-health, particularly HIV/AIDS, tuberculosis, and malaria. There is the risk of surface water pollution because of the project activities that can impact the health of poor people that depend on surface water sources in the project area. This includes risk of improper application of agrochemicals and water eutrophication. Lack of personal protective equipment (PPE) on farm poses the risk of exposure to schistosomiasis and other water-associated neglected tropical diseases. Child malnutrition is also high in northern Nigeria, and this poses the risk of increased childhood mortality. VCN could also involve or lead to the construction or rehabilitation of earthdams. Specific, monitoring measures related to water borne diseases will be put in place as well as safety measures.
71. *Physical and economic resettlement.* The risk of physical and economic displacement is **low** as the VCN will not support enterprises on disputed lands. The banditry, Boko Haram crisis and farmers-herders crisis has already precipitated significant physical and economic displacement.
72. *Elite capture.* The chances of some 'city people' that are more exposed and financially endowed than the 'village people' coming back home to try and hijack the whole process is **moderate**. Politicians may also try to hijack and manipulate the selection processes to favour their supporters. The process of recruitment of project staff also faces the risk of hijack leading to recruitment of incompetent technical staff into the project management with its concomitant capacity, performance, and sustainability issues.
73. *Grievance redress.* There is a **moderate** risk of ineffective grievance/complaint documentation and redress processes (including with respect to allegations of non-compliance with IFAD's SECAP standards, selection process, recruitment process, sexual exploitation, and abuse, etc), leading to unaddressed stakeholder complaints that may undermine project implementation, organizational reputation, and achievement of project development objectives. Also, different forms of GBV have been documented and reported in some States in the project target, namely, in the context of displacement affecting women and children with perpetrators often being people managing operations related to the allocation of goods and essential services to displaced women. The project will incorporate explicit language and procedures related to sexual harassment, exploitation, and abuse.
74. [1] United Nations Population Fund, World population dashboard. <https://www.unfpa.org/data/world-population/NG>
75. [2] National Population Commission. <https://www.nationalpopulation.gov.ng/>
76. [3] National Multi-sectoral plan of action for food and nutrition (2021-2025)
77. [4] Preliminary report (September 2022) of the National Food Consumption and Micronutrient Survey, 2021
78. [5] National Action and Communication Plan for Implementation of the Food Systems Transformation Pathways in Nigeria, 2023.
79. [6] Triple burden of malnutrition comprises under-nutrition, over-nutrition, and micronutrient deficiencies.
80. [7] Nigeria Demographic Health Survey, 2018
81. [8] Global Nutrition Report for Nigeria, accessed online in December 2023 at <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

82. [9] Nigeria Demographic Health Survey, 2018
83. [10] Ibid
84. [11] Northern zones include North Central, North East, and North West
85. [12] Southern zones include South East, South South, and South West
86. [13] Households in crisis food consumption in North west (42.3%) and North East (36.7%) zones (NFCMS, 2021)
87. [14] 40 per cent in North West zone and 20 per cent in North East zone.
88. [15] National Food Consumption and Micronutrient Survey (NFCMS), 2021
89. [16] Ibid
90. [17] According to the NFCMS 2021, only three percent of women consumed yellow cassava, five percent consumed orange-fleshed sweet potato and 13 percent consumed orange maize
91. [18] Rural versus urban consumption of: vegetable oil (20 percent vs. 48 percent), wheat flour (8 percent vs. 27 percent), semolina flour (7 percent vs. 40 percent), sugar (15 percent vs. 31 percent), NFCMS 2021
92. [19] Labour Act. Chapter 198, Laws of the Federation of Nigeria 1990
93. [20] Child Rights Act 2003. Act No. 26

2.2 Environment and climate context, trends and implications

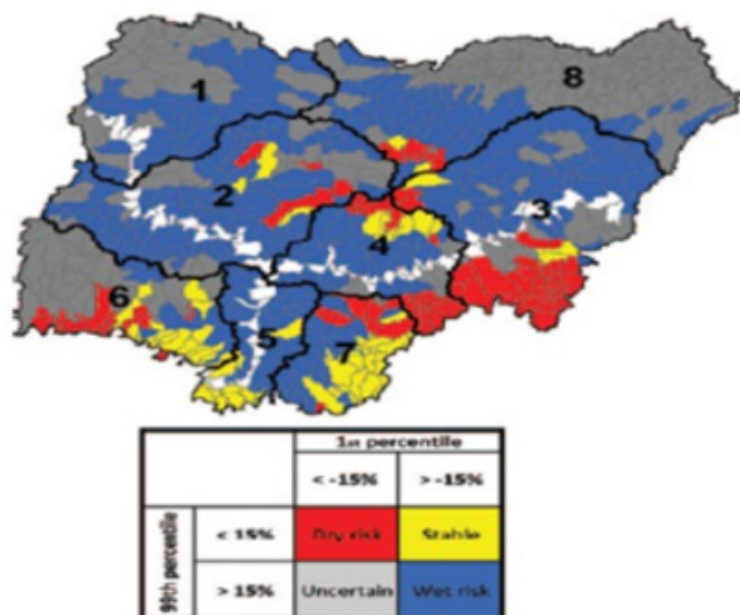
94. The sections below give a detailed environmental assessment, while also presenting the climate trends and impacts.

a. Environmental assessment

95. The semi-arid northern Nigeria spans four of the eight hydrological areas/regions (HAs) of Nigeria. These include HA 1 (Sokoto-Rima basin), HA 2 (Upper Niger – Kaduna River basin), HA 3 (Upper Benue – Gongola and Taraba River basins) and HA 8 (Chad basin – Kano-Hadejia River basins). With several river basins in the HAs, the project area has abundant surface and groundwater resources (Fig 3). These water regions are managed by River Basins Development Authorities (RBDA) responsible principally to undertake comprehensive development of both surface and ground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management, among others^[1]. Future changes in the average water flows of the sub-basins within the semi-arid northern Nigeria are substantially uncertain^[2].
96. **Relief and physiography:** Nigeria have extensive geodiversity and physiographic regions. The northern Nigeria consists of the inland basins, north-eastern Highlands, the great plains of northern Nigeria and the North central Plateau and Highlands^[3]. The inland basins include the Niger-Benue trough and the Sokoto and Chad basins. Average elevation lies below 1000ft (305m). The north-eastern highlands (Adamawa-Bamenda highlands) of undifferentiated basement complex lie between 1000 and 2000ft (305-610m). The great plain of northern Nigeria substantially underlain by undifferentiated basement complex lies between 1000 and 2000ft (305-610m) and covers extensive area between the Sokoto basin in the northwest and the Chad basin in the northeast. The north central plateau and highlands underlain by sandstone on undifferentiated basement complex lie between 2000 to 300ft (610-915m) and consists of bold relief and rocky outcrops and inselbergs found around the Kaduna-Jos-Bauchi axis, northern Adamawa and south-eastern Borno and southern Taraba states. The highest elevation ranging from 3000ft to above 5000ft (915-1525m+) are found in the Jos Plateau and the Mandara mountains in the Adamawa-Bamenda ranges along the Nigeria-Cameroonian border.
97. The major ecological region of northern Nigeria consists of the savanna vegetation - northern guinea, Sudan and Sahel savannas (Fig 4). The **savanna** ecosystems cover about 48.5% of Nigeria's land area. The **northern guinea savanna** consists of shorter trees (compared to southern guinea). It covers part of Kaduna and Bauchi states as well as northern Taraba state in the northeast. It is typified by open woodland with tall grasses and fire-resistant trees. Tree cover here varies between 15 to 25% in undisturbed areas. The **Sudan savanna** is extensive from the Sokoto basin to the lower part of the Chad basin and

covers much of the northern (semi-arid) frontline. The ecology consists of a greater frequency of *Acacia albida*, *Tamarindus indica*, and *Schelocarya birrea* and forest cover of up to 20% of the land area. The **Sahel savanna** is found mainly in the Chad basin and along the northern fringes with Niger Republic. In addition to grasses, shrub species (*Combretum spp.*) and acacias predominate. Forest cover rarely exceeds 10% except along seasonal watercourses.

98. **Protected areas.** The variable climatic conditions and geodiversity of Nigeria support a diverse assemblage of terrestrial and aquatic organisms. However, the remaining natural forests and diverse species of international importance exist only in protected areas or otherwise inaccessible (swamp, montane, and culturally protected) sites^[4]. Protected areas cover about 117,441 km² (12.84%) of Nigeria's land area^[5]. Nigeria's present network of protected areas includes seven national parks, 994 forest reserves, 5 strict nature reserves, 32 game reserves, 27 Important Bird Areas, 11 Ramsar Sites, 2 World Heritage Sites, 1 biosphere reserve, and many sacred groves at varied level of protection^[6],^[7]. The total area covered by Forest Reserves in the semi-arid northern Nigeria is about 56,824.76^[8] as shown on Table 3.
99. Gashaka-Gumti (6,731km²), Chad Basin (2,258km²) and Kamuku (1,121km²) national parks fall within the semi-arid northern Nigeria. In alignment with Nigeria's NDC, the Federal Government in December 2020 designates 10 forest reserves as new National Parks. Four of these, Falgore Forest Reserve (Kano State), Hadejia Wetlands Games Reserve (Jigawa State), Kogo Forest Reserve (Katsina State), and Marai Forest Reserve (Jigawa State)^[9] are within the VCN project area.
- 100.^[1] River Basins Development Authorities Act, 1987, No35. <http://lawsornigeria.placng.org/laws/R9.pdf>
- 101.^[2] Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development–Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> .”
- 102.^[3] Udo, R. K. (1970). *Geographical Regions of Nigeria*. Ibadan, Nigeria: Heinemann Educational Books Ltd
- 103.^[4] USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.
- 104.^[5] USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.
- 105.^[6]<http://www.un.org/esa/agenda21/natlinfo/countr/nigeria/inst.htm>
- 106.^[7] USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.
- 107.^[8] Oyebo, M, Bisong, F and Morakinyo, T (2010): A Preliminary Assessment of the Context for REDD in Nigeria. Commissioned by the Federal Ministry of Environment, the Cross River State's Forestry Commission and UNDP.
- 108.^[9]<https://guardian.ng/property/fg-designates-10-forest-reserves-as-national-parks/>
109. **Figure 3:** Projected changes in average water flows by sub-basin, 2050 compared to 1990^[1]



110. [1] Source: Cervigni et al. 2013

111. **Figure 4:** Nigeria's agro-ecological zones (NASPA-CCN,2011)



112. **Table 3:** Area covered by Forest Reserves in the semi-arid northern Nigeria states.

Sn	State	Derived Savanna (km ²)	Guinea Savanna (km ²)	Sudan/Sahel Savanna (km ²)	Total area (km ²)
1	Adamawa	328.83	1,188.04	0.00	1,516.87
2	Bauchi			8,175.80	8,175.80

3	Borno		1,346.37	1,795.17	3,141.54
4	Gombe				
5	Jigawa			977.32	977.32
6	Kaduna		864.17	5,743.91	6,608.08
7	Kano			723.67	723.67
8	Katsina			326.67	326.67
9	Kebbi			3,076.76	3,076.76
10	Sokoto			16,943.71	16,943.71
11	Taraba		7,094.22	4,373.02	11,467.24
12	Yobe			3,867.10	3,867.10
13	Zamfara				
		328.83	10,492.80	46,003.13	56,824.76

113. Source: Adapted from Oyebo et al. (2010)

114. Land cover Trends

115. Nigeria experienced the world's highest deforestation rate of 5% net forest loss annually from 2010-2015^[1]. Table 4 shows the summary of landcover trends in the seven CASP states (Borno, Jigawa, Katsina, Kebbi, Sokoto, Yobe, and Zamfara) between 1990 and 2020.

116. Land cover classes that recorded decline include areas covered by dominantly shrubs and dense grasses with a minor tree component (-3.54%), dominantly trees/woodlands/shrubs with a subdominant grass component (- 0.41%), extensive (grazing, minor row crops) small Holder Rainfed Agriculture (-5.27%), and Floodplain (Alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp) (-0.14%), natural waterbodies (-0.04%), and reservoirs (-0.01%). On the other hand, land cover categories that recorded increase during the period include Intensive (row crops, minor grazing) Small Holder Rainfed Agriculture (9.7%), built up area (0.27%), dry river channel (0.03%), floodplain agriculture (0.47%), gully (0.18%), irrigation project (0.15%), and riparian forest (1.1%).

117. As indicators of deforestation, the dominantly trees/woodlands/shrubs with a subdominant grass component landcover has been declining at around 1.55% and Floodplain (alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp) at -0.17% annually. Land degradation pointers in the area include decrease in Dominantly shrubs and dense grasses with a minor tree component (0.63% annually), Extensive (grazing, minor row crops) Small Holder Rainfed Agriculture (0.64% annually), Grassland (0.8% annually), Natural Waterbodies (0.33% annually) and reservoir (0.09% annually), as well as increase in gully (0.17% annually).

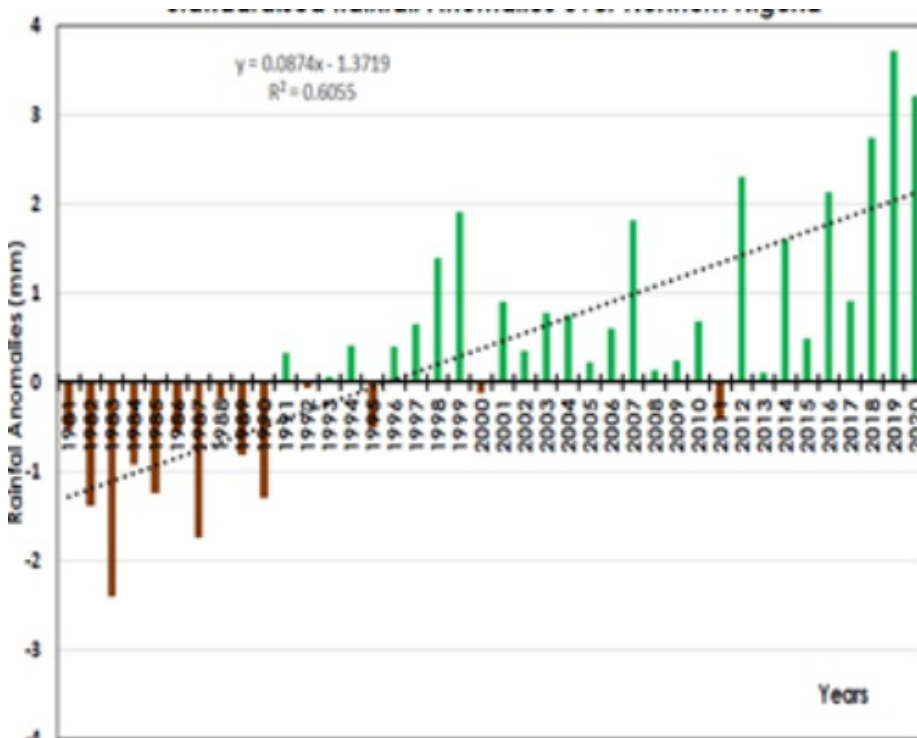
118. **Table 4:** Land use and land cover change in the seven CASP states^[2]

Landuse and landcover type	Area_1990 (km2)	Percent	Area_2020 (km2)	Percent	diff_%	diff_GR
Agricultural Tree Crop Plantation	21.5	0.0	35.3	0.0	0.00	2.14

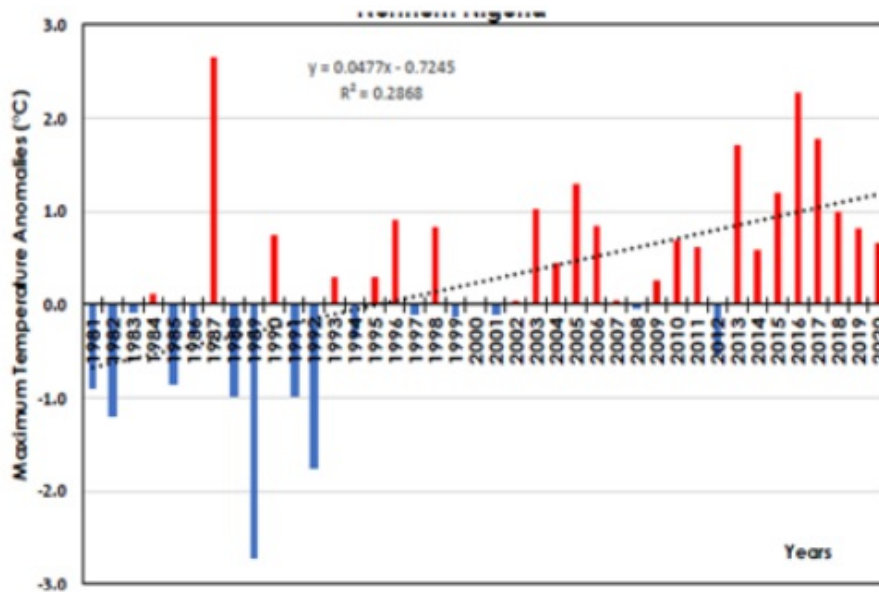
Built-up Area (Major and Minor Urban)	569.9	0.2	1,329.5	0.5	0.27	4.44
Canal	28.0	0.0	31.9	0.0	0.00	0.47
Dominantly shrubs and dense grasses with a minor tree component	52,026.5	18.7	42,177.8	15.1	-3.54	-0.63
Dominantly trees/woodlands/shrubs with a subdominant grass component	2,447.4	0.9	1,310.5	0.5	-0.41	-1.55
Dry River Channel	0.0	0.0	89.0	0.0	0.03	
Extensive (grazing, minor row crops) Small Holder Rainfed Agriculture	76,650.7	27.5	61,977.2	22.3	-5.27	-0.64
Floodplain (Alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp)	7,429.2	2.7	7,051.1	2.5	-0.14	-0.17
Floodplain Agriculture	9,151.7	3.3	10,447.8	3.8	0.47	0.47
Forest Plantation	409.2	0.1	453.6	0.2	0.02	0.36
Grassland	25,182.4	9.0	19,146.2	6.9	-2.17	-0.80
Gully	9,877.4	3.5	10,387.3	3.7	0.18	0.17
Intensive (row crops, minor grazing) Small Holder Rainfed Agriculture	85,413.7	30.7	112,420.7	40.4	9.70	1.05
Irrigation Project	662.1	0.2	1,081.9	0.4	0.15	2.11
Livestock Project	45.8	0.0	40.4	0.0	0.00	-0.39
Natural Waterbodies: Rivers, Lakes and ponds	1,072.6	0.4	966.7	0.3	-0.04	-0.33
Reservoir	969.8	0.3	943.5	0.3	-0.01	-0.09
Riparian Forest	256.6	0.1	3,360.2	1.2	1.11	40.31
Rock Outcrop	1,144.2	0.4	1,144.1	0.4	0.00	0.00
Sand Dunes/Aeolian	5,053.1	1.8	4,035.0	1.4	-0.37	-0.67
121. Present climate	278,411.8	100.0	278,429.6	100.0		

122. **Rainfall.** Like the rest of Nigeria, the climate of the VCN states is controlled by the two dominant air masses – the moist tropical maritime air mass (south westerlies) driven mainly by the West Africa monsoon system from April through October; and the dry,

119. [Du et al. \(2016\)](#). Global Forest Resources Assessment 2015: How are the world's forests changing? Second edition. FAO, Rome. 9 pages
120. [\[3\]](#) [Constantin et al. \(2019\)](#). Climate Change for the four rain mappings when ranges up to 60% or more. Dry season in the Sudan savanna is about 4-6 months and exceed 8 months in the Sahel. The inter-annual rainfall variability is high in northern Nigeria resulting in climatic hazards, especially flood and drought. The relative humidity in the north experiences considerable seasonal and diurnal variations [\[2\]](#). Since the 1990s, rainfall has recovered across Nigeria. Analysis of rainfall data from 1981 to 2020 across Nigeria shows that the general trend in rainfall amount has been positive, increasing at about 8.2% annually. The increase is higher in the north at 8.7% [\[3\]](#). The standardized rainfall anomaly over Nigeria shows that the years 1981 to 1990 (except 1988) received below normal rainfall. Rainfall recovery started in 1991; and except for 1992, 1993 and 2001, the years from 1991 to 2020 received above normal rainfall with 2019 and 2012 recording positive anomalies above 2SD. The rainfall anomalies over northern Nigeria are consistent with the signal over Nigeria (Fig. 5).
123. **Temperature.** Warming trend over Nigeria is very clear and the signal is consistent over both northern and southern Nigeria. However, temperature is rising faster over the semi-arid northern Nigeria. In essence, exposure to rising temperature and high sensitivity (coupled with low adaptive capacity), leading to high vulnerability to climate and environmental change is greater over northern Nigeria. The observed climate indicates that temperatures over Nigeria has been rising in the last five decades and has been very significant since 1980s. The linear warming for a 30-year averages on a decadal slice reveal changes in temperature by an average of 0.2°C; and has been above normal by as much as 2°C in 1998 [\[4\]](#). Nigeria transitioned from cold period to warm since 1981 with a general warming trend increasing at about 6.1% per annum. The last decade (2011-2020) remains the warmest since 1981 with only 2012 recording below normal maximum temperature. The years 2013 to 2020 have been consistently warm with positive anomalies exceeding 2SD in 2016, 2017 and 2020. The maximum temperature increase since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig. 6) [\[5\]](#).
124. [\[1\]](#) Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months. The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.
125. [\[2\]](#) State of the Nigerian Environment Report, 2008, SEDEC Associates for Federal Ministry of Environment and UNDP
126. [\[3\]](#) State of Climate in Nigeria 2020, Nigerian Meteorological Agency
127. [\[4\]](#) Federal Government of Nigeria (2014): Nigeria's Second National Communication under The United Nations Framework Convention on Climate Change. The Federal Ministry of Environment of the Federal Republic of Nigeria Abuja. Retrieved from www.unfccc.int/resource/docs/natc/nganc2.pdf.
128. [\[5\]](#) State of Climate in Nigeria 2020, Nigerian Meteorological Agency
129. **Figure 5:** Rainfall anomaly over northern Nigeria (1981-2020)



130. **Figure 6:** Maximum Temperature anomaly over Northern Nigeria (1981-2020)



131. **Future climate Trend**

1.

132. **Rainfall:** Rainfall is projected to increase across Nigeria. The Sahel savanna is projected to have the highest increase of around 30% under both RCPs 4.5 and 8.5 for the 2050-time step followed by the Sudan savanna with about 10% while the remaining zone are at less than 5%. The projections follow the same trend for the 2070-time horizon, with higher increases under RCP8.5 and even a 45% peak for the Sahel savanna. For aggregate mean annual precipitation, the northern Sahel and Sudan savannas could experience an increase of 29% to 45.8% and 9% to 14.2%, respectively. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400mm annual maximum historically over this zone (Fig 7)^[1].

133. **Temperature:** Under the RCP4.5 for 2050 and 2070, temperature increase could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline. On average, the temperature increase is projected to vary between 1.95 to 2.31°C under the RCP 4.5 scenario increasing to the range 3.15 to 3.54°C for the RCP 8.5 across the country. The lower increase is predicted for the southern part of the country and the magnitude increases northward. Under the RCP 8.5 scenario for 2050 and 2070, the low range temperature increase is from +2.41°C to +2.68°C and the highest ranges from +4.25°C to +4.63°C compared to the baseline. Under RCP 8.5 almost all parts of Nigeria could experience an increase of a minimum of 2°C and a maximum of 4°C or higher, with the highest increase being felt in the northern Nigeria. In essence, temperature is likely to continue to rise across Nigeria, but faster in the north (Fig 8)^[2]

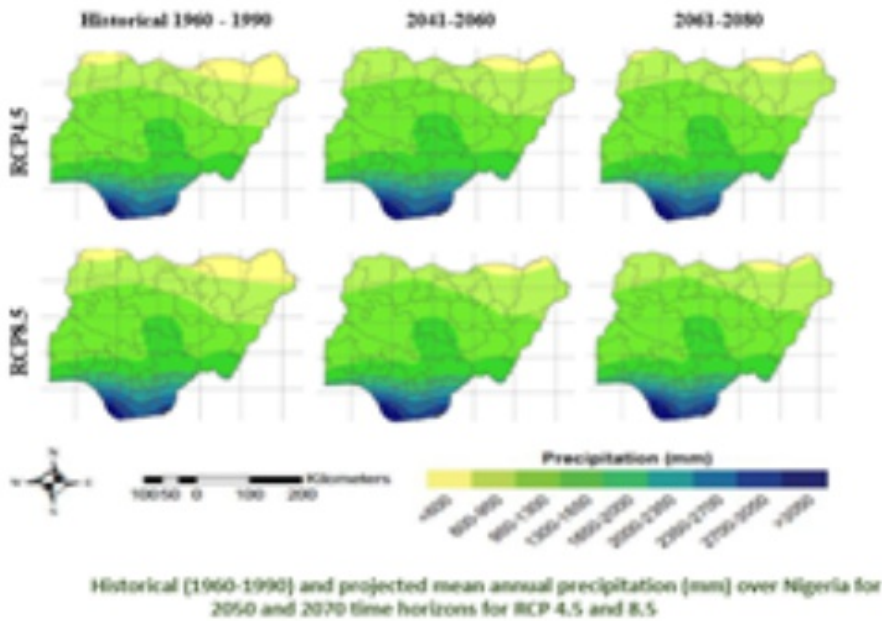
134. ^[1] Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at:

135. https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

136. ^[2] Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at:

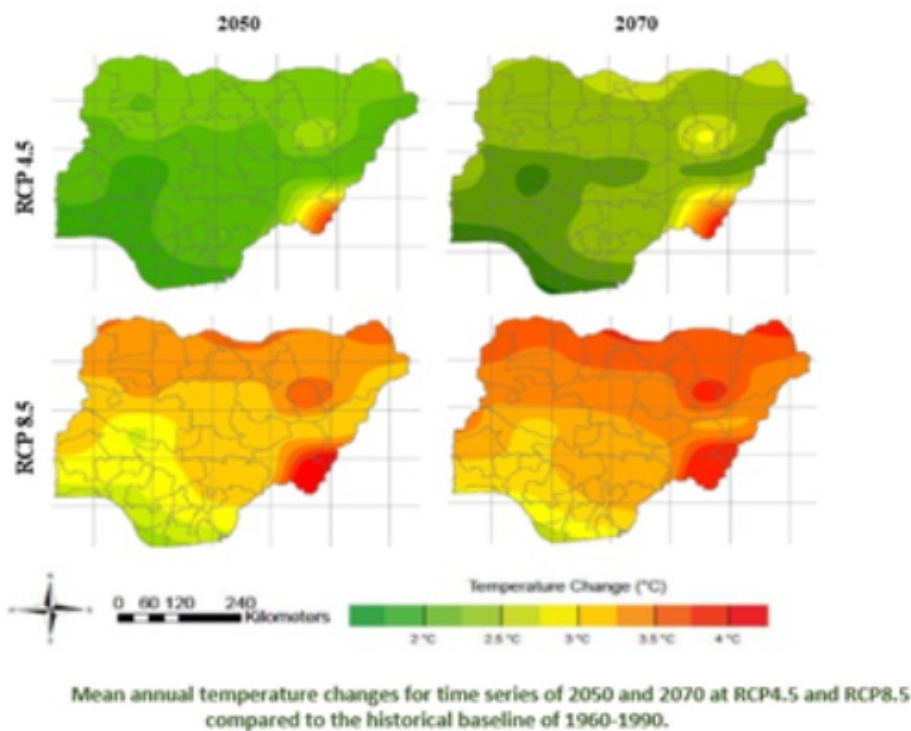
137. https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

138. Figure 7: Future rainfall pattern over Nigeria^[1]



139. [1] FGN. 2020

140. Figure 8: Future temperature pattern over Nigeria [1]



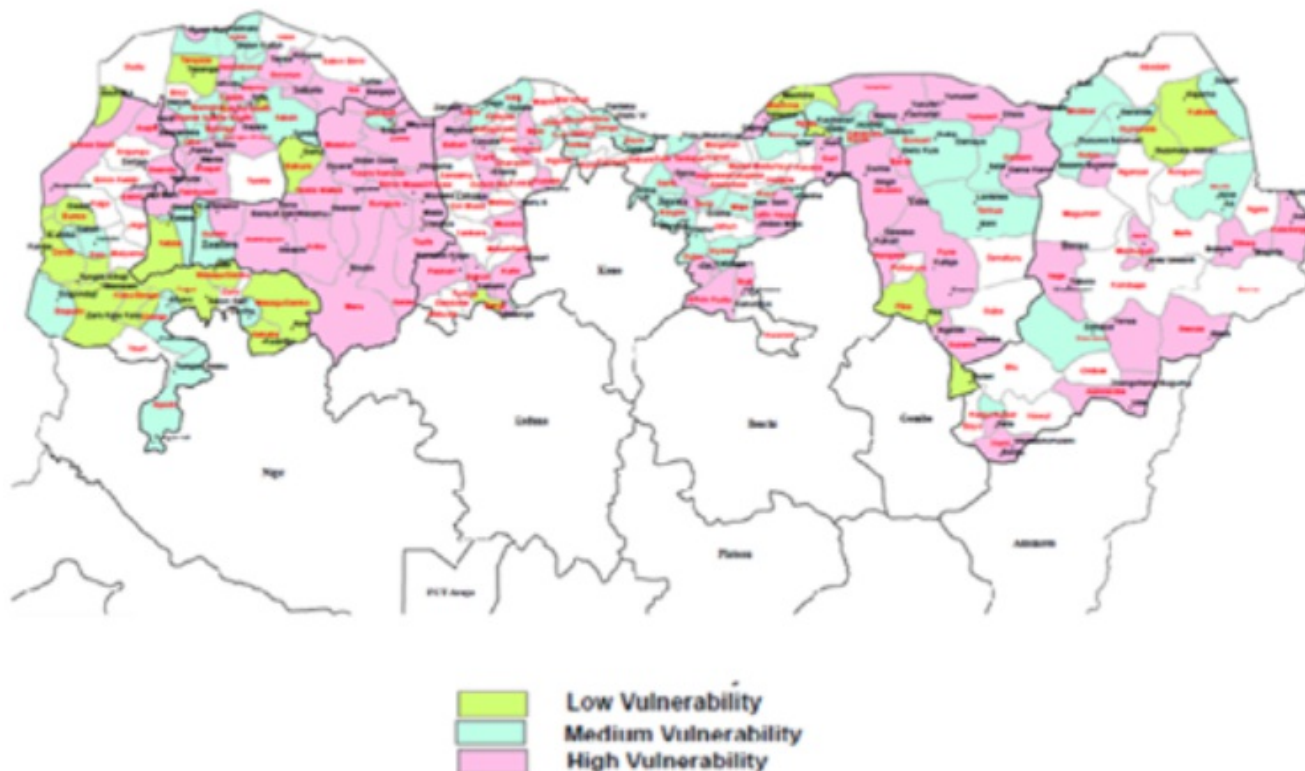
141. Climate change vulnerability and impacts on Agriculture

142. According to the Participatory Climate Change Vulnerability Mapping in CASP Areas conducted in March 2021, flood, drought, dry spell, soil erosion, high temperature, windstorm, desertification, soil infertility, and pest and diseases are the most important climate risks in northern Nigeria. Based on the report, in Kebbi state, Suru, Bagudo, Shanga, and Ngaski LGAs are considered areas of highest vulnerability to climate change. In Sokoto state, Goronyo, Isa, Kware, Wurno, Dange-Shuni, Silame, Shagari, and Tambuwal LGAs are considered areas of highest vulnerability.

143. In Zamfara state, Shinkafi, Maradun, Zurmi, Talata Mafara, Kaura Namoda, Birnin Magaji, Bungudu, Anka, Tsafe, Maru, Gasau and Bukkuyum LGAs are considered areas of highest vulnerability to climate change. In Katsina State, Jibia, Batsari, Kurfi, Dutsin Ma, Mani, Bindawa, Kusada, Musawa, Kafur, Bakori and Faskari LGAs are considered areas of highest vulnerability to climate change. In Jigawa State, Sule Tankakar, Kafin Hause, Birnin Kudu, Buji and Guri, LGAs are considered areas of highest vulnerability to climate change. In Yobe State, Yusufari, Yunusari, Geldam, Jakusko, Nangere, Fune and Gulani LGAs are

considered areas of highest vulnerability to climate change. In Borno State, Kala/Balge, Dikwa, Kaga, Gwoza, Askira/Uba, Shani and Kwaya Kusar LGAs are considered areas of highest vulnerability to climate change (Figure 9).

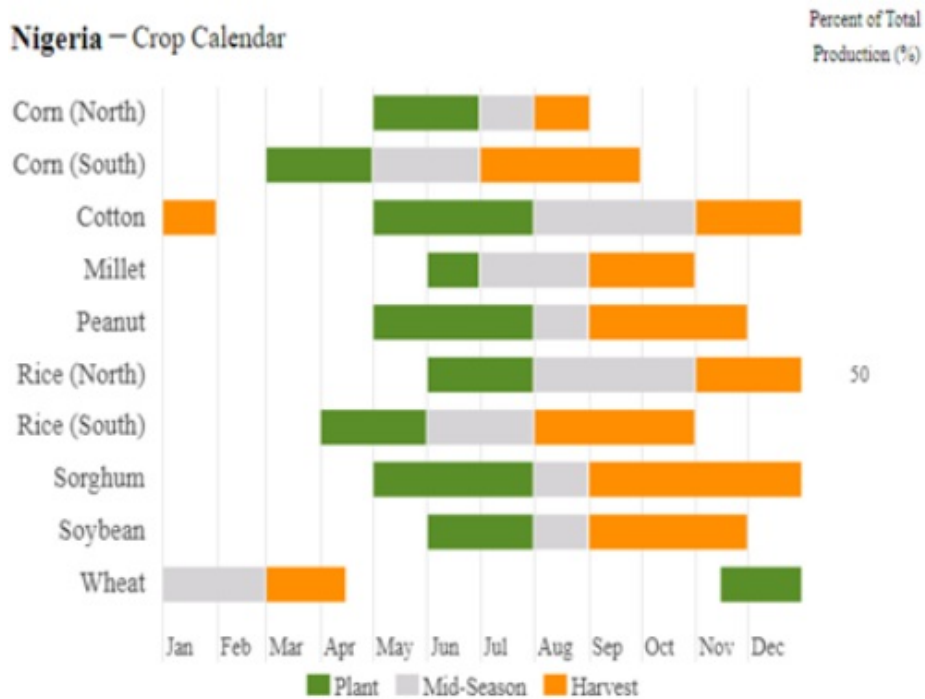
144. **Figure 9:** Climate Change vulnerability in CASP states



145. Annual fluvial flooding especially from the Niger and Benue and its tributaries (Sokoto/Rima, Kaduna, Gongola, Taraba, etc) and other rivers including the Hadejia-Jamaare, as well as pluvial floods from high intensity rainfall result in the loss of farmlands and investments across the semi-arid northern states and continues to be an increasing challenge. In 2012, 2018, and 2022 devastating floods have occurred across the states resulting in substantial losses. Majority of the farmers are not signed to any form of insurance and compensation, while access to weather advisory services established during CASP needs to be strengthened. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to the increased climate variability with possibility of increased dry spells and droughts. Increased rainfall intensity, coupled with land clearing means a greater risk of surface runoff, topsoil erosion, flooding, and risk of river damage to road infrastructure.

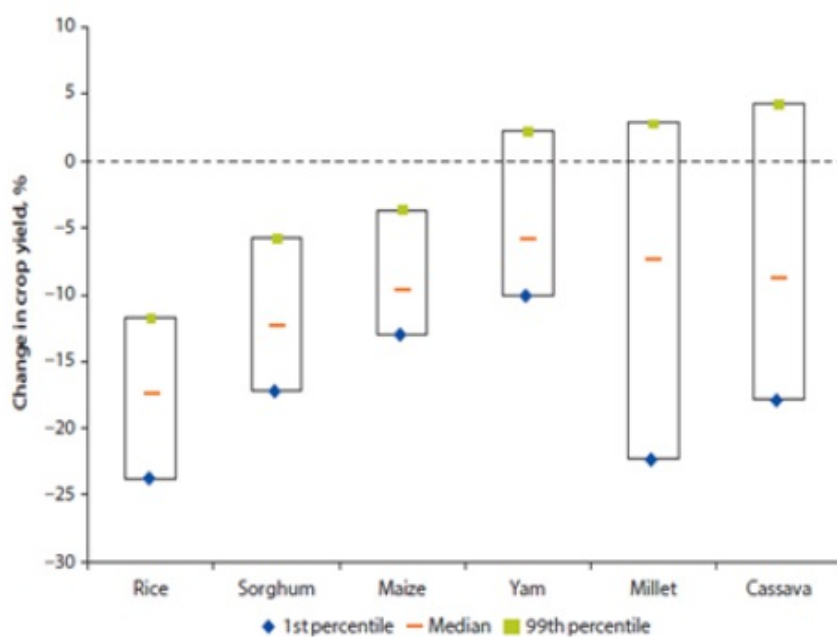
146. Flooding in northern Nigeria often occurs between September and October which coincides with the harvest season for the most important value chain crops including millet, peanut, rice, sorghum, and soybean (Fig. 10). This often exacerbates investment losses, poverty, and food insecurity and nutrition issues. Cervigni et al (2013)^[1] have shown that there will be decrease in the yield of major crops including Rice, Sorghum, Maize and Millet, which are value chain crops in northern Nigeria by 2050. This could be as high as almost 25% for Rice and Millet (Fig. 11).

147. **Figure 10:** Crop Calendar for major crops in Nigeria



148. Source: USDA, 2022. https://ipad.fas.usda.gov/countrysummary/images/NI/cropcalendar/wafrica_ni_calendar.png

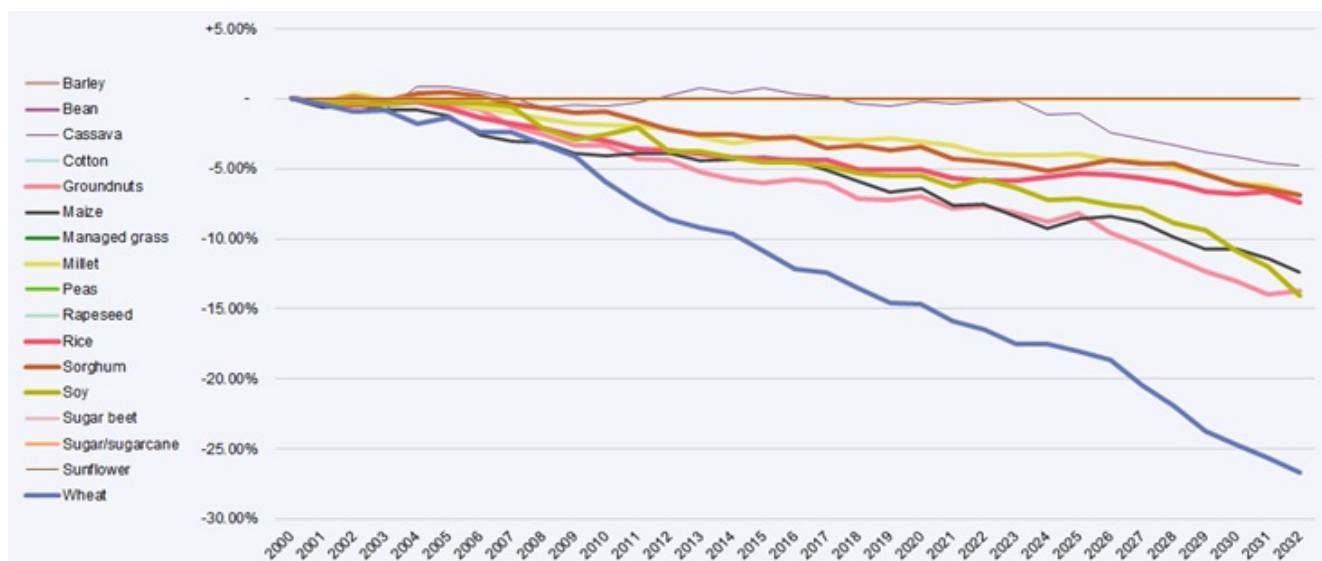
149. **Figure 11:** Aggregate Percent Change in Crop Yields by 2050



150. Source: Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811>

151. The IFAD Climate Adaptation in Rural Development Assessment Tool was used to look at the trend in crop yield for northern Nigeria. Using AEZ: dry, moderate soil (which is the common agroecological zone of northern Nigeria) under no irrigation, and median risk and year 2000 as the base year, yield for all the major value chain crops continues to decrease with as much as 27% for wheat, 14% for groundnut and soybean, 12% for maize, and 7% for sorghum, millet and rice by 2030 (Fig. 12).

152. **Figure 12:** Crop yield in Northern Nigeria 2000-2032



153. Source: IFAD Climate Adaptation in Rural Development Assessment Tool

154. Strengthening resilience and improving adaptation to climate change.

1. Climate change and variability is perhaps the greatest problem of smallholder agriculture in northern Nigeria. The short rainfall duration leading to short growing season is a limitation to production and by extension other agricultural value chains. Thus, availability of water through irrigation is critical to strengthening resilience and improving adaptive capacity of the smallholder farmers. Desertification and land degradation also undermine the resilience of farmers.
2. **The interaction with stakeholders during the concept note and project design** missions shows other issues to include access to inputs -lack of improved seeds and high cost of fertilizer, lack of labour saving technologies, insecurity, banditry and farmers herders conflicts, and innovation (especially in storage, processing and value additions, packaging, seed improvement, etc.). Others include limited access to market and market information, access to finance, low private sector (off takers, financial institutions, etc.) interface with smallholder farmers, unfavorable cross border trade (smuggling makes imported rice cheaper), challenge of storage facilities, low (local) technology for processing and lack of support for value additions.
3. VCN will have to strengthen resilience to climate change in northern Nigeria through building on the resilience-enhancing activities of CASP. This includes supporting farmers with tube wells, wash bores, water pumps and other small irrigation structures. CASP (in partnership with ICARDA) demonstrated and trained smallholder farmers on soil and water conservation and landscape rehabilitation techniques including planting pits (zai), half-moon, tie ridges, bunding, contour ploughing, and runoff diversion. It also trained farmers on soil management practices through crop rotation, cover cropping, strip cropping, mulching, fertilizer tree agroforestry with *Faidherbia Albida* and composting and farmyard manure production. Promoting mass adopting of these simple techniques and technologies and innovation for sustainable land management is critical to improving the adaptive capacity of the smallholder farmers. VCN will also improve access to climate information for planning production and processing cycles and on-farm activities for efficient agricultural value chain systems. Both the CASP impact study and responses from stakeholders for the VCN concept note agreed that farmers output has increased.
4. VCN will also need to improve on human resilience-enhancing infrastructure provided by CASP. This includes construction of water infrastructure for human and animal watering (which also provides water for animal watering for the pastoralists and reduces conflicts), and construction/rehabilitation of market connected farm roads to improve physical access to markets and reduce post-harvest losses. CASP mainstreamed conflict management in the FOs and CDA structure. Field consultations in Sokoto States suggest that there is conflict management committee in each LGA that handle conflict between Fulani and Farmers. VCN will improve innovation in several areas including storage, value additions, access to finance (including insurance), market information, packaging, seed improvement, land management, conflict management and use of digital agric technologies. Resistance to innovation due to social, cultural, and religious biases could undermine resilience. Thus, education and sensitization are key improve innovation adoption.

155. Climate and Environmental Risks

156. Climate risk

157. Project vulnerability to climate change impacts: The inherent and residual risks of project vulnerability to climate change impacts are both. The VCN project areas face the risk of climate uncertainty especially with regards to rainfall and temperature. Unpredictability of rainfall in terms of onset and cessation dates as well as length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the wide dry season. Flooding has also become a problem wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets

drier.

158. **Mitigation:** VCN will promote climate-smart and good agricultural practices, strengthen access to climate information services and sensitize agro-entrepreneurs on climate risk insurance and link them to NAIC and other insurance services providers. The project will also support farmers with climate-tolerant and high yield seeds, promote clean and energy-efficient processing systems, provide capacity building on soil and water conservation and landscape rehabilitation techniques, and strengthen extensions services to disseminate innovations and digital agriculture technologies that improve climate resilience.
159. **High temperature and extreme heat.** The risk of high temperature and extreme heat in semi-arid northern Nigeria is This means that prolonged exposure to extreme heat, resulting in heat stress, is expected to occur at least once in the next five years^[1]. Future projections have shown the likelihood of increase in temperature across Nigeria and with higher value expected for northern Nigeria. This increases the risk of heatwaves, water scarcity, dry spells and agricultural droughts.
160. **Mitigation:** VCN will promote access to climate information by farmers to reduce losses to dry spells. It will also invest in smallholder irrigation structures to reduce losses to dry and drought conditions. It will promote e-extension to disseminate good agric and agronomic practices to farmer. It will sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. VCN will promote use of improved and drought and heat tolerant seeds/seedlings and soil and water conservation practices and also deepen climate-smart and good agricultural practices.
161. **Flooding.** River flood hazard is classified as **Substantial** based on modelled flood information currently available on ThinkHard^[2]. This means that potentially damaging river floods are expected to occur at least once in the next 10 years. There is also the risk of pluvial flood from heavy rainfall submerging farmlands in the project area and this may be aggravated by unsustainable land use and management practices, which influence how localized river flood hazard evolves into the future and alter future hazard level.
162. **Mitigation:** VCN will strengthen collaboration with the Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological Service Agency (NIHSA) to improve climate services - capacity to generate forecast of extreme rainfall events and river flows and production and dissemination of weather information to farmers in local languages at regular interval. It will support deployment of e-climate services app to improve dissemination of weather information to farmers. It will promote e-extension to disseminate good agric and agronomic practices to farmers. VCN will also sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities.
163. **Water scarcity.** The risk of water scarcity for agriculture is **Substantial**. This means that droughts are expected to occur on average every 5 years. Although model projections are inconsistent in their estimates of change in drought hazard, which influences water scarcity, the present hazard level may increase in the future due to climate change. It would be prudent for the VCN to be robust in addressing increased drought hazard and water scarcity. This makes irrigation very important.
164. **Mitigation:** VCN will support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spell. In addition to agric extension officers, VCN will promote climate information advocacy through radios and text messages to disseminate weather and climate information to farmers in local languages. It will promote integration of traditional forecasting knowledge with science knowledge through regular feedback from farmers.
165. **Soil Erosion (water and wind).** A **substantial** risk - Soil erosion resulting from high intensity rainstorm and windstorm, unsustainable land practices and road construction without drainage and poorly terminated road edges and unsustainable land development mechanisms. This is likely across all states.
166. **Mitigation:** VCN will promote landscape rehabilitation and agronomic practices such as contour ploughing, terraces and contour bunds, etc to control soil erosion. It will encourage the planting of cover crops and anchor crops with the main crop. It will also ensure that all farm to market roads constructed/rehabilitated must have drainage to prevent erosion. Design and construction of roads, bridges and culverts will be climate-smart and properly monitored to prevent inappropriate termination that can lead to erosion.
167. **Greenhouse gas emissions: The inherent and residual risks of Greenhouse gases emissions are moderate.** The likelihood of some activities (e.g., rice cropping) as well as unsustainable land management practices and operation of environmentally unfriendly processing machines leading to emission of GHGs is real. In addition, the reliance of processing facilities on fuelwood and charcoal as energy sources poses the risk of GHG emissions.
168. **Mitigation:** The VCN project will promote climate-smart agriculture and the use of climate information to guide on and off farm activities. Safeguard guidelines developed to guide and promote sustainable agriculture will be followed through. Use of clean and renewable energy technology and use of climate information and advisory services will also be promoted.
169. ^[1] <https://thinkhazard.org/en/report/182-nigeria/>
170. ^[2] <https://thinkhazard.org/en/report/182-nigeria/>
171. **Environmental risk**
172. **Project vulnerability to environmental conditions: The inherent and residual project vulnerability to environmental conditions risks are both Substantial.** VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of difficult semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land

conflicts.

173. **Mitigation:** VCN has developed SECAP safeguard documents (SRN, ESCMF, ESCMP) which will guide environment and climate mainstreaming and natural resource management in the project. VCN will build on the achievement of CASP by integrating activities that deepen the capacity of farmers in soil and water conservation and landscape rehabilitation to improve the environment and natural resource management. It will also promote extension services to promote good agricultural practices and adoption of good agronomic practices.
174. **Biodiversity losses.** This is a **low** The VCN Project area harbours some protected areas, forest reserves, and delicate wetland areas (such as the Hadejia-Nguru wetlands) that also serve as important habitats for birds during the winter in the northern hemisphere. Desertification, land degradation and biodiversity losses are already serious issues in northern Nigeria because of unsustainable land management practices and significantly contribute to climate impacts and resource conflicts. However, no subproject is expected around the protected areas.
175. **Mitigation:** VCN will conduct environmental screening for all subprojects. It will discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. It will Follow through activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc.). in addition, the project will avoidance areas that infringe on known habitats and migration patterns of protected, endangered or rare species, and maintain known wildlife migration corridor.
176. **Resource efficiency and pollution:** This is a **substantial** risk. The VCN is a natural resource-dependent project that may involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts; or lead to primary environmentally unsustainable production of living natural resources including arable cropping of value chain crops. Other inherent risks include waste proliferation from production and processing sites as well as excessive and inappropriate use (including adulteration) of agrochemicals including inorganic fertilizers and pesticides. The cluster farming to be adopted possess the risk of agrochemical pollutions as well as massive groundwater drawdown around clusters through tubewell irrigation by several farmers.
177. **Mitigation:** the project will promote resource efficiency and integrated waste management and monitoring systems related to air quality (dust, CO2 emission etc) as well as health and safety on the project sites – e.g., conversion of rice waste at processing sites to briquettes. It will conduct periodic monitoring of the groundwater around farm clusters. It will train farmers on appropriate use of fertilizers and pesticides and promote farmers production and use of on-farm organic manure. It will also promote livelihood opportunities in waste valorisation and agrochemicals application through appropriate training and capacity building. An Integrated Pest Management Plan (IPMP) will be developed for the VCN.
178. **Cultural heritage.** This is a **low** Some of the communities in northern Nigeria has invaluable physical and non-physical-cultural heritages (mountains, ruins and buried monuments), geodiversity and geoheritage. Some communities have a long history of culture, traditions, values, and festivals that enrich their heritages. The projected is not expected to impact any of that.
179. **Mitigation:** VCN will activate the procedure for chance finds and other protection and handling of cultural heritage throughout all stages and activities of the project. It will discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values.
180. **Indigenous people.** This is a **low** There are no indigenous people according to the UN classification whose existence is threatened by the project. However, there are several distinct tribes and cultures spread across the project area. The risk of exclusion of marginalised and itinerant tribes such as the nomadic Fulanis) and those with weak political representation is real.
181. **Mitigation:** VCN will deepen social inclusion by considering all the social actors and mainstream inclusion and equity through the targeting, stakeholders engagement and grievance redress strategies.
182. **Labour and working conditions.**
183. This is a **moderate** The total fertility rate, family size and number of children out of school is high in northern Nigeria. Poverty is also very high and literacy level is low. Although the risk of forced labour is low, the risk of using child labourers on the farm is moderate (but consistent with the National Labour Law and Child's Right Act). Actually, VCN could operate in value chains that are characterized by working conditions that do not meet national labour laws or international commitments. it could also involve child labour. Some migrant labour influx may also be expected. The risk of women also carrying out unpaid labour in their husbands' farms is also substantial.
184. **Mitigation:** Gender Action Learning System (GALS) to support collaboration and cooperation between men and women for common goal. VCN will continue to sensitize project beneficiaries on the danger of using child labourers beyond the situated thresholds. VCN will promote a framework to encourage gender equality and inclusive participation and discourage child labour and unpaid women labour and establish an open and well publicized grievance reporting channel and redress mechanism. It will continually monitor beneficiaries to ensure compliance with labour and working conditions.
185. **Community health and safety.** This is a **moderate** Productivity of the rural population is hampered by ill-health, particularly HIV/AIDS, tuberculosis, and malaria. There is the risk of surface water pollution because of the project activities that can impact the health of poor people that depend on surface water sources in the project area. This includes risk of improper application of agrochemicals and water eutrophication. Lack of personal protective equipment (PPE) on farm poses the risk of exposure to schistosomiasis and other water-associated neglected tropical diseases. Child malnutrition is also high in northern Nigeria, and this poses risk of increased childhood mortality. VCN could also involve or lead to the construction or rehabilitation of dams.
186. **Mitigation:** VCN will promote nutrition-sensitive interventions and livelihood opportunities in agrochemicals and application and

waste valorisation by training youths to become experts in agrochemical applications. It will promote use of appropriate PPE among farmers to safeguard human health. It will conduct periodic and safety audit to ensure clean production and processing environment. For the construction or rehabilitation of dams, specific, monitoring measures related to water borne-diseases will be put in place as well as safety measures .

187. **Physical and economic displacement.** This is a **low** The risk of physical and economic displacement is low as the VCN will not support enterprises on disputed lands. The banditry, Boko Haram crisis and farmers-herders crisis has precipitated significant physical and economic displacement.
188. **Mitigation:** VCN will screen subprojects to ensure no physical and economic displacement. It will support the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. It will advise farmers to avoid lands in designated grazing reserves and around known grazing routes. It will also promote compulsory agrig insurance for producers and processors as a 'no regret' strategy and policy dialogue on land and resource conflicts.
189. **Financial intermediaries.** This is a low In the process of deepening financial inclusion, VCN will encourage and work with financial intermediaries including deposit money banks, development banks, and microfinance organizations to link them to farmers. There is a risk many of these organizations may not have environmental, social and governance systems that matches IFAD commitments to environmental, climate and social commitments.
190. **Mitigation:** VCN will require from all Financial Intermediaries and Partners their ESG system that matches IFAD commitments. Where such does not exist, VCN will request the Financial Intermediaries to adopt IFAD's SECAP procedure.
191. **Fragility and Security:** The inherent and residual fragility and security risks are both **High**. The semi-arid northern Nigeria faces complex fragility problems. This includes the insurgency in the northeast and the banditry and kidnapping crisis in the northwest. In both regions, natural resource induced crisis by different social actors including between farmers and pastoralists have elevated human insecurity risks. There are pockets of communal clashes and armed robbery cases across communities. This security and fragility problems can wipe-off investments due to farmers abandoning their fields, constrain effective project management, increase project management cost, and undermine the achievement of the PDO.
192. **Mitigation:** The VCN will support policy dialogue and engagements aimed to strengthen policy implementation and institutional service delivery across sectors. It will also contribute to addressing fragility drivers including poverty, unemployment, lack of youth empowerment, climate change, and resource decline. VCN will deepen the use of ICT and digital tools for project monitoring. It will promote climate resilient practices and sustainable land management practices to improve the natural resource base. VCN will strengthen activities that promote social inclusion and shared benefits to reduce conflicts, maintain robust grievance redress mechanisms, and build synergy and partnership with other development partners operating in the regions for shared project management in conflict experience and learning. VCN will also consider integrating a RED component (component 0) to increase the project its responsiveness to potential natural disasters.
193. **Elite capture.** This is a **moderate** risk. The chances of some 'city people' that are more exposed and financially endowed than the 'village people' coming back home to try and hijack the whole process exist. Politicians may also try to hijack and manipulate the selection processes to favour their supporters. The process of recruitment of project staff also faces the risk of hijack leading to recruitment of incompetent technical staff into the project management with its concomitant capacity issues in performance and sustainability.
194. **Mitigation:** VCN will conduct detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption. Ensure compliance with pre-approved, objective selection criteria and transparent information- sharing and decision-making. It will Sensitize communities on project objectives, target groups, beneficiary selection criteria, and risk of elite capture. It will involve all stakeholders in the process of beneficiary selection in order to adhere to representative and transparent decision-making related to the project.
195. **Grievance redress.** This is a **moderate** The risk that the project has ineffective grievance/complaint redress processes (including with respect to allegations of non-compliance with IFAD's SECAP standards, fraud, corruption, or SEA), leading to unaddressed stakeholder complaints that may undermine project implementation and achievement of project development objectives.
196. **Mitigation:** VCN will maintain robust knowledge management, information dissemination and community engagements to keep everybody informed. It will implement simple and clear stakeholder engagement plan (SEP) with a clear complaint, grievances redress and dispute resolution framework and make this known to all stakeholders. The grievance redress mechanism will be culturally appropriate and based on available customary dispute-settlement mechanisms among the targeted communities. It will be easily accessible to the stakeholders and beneficiaries in such a way to have in place at the early stage of the project a dialogue channel for complaints/remarks and feedback that will contribute to reinforce social cohesion. Relevant stakeholders will be kept informed about project progress on a regular basis.

c. Climate change mitigation

197. Nigeria's total GHG emissions was estimated at 131 million tCO₂eq. in 2021 [1]. In its 2021 NDC update, Nigeria committed to reducing emissions by 47% below BAU by 2030, conditional on international support. This is equivalent to an emissions level of 1% above to 23% below 2010 levels by 2030 excluding LULUCF [2]. Moreover, the country committed to unconditionally reducing emissions 20% below BAU by 2030. This is equivalent to an emissions level of 17-27% above 2010 levels (excl. LULUCF) by 2030. At design stage, an in-depth analysis of VCN's carbon footprint will be conducted.

198. [1]<https://globalcarbonatlas.org/emissions/carbon-emissions/>

199. [2]<https://climateactiontracker.org/countries/nigeria>

2.3 Target group profiles

200. **Geographic targeting.** The Project will target nine States in northern Nigeria. Based on the high levels and depth of poverty as well as fragility, VCN will target states previously covered by CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe) plus Kano State as it offers important market opportunities and linkages with the IFAD and ADB financed SAPZ project. The northern section of a ninth state, Bauchi, will also be included given consistent poverty levels, strategic geographic location vis-à-vis other target States and to leverage on ADF's investments (RAMP and RAAMP). Specific LGAs will be selected within these nine participating States based on the following criteria:

- CASP / RAAM / RAAMP targeted
- Withing cluster of LGAs where project supported VCs are viable
- Peace and security
- Poverty level

201. The IOM's Stability Index generates recurrent security scores and information indicating citizens' perceived security or insecurity levels and indication on their intention to stay or to leave and cluster analysis which enables the identification of pockets of stability [1]. Such index can provide useful in identifying locations for targeted programming.

202. **Direct beneficiary targeting.** A total of about 456,000 direct beneficiaries will be targeted by VCN, equivalent to 91,000 households. VCN includes three main target groups:

203. **Subsistence and semi-subsistence producers (40% of all beneficiaries).** This group comprises farmers with less than 3.0 hectares and produce mainly for subsistence and have very limited surplus – if any. HHs in this category generally earn less than \$1 per day, have no or very few production assets (of low value). Many of these HHs are female headed.

204. Rural dwellers in this category will be supported to enhance their production, productivity and resilience of farming activities; as a result, food security levels are expected to see important increases in this group. Beneficiaries in this category will receive support to access land (women, youth, PWDs, IDPs), receive technical training, be offered matching grants (covering xxx% of investment costs), linked to input suppliers, service providers, markets, and any financial services available. As many of the beneficiaries in this category will not be members of formal FOs, the project will support the legalization of people that apply in informal or new groups. Beneficiaries supported in this category are expected to sustainably transition out of poverty.

205. **Market oriented producers (30% of all beneficiaries).** This group is constituted by farmers who are market-oriented, cultivating their own or leased land but who are highly susceptible to poverty due to the effects of internal or external shocks. Generally, these producers are members of relatively strong and formal Fos which link them to markets. These farmers can also be involved in and post-harvest activities.

206. This category of farmers will receive support to render their activities more robust and commercially viable. Interventions to be offered to this group include training on technical and business skills, offered matching grants albeit with lower subsidies than poor farmers in category (a) above (covering xxx% of investment costs), and linked to financial institutions. More, these farmers will be linked when possible to poor farmers targeted by the project and others to increase marketing volumes and ease access to fair markets among all. Farmers in this category targeted by the project are expected to consolidate and expand their farming activities under conditions of decent employment among their workers with fair wages.

207. **Individuals not associated to FOs, involved in starting entrepreneurship, such as agribusiness or employment opportunities (30% of all beneficiaries).** The rationale for this is the existence of a large portion of the population mostly youth not interested in on-farm production, but off-farm innovative income opportunities. People in this category live under the poverty line and are interested in entrepreneurial activities, that is, opportunities around farming including seed production, provision of services to farmers, processing, transport, trade, etc in project supported VCs.

208. The Project will provide the following interventions to this category of beneficiaries: technical and business training, access to matching grants (covering xxx% of investment costs), and linkages to financial institutions, service providers and markets.

209. Cross cutting interventions will be offered to beneficiaries from all three groups, namely, nutrition and the Gender Action Learning System (GALS), as relevant.

210. **70% of women, youth, PWDs and returning IDPs** targeted will be poor subsistence and semi subsistence producers and poor (aspiring) entrepreneurs.

211. Overall, **women will represent 40 percent of project beneficiaries (half of the women targeted will be WHH); 30 percent project will be youth aged 18-29 and 10% PWDs.**

212. VCN, through participatory poverty and livelihood analysis approaches, will support communities and POs to develop appropriate eligibility criteria to select the beneficiaries. The project will ensure that the selection process is transparent by holding public meetings with participatory democratic decision-making processes. In addition, self-targeting measures will reduce the risks of inequality and elite capture.
213. The gender activities of the VCN project will be transformative to challenge the root cause of gender inequalities and will fully align with IFAD Gender Transformative Approaches as well as the national gender policies. The project will identify and address the barriers that women face in accessing and controlling productive economic resources (assets, land, equipment, quality input), while strengthening their voices and agency using a Household/Community-led empowerment Methodology (e.g. GALS) and addressing workload issue at household level.
214. **Value chain screening (from beneficiaries perspective).** All value chains considered by the project will be screened to ensure climate and environmental, social and market suitability. In this context, opportunities will exist for women, youth and PWDs to participate in the project through income generating activities that these groups commonly engage in and / or that they aspire to be involved in.
215. [1] An example of the stability index report is as follows: <https://dtm.iom.int/reports/nigeria-stability-index-overview-round-3-september-2023>

3. Institutional analysis

216. **Institutional framework.** The National Programme Management Unit (NPMU) will manage the implementation of environmental and climate mainstreaming activities and provide technical support and coordination of climate and environment mainstreaming activities undertaken in the states. The NPMU will be supported by the Country Programme Advisory Team (CPAT). The day-to-day implementation of the environment and climate mainstreaming activities at the state level will be the responsibility of the State Programme Management Unit (SPMU). The project design will ensure the employment of Environment and Climate Change Specialist at NPMU and SPMU levels to oversee the implementation of the environment and climate mainstreaming activities.
217. **Contribution to Nationally Determined Contributions (NDC).** According to Nigeria's 2021 updated NDC [1], under a business-as-usual scenario, agricultural productivity could decline between 10 to 25% by 2080. In some parts of the north, the decline in yield in rainfed agriculture could be as much as 50%. Nigeria's NDC recognizes climate smart agriculture and reforestation as critical to achieving the conditional 47% GHG reduction target by 2030 [2]. The NDC aims to leverage on climate smart agriculture (to reduce up to 74million tonnes of GHG per year in 2030) to address the combined challenges of food security and climate change. It also aims to sustainably increase agricultural productivity and support equitable increases in farm incomes, enhancing food security and development, while reversing deforestation and unsustainable land-use change, improving adaptation, and building resilience of the agricultural and food security systems, and reducing GHG emissions in the agric sector. The Agriculture, Forestry and Other Land Use (AFOLU) sector is projected to contribute about 33% of Nigeria's GHG emissions by 2030. This comes from direct conversion of forestland into cropland, biomass burning, liming, urea application, and indirect N₂O emissions from manure management, among other sources.
218. VCN will build on the success of CASP to mainstream climate resilient measures to deepen the adaptive capacity of smallholder farmers to respond to climate risks through the capacity building and hard and soft structural activities that will be undertaken. In addition, VCN will contribute to GHG emission reduction and mitigation through training on good agricultural practices and climate mitigation actions. VCN will bring on board the monitoring, reporting and verification (MRV) of GHG emissions saved/avoided because of climate and environmental mainstreaming activities to quantify VCN contributions towards Nigeria's meeting the NDC target.
219. **Alignment and Contribution to Climate Finance.** Climate finance are primary investment in climate mitigation and adaptation [3] and aims at reducing emissions, enhancing sinks of greenhouse gasses, reducing vulnerability, and maintaining and increasing the resilience of human and ecological systems to negative climate change impacts [4]. Investing in de-risking smallholder agriculture and businesses by building and strengthening local institutions including farmers organizations, cooperatives, farmers apex groups, and rural finance institutions presents inexpensive way to de-risk loan products to smallholder agriculture. With funding from ASAP climate financing, CASP invested on improving the resilience of rural smallholder farmer in 7 semi-arid northern states through rural institution development, capacity building and soil and water conservation techniques, landscape rehabilitation, climate information production and dissemination to farmers, extension services delivering training on climate-resilient inputs and climate-smart production systems, rangeland management, and provision of market infrastructure including rehabilitation of climate-vulnerable market-connected farm roads, small earth dams, irrigation structures and water for human and animal watering.
220. Although VCN is not proposed to be the second phase of CASP, **it will also source for climate finance funds to mainstream climate change and environmental sustainability, building on some of the activities of CASP, especially in capacity building and extension service delivery.** One key areas of climate financing for VCN is in pursuing renewable energy technologies for smallholder production and processing, as well as innovation and digital agricultural technologies that significantly reduce labour for women, improve access to market and inputs, improve productivity and response to climate change, and improve resilience on the overall. The VCN will strengthen technical support for smallholder farmers and organizations to develop bankable adaptation and mitigation business plans as part of the capacity building plans. With this, the

VCN will leverage both public and private sector climate finance. It will also strengthen the Knowledge Management and Communication to provide maximum visibility for successful climate finance activities and climate mainstreaming gains. As part of the climate financing tracking, VCN will monitor the tonnes of GHG emissions (tCO₂e) avoided and/or sequestered because of climate finance activities in VCN.

221. **Capacity building.** Capacity building activities for VCN beneficiaries and project implementation staff to mainstream climate and environmental resilience will be carried out directly by service providers and extensions service agents (through outreaches and farmers field schools) through the life of project. The project will also build Nutrition capacity along the value chains. This will include:

- Beneficiaries' sensitization on climate and environmental risks; health, workplace safety and hygiene issues; biodiversity conservations, insurance and risk transfer, etc.
- Understanding the requirements of SECAP and SECAP-triggered documents
- Sustainable agricultural practices
- Soil and water conservation
- Landscape rehabilitation
- good agronomic practices
- use of climate information and crop calendar
- climate-smart agriculture
- resource efficiency and pollution prevention
- integrated pesticide management
- quick-win livelihood opportunities in climate mitigation and adaptation in production and processing
- Stakeholder engagement for conflict resolution and grievance management.
- Environmental and social audit and reporting.
- Deepen awareness creation and capacity building for nutrition along the value chains
- Deepen food fortification and recipes from local crops
- Deepen home garden practice
- Promotion of nutrition education for youth and women

222. ^[1] Federal Government of Nigeria (2021). Nigeria's Nationally Determined Contributions – 2021 update. Available at https://climatechange.gov.ng/wp-content/uploads/2021/08/NDC_File-Amended-11222.pdf.

223. ^[2] Federal Government of Nigeria (2015a). Nigeria's Nationally Determined Contributions. Available at https://www4.unfccc.int/.../Nigeria%20First/Approved%20Nigeria's%20INDC_271115.pdf.

224. ^[3] Barbara Buchner, Baysa Naran, Pedro Fernandes, Rajashree Padmanabhi, Paul Rosane, Matthew Solomon, Sean Stout, Costanza Strinati, Rowena Tolentino, Githungo Wakaba, Yaxin Zhu, Chavi Meattle, Sandra Guzmán (2020). Global Landscape of Climate Finance 2021. Climate Policy Initiative.

225. ^[4] Daniela Chiriac and Baysa Naran (2020): Examining the Climate Finance Gap for Small-Scale Agriculture. Climate Policy Initiative and IFAD. www.climatepolicyinitiative.org

4. Environmental and social category

226. Based on the preliminary screening from the **IFAD Environmental and Social Safeguards Screening Checklist in the ORMS**, **VCN** Environmental and Social Category is rated as a '**SUBSTANTIAL**' (see Appendix I).
227. VCN is a natural resource dependent value chain project, which include agricultural intensification and/or expansion of crop production clusters in non-sensitive areas as well as the development of medium-sized agro-processing centres to cluster women processors. The risk of VCN leading to primary not environmentally sustainable production of living natural resources through the cultivation crops, especially annual crops, is substantial. Other potential environmental impacts are limited, site-specific and constrained to production and agro-processing facilities. These include unsustainable land management and agrochemical use and management issues, unsustainable draw down of groundwater resources from tubewells irrigation, the use of firewood in processing, waste management, unhealthy working environment, risks from construction of market infrastructure including market-connected feeder roads, and small-scale irrigation structures and drainage development (including small earth dams, tube-well and watering points). The risks of biodiversity losses and physical and economic displacement is low.
228. An **Environmental, Social and Climate Management Framework (ESCMF)** with appropriate **Environmental, Social and Climate Mitigation Plans (ESCMP)** will be developed to enable mitigation/remediation/considerable reduction of potential risks as appropriate. Sub-project-specific **Environmental and Social Management Plan** will be required for land development and development of market Infrastructure on case-by-case basis. VCN will not have any severe negative impacts on the livelihoods of other peoples including involuntary taking or restriction on the use of land resulting in physical or economic displacement. It is not envisaged to negatively affect indigenous peoples or sites of historic, religious, or cultural significance. The project will not support the opening of lands in virgin forests, sensitive areas and protected areas (including national parks, forest reserves and important bird areas), and/ or new clearing of contiguous areas of above 100 ha in a single location. The mitigation options proposed for environmental concerns will provide opportunities to mainstream environment and climate-resilient production and processing systems and creating additional value chains (such as making use of waste) within the existing system without extensive additional costs.
229. The social risk is also **Substantial** across the states due to insurgency, banditry, kidnapping by non-state actors, and resource conflicts (especially between farmers and pastoralists) and related threats to human security. The VCN will build on existing channels including CAF and the CDAs, as well as LGA conflict resolution committee established by government in some of the states to deepen conflict resolution. It will also support mechanism to compensate farmers and processor for conflict-related damages. Access to land by women also pose a challenge. VCN will prioritize women in targeting and support policy dialogue on land reform as a mitigation strategy for both land access for women and conflict management. As much as possible, it will promote framework to discourage child labour and unpaid women labour, minimize migrant labour influx, sensitize on community health and safety, discourage elite capture, and established an open and well publicised grievance reporting channel and redress mechanism.

5. Climate risk category

230. In terms of climate, based on the preliminary screening IFAD **Climate Screening Checklist in the ORMS** the project is assessed to have a **SUBSTANTIAL Climate risk (see appendix II of SECAP Note)**. A **Targeted Adaptation Assessment** is required and will be carried at the Project Design stage. The VCN project area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and processing infrastructure. The risk of water scarcity leading to drought for agriculture is Substantial. It also has substantial risk of soil erosion resulting from high intensity rainfall and windstorm and unsustainable land practices. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, as well as unsustainable land management practices and operation of environmentally unfriendly processing machines.
231. The VCN target group is substantially dependent on climate-sensitive natural resources especially rainfed agricultural plots. Rice, one of the value chain crops for VCN is grown mainly in the Fadamas (inland wetlands) and the fertile alluvial plains of the major river systems. All parts of the project area have been subjected to extreme flooding in the recent past. Climate variability including unexpected dry spells occasioned by unpredictable rainfall and high temperature can affect the sub-projects' impacts, sustainability and return on investment. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability. This suggests the likelihood of increased dry spells and high intensity rainfall leading to pluvial floods, erosion and landslides, and risk of river damage to road infrastructure. Increased local processing (e.g., rice parboiling) further represents a greater risk of use of firewood with concomitant GHG emissions from deforestation.
232. VCN has the potential to integrate climate resilience measures without extensive additional costs through capacity building programmes in climate-smart agricultural production strategies, strong collaboration with extension and weather/climate monitoring institutions for regular agro-climatic information and use of the climate resilient seed varieties (early maturing and flood and drought tolerant varieties). VCN will also pursue partnerships to enable farmers get access to agric linkages and marketing information. VCN will invest in market infrastructure (including market-connected roads and small irrigation structures) to strengthen resilience of small-holder farmers. In addition, GHG emissions resulting from deforestation through fuelwood usage for processing will be reduced. VCN will invest in rural renewable energy technologies including conversion of rice, millet, and sorghum husks into briquettes. Micro-insurance to cover losses to floods will be promoted through linkage with NAIC and other private Insurance Institutions.

6. Recommendations for project design and implementation

233. Rice, Sorghum, Millet, Maize, Cowpea (with possibility Soya bean and vegetables) are some of the value chain crops that are likely to be supported by VCN. The identified environmental, climate change and social risks, if not mitigated, or adapted to will likely reduce the positive impacts of the proposed investments. To strengthen resilience, the project has to reduce the impact (exposure and sensitivity) of environmental and climate change risks, while simultaneously improving the adaptive capacity of the beneficiaries. Thus, the PDR should present tremendous opportunities for improving adaptive capacity in order to mainstream resilience into the production and processing value chains.

- **Climate and Environment**

234. **Climate and hydrological information.** The risk of high temperature and extreme heat means mean less water, heatwaves and increased heat stress, water scarcity, dry spells, and agricultural droughts. The risk of damaging river floods and pluvial floods from high intensity rainfall submerging farmlands and destroying market infrastructure in the project area is very likely. This may be aggravated by unsustainable land use and management practices which influence how localized river flood hazard evolves into the future and alter future hazard level. The VCN project will deepen access to weather information by leveraging existing partnership with the Nigerian Meteorological agency (NIMET), the Nigeria Hydrological Services Agency (NIHSA) and the River Basin Authorities (RBDA) to ensure that timely information and early warning on weather and river flow regimes are disseminated to farmers and processors as early as possible to enable them take appropriate decisions aimed at safeguarding their investments.
235. **Sensitization and no regrets option.** Sensitization of project beneficiaries to possible losses from climate hazards is critical. In addition, VCN beneficiaries will be linked with Insurance service providers including NAIC and other private insurance providers to signed-on to a weather index insurance. Thus, VCN will deepen the 'no regrets' option to ensure that every project beneficiary is informed and protected to reduce losses. The VCN will ensure the delivery of training and agricultural inputs in good time to assist farmers to adjust and adapt their planting and harvesting methods and timing.
236. **Irrigation structures for water scarcity.** The risk of water scarcity for agriculture is Substantial. This means that droughts are expected to occur on average every 5 years. Generally, the short rainy season also limits cropping to only one season. However, the VCN project area has a large area of Fadamas where multiple cropping season is feasible with little investment in small irrigation structures including tubewells, wash bores and pumping machines. In other upland parts, small earthen dams have proved to be lifeline for both crop production and human and animal watering during the dry season. The VCN will invest on small irrigation structures including small earthen dams, tube wells, washbores and water pump to ensure robust response to drought and water scarcity and ensure multiple cropping seasons.
237. **Resource efficiency, waste and pollution management.** The VCN is a natural resource-dependent project that may involve or lead to primary environmentally unsustainable production of living natural resources including arable cropping of value chain

crops. Other inherent risks include waste proliferation from production and processing sites as well as excessive use of agrochemicals including inorganic fertilizers and pesticides. The cluster farming to be adopted possess the risk of agrochemical pollutions as well as massive groundwater drawdown around clusters through tubewell irrigation by several farmers. VCN will ensure that waste management at processing sites is improved through waste valorization enterprises including the conversion of rice, sorghum, millet, corn and other crop waste and residues to briquettes. This will significantly reduce the use of fuelwood for local processing. Green enterprises will be created through training of youth in correct agrochemical applications where they can make an enterprise. Periodic environmental audits of processing facilities will also help to ensure compliance with expected environmental and health standards.

238. **Landscape rehabilitation, soil and water conservation, and good agricultural practices.** Soil and land degradation from desertification, wind and water erosion, flooding and soil losses are serious challenges limiting availability of arable lands for agriculture. CASP invested on training and demonstrations on landscape rehabilitation, soil and water conservation and good agricultural practices. The VCN project will upscale landscape rehabilitation/land reclamation, and soil and water conservation techniques and technologies including intercropping with cover crops, fertilizer tree agroforestry, half-moon, planting pits, farmyard manure, etc. Sustainable intensification and good agricultural practices from land preparation to harvest and storage through Farmer Field School (FFS) and use of improved crop varieties will be promoted by the VCN.

239.6.2 Social Issues

240. **Resource Conflicts.** Natural resource induced crisis by different social actors including between farmers and pastoralists have elevated human insecurity risks in northern Nigeria. Mainstreaming conflict resolution and land management into programme offers several advantages for reducing resource conflicts. The VCN will leverage on rural institutions established by CASP including Commodity Alliance Forum (CAF) that include the pastoralist social groups. VCN will continue to support conflict resolution dialogue and the building of mutual understanding and confidence between the two social groups – farmers and pastoralists. VCN will promote an expanded community security and a traditional committee that includes representatives from the farmers and pastoralists. However, mitigation measures are critically important, including avoiding farming on grazing routes, making sure farms and surroundings are clear of weeds, and fencing of farms with crops that are unattractive to grazing livestock. “No regrets options” as an adaption strategy will be promoted.

241.6.3 Market infrastructure

242. **Roads and irrigation infrastructure.** Construction and rehabilitation of market connected farm roads and provision of small irrigation structures and equipment to farmers help to strengthen their resilience to climate change. These ensure easy movement of products to processing and market sites and ensure all year-round production. ESMP of market-connected feeder roads and the ESCMF will be developed to ensure that roads and other market-infrastructure contractors adhered to the environmental and social guidelines.

243.6.4 Component contribution

244.

245. **Component 1.1:** Promote sustainable agricultural systems, improved technologies and climate resilient agricultural production practices

246. In addition to the climate, environment and social safeguard activities captured in the SECAP, ESCMF, ESCMP, Target Adaptation Assessment, and the various plans (integrated pest management, stakeholder engagement, grievance redress, and labour assessment and management), the following activities are proposed to mainstream climate change and environment into the VCN. The proposed activities are targeted at addressing the pressing risks including uncertainties in rainfall onset and cessation (and by implication length of the growing season), soil erosion, soil infertility, land degradation and desertification, and water shortages for crops, human and animal watering. These interventions will build resilience and increase the adaptive capacity of smallholder farming systems and rural livelihoods to climate and environmental change-driven risks.

247. Output 1: Promote climate and hydrological information for early warning

248. Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

249. (i) **Climate information production and seasonal rainfall prediction (SRP) downscaling and dissemination with NIMET to the communities**

250. VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmer to aid preparedness and resilience.

251. (ii) **Hydrological information production and downscaling with NIHSA**

252. VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modelling of river flow data on the major river catchments across the project area as well as projected rainfall data

to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

253. (iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

254. VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

255. Output 2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

256. Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

257. (i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

258. VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that these measures, which include planting pits (Zai), half moon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

259. Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds and vegetative bunds. Bunds will reduce run off speed and carrying away of soil particles, improve soil moisture and reduces surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

260. (ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

261. VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera species*), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

262. (iii) integrated soil fertility management technologies

263. Since the Russia-Ukraine war, the price of inorganic fertilizers and other farm additives have increased dramatically. This price increase was also compounded by Nigeria's rising price inflation. Access to fertilizers has also become problematic due to the fragility and insecurity of the situation across the project area. Inorganic fertilizers are being hijacked from farmers by bandits and insurgents to produce improved explosive devices (IED). This has made access to inorganic fertilizers more difficult. Feedback from stakeholders during the fieldwork for VCN design suggests that farmers are increasingly shifting to the use of organic fertilizers and farmyard manure. VCN will promote the production and usage of organic fertilizers by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility while improving climate and environmental benefits.

264. Output 3. Investment in rehabilitation of market infrastructure that strengthens resilience

265. Lessons learned from IFAD projects have shown that construction/rehabilitation of basic market infrastructure improves resilience. This includes rehabilitation of climate-vulnerable market connected farm roads, provision of small earthen dams for crops and animals, tube-wells and water pumps for smallholder irrigation and motorized and solar power boreholes and water infrastructure for human and animal watering. The specific activities include:

266. (i) Rehabilitation of climate-vulnerable market connected farm roads

267. VCN will invest in rehabilitation and climate proofing of market-connected farm roads to enhance access to market. This will

improve communication between the rural producer communities and the outside world and ensure prompt evacuation of farm products to market, processing and offtaking centers. This worked well on CASP and will be upscaled in the VCN project.

268. (ii) **Small irrigation structures**

269. Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

270. (iii) **Water infrastructure for human and animal watering**

271. VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

272. **Output 4. Supporting farmers with climate-resilient planting materials**

273. Flood, drought, and heatwaves are serious climate risks in the VCN project areas. They significantly impact agricultural. In the last couple of years, these risks have become common, leading to loss of investments. The activities here are designed to support farmers with improved (early maturing, high yield, drought and flood tolerant and disease-resistant) varieties seeds. The specific activities are:

274. (i) **Support farmers with climate-resilient seeds:** through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

275. (ii) **Support women farmers with Nutrition crops:** through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

276. **Output 5. Awareness and capacity building through extension services**

277. Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between climate change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support services including the Farmer Field Schools (FFS) and Training of Trainers (TOT) to ensure that the targets are reached. The specific activities include:

278. (i) **Awareness and capacity building in sustainable land management and GAP:** VCN will carry out training in good agricultural and agronomic practices to deliver activities listed in 1,3 and 4. The technical and human capacity activities will be driven through extension support and FFS. E-extension will be strongly promoted to enable wider and timely reach of beneficiaries.

279. (ii) **Capacity building in waste valorization and sustainable agrochemical applications:** VCN will provide capacity building in waste valorization including briquettes and biochar production from rice, maize, sorghum, and millet husks, animal feeds production from the hauls/straw, rice bran conversion to poultry feed, rice husk conversion for litter, handicrafts, etc. These training will strengthen the capacity of the women and women groups especially to improve their income and thus become more resilient. VCN will also train youth to create enterprises in correct agrochemicals application.

• **Mitigation measures**

280. Mainstreaming environment friendly and climate-smart small holder commercial production and processing into the project design has several strongpoints, including strengthening of climate and environmental management as mitigation, reducing vulnerability to climate impacts, reducing the adverse impacts on the natural environment, and improving the achievement of programme output targets. Mitigation measures for the VCN revolve around:

281. **Project vulnerability to environmental conditions**

282. (i) VCN SECAP and other safeguard documents will guide environment and climate mainstreaming and natural resource management in the project (ii) An environmental and social management framework will be developed to further provide for adaptation and mitigation measures to guide against unsustainable land management practices (iii) building on the CASP, VCN will integrate activities that deepen the capacity of farmers in soil and water conservation and landscape rehabilitation to improve the environment and natural resource management (iv) extension services will be intensified to promote good agricultural practices and promote adoption of good agronomic practices.

283. Project vulnerability to climate change impacts

284. As means of mitigation, VCN will: (i) promote climate-smart and good agricultural practices (ii) strengthen access to climate information services (iii) sensitize agro-entrepreneurs on climate risk insurance and link them to NAIC and other insurance services providers (iv) support farmers with climate-tolerant and high yield cultivars (v) promote clean and energy-efficient processing systems (vi) provide capacity building on soil and water conservation and landscape rehabilitation techniques (vii) strengthen extension services to disseminate innovations and digital agriculture technologies that improve climate

285. Biodiversity Conservation

286. Environmental screening will be conducted for all subprojects to ensure minimal impact on the ecosystems and biodiversity and ensure no activities around protected areas, forest reserves and important wetland areas of conservation significance. The activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc) will be followed through.

287. Resource Efficiency and Pollution Prevention

288. (i) Resource efficiency and integrated waste management will be promoted. This includes conversion of rice and other crop waste at processing sites to briquettes. (ii) Periodic monitoring of the groundwater around farm clusters will be conducted to ensure sustainability. (iii) As part of the good agronomic practices, farmers will be trained on appropriate use of fertilizers and pesticides. (iv) Organic manure production and use on farms will be promoted (v) Livelihood opportunities in waste valorisation will be exploited.

289. Cultural Heritage

290. (i) the procedure for chance finds and other protection and handling of cultural heritage will always apply (ii) the localization of project beneficiaries in their communities will reduce negative impact of alien culture diffusion into local culture to upset the traditional values.

291. Indigenous People

292. As much as possible, the VCN shall deepen social inclusion by considering all the social actors. The targeting strategy will mainstream inclusion and equity in selection project beneficiaries.

293. Labour and Working Conditions

294. (i) As means of mitigation, VCN will promote the implementation of the Gender Action Learning System (GALS) which supports collaboration and cooperation between men and women for common goals; VCN will promote a framework to encourage gender equality and inclusive participation and discourage child labour and unpaid women labour, sensitize on community health and safety, and establish an open and well publicized grievance reporting channel and redress mechanism and (ii) sensitize project beneficiaries on the danger of using children labourers (iii) continually monitor beneficiaries to ensure compliance.

295. Community Health and Safety

296. (i) As means of mitigation, VCN will establish and maintain working relationships with the line ministries (such as health, gender, education) to build synergy in nutrition-sensitive interventions in VCN. (ii) VCN will create livelihood opportunities in agrochemicals and application and waste valorisation by training youths to become experts in agrochemical applications. (iii) VCN will promote use of appropriate PPE among farmers to safeguard human health and specific monitoring, measures related to water borne disease will be put in place as well as safety measures with respect to dams constructions..

297. Fragility and Security

298. The VCN will (i) deepen poverty dialogue on conflicts (ii) include activities that build mutual trusts and confidence, promote mutual understanding (e.g., community action plans and participatory land-use plans) and address the root causes of fragility (iii) deepen the use of digital tools for project monitoring (iv) promote sustainable land management practices and land rehabilitation and reclamation to make more arable lands available (v) strengthen activities that promotes social inclusion and shared benefits of all social actors to reduce conflicts (vi) operate robust grievance redress mechanisms (vii) build synergy and partnership with other development partners operating in the regions for shared project management in conflict experience and learning.

299. Physical and Economic Resettlement

300. VCN will contribute to supporting the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. As means of mitigation for risk of land resource conflicts, the project will: (i) advise agri-entrepreneurs to avoid lands in designated grazing reserves and around known grazing routes; (ii) encourage agribusinesses to adopt agricultural insurance as a 'no regret' strategy to compensate for possible loss due to animal destruction of crops; and (iii) encourage state government to consider options such as creating ranches or designated grazing areas (iv) promote understanding between the farmers and pastoralists.

301. Financial intermediaries and direct investments

302. (i) IFAD will require all Financial Intermediaries in the VCN to show evidence an ESG system that matches IFAD commitments

(ii) Where such does not exist, IFAD will require the Financial Intermediaries to adopted IFAD's SECAP procedure and this shall guide the relationships between IFAD and such organizations with respect to the VCN project.

303. **Elite Capture**

304. (i) The project will put in place strict due diligence and integrity checks in the selection of participating youth and women to ensure that only those who meet the set criteria are admitted to participate in the project (ii) Recruiting of staff on competitive basis (emphasis on skills and experience required for each post) will be required (iii) The project coordinators will be required to consult directly and extensively throughout the process with all the potential stakeholders - in both the private and public sector to ensure that only the best are recruited.

305. The full environmental, climate and social risks and planned mitigation elements are shown on the shown on the Environmental, Social and Climate Management Plan (ESCMP) on Appendix 3

306. **Grievances redress**

307. The stakeholder engagement plan has identified the key stakeholders including Project Affected Parties (PAP), Interested Parties, and Disadvantages and vulnerable persons and groups. In addition, it also identified their levels of influence and interests. The identified PAP include: host communities in project area, community members in the project host communities, crop farmers, livestock farmers and pastoralists (who will benefit from water source provision), community development associations, farmers organizations, women groups, other community associations and groups, etc. This group have low influence, but high interest in the VCN project. They are mainly potential project beneficiaries.

308. The vulnerable or disadvantaged groups classified in the context of this project, include elderly people above the age of 65, female headed households, persons with disabilities, people living in extreme poverty (e.g., unemployed youths), internally displaced people (IDPs), victims of gender-based violence and sexual exploitation and abuse and sexual harassment, orphans, migrant laborers, etc. This group of people also have high interest but low influence on the project. They are directly impacted by the project and are also potential beneficiaries.

309. The project affected parties and vulnerable or disadvantaged groups are at the grass root level. Without focused assistance, they may not be able to participate in the decision-making process of the project. The plan is to focusing efforts on these groups of stakeholders throughout the project cycle, involving them in regular consultations throughout the project cycle, ensuring adequate use of the grievance redress and feedback channels to engage and keep them satisfied, and keeping them in the loop on decisions that will influence project design and implementation.

310. The Interested Parties is made up of stakeholders who may not be directly or indirectly impacted by the project, but who have the potential interest to influence the project outcomes through their statutory functions and mandates or other factors. They include Ministries, Departments and Agencies with statutory roles in the implementation of VCN in the various participating states. They include the Federal Ministries of Agriculture and Food Security and Finance and other interested MDAs at Federal levels. At the states level, they include Office of the State Governor and MDAs related to Agriculture, Finance, Environment, Water Resources, Women Affairs, Humanitarian, etc. This group also include NGOs, CSOs, CBOs, Traditional/Community Leaders, etc. They have high influence and high interest on the project. They provide implementation support, governance, and oversight, both technical and financial support for the project.

311. The GRM identifies potential issues that may necessitate GRM and require mitigation. These include community member not adhering to cut-off date as announced during consultation, dispute about ownership of assets, delay in disbursement and improper distribution of assistance, land acquisition, restriction of access and displacement, non-inclusion of community members in project beneficiary and paid labour/workforce; unclear beneficiary inclusion/exclusion criteria, unrealistic corporate social responsibility (CSR) expectations from the client or contractors by community members, omission of eligible PAPs, delay in execution of sub-projects leading to breakdown of trust, non-implementation or discrepancies in the implementation of safeguard documents, and potential risk of GBV, SH and SEA of vulnerable people as a result of project implementation, among others.

312. VCN will activate IFAD's procedure that allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. The Project implementation unit and IFAD will be committed to: (i) working proactively with the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions^[1].

313. **Information Disclosure:** VCN SEP will make provision for disclosure of safeguard documents to project-affected and other interested stakeholder mapped during stakeholder's identification exercise. Appropriate project information, particularly on environmental, climate and social risks and impacts, shall be disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format. Disclosed materials/documents shall be made available at venues and locations convenient for the stakeholders and places to which the public have unhindered access.

• **Multiple benefits approach**

- Mainstreaming environment and climate change into the VCN programme presents multiple benefits, including:
- Improving land management to increase availability of arable lands for cultivation, improve soil productive capacity, and increase crop productivity.
- Reducing investment loss to flooding and improving resilience of beneficiaries through insurance compensation for losses.

- Create opportunities for green growth and climate-smart production and processing through reduction in fuelwood usage, poverty reduction and increase in number of value chains (and by implication beneficiaries) through resource efficiency.
- Expanding opportunities for workable, stakeholder-based conflict resolution mechanisms through the CAF and the host communities, as well as compensation for loss of investments incurred through conflicts.
- Strengthening opportunities for the provision of timely and appropriate climate and hydro-meteorological information to guide on-farm activities and reduce climate vulnerability through collaboration with appropriate institutions.
- Fostering benefits of improved market access and increased production and processing through market infrastructures
- Improved adoption of sustainable land management practices and good agricultural practices through extensions services leading to strengthening of the local extension institutions
- Strengthen local institutions to adopt and take ownership of climate-resilient agricultural practices.
- Adoption of climate resilient practices and means to tackle GHG emissions and improve adaptation.
- Using high yielding, flood, and drought tolerant and pest and diseases resistant crop varieties to improve income, nutrition, and food security.

• **Incentives for good practices**

- Several elements of the VCN concept note lend themselves to incentivizing farmers for the adoption of best practices. Notably the project supports climate-resilience through the provision/rehabilitation of market infrastructure including farm roads and small irrigation structures to encourage multiple cropping seasons. This will encourage more women farmers to engage in the productive farming of the value chain crops. Equally, the support for value chains in resource efficiency will motivate more women to engage in livelihood opportunities created by climate adaptation and mitigation. Farmers will be motivated to participate in the FFS training in sustainable farming and processing best practices, including correct agrochemical use and preservation of outputs. Extension officers will adjust visits and trainings to be women-friendly and thus encouraging more women to participation.

• **Participatory processes**

- Participatory processes will be mainstreamed throughout project implementation starting from the selection of target beneficiaries. It will form the basis of all interactions with the beneficiaries, apex groups, farmers’ organizations, cooperatives, production and processing clusters, and the umbrella CAF. This will help to effectively support the target groups and foster social inclusion. In addition, the VCN will take measures to mitigate elite capture of project staff recruitment activities and selection of beneficiaries. The selection of the market- and production centre-connected farm roads to be constructed/rehabilitated will be made in full participation with the stakeholders. VCN will leverage on the community action planning approach under mainstreamed under CASP to elicit community participation especially as it relates to market infrastructure that will also serve the community. To ease the institutional encumbrances hampering access to markets, and real-time delivery of farm produce to processing and marketing sites, the VCN will deepen the existing stakeholder forum to include all relevant stakeholders including security, transport union, regulatory agencies (including NAFDAC) and others.

• **Analysis of alternatives**

- Environment and climate change mainstreaming in agriculture to build resilient, climate-smart and environment-friendly agriculture aligns with government policy intentions and well captured in government documents including: National Agricultural Technology and Innovation Policy (NATIP 2022-2027), National Development Plan (NDP, 2021-2025), Agricultural Sector Food Security and Nutrition Strategy (AFSNS 2016 – 2025), National Gender Policy in Agriculture, National Climate Change Policy Response and Strategy, Environmental Impact Assessment (EIA) Act (2004), Nigerian National Policy on Environment (revised 2016), National Agricultural Resilience Framework, Nigeria’s Third National Communication under the UNFCCC, and Nigeria’s Intended Nationally Determined Contribution (INDC) to GHG Emission Reduction Targets under the Paris Climate Agreement. The VCN will move in this direction of mainstreaming.
- The final value chain crops for the VCN will be selected during the Project Design. However, the feedback from the various stakeholders during the concept Note consultation process in March 2023 gives priority to **rice, maize, sorghum, millet, and cowpea** at this stage. Opportunity crops such as **Onion (and Soybean)** that rated high in some states priorities (e.g., Onion in Sokoto) could also be considered.
- Generally, the approach to cereals cultivation in Nigeria is to use any available seeds with little concern for quality. The VCN will focus on providing to the farmers high yielding, flood and drought tolerant and pests and insects’ resistant seeds varieties. Farmers will be encouraged to adopt climate-smart agronomic practices as set out in Table 5.

314. **Table 5:** Alternatives Promoted through Climate and Environment Mainstreaming

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
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Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
Cereals (Rice, Maize, Sorghum, and Millet,	<ul style="list-style-type: none"> • Use of untested seedlings and uncertified seeds • Wrong application of soil amendments and agrochemicals • Use of low yield and long gestation varieties • Use of non-flood and drought resistant seed varieties • Fertilizer spreading • Tillage operations remove all trees and vegetation. • Use of inorganic crop protection chemicals • No risk transfer measures to mitigate losses. • Farming activities not guided by agro-climatic information. • Waste poorly managed and constituting a nuisance. • Fuelwood as main energy sources for processing • No access to irrigation • Substantially limited to the short rainy season • Farms mainly cultivated for subsistence. 	<ul style="list-style-type: none"> • Encourage transplanting of tested seedlings and seeds from certified suppliers • Encourage soil sample analysis for appropriate agrochemical applications. • Train and certify spraying groups to carry out agrochemical spraying enterprise. • Encourage the adoption of improved, high yield, drought and flood tolerant and pest resistant and early maturing varieties. • Encourage deep application of urea at 6cm-10cm depth. • Encourage minimum or zero tillage. • Encourage the use of organic crop protection solutions like Neem oil. • Encourage use of organic fertilizers and farmyard manure • Encourage carbon sequestration activities (improving organic carbon levels in the soil) through agroforestry. • Fence farms with hedges to reduce animal intrusion. • Leverage stakeholder engagement to co-manage common resources. • Encourage farmers to sign-on to agricultural insurance for 'no regrets and risk transfer. • Strengthen collaboration to ensure farming activities are guided by agro-climatic information for better timing. • Create value chain for resource efficiency and waste conversion to briquette. • Intermediate processing requiring energy to be done with locally produced green energy technology such as briquettes made from waste, as well solar and other renewable and efficient energy sources. • Construct small dams and irrigation structures for dry season farming. • Train farmers on sustainable land management including soil and water management and landscape rehabilitation to retain water for longer cropping time. • Encourage linkage with prefinance and offtakers out-grower schemes

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
Legumes and vegetables (cowpea, soybean, and onion)	<ul style="list-style-type: none"> • Use of spent and low-quality seeds • Wrong application of soil amendments and agrochemicals • Use of low-yield and long gestation varieties • Fertilizer spreading • Tillage operations remove all trees. • Use of inorganic crop protection chemicals • Waste poorly managed • No risk-transfer mechanisms • Production activities not guided by agroclimatic information. • Vegetation on farmed land totally removed. • Poor application of technology for erosion and flooding control 	<ul style="list-style-type: none"> • Encourage intercropping and strip cropping with cereals as applicable to improve soil conditions. • Create value chains around resource efficiency. • Encourage soil sample analysis. • Encourage the adoption of improved varieties. • Encourage linkage without grower and prefinancing schemes. • Encourage fertilizer application at 6cm-10cm depth. • Encourage minimum or zero tillage. • Use organic crop protection solutions like Neem oil. • Encourage carbon sequestration activities (improving organic carbon levels in the soil) • Leverage stakeholder engagement to manage common resources. • Encourage farmers to sign on to agricultural insurance for 'no regrets and risk transfer mechanisms • Strengthen collaboration to ensure farming activities are guided by agro-climatic information for better timing. • Encourage agroforestry to maintain trees on farms, and replant trees along farm borders. • Train farmers on sustainable land management including soil and water management and landscape rehabilitation to retain water for longer cropping time. •

315.6.11 Budgetary resources and schedule

- The summary cost for SECAP monitoring costs is as shown on Table 6. The total monitoring costs is about USD2,630,000 represneting about 2.31% of the proposed USD114million project financing cost.

316. Table 6: Summary of the SECAP monitoring costs for VCN

Monitoring Parameter	Average cost per state (in USD)	Total for 9 States (in USD)	Year 1 (in USD)	Year 2 -8 (in USD)
Site specific ESMPs and Environmental Screenings*	240,625	2,165,625	942,188	1,223,438
Environmental Monitoring**	14,931	134,375	68,750	65,625
Social monitoring costs	22,778	205,000	102,500	102,500

Other environmental and social monitoring costs	13,889	125,000	13,889	111,111
Total monitoring costs		2,630,000	1,127,326	1,502,674

317. The full detail of the cost is shown on Appendix IV.

318. [\[1\]](#) IFAD (2016) *Managing Risks to Create Opportunities. IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)* (IFAD: Rome), p.12

7. Further studies needed

1. Based on the risk categorization which is SUBSTANTIAL, the additional documents have been prepared.

319. **Table 6:** Studies prepared with the PDR

i. 1	ii. Environmental, Social and Climate Management Plan(ESCMP)
2	iii. Abbreviated Environmental, Social and Climate Management Framework (ESCMF) -
iv. 3	v. Targeted Adaptation Assessment
vi. 4	vii. Stakeholder Engagement Plan (SEP)
viii. 5	ix. Grievance Redress Mechanism (GRM)
x. 6	xi. Outline of the Integrated Pest Management Plan (IPMP)
xii. 7	xiii. Outline of the Labour Assessment and Management Plan (LAMP)
xiv. 8	xv. Outline of water pollution and management
xvi. 9	xvii. Outline of waste management plan
xviii.	xix.

1. The Environmental, Social and Climate Management Plan(ESCMP) is on Appendix III of this SECAP. The other documents have been produced as separate documents.

320.

8. Monitoring and evaluation

1. As part of the VCN results framework, the following indicators related to climate and environmental sustainability and resilience from the IFAD's Revised Evaluation Manual, 2022^[1] are relevant for tracking.

321. Core Outcome Indicators

- **Access to Natural Resources**

322. CI 1.2.1: Households (HH) reporting improved access to land, forests, water, or water bodies.

- **Climate change**

323. CI 3.2.1: **Mitigation**: Tonnes of greenhouse gas emissions (tCO₂e) avoided and/or sequestered.

324. CI 3.2.2: **Adaptation**: HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices.

325. CI 3.2.3: **Adaptation**: HHs reporting a significant reduction in time on collecting water or fuel.

326. Core Output Indicators

- **Environmental sustainability and climate change**

327. CI 3.1.1: Groups supported to sustainably manage natural resources and climate-related risk.

328. CI 3.1.2: Persons provided with climate information services.

329. CI 3.1.4: Hectares of land brought under restoration/ climate resilient management.

330. In the PDR Logframe, **CI 3.2.2, CI 3.1.2, and CI 3.1.4** have been included as part of the core indicators for reporting.

1. In addition, at the project results framework level, VCN will means of verification to track the climate-resilient activities and practices including:

- Awareness creation, training and other capacity building activities on climate change and environment
- Activities enhancing climate-smart agriculture.
- Activities enhancing climate mitigation and environmental sustainability through renewable energy and integrated waste management systems.
- Activities improving environmental and climate compliance and resilience through sustainable land and market infrastructure development, implementation of environmental management plans, small-scale irrigation structures/facilities, and erosion and flood control.
- Activities on soil and water conservation and landscape rehabilitation including agroforestry and use of cover crops.
- Stakeholders' engagement activities in conflict resolution and management
- Adoption of no regrets options to improve resilience.
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331. ^[1] IFAD Revised Evaluation Manual, Part I. Interim version, 2022.
<https://www.ifad.org/documents/38714182/45512776/IFAD+REVISED+EVALUATION+MANUAL+-+PART+1+%28interim+version%29.pdf/1241196f-de3e-0dc2-2c47-419de3f3d4a0>

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ESCMP Matrix

363. Appendix III of the SECAP Review Note: Environmental, Social and Climate Change Management Plan (ESCMP)

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
CLIMATE MITIGATION PLAN						

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Flooding	Substantial	The project area is exposed to pluvial and fluvial flood runoff from high intensity and short duration rainfalls and high floods from the major rivers and their local tributaries in the project area	<ul style="list-style-type: none"> ▪ Strengthen collaboration with the Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological Service Agency (NIHSA) to improve climate services - capacity to generate forecast of extreme rainfall events and river flows and production and dissemination of weather information to farmers in local languages at regular interval. ▪ Support deployment of e-climate services app to improve dissemination of weather information to farmers. ▪ Promote e-extension to disseminate good agric and agronomic practices to farmers. ▪ Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. ▪ As much as possible discourage production around the river floodplain during the wet season. ▪ Ensure that input supports are provided to farmers ahead of time to enable them stave off the flood season. ▪ Support farmers with improved, flood-tolerant seeds ▪ Promote farmers adoption of climate-smart and good agricultural practices. ▪ strengthen extensions services to disseminate innovations and digital agriculture technologies that improve flood resilience. 	NPMU and SPU	<ul style="list-style-type: none"> ▪ Ability of NIMET and NIHSA to issue and deliver regular forecasts. ▪ Number of agro-entrepreneurs receiving and using agro-climatic information to guide farming operations. ▪ Number of farmers that signed unto agricultural insurance. ▪ Reduction in Number of farmers that lost crops to flooding. ▪ Number of farmers cultivating improved flood resistant crop varieties 	<p>Quarterly</p> <p>Quarterly</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Heat/Heatwaves Extreme Heat, Dry spell and Drought	Substantial	All States	<ul style="list-style-type: none"> ▪ Strengthen collaboration with the Nigerian Meteorological Agency to improve climate services - to generate seasonal forecast of droughts and heatwaves, dry spells and disseminate information to farmers. ▪ Support deployment of e-climate services app to improve dissemination of weather information to farmers. ▪ Promote e-extension to disseminate good agric and agronomic practices to farmer. ▪ Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. ▪ Support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spell. ▪ In addition to agric extension officers, promote climate information advocacy through radios and text messages to disseminate weather and climate information to farmers in local languages. ▪ Promote integration of traditional forecasting knowledge with science knowledge through regular feedback from farmers ▪ Promote use of improved and drought and heat tolerant seeds/seedlings ▪ Promote soil and water conservation practices ▪ Deepen climate-smart and good agricultural practices 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Ability of NIMET to issue and deliver climate services and forecasts. ▪ Number of farmers receiving and using agro-climatic information to guide farming operations. ▪ Number of farmers that sign on to agricultural insurance. ▪ Number of farmers using improved drought and heat/dry spell tolerant varieties <p>Number of farmers engaged in soil and water conservation practices.</p>	<p>Quarterly</p> <p>Quarterly</p> <p>Annual</p> <p>Annual</p>

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Wildfires	Low	All States	<ul style="list-style-type: none"> ▪ Ensure that existing regulations against bush burning are adhered to. ▪ Promote GAP to discourage slash and burn agriculture and land clearing with fire. 	NPMU, SPMU	<ul style="list-style-type: none"> ▪ Number of farmers adopting GAP to discourage slash and burn agriculture and land clearing with fire. 	Annual
GHG emissions (especially from rice paddies and use of firewood for processing)	Moderate	All States	<ul style="list-style-type: none"> ● Promote and Train farmers on draining rice paddies in mid-season to reduce methane emission and improvement in nutrient management including the retention of rice residues. ● Encourage use of clean energy in processing activities ● Promote conversion of production waste into sustainable energy e.g. briquettes from rice husks, biogas from cassava effluents, etc. 	NPMU, SPU,	<ul style="list-style-type: none"> ▪ Number of farmers trained. in sustainable rice paddies management ▪ Number of processing units using sustainable energy ▪ Number of successful demonstrations of briquette and biodigester production, and other waste to energy initiatives 	Annual Annual Mid-term, End-Term

ENVIRONMENTAL MITIGATION PLAN

Biodiversity conservation	Low	All States	<ul style="list-style-type: none"> ▪ Conduct environmental screening for all subprojects. ▪ Discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. ▪ Follow through activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc.) ▪ Avoidance of areas that infringe on known habitats and migration patterns of protected, endangered or rare species, and maintain known wildlife migration corridor ▪ Use nets and modern bird scaring equipment on rice field 	NPMU, SPU,	<ul style="list-style-type: none"> ▪ Number of subprojects screened for biodiversity conservation. 	Annual
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Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Resource Efficiency and Pollution Prevention	Substantial	All States	<ul style="list-style-type: none"> ▪ Promote resource efficiency and integrated waste management – e.g., conversion of rice waste at processing sites to briquettes. ▪ Monitoring systems related to air quality (dust, CO2 emission etc) as well as health and safety on the project sites. ▪ Conduct periodic monitoring of the groundwater around farm clusters. ▪ Train farmers on appropriate use of fertilizers and pesticides. ▪ Promote farmers production and use of on-farm organic manure. ▪ Promote livelihood opportunities in waste valorization. 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of livelihoods opportunities created in waste valorization. ▪ Number of periodic monitoring conducted. ▪ Number of farmers trained on appropriate use of pesticides and insecticides. ▪ Number of farmers using organic manure 	Annual Annual Annual Annual
Cultural Heritage	Low	All States	<ul style="list-style-type: none"> ▪ Activate the procedure for chance finds and other protection and handling of cultural heritage. ▪ Discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values. 	NPMU, SPU	<ul style="list-style-type: none"> ▪ State of the cultural heritage at baseline and project completion 	Inception and project completion
Indigenous peoples	Low	All States	<ul style="list-style-type: none"> ▪ Deepen social inclusion by considering all the social actors. ▪ Mainstream inclusion and equity through the targeting strategy. 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of project beneficiaries from indigenous communities 	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Labour and Working Conditions	[1] Moderate	All States	<ul style="list-style-type: none"> ▪ promote the implementation of the Gender Action Learning System (GALS) to support collaboration and cooperation between men and women for common goal, So, VCN will promote a framework to encourage gender equality and inclusive participation and discourage child labour and unpaid women labour, sensitize on community health and safety, and establish an open and well publicized grievance reporting channel and redress mechanism. ▪ sensitize project beneficiaries on the danger of using children labourers ▪ continually monitor beneficiaries to ensure compliance with labour and working conditions 	NPMU, SPU	<ul style="list-style-type: none"> ▪ State of the cultural heritage at baseline and project completion 	Inception and project completion
Community Health, Safety and Security	Moderate	All States	<ul style="list-style-type: none"> ▪ Promote nutrition-sensitive interventions. ▪ Promote livelihood opportunities in agrochemicals and application and waste valorisation by training youths to become experts in agrochemical applications. ▪ Promote use of appropriate PPE among farmers to safeguard human health. ▪ Conduct periodic and safety audit to ensure clean production and processing environment 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of farmers and processors using PPE ▪ Number of people trained in fertilizers and agrochemicals applications. ▪ Number of production and processing units maintaining clean and safe environment 	Annual Annual Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Physical and economic resettlement	Low	All States	<ul style="list-style-type: none"> ▪ Screen subprojects to ensure no physical and economic displacement. ▪ Support the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. ▪ Advise farmers to avoid lands in designated grazing reserves and around known grazing routes. ▪ Promote compulsory agric insurance for producers and processors as a 'no regret' strategy. ▪ Promote policy dialogue on land and resource conflicts 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of subproject screening conducted. ▪ Number of policy dialogue on land and resource conflicts 	Annual Annual
Financial intermediaries and direct investments	Low	All States	<ul style="list-style-type: none"> ▪ Request all Financial Intermediaries to show evidence a an ESG system that matches IFAD commitments. ▪ Where such does not exist, request the Financial Intermediaries to adopt IFAD's SECAP procedure 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of FI with ESG systems 	Inception and project completion

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Agrochemical Waste proliferation and water pollution	Moderate	All States	<ul style="list-style-type: none"> ▪ Support the use of improved and disease resilient crop varieties to reduce pest incidence and use of agro-chemical. ▪ Promote training and certification of the 'spraying groups' in sustainable application of agrochemicals. ▪ Encourage use of organic manures ▪ Encourage service providers and agro-chemical input suppliers to follow high standard of security and safety precautions in storage and transport of agrochemicals. ▪ Collaborate with NAFDAC and SON in training of 'spraying groups' and elimination of fake and expired agrochemicals ▪ Promote waste valorization to reduce waste proliferation 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of farmers using improved and diseases resistant crop varieties ▪ Number of youth trained and certified in integrated pesticide and agrochemicals management 	Annual Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Erosion and landslide	Substantial	All States	<ul style="list-style-type: none"> ▪ Promote landscape rehabilitation and agronomic practices such as contour ploughing, terraces and contour bunds, etc to control soil erosion. ▪ Encourage the planting of cover crops and anchor crops with the main crop. ▪ Ensure that all farm to market roads constructed/rehabilitated must have drainage to prevent erosion. ▪ Design and construction of roads, bridges and culverts to be climate-smart and properly monitored to prevent inappropriate termination that can lead to erosion. ▪ Collaborate with other projects such as ACRESAL for synergy on erosion control. ▪ Support farmers with capacity building on soil and water conservation and landscape rehabilitation techniques ▪ Strengthen extension services to disseminate innovations and digital agriculture technologies that improve climate resilience. ▪ Promote nature-based solutions shrubs/grasses – e.g., Vetiver and Datura arboreal (Mahukachi) planting to check active erosion. 	NPMU, SPU and Service Providers	<ul style="list-style-type: none"> ▪ No of farmers adopting soil and water conservation strategies and sustainable agronomic practices including nature-based solutions. ▪ Kilometer of roads constructed/rehabilitated with drainages. ▪ Kilometer of road constructed/rehabilitated that are climate-smart and with proper termination. 	<p>Annual</p> <p>Mid-term,</p> <p>End-Term</p> <p>Mid-term,</p> <p>End-Term</p>

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Land/soil degradation and forest degradation	Substantial	All States	<ul style="list-style-type: none"> ▪ Require production of project specific ESMP by contractors for all feeder roads, small dams, and other market infrastructure construction ▪ Train farmers and service providers on sustainable land development and preparation methods including zero or minimum tillage. ▪ As much as practicable, encourage mixed cropping of target crops with cover crops and anchor crops where applicable. ▪ involve partners from the Ministry and research institutes in training of farmers on soil conservation techniques. ▪ promote agroforestry and farmers managed regeneration with economic and fertilizer trees 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of ESMP produced for market infrastructures ▪ Number of farmers that received training on GAP, sustainable land management and integrated soil and water management. 	Annual Annual
Pest and disease Infestation	Moderate	All States	<ul style="list-style-type: none"> ▪ Synchronized planting for all farmers to enable synergy in bird control. ▪ Promote use of pest resistant crop variety. ▪ Strengthen partnership with research institutes and universities to improve capacity to predict pest infestation. 	NPMU, SPU,	<ul style="list-style-type: none"> ▪ Number of farmers that received training on integrated pest management. ▪ Number of farmers using disease and pest resistant seed varieties 	Annual Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Waterborne and other vector borne diseases	Moderate	All States	<ul style="list-style-type: none"> · ensure adherence to the mitigation measures in the integrated pest management plan (IPMP) to ensure no contamination of surface and groundwater resources through pesticides and agrochemical uses · provision of water facilities for communities for plant watering to ensure access to safe water · ensure the animal watering bowls are separated from human watering points to minimize the risk of zoonotic disease transmission · enforce use of PPE (especially safety boots) for farmers especially during the rainy season to minimize risk of water and vector borne disease infection. · step up awareness creation of water and vector borne diseases risk 	NPCO, SPCO	<ul style="list-style-type: none"> · Number of human watering points provided · number of farmers using safety boots · number of awareness campaigns on water and vector borne disease 	Annual

364. Social Management Plan

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
SOCIAL MITIGATION PLAN						

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Fragility and Resource conflicts especially farmers-pastoralists clashes	High	All States	<ul style="list-style-type: none"> ▪ Set up the CAF (to include traditional council and social and livelihood groups) to strengthen conflict resolution especially between farmers and pastoralists ▪ Facilitate regular dialogue meeting of the stakeholders to review conflict resolution issues. ▪ Outline clear grievance or complaint channels. ▪ Avoid investments along known stock grazing routes and in known grazing reserves. ▪ Promote policy dialogue on conflict resolution. ▪ Support compulsory agro-insurance for beneficiaries ▪ As much as possible, avoid investment in conflict hotspots. ▪ Deepen the use of digital tools for project monitoring. ▪ promote sustainable land management practices to make more arable lands available. ▪ 	State Government, communities, NPMU, SPU	<p>A functional CAF in each state</p> <p>Number of agro entrepreneur that signed on to insurance</p> <p>Number of conflict dialogue convened.</p>	<p>Annual</p> <p>Annual</p> <p>Mid Term</p>

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Grievance Redress among group members	Moderate	All states	<ul style="list-style-type: none"> ▪ Maintain robust knowledge management, information dissemination and community engagements to keep everybody informed. ▪ Develop a clear complaints, grievances redress and dispute resolution framework and make this known to all stakeholders ▪ Develop a clear and simple stakeholder engagement plan (SEP) ▪ Keep relevant stakeholders informed about project progress on a regular basis; ▪ Involve youth and women leaders as well as respected elders in key project decisions and sensitization activities. ▪ Publicly disclose relevant information on contracts and payments. ▪ Encourage contractors / service providers to give employment preference to local community members. ▪ Develop a code of conduct for all stakeholders. ▪ Sensitize women and particularly youth on what it's like to be an agri-entrepreneur (give a realistic picture of economic, social and environmental benefits but also challenges and responsibilities). ▪ Where feasible, involve locally trusted CSOs in community sensitization. 	NPMU, SPU,	<p>Stakeholder engagement plan (SEP)</p> <p>Stakeholder meeting reports, project flyers</p> <p>Complaints register.</p> <p>Meeting records, observation</p> <p>Service provision contract and employment lists</p> <p>Code of conduct</p> <p>Knowledge management materials</p>	<p>Inception</p> <p>Quarterly</p> <p>Quarterly</p> <p>At every project activity</p> <p>Upon award of contracts and after payments</p> <p>Quarterly</p>

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Land tenure and land access for women and youth	Substantial	All States	<ul style="list-style-type: none"> ▪ Support policy dialogue for land policy and land reform ▪ Deepen sensitization and advocacy across the states and participating communities on land tenure and access to land for intended beneficiaries. ▪ Make access to land by women and youth one of the preconditions for a community to participate in the project. 	NPMU, SPU	<p>Land reform promotion documents and Policy dialogues</p> <p>Number of women and youth participating in the project</p> <p>Number of people without access to land participating in the project</p> <p>Number of secure land access agreement signed.</p>	<p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>
Gender inequality	Substantial	All States	<ul style="list-style-type: none"> ▪ Engage women organizations and advocacy groups to mobilize women to participate ▪ Provide concessions/incentives to women farmers to enable them participate. ▪ Encourage men through advocacy to support women participation through guarantee of land and other resources required ▪ promote mainstreaming of the GALS strategy ▪ pursue implementation of the project targeting strategy ▪ promote more women-friendly (especially young married and unmarried women) activities including processing, waste to wealth, home gardens, home poultry and goat rearing, etc. ▪ promote activities that appeal to the youth, including opportunities in use of digital agriculture technology and labour savings technology 	NPMU, SPU	Number of women and youth participants	Quarterly

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
<p>Social exclusion of women, youth and people living with disability due to limited access to land/or fund</p>	Substantial	All states	<ul style="list-style-type: none"> ▪ Stick to the project targeting strategy ▪ Actively involve women and youth in all components and levels of decision-making within the project. ▪ Promote mainstreaming of the GALS strategy ▪ Encourage and support the submission of business proposals from more women-only groups. ▪ Ensure women hold at least 30-40% of leadership posts in the farmer apex organizations and project management team. ▪ When organizing meetings or events, ensure they are appropriate to women's time and venue constraints; ▪ Access to land for women and youth should be a precondition for community selection/participation. ▪ Ensure that people living with disability (PLWD) are allocated certain percentages and given priority in the businesses that suit their condition (especially in processing and marketing) ▪ To avoid obstructionism, ensure men are 'carried along' in sensitization activities. 	NPMU, SPU,	<p>Attendance lists</p> <p>Lists of approved projects and their beneficiaries</p> <p>Membership and staff lists</p> <p>Attendance lists at sensitization workshops and beneficiary /</p> <p>community feedback during site visits</p> <p>Community agreement on land access for women and youth</p> <p>Number of PLWD beneficiaries</p>	<p>At every project activity</p> <p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Managing expectations	Moderate	All States	<ul style="list-style-type: none"> ▪ The project targeting should be explicitly and transparently explained in the project implement manual (PIM) ▪ Selection criteria, what the project offers and expectations from intended beneficiaries should be explicit and unambiguous (and translated into the local languages so that everybody will be carried along) ▪ Carry the community and beneficiaries representatives along in the project implementation (and possibly the traditional leaders or their representatives) in every stage of project implementation ▪ Maintain robust knowledge management and information dissemination to keep everybody abreast of happenings 	NPMU, SPU,	<p>Project implementation manual</p> <p>Project selection criteria in local languages</p> <p>Knowledge management and communication material</p>	<p>Before project commencement</p> <p>6months</p> <p>into project</p> <p>Quarterly</p>

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Unsafe and non-healthy working conditions and Health challenges	Moderate	All States	<ul style="list-style-type: none"> ▪ Incorporate environmental and social guidelines in contracts with service providers and ensure compliance. ▪ Sensitize project beneficiaries and their wider communities on health & safety standards, including safe use of production, processing and transport machinery, agro-chemicals and production machinery. ▪ Sensitization of selected communities on child rights and ensure that there is no child labour ▪ Train the 'spraying groups' on safe and healthy handling of agrochemicals ▪ Compulsory periodical health check for farmers and spraying gangs ▪ improve nutrition-sensitive interventions. ▪ create livelihood opportunities for youth in agrochemicals application and waste valorisation. ▪ promote use of appropriate PPE among farmers to safeguard human health. ▪ continually monitor beneficiaries to ensure compliance 	NPMU, SPU	<p>Contractor Guidelines</p> <p>Health & Safety flyer or poster</p> <p>Community meeting</p> <p>Number of spray groups that have undergone training.</p>	<p>Within 6 months of project start and half-yearly review thereafter</p> <p>Within 6 months of project start, half-yearly thereafter</p> <p>Within 6 months of project start and half-yearly review thereafter</p> <p>Annual</p>

Impact	Significance Rating (likelihood x consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Elite and Political Hijack	Moderate	All States	<ul style="list-style-type: none"> ▪ Detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption. ▪ Ensure compliance with pre-approved, objective selection criteria and transparent information-sharing and decision-making ▪ Sensitize communities on project objectives, target groups, beneficiary selection criteria, and risk of elite capture ▪ Agreement with traditional rulers and council of elders on community and beneficiary selection, and adherence to representative and transparent decision-making related to the project 	NPMU, SPU,	Completed proposal screening forms	Annual
Loss and Disturbance of Cultural Resources such as sacred forest and archaeological site	Low	All States	<ul style="list-style-type: none"> ▪ Do not approve projects to be sited in or around sacred forests and community groves and archaeological sites or that will impact biocultural resources of importance ▪ the procedure for chance finds and other protection and handling of cultural heritage should always apply 	NPMU, SPU,	Report on Inventory of cultural resources	Project Inception
Labour influx	Moderate	All States	<ul style="list-style-type: none"> ▪ contractors and service providers to prioritize hiring of Labor from the host communities ▪ Maintain Labor relations with local communities through a code of conduct to be signed by all workers categories. ▪ Contractors and service providers will be required to conduct continuous sensitization and advocacy and training for their workers on the risk of STDs and risky behaviours. ▪ 	NPCO, SPCO	<p>Number of people hired by contractors and service providers from the local communities</p> <p>number of training and sensitization conducted on workers risk of STDs</p>	Annal

365. [1] Employment of children on farm by parents/guardians or for daily paid labour is consistent with Nigeria's labour law (1990) and the Child Right Act (2003)

366. Appendix IV: SECAP Monitoring Costs for the VCN Project

Sn	Monitoring activities	Units	Qty /frequency	Costing index	Estimated unit cost/yr (Naira)	Total for cost index_per district	USD (1USD=N800)		Year 1 (USD)	Year 2 – 8 (USD)
1	Site specific ESMP for road construction/rehabilitation	5km for 10communities in 10LGAs in 9 states	4500km	4500	75,000	337,500,000	421,875		210,938	210,938
2	Site specific ESMP for processing facilities	1nos in 10commnty in 10LGAs in 9 states	900units	900	200,000	180,000,000	225,000		112,500	112,500
3	Site specific Environmental Screening for water infrastructure rehabilitation	1nos in 10commnty in 10LGAs in 9 states	900units	900	100,000	90,000,000	112,500		56,250	56,250
4	Site-specific ESMP for land development	50ha/10communities/10LGAs/9states	45000ha	45000	25,000	1,125,000,000	1,406,250		562,500	843,750
5	Environmental baseline and biodiversity survey,		2 time	2	7,500,000	15,000,000	18,750		9,375	9,375
6	Environmental monitoring - land and soil degradation assessment		3times	3	7,500,000	22,500,000	28,125		9,375	18,750
7	Monitoring Targeted Adaptation Assessment (TAA)		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
8	Development of Integrated Pesticide Management Plan		1time	1	10,000,000	10,000,000	12,500		12,500	0
9	Integrated Pesticide management plan monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
10	Groundwater monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
11	Labour and working conditions monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
12	Cultural heritage and social inclusion (marginalised peoples) assessment		2times	2	10,000,000	20,000,000	25,000		12,500	12,500

Sn	Monitoring activities	Units	Qty /frequency	Costing index	Estimated unit cost/yr (Naira)	Total for cost index_per district	USD (1USD=N800)		Year 1 (USD)	Year 2 – 8 (USD)
13	Community health and safety monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
14	Fragility and Security monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
15	Financial intermediaries monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
16	Grievance redress monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
17	Monitoring stakeholder engagement plan		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
18	Policy engagement on IPDs and Gender and Women Empowerment		2times	2	12,000,000	24,000,000	30,000		15,000	15,000
19	Other environmental and social monitoring costs		9 states	9	5,000,000	45,000,000	125,000		13,889	111,111
	TOTAL					2,049,000,000	2,630,000		1,127,326	1,502,674

367. [1] Employment of children on farm by parents/guardians or for daily paid labour is consistent with Nigeria's labour law (1990) and the Child Right Act (2003)

Environmental and Social Safeguards Classification: Substantial

Environmental and Social Safeguards				
Biodiversity conservation	Yes/No	Likelihood	Consequence	Risk Rating
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Yes	Unlikely	Negligible No conversion or degradation of habitats	Low
1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?	No			Low
1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?	No			Low
1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	No			Low
1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?	No			Low
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No			Low
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No			Low
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	No			Low
Resource Efficiency and Pollution Prevention	Yes/No	Likelihood	Consequence	Risk Rating
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes	Possible	Minor Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.	Moderate
2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc)	Yes	Likely	Moderate Project is fully dependent on production of living natural resources. Project is sited in an existing agricultural area, with low environmental and/or social sensitivity.	Substantial
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	No			Low

Environmental and Social Safeguards				
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Yes	Possible	Moderate The project will require consumption of raw materials, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Moderate
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?	Yes	Unlikely	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extension.	Low
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Possible	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Moderate
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Yes	Possible	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Moderate
2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	No			Low
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	No			Low
Cultural Heritage	Yes/No	Likelihood	Consequence	Risk Rating
3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	No			Low
3.2 Could the project directly or indirectly affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?	No			Low
3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No			Low

Environmental and Social Safeguards				
3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No			Low
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No			Low
indigenous peoples	Yes/No	Likelihood	Consequence	Risk Rating
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	No			Low
4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?	No			Low
4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?	No			Low
4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No			Low
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No			Low
Labour and Working Conditions	Yes/No	Likelihood	Consequence	Risk Rating
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)	Yes	Possible	Moderate The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.	Moderate
5.2 Could the project use or operate in a value chain where there have been reports of forced labour? (Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain)	No			Low

Environmental and Social Safeguards				
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	Yes	Possible	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Moderate
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)	Yes	Possible	Minor The project operates in a sector, area, or value chain where workers are occasionally exposed to significant OSH risks, and where regulation is known to be effective.	Moderate
Community Health, Safety and Security	Yes/No	Likelihood	Consequence	Risk Rating
6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	Yes	Possible	Moderate The project is situated in an area where there is past evidence of negative impacts from water-borne or other vector-borne diseases, or communicable/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective.	Moderate
6.2 Could the project lead to unintended negative impacts on nutrition?	No			Low
6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No			Low

Environmental and Social Safeguards				
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Yes	Possible	Minor The project involves the rehabilitation of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - less than 10 metre high wall; - less than 300m long crest; or - less than 1 million m3 reservoir capacity.	Moderate
6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No			Low
6.6 Could the project lead to adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No			Low
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Yes	Unlikely	Minor Minor changes to community dynamics. Resulting serious recorded cases of gender-based violence and/or sexual exploitation. Gender-based violence protocols in place.	Low
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	No			Low
6.9 Could the project lead to an influx of project workers?	No			Low
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No			Low
Physical and economic resettlement	Yes/No	Likelihood	Consequence	Risk Rating
7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low
7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No			Low
7.3 Could the project present a risk of forced evictions?	No			Low
7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No			Low
Financial intermediaries and direct investments	Yes/No	Likelihood	Consequence	Risk Rating
8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	No			Low

Environmental and Social Safeguards				
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	No			Low
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Is there evidence that the institution does not comply with the local legal framework?	No			Low
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No			Low
8.7 Does the organization provide auxiliary or capacity building support services.	No			Low

Climate Risk Classification: Substantial

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	No, Yes, TBD
River flood	Yes
Costal Flood	No
Urban Flood	Yes
Landslide	No
Cyclone	No
Water Scarcity (agricultural droughts and/or dry spells)	Yes
Extreme Heat	Yes
Wildfires	Yes
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity	No, Yes, TBD
Change in temperature (increase or decrease)	Yes
Change in rainfall (increase or decrease)	Yes
Climate variability (larger or smaller)	Yes
Intensity and frequency of extreme events (larger or smaller)	Yes
Is the project expected to have an impact on climate change (i.e. contribute to greenhouse gas emissions)?	No, Yes, TBD
Is the project expected to be a significant emitter of greenhouse gases?	No
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	No, Yes, TBD
Low-lying areas (valleys, coastal zones, and small islands)	Yes
Very warm areas (subtropical)	No
Tropical areas (rainforests)	No
Arid and semi-arid areas (deserts)	Yes
Mountains zones and permafrost areas (tundra)	No
River banks	Yes
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	No, Yes, TBD
Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	No
Are fisheries frequently affected by ocean acidification, water salinity and changes in sea surface temperature due to ocean-atmospheric oscillations or climate change?	No
Is forest productivity frequently affected by wildfires, diseases, rainfall variability, prolonged droughts, or changes in temperature?	No
Is the biodiversity in the project area likely to be affected by changes in climate variables?	Yes
Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	Yes
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	No, Yes, TBD
Is conflict exacerbating the population's sensitivity to weather related hazards?	Yes
Is population displacement being exacerbated by climate change impacts?	Yes

Are diseases (e.g. COVID-19, malaria, cholera) increasing the population's vulnerability and affecting their capacity to address potential weather-related hazards?	Yes
Is the income of the target population predominately coming from agriculture?	Yes
Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	Yes
Is the Human Development Index (HDI) equal to or below 0.6?	Yes
Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?	Yes
Step 4: Adaptive capacity and climate resilience	
What are key adaptive capacities in the areas of project intervention?	No, Yes, TBD
Is the country well ranked in the Disaster risk reduction progress score?	Yes
Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	Yes
Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	No
Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	No
Is the target community carrying out (using their own means) agricultural adaptation?	Yes
Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	No
Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex 6: First (Annual) Work Plan and Budgets

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 6: First (Annual) Work Plan and Budget (AWPB) - Design Stag

Annex 6: First (Annual) Work Plan and Budget (AWPB) - Design

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A. PROJECT OVERVIEW

Basic facts about the programme

The Value Chain Programme in the North of the Country (VCN), estimated to cost US\$ 158.1 million, will be implemented over a period of 8 years. The financing of VCN includes: IFAD PBAS US\$ 56.7 million (36% of the total cost); IFAD BRAM US \$30 million (19%); parallel co-financing loan from AFD US\$ 50.8 million (34%); and Domestic co-financing from the FGN and Beneficiaries US\$ 20 million (US\$ 18 million and US\$ 2 million, respectively) in form of cash and in-kind contribution.

The table below summarizes the cost of VCN.

Programme costs by component (and subcomponents) and financier

(Thousands of US\$)

Nigeria Value Chain North (VCN) Components by Financiers (US\$ '000)	IFAD		IFAD BRAM		AFD		FGN & States Cash/In-Kind		Ben Cash/In-Kind		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture												
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resi	15,957	47	447	1	14,311	42	622	2	2,604	8	33,940	22
Promoting Nutrition and Gender Awareness and Practices	7,337	35	-	-	12,805	61	1,039	5	-	-	21,182	13
Promoting Social Cohesion and an Enabling Policy/ Institutional	1,392	31	2,325	52	743	17	-	-	-	-	4,461	3
Subtotal	24,686	41	2,772	5	27,860	47	1,661	3	2,604	4	59,582	38
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs												
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership	13,441	28	7,977	17	20,483	43	1,695	4	3,802	8	47,398	30
Promoting Entrepreneurship For Women And Youth	3,519	35	6,085	61	-	-	-	-	426	4	10,031	6
Improving Access to Financial Services	6,706	35	10,469	55	-	-	-	-	1,825	10	19,000	12
Subtotal	23,667	31	24,531	32	20,483	27	1,695	2	6,053	8	76,428	48
C. Programme Coordination & Management												
Programme Coordination & Management	8,347	38	2,697	12	2,458	11	8,644	39	-	-	22,147	14
Response to Emergency and Disaster (RED)	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	8,347	38	2,697	12	2,458	11	8,644	39	-	-	22,147	14
Total PROJECT COSTS	56,700	36	30,000	19	50,800	32	12,000	8	8,657	6	158,157	100

The financing agreement for VCN is expected to be signed in March 2025.

Implementation arrangements

The VCN will be implemented by the FGN, with the Federal Ministry of Agriculture and Food Security (FMAFS) as the Lead Implementing Agency. At the federal level, a **National Steering Committee (NSC)** to be chaired by the Minister of Agriculture and composed of relevant stakeholders representatives will provide oversight to the implementation of VCN and approve the AWPB. The NSC is expected to meet once per year. The **National Programme Coordination Office (NPCO)** based in Abuja will report to the FMAFS, and be responsible for: (a) developing the AWPB; (b) coordinating the procurement of goods, works and services for the implementation of programme activities; (c) integrating and up-scaling the successes recorded by previous and ongoing IFAD and AFD projects; (d) undertaking the monitoring and evaluation (M&E) and knowledge management and communication (KMC) of programme

activities; and (e) reporting on implementation progress and results to IFAD, AFD and FMAFS. The NPCO shall comprise the NPC and other competitively recruited staff.

At the state level, a State Programme Steering Committee (SPSC) chaired by the Commissioner of Agriculture and composed of representatives of relevant stakeholders will provide oversight function on VCN and approve the AWPB. Each participating state will have a State Programme Coordination Office (SPCO) responsible for the coordination and supervision of programme activities in the state. The SPCO will have relevant professional staff. At the local government area (LGA) level, VCN will maintain a Desk Office in the Department of Agriculture, managed by the Local Government Desk Officer (LGDO). At the community level, VCN will strengthen the existing community development associations (CDAs) and financial service associations (FSAs) to engender social cohesion and promote agribusiness among youth and women.

Programme supervision

VCN will be directly supervised by IFAD jointly with AFD and the FGN. Supervision and implementation support missions will be organized annually to review progress and assist implementing partners and the NPCO in improving programme implementation. Standard IFAD procedures for project supervision will be used covering all aspects of implementation including SECAP requirements. Annual supervision missions will be complemented by continuous engagement from the IFAD Country Office (ICO), supported by consultants, regarding strategic elements of VCN.

Programme structure

VCN comprises 3 components with their associated subcomponents as follows:

Component 1: Foster climate resilient and nutrition sensitive production (USD 59.6 M).

This component aims at: (i) improved productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs; (ii) improved diet quality and nutrition awareness of the target rural HHs; and (iii) improved financial inclusion for target groups. ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (a) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; (b) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model; and (c) promoting access to finance through development of digital products. The component has 3 subcomponents.

Under Subcomponent 1.1. Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices (USD 33.9M), VCN will strengthen the productivity and production for farmers through the: *provision of quality inputs; training of farmers on sustainable agricultural practices (GAP); investment in irrigation, land preparation and water-smart practices; promotion of appropriate intercropping and agroforestry systems; environment and climate mainstreaming* to build resilience and increase the adaptive capacity of farmers to climate and environmental change-driven risks; and *support to PWDs* for their involvement in condition-appropriate VC activities *and to returning IDPs*. ICT4D will be adopted by VCN to enable the farmers implement the above activities.

Through **Subcomponent 1.2. Promote nutrition and gender awareness and practices (USD 21.2M)**, VCN will promote: (a) *nutrition sensitive VC crops* with the highest nutrition advantage for each state; (b) *market-oriented nutrition sensitive approaches*; (c) *gender sensitive social behavior change communication (SBCC) and nutrition education dimensions of food consumption, and applying nutrition sensitive GALS tools to strengthen the role of gender dynamics at HH level*; (d) *context appropriate homestead food production*; and (e) *policy dialogue for nutrition* at state and local levels, including building the capacity of CDAs.

Under Subcomponent 1.3. Promoting social cohesion and an enabling policy, institutional framework (USD 4.5M), VCN will strengthen territorial dialogue spaces, and facilitate inclusive processes to identify policy/regulation issues affecting the target VCs, through: (a) advocacy with relevant government, sector and traditional authorities at the federal, state and LGA levels to support policy issues relevant for the project target groups (e.g. women and youth equitable access to land, nutrition); (b) strengthening the advocacy capacity of FOs to effectively engage and have a voice in policy dialogue; (c) support fragility and conflict management, by building the capacity of farmers through the community development plan process, for effective conflict resolution at the community level, and supporting dedicated services by CAF to their members in conflict and fragile environments especially as it affects farmers and herders; and (d) supporting outstanding policy areas for VC development from under VCDP.

Component 2: Enhance inclusive and profitable integration of target groups in the VCs while promoting conducive policies and institutional frameworks (USD 76.4M).

This component aims at: (i) improved post production improved post-harvest handling, value addition and access to markets in supported VCs; (ii) increased business and entrepreneurial opportunities for youth and women along the target VCs; and (iii) improved policy/institutional framework for poverty reduction, food and nutrition security, and gender equality as well as strengthened spaces for dialogue, conflict resolution and social cohesion. The component consists of 4 subcomponents. ICT4D will be mainstreamed in the implementation of this component in the three strategic areas: (a) improving farmers' access to output markets and e-commerce; (b) facilitating the choice of location and scale of infrastructure with data on market demand, production sites; and (c) facilitating planning at the CAF level through mobile-based applications for monitoring and managing post-harvest processes, and providing online training modules on their use.

Through **Subcomponent 2.1. Improving post-harvest and value addition and market linkages (USD 47.4M)**, VCN will support the improvement of infrastructure for post harvest handling and processing and for market access as well as the facilitation of business to business and partnerships along the selected value chains. The subcomponent will finance the: (a) *acquisition of post-harvest infrastructure and equipment* to reduce post-harvest losses; (b) *construction/ rehabilitation of various market infrastructure (physical markets, access roads)*; (c) *establishment of and the capacity building for O&M committees for community infrastructure facilities*; (d) *partnerships with VC actors* through - FOs mapping, formation and strengthening; collaborative planning by supporting the multi-stakeholder platform (CAF) to leverage data collection and analysis about each VC node's requirements; scaling up digital platforms (e-marketplace) to provide VC services; (d) leveraging of the 4Ps platform for VC financing, building on the experience of the VCDP on VC financing by major off-takers.

Investments in **Subcomponent 2.2. Promoting entrepreneurship for women and youth (USD 10.0M)** will help provide an income-generating opportunity for those target groups (women and youth in particular) who are unable (due to serious constraints in getting access to key production factors starting with land) or unwilling/not interested (this applies especially to youth) to get involved in farming/productive activities. The subcomponent and will: (a)

promote entrepreneurial activities across the VC for women and youth; (b) help *build the capacity of beneficiaries* to identify a viable business activity, develop a basic business plan, and support it with training, equipment, and grants as start-up capital.

Through **Subcomponent 2.3. Improving access to financial services (USD 19.0M)**. VCN will partner with FSAs and FIs to enhance access to financial services in combination to project matching grant (MG) funds for youth, women and other vulnerable target groups through: (a) capacity building of the demand for rural financial services through formal training on financial literacy followed by mentoring by experienced beneficiaries; (b) linkage of farmers and SMEs with FIs, input suppliers and off-takers after training for proper use of grant and credit; (c) capacity building of the supply of rural financial services through formal training of FIs including FSAs on the development of new financial products including digital services; (d) de-risking lending to farmers through the Credit Risk Guarantee instrument; and (e) strengthening FSAs and linking them with commercial financial service suppliers to scale up financial inclusion of the target groups.

Component 3: Programme coordination and management (USD 22.1M).

Through this component, investments and activities will be undertaken to ensure compliance, the efficiency and the effectiveness of the programme, with the core mainstreaming themes and M&E and KM integrated in all aspects of operations. This component will be implemented in line with policy and guidelines for programme management. ICT4D will be mainstreamed in the implementation of all the activities under this component. Building on the experience of CASP, VCN will maintain a decentralized implementation approach to the community, with the participation of the farmer organizations, community development associations, private sector, and LGA, state and federal levels of government.

Component 3 also includes a **Response to Emergency and Disaster (RED), (USD 0.0M)** subcomponent which will enable VCN to respond and adapt quickly in case of natural disasters, through a dedicated risk reduction disbursement allocation, not to exceed 5% of the undisbursed amount of the IFAD and AFD financing and any additional IFAD and AFD loans/grants eventually allocated to VCN. In summary: a designated government agency determines that a crisis or emergency has occurred; the Borrower representative sends a request to IFAD supported by a Preliminary Assessment of Damages and Needs (PADN) to activate the mechanism; IFAD gives a no-objection (full or partial) to the PADN which contains the list of activities to be implemented, procurement plan, safeguards and targeting mechanisms for the activities; the expense, only for eligible items (details in the PIM), must be incurred and paid during the eligibility period, which is within 12 months of the IFAD no-objection to the PADN.

Addressing fragility. VCN design integrates fragility response into all the components, and will address the root causes of fragility, leveraging existing policies and institutions, and employing innovative methods that ensure gender inclusion and empowerment within the agricultural sector. The social management plan of the Social Environmental Climate Assessment Procedures (SECAP) and the Environmental, Social and Climate Management Framework (ESCMF) have recommended mitigation measures for fragility and resource conflicts, access to land, and gender inequality and social exclusion issues which often create instability and displacement of people. The measures include: integrating conflict management in FOs and CDAs; support regular dialogue on conflicts and land policy, and using access to land for women and youth as precondition for community participation; promote more women-friendly activities and women only groups, mainstream the GALS strategy; and ensure that PWDs are given priority in the businesses that suit their conditions. A Response to Emergency and Disaster (RED) subcomponent has also been included in VCN to mitigate fragility impact.

THE AWPB PROCESS

The planning of VCN activities will be inclusive and collaborative starting at the community level and led by the staff in the LGA. It will be based on the needed activities to achieve the Theory of Change and the targets of the projects. Each AWPB will clearly specify: (i) key activities; (ii) specific unit targets; (iii) expected outputs the activity is contributing to; (iv) timeline for each activity; and (v) responsible reporting parties. The LGDO staff will be responsible to compile a plan of the agreed activities and share it with the SPCO for consolidation of all the planned activities and the required budgets from the LGAs. The State M&E Officer is responsible and accountable for this consolidation activity and to ensure that the State AWPB is in line with the VCN AWPB templates and submission timelines. All SPCOs will submit their AWPB to the NPCO for review, consolidation, validation, and timely submission to the financiers for official approval.

This draft 18-month AWPB at design is aimed at facilitating the development of the AWPBs for project implementation. Accordingly, the table of contents represents a draft template for the development of subsequent AWPBs. The first AWPB is expected to be developed by FGN (largely on the basis of this draft 18-month AWPB) and submitted to IFAD and AFD for approval by May 2025. This draft 18-month AWPB will not contain reports on programme process, which must be included in subsequent AWPBs.

The 18-month AWPB at design

Below are the summary and detailed draft AWPB for the period 2025-2026. The focus is on the key activities for the take-off of implementation, including staff recruitment and provision of offices, and the assessments and capacity building needed to facilitate implementation.

First 18 Month Annual Work Plan and Budget (AWPB) - Design Stage

Project costs by component/sub-component and financier (\$'000)

Nigeria		FGN & States											
Value Chain North (VCN) - First 18 Months AWPB		IFAD		IFAD BRAM		AFD		Cash/In-Kind Ben		Cash/In-Kind		Total	
Components by Financiers (US\$ '000)		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture													
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resilient		3,309	65	-	-	1,637	32			148	3	5,093	19
Promoting Nutrition and Gender Awareness and Practices		2,490	68	-	-	1,172	32			-	-	3,662	13
Promoting Social Cohesion and an Enabling Policy/ Institutional		438	68	-	-	206	32			-	-	644	2
Subtotal		6,237	66	-	-	3,015	32			148	2	9,399	35
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs													
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership		4,269	56	-	-	2,612	34	151	2	569	8	7,602	28
Promoting Entrepreneurship For Women And Youth		1,183	64	-	-	596	32			83	5	1,863	7
Improving Access to Financial Services		913	31	593	20	938	32			486	17	2,930	11
Subtotal		6,365	51	593	5	4,146	33	151	1	1,139	9	12,394	46
C. Programme Coordination & Management													
Programme Coordination & Management		2,000	37	-	-	1,582	29	1,873	34	-	-	5,455	20
Response to Emergency and Disaster (RED)		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		2,000	37	-	-	1,582	29	1,873	34	-	-	5,455	20
Total PROJECT COSTS		14,602	54	593	2	8,742	32	2,025	7	1,286	5	27,248	100

Detailed Tables

Nigeria

Value Chain North (VCN)

Table 1.1. Promoting Sustainable Agricultural Systems, Improved Technology

Detailed Costs

(US\$)

Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)							
	Q1	Q2	Q3	Q4	Q5	Q6	Total		Q1	Q2	Q3	Q4	Q5	Q6	Total	
I. Investment Costs																
A. Provision of Quality Inputs																
Deployment of quality certified seed (50 kg/ha rice, 5 kg/ha millet, 30 kg/ha ci	Tonnes	134.866	134.866	134.866	134.866	134.866	134.866	809.196	250	35	35	35	35	35	35	212
Deployment of quality inorganic/organic fertilizers to farmers through MG an	Kilogram	1,913.33	1,913.33	1,913.33	1,913.33	1,913.33	1,913.33	11,479.98	60	126	127	128	129	130	132	773
Subtotal										161	162	163	165	166	167	985
B. Extension support to farmers on GAPs																
Private extension service providers (PESP) engaged /b	Number	1.5	1.5	-	-	-	-	3	1,250	2	2	-	-	-	-	4
Re-fresher training of extension agents (existing CASP Extension Agents, p	Number	180	180	180	180	180	180	1,080	10	2	2	2	2	2	2	11
Step down training of farmers on GAPs including production of training mod	Number	180	180	180	180	180	180	1,080	50	9	9	9	9	9	9	57
Subtotal										13	13	11	11	11	11	72
C. Access to ICT4D: Digital extension advisory services to farmers																
1. Needs assessment and system requirements for deployment of weather	Service	-	-	-	-	1	-	1	50,000	-	-	-	-	53	-	53
2. Develop systems requirements documents define the scope for data capt	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	21	-	21
3. Recruitment of ICT4D Consultant to Support towards ICT4D implementati	Per Month	2	2	2	2	2	2	12	3,000	6	6	6	6	6	6	38
4. CENTRALISED INTEGRATED FARMER & VALUE CHAIN REGISTRY																
Consultative Workshop on system Requirements for Integrated Farmer & Va	Lumpsum	1	-	-	-	-	-	1	30,000	32	-	-	-	-	-	32
Conduct a comprehensive review of the existing digital registrie(s) for impro	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	21	-	21
Workshop on Dissemination of Recommendations Integrated Farmer & Value	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	21	-	21
Profile value chain actors and Farmers across the 9 states with Agritech Pa	Lumpsum	1	-	-	-	1	-	2	160,000	168	-	-	-	168	-	336
Procurement of Desktop computers to support data aggregation and Project	Number	-	-	-	-	22.5	22.5	45	2,500	-	-	-	-	59	59	118
Procurement tablets for data collection, cleaning and validation and to suppo	Number	-	-	-	-	120	120	240	1,500	-	-	-	-	189	189	378
Support for cloud hosting services to NITDA and FMAFS for the Farmer Reg	Per Year	-	-	-	-	1	-	1	50,000	-	-	-	-	53	-	53
Conduct training programs for farmers, lead farmers as digital champions, &	Number	-	-	-	-	1.5	1.5	3	20,000	-	-	-	-	32	32	63
Connectivity for Pilot and Scale including management of the Farmer Registr	Per Year	1	-	-	-	1	-	2	3,000	3	-	-	-	3	-	6
Hire consultancy firm to support NITDA tailor the digital registry to accommo	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	21	-	21
Subtotal										203	-	-	-	566	280	1,048

5. INTEGRATED AGRICULTURAL ADVISORY SERVICES

Conduct Consultative workshop in collaboration with NIMet, NITDA and Agr	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	21	-	21
Training and Capacity Building: Conduct training sessions for farmers, local	Training	-	-	-	-	2	2	4	30,000	-	-	-	-	63	63	126
Development and periodic update of Content for advisory	Per Year	-	-	-	1	-	1	2	25,000	-	-	-	26	-	26	53
Development of E-advisory platforms - Collaborate with Department of Exter	Number	-	-	-	-	1	-	1	15,000	-	-	-	-	16	-	16
Subtotal										-	-	-	26	100	89	215

6. Improve Farmers access to Quality Inputs

In Collaboration with NITDA Conduct feasibility study on input distribution eff	Number	-	-	-	-	1	-	1	30,000	-	-	-	-	32	-	32
Pilot the Integrated e-voucher system within two states to test functionality	Lumpsum	-	-	-	-	1	-	1	100,000	-	-	-	-	105	-	105
Subtotal										-	-	-	-	137	-	137

7. Improving Farmers' Access to Output Markets and Fair Prices:

procure form to undertake a Comprehensive assessment of existing market	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	21	-	21
Annual Data Collection and update of market Prices for all value chains unde	Per Year	-	-	-	-	1	-	1	5,000	-	-	-	-	5	-	5
Procure an agritech partner with an e-market place to be scaled across the	Lumpsum	-	-	-	-	1	-	1	250,000	-	-	-	-	263	-	263
Subtotal										-	-	-	-	289	-	289
Subtotal										209	6	6	33	1,171	375	1,800

D. Promote climate and hydrological information for early warning

Support for NIMET for step down climate information production and season	Per Year	-	3	3	3	3	3	15	10,000	-	32	32	32	32	32	158
Support for NHSA for hydrological and dflood outlook production and TOT	Per Year	-	3	3	3	3	3	15	5,000	-	16	16	16	16	16	79
Support for NIMET and NHSA /j	Number	-	-	-	-	1.25	1.25	2.5	4,500	-	-	-	-	6	6	12
Subtotal										-	47	47	47	53	53	248

E. Promotion of nature-based sustainable land management soluti

Training and Technical demonstration of soil and water conservation and la	Number of CDAs/VAs	30.5	30.5	30.5	30.5	32.5	32.5	187	950	30	30	30	30	32	32	187
Training and technical demonstration of Nature Based erosion remediation w	Number of CDAs/VAs	30.5	30.5	30.5	30.5	32.5	32.5	187	950	30	30	30	30	32	32	187
Training and technical demonstration of integrated soil fertility management b	Number of CDAs/VAs	30.5	30.5	30.5	30.5	32.5	32.5	187	950	30	30	30	30	32	32	187
Subtotal										91	91	91	91	97	97	560

F. Awareness and capacity building through extension services

Awareness raising and capacity building in sustainable land management ar	Number of CDAs/VAs	30.5	30.5	30.5	30.5	32.5	32.5	187	650	21	21	21	21	22	22	128
Capacity building and empowerment in waste valorization and sustainable a	Number of CDAs/VAs	30.5	30.5	30.5	30.5	32.5	32.5	187	1,000	32	32	32	32	34	34	196
Subtotal										53	53	53	53	56	56	324

G. Environmental and Social Safeguards

	Lumpsum	1	-	-	-	1	-	2	526,000	552	-	-	-	552	-	1,105
Total										1,080	373	372	400	2,107	760	5,093

Nigeria

Value Chain North (VCN)

Table 1.2. Promoting Nutrition and Gender Awareness and Pra

Detailed Costs

(US\$)

	Unit	Quantities						Unit Cost	Totals Including Contingencies ('000)							
		Q1	Q2	Q3	Q4	Q5	Q6		Total	Q1	Q2	Q3	Q4	Q5	Q6	Total
I. Investment Costs																
A. Promotion of nutrition sensitive value chain crops																
Scale up improved high-yield varieties developed for different	Per Year	-	-	-	-	1	-	1	25,000	-	-	-	-	28	-	28
Sensitize smallholder producers to the dangers of unregulated	Number	-	-	-	-	5	5	10	1,000	-	-	-	-	6	6	11
Promote safe storage practices, such as use of PICS bags and	Per Year	-	-	-	-	1	-	1	100,000	-	-	-	-	112	-	112
Promote pest-resistant varieties to reduce loss	Training	-	-	-	-	1	-	1	5,000	-	-	-	-	6	-	6
Promote the use of biofortified varieties as they are developed	Training	-	-	-	-	1	-	1	25,000	-	-	-	-	28	-	28
Support acquisition of drying technologies to assist in drying crops	Lumpsum	-	-	-	-	1	-	1	100,000	-	-	-	-	112	-	112
Promote processing methods that prevent discoloration, which	Training	-	-	-	-	1	-	1	20,000	-	-	-	-	22	-	22
Promote labor-saving technologies for hulling and milling to free	Training	-	-	-	-	1	-	1	15,000	-	-	-	-	17	-	17
Diversification of food production through integrated farming systems	Per Year	2.5	2.5	2.5	2.5	2.5	2.5	15	1,000	3	3	3	3	3	3	17
Nutrition education and behaviour change communication on crops	Per Year	12.5	12.5	12.5	12.5	12.5	12.5	75	1,000	14	14	14	14	14	14	83
Production and promotion of different types of food products	Lumpsum	-	-	-	-	1	-	1	50,000	-	-	-	-	56	-	56
VC related cross cutting issues on WASH (water, sanitation and	Lumpsum	-	-	-	-	1	-	1	20,000	-	-	-	-	22	-	22
Subtotal										16	16	17	17	427	23	515
B. Gender sensitive social behavior change communication																
Conduct a nutrition formative study to validate findings of the	Study	-	-	-	1	-	-	1	50,000	-	-	-	56	-	-	56
Targeted nutrition education for community's household members	Training	12.5	12.5	12.5	12.5	25	25	100	3,000	41	41	41	42	84	85	334
Nutrition education for extension workers and integration of nutrition	Number	12.5	12.5	12.5	12.5	25	25	100	3,500	47	48	48	49	98	99	390
Cooking classes for nutrient retention and promotion of health	Number	12.5	12.5	12.5	12.5	25	25	100	2,000	27	27	28	28	56	57	223
Recipe books development	Number	2.5	2.5	2.5	2.5	2.5	2.5	15	2,500	7	7	7	7	7	7	42
Collaboration with local media for breastfeeding, maternal and	Per Year	-	-	-	-	9	9	18	1,000	-	-	-	-	10	10	20
Hygiene, health and Water, Sanitation and Hygiene (WASH) campaigns	Campaign	-	-	-	-	1	-	1	20,000	-	-	-	-	22	-	22
Consumers' awareness campaigns	Campaign	-	-	-	-	1	-	1	10,000	-	-	-	-	11	-	11
Promotion of domestic labour reduction technologies targeting	Training	-	-	-	-	1	-	1	15,000	-	-	-	-	17	-	17
Gender and women empowerment through nutrition sensitive	Training	12.5	12.5	12.5	12.5	12.5	12.5	75	2,000	27	27	28	28	28	28	166
Subtotal										149	150	152	209	334	287	1,281

C. Promotion of context appropriate homestead food systems																
Backyard gardens for nutrient rich vegetables, tubers, fruits & herbs	Lumpsum	1	-	-	-	1	-	2	100,000	109	-	-	-	112	-	221
Adoption of climate-resilient backyard gardening technologies	Lumpsum	1	-	-	-	1	-	2	187,000	203	-	-	-	210	-	413
Support with starter packages for small livestock (goats, sheep, chickens)	Lumpsum	1	-	-	-	1	-	2	236,000	256	-	-	-	265	-	521
Subtotal										568	-	-	-	588	-	1,155
D. Promotion of market oriented nutrition sensitive agriculture																
Promotion of post-harvest practices aimed to preserve and extend shelf life	Training	-	-	-	-	12.5	12.5	25	1,000	-	-	-	-	14	14	28
Support with appropriate equipment/technologies and training	Lumpsum	-	-	-	-	1	-	1	100,000	-	-	-	-	112	-	112
Support for food safety, quality control, certification and implementation	Lumpsum	-	-	-	-	1	-	1	15,000	-	-	-	-	17	-	17
Awareness creation on nutritious products/foods for consumption	Training	-	-	-	-	12.5	12.5	25	1,000	-	-	-	-	14	14	28
Support with public, private farmer organizations partnerships	Lumpsum	-	-	-	-	-	1	1	30,000	-	-	-	-	-	34	34
Subtotal										-	-	-	-	157	62	220
E. Promotion of policy dialogue for nutrition at state and local government levels																
Establishment of Farmer Organizations Nutrition Dialogue Centre	Number	-	-	-	-	7.5	7.5	15	1,000	-	-	-	-	8	9	17
Support FOs to have a voice in nutrition fora at local and state levels	Per Year	-	-	-	-	1	-	1	15,000	-	-	-	-	17	-	17
Policy engagement and advocacy on food security and nutrition issues	Per Year	-	-	-	-	1	-	1	5,000	-	-	-	-	6	-	6
Promotion of policy dialogue for nutrition at state and local government levels	Per Year	-	-	-	-	1	-	1	5,000	-	-	-	-	6	-	6
Support policy domestication at state and LGA levels contribution	Per Year	-	-	-	-	1	-	1	5,000	-	-	-	-	6	-	6
Subtotal										-	-	-	-	42	9	51
F. GALS Empowerment for Gender																
GALS manual development	Number	1	-	-	-	-	-	1	20,000	22	-	-	-	-	-	22
Promotion of gender equality and the socioeconomic progress of women	Training	37.5	37.5	37.5	37.5	37.5	37.5	225	1,000	41	41	41	42	42	43	249
Develop a socially inclusive vision of the groups in CAFs	Ls	-	-	-	-	1	-	1	100,000	-	-	-	-	112	-	112
Support the development of a common vision for community representatives	Training	-	-	-	-	1	-	1	50,000	-	-	-	-	56	-	56
Subtotal										62	41	41	42	211	43	440
Total										796	208	210	267	1,759	423	3,662

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Value Chain North (VCN)

Table 1.3. Promoting Social Cohesion and an Enabling Policy/ Institutional

Detailed Costs

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)						
		Q1	Q2	Q3	Q4	Q5	Q6	Total		Q1	Q2	Q3	Q4	Q5	Q6	Total
I. Investment Costs																
A. Support women and youth equitable access to land as other social groups, to enhance	Lumpsum	50	50	50	50	50	50	300	1,000	54	55	55	56	56	57	333
B. Strengthening the capacity of FOs to have a voice in policy dialogue, through training a	Training	12.5	12.5	12.5	12.5	12.5	12.5	75	1,000	14	14	14	14	14	14	83
C. Supporting fragility and conflict management																
Capacity building of farmers for effective conflict resolution at the community level	Training	50	50	50	50	50	50	300	60	3	3	3	3	3	3	20
Capacity building and advocacy with government for inclusive and resilient value chain d	Workshop	-	-	-	-	5	5	10	14,000	-	-	-	-	78	79	158
Support dedicated services by CAF to their members in conflict and fragile environments	Lumpsum	-	-	-	-	2.5	2.5	5	9,000	-	-	-	-	25	26	51
Subtotal										3	3	3	3	107	108	228
Total										71	72	72	73	177	179	644

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Value Chain North (VCN)

Table 2.1. Improving Post-Harvest, Value Addition, Market Linkage, and f

Detailed Costs

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)						
		Q1	Q2	Q3	Q4	Q5	Q6	Total		Q1	Q2	Q3	Q4	Q5	Q6	Total
I. Investment Costs																
A. Post harvest and Value addition																
Studies/assessments, designs & supervision /a	Studies	1	-	-	-	1	-	2	386,000	425	-	-	-	440	-	866
Farmer Organization capacity building for O&M and O&M /b	Lumpsum	1	-	-	-	-	-	1	460,000	499	-	-	-	-	-	499
Market stalls /c	Number	-	-	-	-	2.5	2.5	5	48,000	-	-	-	-	136	137	273
Aggregation/bulking facilities with solar powered bore hole for human c	Number	-	-	-	-	2.5	2.5	5	50,000	-	-	-	-	140	142	282
Agro Processing facilities constructed or rehabilitated with solar power	Number	-	-	-	-	1	1	2	70,000	-	-	-	-	79	79	158
Subtotal										925	-	-	-	795	359	2,079
B. Rehabilitation of last mile rural roads																
Project implemented access roads /f	Kilometre	5.75	5.75	5.75	5.75	11.5	11.5	46	25,000	156	157	159	160	323	326	1,281
Community implemented access roads /g	Kilometre	-	-	-	-	4	4	8	10,000	-	-	-	-	45	45	90
Drainage infrastructure including water storage (culverts, etc) /h	Number	-	-	-	-	5	5	10	7,000	-	-	-	-	39	40	79
Subtotal										156	157	159	160	407	411	1,450
C. Matching grant for climate-smart and environmental friendly processin	Lumpsum									406	406	406	406	406	406	2,438
D. Promote collaborative planning by the VC actors (FOs, outgrowers, ii	Lumpsum	1	-	-	-	1	-	2	200,000	217	-	-	-	225	-	442
E. FO formation and strengthening	Lumpsum	-	-	-	-	1	-	1	100,000	-	-	-	-	112	-	112
F. Promote market-oriented VC crops	Lumpsum	1.25	1.25	1.25	1.25	1.25	1.25	7.5	130,000	176	178	179	181	183	184	1,081
Total										1,881	741	744	747	2,128	1,361	7,602

/a A provision of 5% of the infrastructure budget for the studies & designs.

/b A provision of 2% of the infrastructure budget for community capacity building

/c Selected based on agreed upon criteria

/d Selected based on agreed upon criteria

/e Selected based on agreed upon criteria

/f access roads where production takes place

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Value Chain North (VCN)

Table 2.2. Promoting Entrepreneurship For Women And Youth

Detailed Costs

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)						
		Q1	Q2	Q3	Q4	Q5	Q6	Total		Q1	Q2	Q3	Q4	Q5	Q6	Total
I. Investment Costs																
A. Promote entrepreneurial activities /a	Lumpsum	12.5	12.5	12.5	12.5	12.5	12.5	75	10,000	136	137	138	139	140	142	832
B. Capacity building, including training and incubation/mentoring on	Lumpsum	5	5	5	5	5	5	30	31,000	168	170	171	172	174	176	1,031
Total										304	306	309	312	315	318	1,863

/a Including seed multiplication, equipment hire and maintenance, community-level agri-input trade, extension/advisory services, and spraying gangs at the production stage; threshing, storage, value a

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Value Chain North (VCN)

Table 2.3. Improving Access to Financial Services

Detailed Costs

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)						
		Q1	Q2	Q3	Q4	Q5	Q6	Total		Q1	Q2	Q3	Q4	Q5	Q6	Total
I. Investment Costs																
A. Access to Finance																
Value chain financing (4Ps model)	Lumpsum	1.25	1.25	1.25	1.25	1.25	1.25	7.5	15,000	20	21	21	21	21	21	125
Technical support to FOs and farmers to enhance financial literacy ar	Per Year	-	-	-	-	1	1	2	10,000	-	-	-	-	11	11	23
Technical intermediation between FOs/rural enterprise and agri-friend	Per Year	1	1	-	-	1	1	4	20,000	22	22	-	-	22	23	89
Technical Support to FSAs for their linkage with commercial financial	TA	-	-	-	-	1.25	1.25	2.5	28,000	-	-	-	-	39	40	79
Promoting access to finance through development of digital products	Lumpsum	-	-	-	-	-	1.25	2.5	50,000	-	-	-	-	-	71	143
Capital grant for FSAs loan revolving funds	Lumpsum									412	412	412	412	412	412	2,473
Total										454	454	433	433	506	578	2,930

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Value Chain North (VCN)
Table 3.1. Programme Coordination & Management

Detailed Costs

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)						
		Q1	Q2	Q3	Q4	Q5	Q6	Total		Q1	Q2	Q3	Q4	Q5	Q6	Total
I. Investment Costs																
A. Monitoring and Evaluation (M&E)																
Baseline survey	Survey	1	-	-	-	-	-	1	100,000	109	-	-	-	-	-	109
Field monitoring missions	Per Year	-	-	-	-	1.75	1.75	3.5	25,000	-	-	-	-	49	50	99
Thematic studies	Per Year	-	-	-	-	1	-	1	20,000	-	-	-	-	22	-	22
Profiling of project beneficiaries	Per Year	1	-	-	-	1	-	2	30,000	33	-	-	-	34	-	66
Consultancy for M&E support	Per Year	-	-	-	-	1.25	1.25	2.5	30,000	-	-	-	-	42	43	85
Training of Field Staff	Per Year	-	3	-	-	-	-	3	40,000	-	131	-	-	-	-	131
Procurement and development of MIS system	Lumpsum	-	1	-	-	-	-	1	400,000	-	437	-	-	-	-	437
Maintenance and update of MIS system	Per Month	3	3	3	3	3	3	18	2,000	7	7	7	7	7	7	40
Data collection tablets	Number	-	15	-	-	-	-	15	1,500	-	25	-	-	-	-	25
Monitoring and evaluation activities (rapid outcome surveys)	Per Year	-	-	-	1	-	1	2	20,000	-	-	-	22	-	23	45
Subtotal										148	600	7	29	154	122	1,059
B. Knowledge Management (KM)																
Development of VCN website	Lumpsum	1	-	-	-	-	-	1	35,000	38	-	-	-	-	-	38
Promotion materials	Per Year	-	-	1	-	1	-	2	20,000	-	-	22	-	22	-	45
Capturing lesson learnt	Per Year	0.75	0.75	0.75	0.75	0.75	0.75	4.5	5,000	4	4	4	4	4	4	25
Development of visibility products	Per Year	-	1	-	-	1	-	2	15,000	-	16	-	-	17	-	33
Knowledge Management (KM) follow-up survey's and less	Per Year	-	1	-	-	1	-	2	10,000	-	11	-	-	11	-	22
Layout and printing booklets	Per Year	-	-	1	1	1	1	4	8,000	-	-	9	9	9	9	36
Translation of materials	Per Year	-	-	1	-	1	-	2	8,000	-	-	9	-	9	-	18
Subtotal										42	31	44	13	73	13	216
C. Audits																
Annual Audit	Per Year	-	-	-	1	-	-	1	10,000	-	-	-	11	-	-	11

D. Technical Assistance

Rural Finance Specialist	Per Year	-	-	-	-	1	-	1	5,000	-	-	-	-	6	-	6
Nutrition and Food Consultant to support the nutrition formati	Lumpsum	-	-	1	-	-	-	1	100,000	-	-	110	-	-	-	110
Nutrition monitoring and evaluation support consultancy	Per Year	-	-	-	1	-	-	1	30,000	-	-	-	33	-	-	33
Conduct a partner assessment at inception to identify releva	Lumpsum	-	-	-	1	-	-	1	30,000	-	-	-	33	-	-	33
Subtotal										-	-	110	67	6	-	183

E. Office Equipment

National Programme Coordination Office (NPCO)	Lumpsum	1	-	-	-	-	-	1	150,000	163	-	-	-	-	-	163
State Programme Coordination Office (SPCO)	Lumpsum	9	-	-	-	-	-	9	50,000	488	-	-	-	-	-	488
Subtotal										651	-	-	-	-	-	651

F. Vehicles

National Programme Coordination Office (NPCO)	Number	2	-	-	-	-	-	2	40,000	87	-	-	-	-	-	87
State Programme Coordination Office	Number	9	-	-	-	-	-	9	40,000	391	-	-	-	-	-	391
Subtotal										478	-	-	-	-	-	478

Total Investment Costs

1,319 631 161 120 233 135 2,598

II. Recurrent Costs

A. Salaries and Allowancies

1. National Programme Coordination Office (NPCO)

National Programme Coordinator (NPC)	Per Month	3	3	3	3	3	3	18	1,300	4	4	4	4	4	4	25
Financial Controller	Per Month	3	3	3	3	3	3	18	1,000	3	3	3	3	3	3	19
Programme Accountant	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
National Infrastructure Engineer - Specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
MIS Specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
M&E Specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
National Administrative and HR Officer	Per Month	3	3	3	3	3	3	18	1,000	3	3	3	3	3	3	19
Procurement Assistant	Per Month	3	3	3	3	3	3	18	900	3	3	3	3	3	3	17
M&E Assistant	Per Month	3	3	3	3	3	3	18	900	3	3	3	3	3	3	17
Accounting and Finance Assistant	Per Month	3	3	3	3	3	3	18	900	3	3	3	3	3	3	17
National Programme Financer Officer	Per Month	3	3	3	3	3	3	18	1,000	3	3	3	3	3	3	19
National Internal Auditor	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23

Procurement Specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
Value Chains and Rural Development Specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
Gender and Social Inclusion specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
Climate and Environment Specialist	Per Month	3	3	3	3	3	3	18	1,200	4	4	4	4	4	4	23
Drivers/Clerks /a	Per Month	24	24	-	-	-	-	48	200	5	5	-	-	-	-	10
Subtotal										60	61	56	57	57	58	348
2. State Programme Coordination Office (SPCO) - 9 SI																
State Project Coordinator	Per Month	27	27	27	27	27	27	162	1,040	29	29	29	30	30	30	178
Agribusiness Promotion Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Rural Infrastructure Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Institution & FOs Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Nutrition & Food Security Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Gender & Youth Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Climate and Environment Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
M&E Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
MIS Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
KMC Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
State Programme Accountant	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
State Finance Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Procurement Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Administration & Logistics Officer	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
State Programme Internal Auditor	Per Month	27	27	27	27	27	27	162	800	22	22	23	23	23	23	137
Drivers/Clerks	Per Month	27	27	27	27	27	27	162	200	6	6	6	6	6	6	34
Subtotal										347	350	353	356	359	363	2,128
Subtotal										407	410	409	412	416	421	2,476
B. General Operating Costs																
National Programme Coordination Office (NPCO) /b	Per Year	0.25	0.25	0.25	0.25	0.25	0.25	1.5	60,000	16	16	16	16	16	16	95
State Programme Coordination Office (SPCO) /c	Per Year	2.25	2.25	2.25	2.25	2.25	2.25	13.5	20,000	47	47	47	48	48	49	285
Subtotal										62	62	63	64	64	65	380
Total Recurrent Costs										469	473	472	476	481	485	2,856
Total										1,788	1,104	633	596	713	620	5,455

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex 7: Financial Management Assessment

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department



Investing in rural people

Template for Detailed FM arrangements in the Project Design Report (PDR) (Annex 7)

I. Summary of Financial Management arrangements¹

The Lead Programme Agency (LPA) of the project will be Federal Ministry of Agriculture & Food Security (FMAFS) while the strategic direction and oversight of the project will be the responsibility of the Projects Coordination Unit (PCU). The PCU serves as a one-stop shop to coordinate, oversee and supervise agricultural projects being funded by international donor organizations in the Ministry. The unit was reconstituted in 2017 and approved by the Head of Service as a specialized unit in the office of the Permanent Secretary to coordinate the activities of Development Partners funded projects and Donors working in the agricultural sector in Nigeria. The PCU will Coordinate, harmonize and supervise the project, review regularly the status of implementation, and conduct an Implementation Completion Review Report (ICR) of the project. To accomplish its mission, PCU will set up the National Programme Management Unit (NPMU), and the State Program Management Units (SPMU). The NPMU will be FCT (Federal Capital Territory) based with Head office in Abuja while the SPMUs will be based in the headquarters of the states. The NPMU and SPMU will be in charge of the day to day running of and will be comprised of National, and state coordination units, financial management department, Internal audit, and technical components.

Financial management arrangements will follow those of the existing projects with the exception that there will be a senior accountant and senior finance officer, and 2 internal auditors at the level of the NPMU. Separate designated accounts (DA) per financing type will be opened at the Central Bank of Nigeria (CBN) to receive IFAD funds. DAs will also be opened for other co-financiers' financing as required to ensure full traceability of financial transactions in line with government and donors' requirements. Draw down accounts will also be opened in CBN to receive funds in Naira from the DA. The NPMU and the States will create separate operational bank accounts to receive funds from the draw down account.

Internal controls over financial reporting have been generally weak and this has resulted in significant ineligible expenditures in the past. In addition to this, VCN will be implemented in the Northern states of Nigeria, most of which are affected by conflicts and insurgency. This is a fragile context and special fiduciary arrangements will be out in place to mitigate the risks. Risk management will include targeted interventions to enhance financial management capacity.

¹ Normally this summary will be included only in the main design report under Financial / Fiduciary section, Annex 7.

Financial reporting will be consolidated at the level of the NPMU, the payment process will be automated, and electronic archiving will be implemented to ensure that timely backup and documentation from the states is available and safeguarded. Regular financial audits, including the quarterly review of the Interim financial reports will be conducted by the SAI. All FM staff will be recruited through a competitive process and will receive continuous in person and online training on financial management and internal controls. Real-time accounting, enabled by a hybrid desktop accounting software with web-based back up will permit processing financial transactions immediately as they occur thereby allowing the NPMU to have instant access to financial data, enabling quicker and more informed decision-making.

II. Project financial profile²

The financing modality for the VCN is parallel financing of components/categories between IFAD and the French Development Agency (AFD), with a jointly financed PMU as a carve out. Total VCN programme costs over the 8-year implementation period are estimated at US\$ 145.5 million, comprising base costs of US\$ 134 million and price and physical contingencies of US\$ 11.4 million (US\$ 5.5 million and US\$ 5.9 million respectively). Investment costs are estimated at US\$ 117.7 million (88% of base costs) and recurrent costs at US\$ 16.3 million (12% of base costs). The financing of VCN includes: IFAD PBAS US\$ 56.7 million (39% of the total project costs); IFAD BRAM US \$30 million (21%); Co-financing from AFD US\$ 50.8 million (35%); and Domestic co-financing from the FGN and Beneficiaries US\$ 8 million (US\$ 6 million and US\$ 2 million, respectively) in form of in-kind contribution.

III. Implementation Arrangements

The LPA will be the FMAFS. Created in 1966, the Federal Ministry of Agriculture and Natural Resources had passed through a serial modification of appellations to suit the prevailing climes of mergers and demergers with related sectors. All the same, the adjustment enabled the Federal Government to play a leading role in promoting agricultural activities in the country. Its mandate is to ensure food security in crop, livestock and fisheries, stimulate agricultural employment and services, promote the production and supply of raw materials to agro-industries, provide markets for the products of the industrial sector, generate foreign exchange and aid rural socio-economic development

² Note that COSTAB and Financing Plan may be finalized at a later date after the design mission. In such cases this section, as well as other relevant information, should be revised and updated by the Finance Officer before the President's Report is presented in Scriptoria for FMD clearance.

VCN will be implemented in 8 states in the northeast and northwest geopolitical regions of Nigeria. Project coordination will be done by National, and State Programme Management Units under the oversight of the Project Coordination Unit (PCU); an autonomous department of the FMAFS in charge of coordinating and overseeing all donor funded agricultural projects in Nigeria.

The Finance management function will be headed by the Finance Controller, and supported by 2 senior national accountants at the level of the NPMU. They will be in charge of the day to day finance operations of the NPMU, the consolidation of reports, and general oversight of financial operations of the SPMU. Each SPMU will have a State Accountant, and State Finance Officer, both reporting to the Finance Controller.

Given the size, geographic spread, and fragile context of VCN, the NPMU finance team will comprise a Senior Accountant, and Senior Finance Officer to ensure regular monitoring and review of accounting transactions of the SPMUs. Dual authorization and approval processes for financial transactions to enhance accountability and prevent fraud will also be implemented. Prioritization will equally be given to building the financial management capacity of local staff. Provide training on financial processes, reporting, and compliance to empower local teams to effectively manage project finances.

Fiduciary responsibilities will be shared between the various stakeholders including FMAFS, Federal Ministry of Finance, AFD, and other oversight bodies such as the National Steering Committee. The government ministries involved, in addition to participating in the joint supervision missions, will also equally carry out regular oversight missions, and issue reports and recommendations to the project. The office of the auditor general of the federation will carry out the annual audit of the financial statements and also the quarterly review of the interim financial reports. IFAD will provide financial management capacity building to the project FM staff and will continuously assess the capacity of the financial management during every supervision mission. IFAD minimum fiduciary clauses will be included by the project in all contracts with suppliers and implementing partners.

The LPA has significant experience in the implementation of donor funded projects, and especially IFAD projects. The current portfolio comprises three projects (VCDP, LIFE ND, and SAPZ) are all under the FMAFS. Nigeria generally has sufficient FM capacity but the challenge has been the interference of government agencies in the recruitment process. All finance controllers, and most finance officers at the level of

the states are government civil servants either from the accountant general's office or from the FMAFS. In the particular case of SAPZ the recruitment was open but limited only to staff currently in the civil service. This explains in some part the uneven distribution of capacity across the existing portfolio.

IV. Financial Management Risk Assessment³

A. Inherent risks assessment

Nigeria is a complex and diverse country with various geographical, political/administrative, and cultural factors that shape its identity and influence its development. The country has faced governance challenges, including corruption, political instability, and issues related to the rule of law. These factors impact economic development and public trust. Nigeria has experienced security challenges, including insurgency in the northeast (Boko Haram), inter-communal conflicts, and issues related to resource control. These factors affect stability and development.

The Federation has faced challenges in public financial management (PFM) quality, with efforts made to improve systems and regulations. Implementation of budgets has faced challenges, with delays, inefficiencies, and issues related to the timely release of funds affecting the delivery of public services. Efforts have been made to enhance accountability and transparency, but there is room for improvement. Public access to financial information and the effectiveness of oversight mechanisms are areas of focus.

The fundamental law governing PFM in Nigeria, particularly for the Federal Government, is the 1999 Constitution as amended. The Auditor General is required to audit all public accounts, offices, and courts of FGN, and submit its report directly to the National Assembly within 90 days of receipt of the financial statement and annual accounts from the Accountant General. However, the Auditor General does not directly audit the accounts of government statutory corporations, commissions, authorities, agencies, etc., established by Law. The constitution mandates National Assembly to conduct investigations into the public accounts of the Federal Government.

There are other laws, regulations, rules and guidelines that govern PFM issues of the Federal Government. These include (a) the Finance (Control and Management) Act, (b) Fiscal Responsibility Act, 2007 (c) Public Procurement Act, 2007 (d) Financial Regulations (revised to 2009) etc. The components of the PFM that could be used for

³ Refer to the IFAD Enhanced Risk Framework [\(ADD LINK\)](#).

the proposed project will include budgeting, accounting, internal control, treasury function, and external audit.

Following from the last PEFA report issued in 2019, noticeable efforts have been made by the FGN authorities to join forces with Nigerian States (subnational governments) to sustain PFM reforms. The PEFA assessment acknowledges the positive direction of change with ongoing reforms, including those supporting Integrated Payroll and Personnel Information System (IPPIS), deployment of Government Integrated Financial Management Information System (GIFMIS), implementation of the Treasury Single Account (TSA), e-Payment, and International Public Sector Accounting Standards (IPSAS). However, the report notes the lack of a coordinated approach to PFM reforms as major concern. For example, the accrual basis IPSAS implementation process was committed to by Federal and State authorities with a deadline to achieve a host of milestones in a period of four years, by 2016, did not sufficiently consider the rigor and cost involved in its implementation, for instance the inventory and valuation of fixed assets. Projects are still using the IPSAS cash basis and this is in line with and acceptable per IFAD requirements.

The Transparency International (TI) released the 2023 Corruption Perceptions Index (CPI) with Nigeria ranking 145 out of 180 countries compared to 150 on the 2022 CPI results. While Nigeria moved 5 places up on the country ranking, its score only improved from 24/100 in 2022 to 25/100 in 2023 representing a HIGH level of corruption. In effect, the CPI index for the country has remained consistently low in the last 10 years highlighting the challenges of successive political regimes in fighting corruption. While the enactment of key legislations (Proceeds of Crime Act 2022, Money Laundering Act 2022 etc) greatly reinforced the country's legal framework, certain actions (amnesty to Politically Exposed Persons, recovery of N30 billion from the former Accountant general of the Federation) greatly undermined the country's anti-corruption efforts.

IFAD's Project Portfolio FM Inherent Risk is High. There are three on-going and active projects (VCDP, LIFE-ND, and SAPZ) with differing levels of quality of financial management. The portfolio has a recurrence of ineligible expenditures exacerbated by a lack of financial probity, weak internal controls over financial reporting, and interference from government personnel.

IFAD uses the available country systems to the extent possible that ensures FM risks are minimized. IFAD disburses funds only through the treasury single account (TSA) domiciled with the Central Bank of Nigeria (CBN) and the annual programme audit is performed by the OAuGF.

Overall FM inherent risk is rated as High. The risk rating is driven by the large number of implementation units in a fragile context (north of Nigeria), low capacity especially in adhering to IFAD financial management guidelines and continued poor documentation practices. In addition, a greater part of Fiduciary arrangements will be handled at the level of the SPMUs.

B. Project Control Risks

Table 2. Summary of FM Risks and mitigating actions:

Summary	Brief description of issues	Inherent Risk design H/S/M/L	Agreed Mitigation Measures at (covenants precedent to disbursement)	Residual Risk H/S/M/L
A. Inherent risk assessment pillars				
i. Country level	<p>Transparency International's 2023 Corruption Perception Index ranked Nigeria 145th out of 180 countries with a score of 25/100, highlighting a prevalent corruption risk. In addition, The World Bank's 2021 Enterprise Surveys indicate that roughly 32% of Nigerian firms identified bribery as a major constraint to doing business.</p> <p>On the Mo Ibrahim Governance index, Nigeria scored 47.7 out of 100, which is below the African average (48.9) and significantly lower than the regional average for Western Africa (52.5). This indicates significant room for improvement in governance across various dimensions.</p> <p>RSP Score is 3.6</p>	H	<p>Beyond the control of the project. Efforts are underway to implement international financial reporting standards (IPSAS) to enhance transparency and accountability in government financial reporting. The Independent Corrupt Practices and Other Related Offences Commission (ICPC) and the Economic and Financial Crimes Commission (EFCC) work to combat corruption within the public sector. However, their effectiveness is debated. Sustained political commitment to fight corruption and improve transparency is crucial for long-term success.</p>	N/A

ii. Entity level	<p>Fiduciary compliance and adherence to strict financial discipline has continuously been a challenge for officials of the PMUs, and Ministries.</p> <p>Integrity issues in cultural practices such as gift-giving; while customary gift-giving is common, a 2019 UNODC report highlights the challenge of distinguishing it from potential bribery in public contracting.</p>	H	<p>Ring fenced NPMU and SPMUs will be created with safeguards to ensure they exercise sufficient administrative and financial autonomy.</p> <p>Oversight functions such as internal audit and grievances mechanism established within the NPMU and implementation of protocol for fraud and corruption.</p>	N/A
iii. Project level	<p>The ongoing insurgency in the Northeast by Boko Haram and affiliated groups disrupts project implementation in affected areas. The 2023 Global Terrorism Index ranked Nigeria third globally for terrorism impact.</p>	H	<p>Adequate training of designated project FM staff in Bank FM policies and procedures. States to provide a statement of commitment and potential measures to ensure the security of Project personnel, beneficiary communities and assets, in coordination with Federal Government, and in compliance with IFAD operational security requirements.</p>	N/A
B. Control risk assessment pillars				
1. Organization and Staffing	<p>Despite having one of the oldest accountancy bodies in the region, a 2022 report by the Chartered Institute of Public Finance and Accountancy (CIPFA) found that only 42% of Nigerian public finance professionals felt they had the necessary skills to effectively manage public funds highlighting prevalent institutional capacity issues. Capacity is unevenly distributed across the country. Government interference in the recruitment process is prevalent.</p>	H	<p>The staff will be recruited through open competitive procedure. The TORs will be cleared and non-objected by IFAD.</p> <p>Staff will receive in depth training on IFAD financial management procedures, fraud and corruption; and ethics</p>	H
2. Budgeting	<p>Failure to properly prepare comprehensive budget and effectively monitor performance of same</p>	S	<ul style="list-style-type: none"> - Project budgeting is to be synchronized with the timeline for the FGN budget process, taking into account all entities participating in the project. - Budget execution will be monitored through 	S

			calendar semester unaudited IFRs. - Computerized accounting system will include a budget module.	
3. Funds flow and Disbursement Arrangements	Delay in submission of WA, insufficient funds flow to SPMUs and, inaccurate cash forecast failure of government to provide counterpart funds. Inadequate arrangements for matching grants administration	H	- Qualified and experienced NPMU staff dedicated to handle funds flow to SPMUs and preparation of consolidated cash forecasts. - Commitment of Govt to make the counterpart funds available - Matching grant controls will include pre-award, disbursement, and monitoring controls	M
4. Internal Controls	- Misuse of funds and inadequate documentation of incurred expenditures. - Inadequate documentation of transactions and failure that funds are used for the intended purposes with economy and efficiency - FCS of the implementing states does not permit full compliance with acceptable FM requirements	H	- Incorporation of alternative internal control and assurance arrangements for FCS context - Robust Financial Procedures Manual (FPM) including checklist of support documents for incurred expenditures to be in place, and staff familiar with the FPM. - Independent and effective internal audit and risk management function will be in place. - Enhanced project accountability framework over soft expenditures will be implemented. - Biometric identification (fingerprints) of beneficiaries	H
5. Accounting and Financial Reporting	- Failure to adequately account for project funds and provide full supporting documentation. Delayed submission of financial reports of acceptable quality.	H	- Accounting and internal control procedures established and documented in project Financial Procedures Manual (FPM). - Robust FM arrangements at NPMU and SPMU. - Project financial reporting guidelines included in the FPM - Use of computerized accounting system to generate financial reports	H
6. External Audit	Delay in submission of audit report and unacceptable audit report.	S	SAI to carry out an independent external audit of project financial statements based on ToRs acceptable to FIDA.	S

Overall FM Risk @ design⁴	The above risks have been identified and the mitigation measures proposed. The overall Inherent risk is High and Residual risk remains High and it will be checked at what extent mitigation measures would be implemented during the implementation period, then review and amend the residual risks.	H		H
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⁴ The Final Risk at design should reflect a combined consideration of inherent and control risks for the project.

V. Financial Management and Disbursement Arrangements

1) Financial management organization and staffing

Project financial management staff will be recruited through a competitive procedure both at the national level, and the state level. The FM function will be headed by a national financial controller (FC) with reputable track record in FM, with Fellow designation from a renowned accounting body. The FC will be assisted by a Senior Accountant, a Senior Finance officer, and an assistant accountant. FM staff at the level of the states will report to the FC. The SPMU finance team will comprise an Accountant, and Finance Officer.

Job descriptions and TORs will be received non-objection from IFAD. Staff will be issued with performance-based contracts with clearly established KPIs that will be subject of annual evaluations before contract renewal.

2) Budgeting

On an annual basis, the Project Accountant working under the supervision of the FC and Coordinators at NPMU and the SPMUs, respectively, will consult with key members of the implementing office to prepare the budget for the fiscal year, based on the approved work plan. A Budget Committee will be established to coordinate budget preparation and tracking of financial performance. The budget will be submitted to the National Steering committee, IFAD and AFD at least two months before the beginning of the project fiscal year. The FPM will provide details on the institutional roles, timeline, and procedures for planning and budgeting.

3) Disbursement Arrangements and Flow of Funds

Project funding comprises an IFAD Loan (PBAS + BRAM), AFD Loan, and National and State government counterpart funding. IFAD will disburse the Loan through DAs in USD opened with CBN at the federal level (in line with FGN TSA directives) and reputable commercial banks acceptable to IFAD at the state level (TSA is not yet completely implemented across the states). Separate designated and operational accounts will be opened for each type of financing. All bank account ledgers will be reconciled with bank statements every month, and any differences that are identified will be investigated expeditiously. The bank reconciliation procedures will be documented in the FPM. The NPMU will be responsible for preparing and submitting Withdrawal

Applications to the IFAD. Withdrawal Applications will be supported by Interim Financial Reports (IFR), bank statements and a reconciliation of the DA and any other supporting documents as required.

Disbursement will be guided by the following indicative table which will be finalized in the financing agreement:

Value Chain North (VCN)
Expenditure Accounts by Financiers
(US\$ '000)

	IFAD		IFAD BRAM		AFD		FGN & States Cash/In-Kind		Ben Cash/In-Kind		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs															
A. Consultancies	4 593	48	674	7	4 232	45	9	0.1	-	-	9 509	6	2 385	7 115	9
B. Works	13 338	36	7 188	20	11 282	31	2 317	6	2 526	7	36 650	23	8 508	25 826	2 317
C. Equipment and Materials	1 893	48	224	6	1 732	44	59	2	-	-	3 907	3	553	3 296	59
D. Goods Services and Inputs	14 918	46	2 732	9	14 441	45	35	0.1	-	-	32 127	20	5 976	26 115	35
E. Matching Grant	10 145	26	12 552	33	9 585	25	-	-	6 131	16	38 412	24	8 968	29 444	-
F. Training and Workshops	8 551	40	3 272	16	9 329	44	-	-	-	-	21 152	13	2 215	18 937	-
G. Vehicles	243	51	-	-	199	42	36	8	-	-	478	0	143	299	36
Total Investment Costs	53 680	38	26 642	19	50 800	36	2 456	2	8 657	6	142 236	90	28 748	111 031	2 456
II. Recurrent Costs															
A. Operation and Maintenance	515	25	534	26	-	-	998	49	-	-	2 047	1	-	2 047	-
B. Salaries and Allowancies	2 505	18	2 824	20	-	-	8 546	62	-	-	13 875	9	-	13 875	-
Total Recurrent Costs	3 020	19	3 358	21	-	-	9 544	60	-	-	15 922	10	-	15 922	-
Total PROJECT COSTS	56 700	36	30 000	19	50 800	32	12 000	8	8 657	6	158 157	100	28 748	126 953	2 456

Categories will be summarized to a maximum of 5 for the purpose of the financing agreement. A couple of operational details including the sharing of the recurrent cost between IFAD and AFD will be indicated in the FA; these will be documented in an MOU.

4) Internal Controls and Internal audit arrangements

Develop and implement a robust internal controls framework to safeguard project assets and prevent misuse of funds. The control features at NPMU and SPMU will include a framework manual of FM procedures adapted for IFAD financed project; qualified personnel who are well trained in the relevant IFAD procedures and requirements, including procurement; segregation of functions/duties; and highly trained internal auditors who will report directly to the steering committee. The work programs of the assigned internal auditors will include periodic reviews of the project's activities. The project will provide training in the risk-based internal audit (RBIA) methodology that the internal auditors will utilize to carry out the traditional compliance audit and the non-financial or operational internal audit. In addition, a grievance redress mechanism will be established for reporting financial irregularities or concerns, encouraging a culture of accountability.

5) Accounting Systems and Financial Reporting mechanisms

To account for IFAD funds, the project will use Cash-basis accounting following International Public Sector Accounting Standards (IPSAS), which Nigeria adopted in 2016. Annual financial statements will also be prepared in accordance with Cash-basis IPSAS. The project will employ a computerized accounting system that incorporates a Chart of Accounts for recording and reporting expenditures by category, component, subcomponent, and activity. All accounting and control procedures will be documented in the FPM, a living document that will be updated regularly as appropriate by the project and shared with the IFAD and AFD for review and clearance. Within the NPMU and SPMU, the project coordinators will ensure that project accountants prepare the required financial reports on a timely basis.

Unaudited IFRs will be prepared by NPMU, and SPMU on a calendar quarter basis and submitted to the IFAD within 30 days of the end of the relevant quarter. The financial and accounting system will be set up to ensure that SPMUs are able to produce their individual IFRs and transmitted to the NPMU. This will reinforce internal controls over financial reporting at the level of the states. The NPMU will prepare consolidated IFR covering the various financing instruments.

6) External Audit

Country systems will be used for the audit of VCN. The supreme audit institution in Nigeria is the Office of the Auditor-General for the Federation (OAuGF). It's an independent body responsible for auditing the federal government's accounts and those of its parastatals (government-owned enterprises). The OAuGF uses internationally recognized standards (ISSAI) developed by the International Organisation of Supreme Audit Institutions (INTOSAI) and which provide a comprehensive framework for conducting high-quality audits in the public sector. The TORs of the external audit will be cleared by IFAD. Unaudited, and audited financial statements and management letter will be submitted to IFAD in April, and June of the ensuing financial year respectively.

The principal challenge raised by the SAI in recent meetings has been mostly related to limited resources; inadequate funding and staffing hinders the OAuGF's ability to conduct comprehensive audits across all government entities, and implementation challenges; effective implementation of audit recommendations and follow-up actions by government agencies is slow or inconsistent.

VI. Implementation Readiness

Table 3: FM Actions Summary: The actions needed to mitigate FM risks are summarised below:

	Action	Responsible Party / Person	Target Date / Covenants⁵
1	Agreement on format of IFRs and External Auditors ToRs	IFAD/PCU	Before first disbursement

⁵ Indicate if covenants are required in Financing Agreement for each of these: effectiveness condition or disbursement condition or dated covenant.

2	Train designated NPMU and SPMU staff in IFAD FM procedures and Disbursement Guidelines	IFAD	Within 60 days of recruitment
3	Engagement signed with external auditor (Auditor General)	PMU	Within 90 days after effectiveness
4	Recruit Key project staff including FM and internal audit	FMAFS/IFAD	Disbursement Condition
5	Purchase and configure accounting software and customize financial reports, and train staff	PMU	Disbursement Condition
6	Prepare Financial Procedures Manual (FPM)	PMU	Disbursement Condition
7	Open designated and operational accounts	PMU	Disbursement Condition
8	Refund of any outstanding balances, Ineligible expenditures of closed or active projects	FMF (authorized rep of B/R)	Disbursement Condition
9	Request Start-up advance to amount negotiated and agreed	FMF/PMU	60 days after EiF

FM Supervision plan

- Supervision of FM will follow a risk-based approach and will involve collaboration with the IFAD project team. Given that FM risk is assessed to be High and that mitigation measures must be implemented in a timely, sustained manner to achieve a residual risk rating of Substantial, on-site supervision will be carried out at least once a year. On-site review will cover all aspects of FM, including internal control systems, the overall fiduciary control environment, transaction tracing from bidding to disbursement, and reviews of Statements of Expenditure.
- Additional supervision activities will include desk review of IFRs, quarterly internal audit reports, audited annual financial statements and Management Letters, timely follow-up on issues that arise, and updates of Implementation Status Reports and the FM system.

- The IFAD project team will monitor the timely implementation of the Action Plan. Risk will be continually reassessed during implementation as performance is reviewed, and the supervision plan will be adjusted to reflect any changes in the level of assessed risk.
- Subject to security situation, alternative assurance mechanisms (use of state accountant general’s office to verify some expenditures or activities) would be considered where Finance Officer is not able to visit significant states during supervision

Appendix 1: Flow of Funds Chart

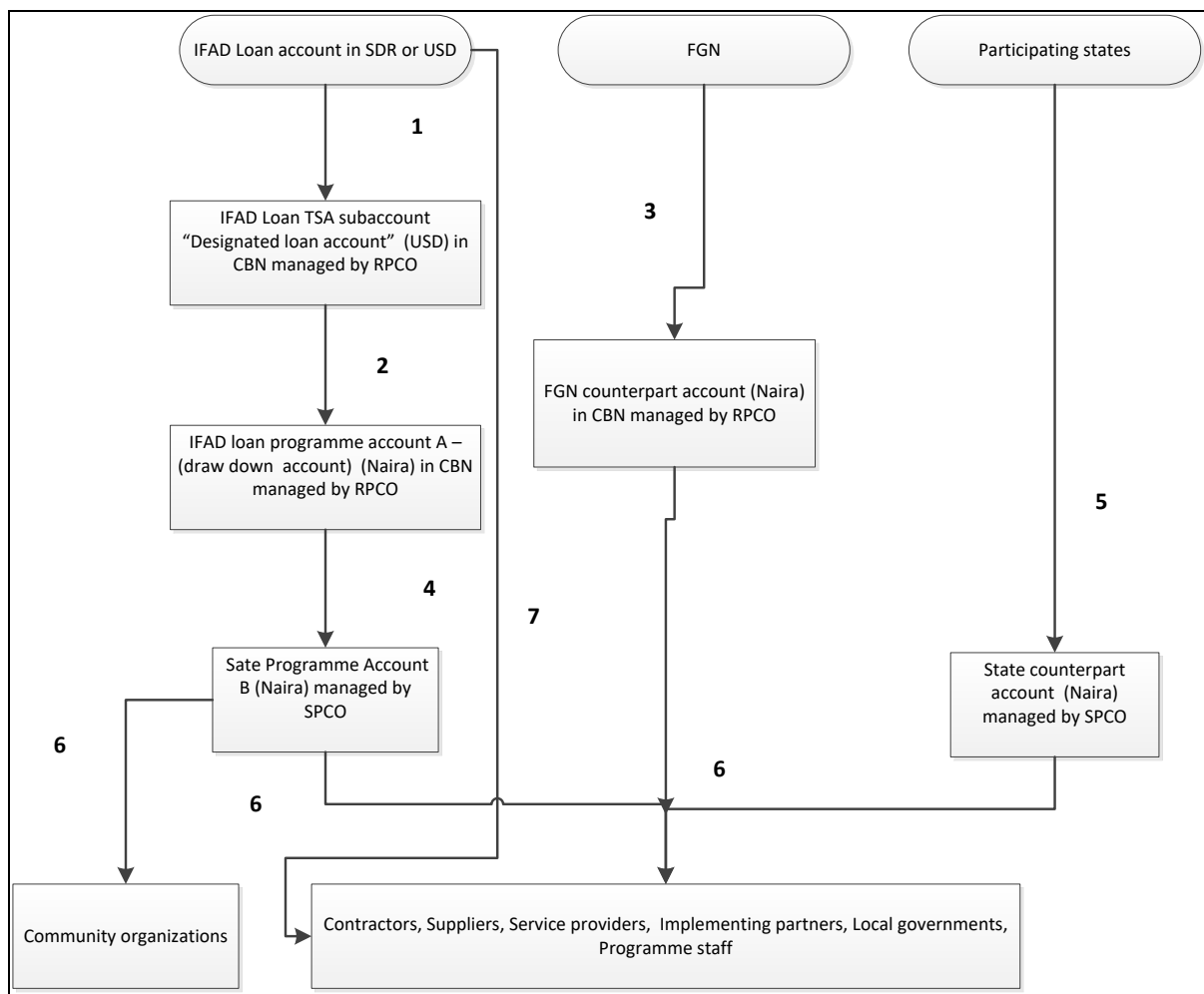


Chart 1: Proposed Flow of funds

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex 8: 18-month Procurement Plan

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Guidance Note

Overview of the template

The template provides excel worksheets for (i) Guidance, timelines and (ii) the actual Procurement Plan

Worksheets for the Procurement Plan

- SUMMARY**
- GOODS**
- WORKS**
- CONSULTING**

- **Goods, Works, Consulting:** used to enter procurement plan data.
Note: Non-consulting services should be inserted in any of the categories for Goods, Works and Consulting depending on the nature of the services.
- **Summary:** displays a summary of amounts by category, and procurement thresholds.

Worksheets for Guidance and timelines

- **Guidance:** quick reference guidance on how to use the template.
- **Time Estimation:** estimated timelines by procurement methods, based on experience and guidance in the Procurement Handbook where specified.

Procurement Summary

The Summary worksheet displays basic information, total amounts and procurement thresholds for the project.

Populating the Procurement Plan Summary

Procurement Plan SUMMARY				
Country:	Wakaranda			
Project Name:	Community Livestock and Agriculture Project (CLAP)			
Project ID:	2000001234			
Version:	1.0			
Version Date:	01-Jan-20			
Prepared by:				
Approved by:				
Procurement Category	Plan		Actual	
Currency	USD	LCU	USD	LCU
Goods	-	-	-	-
Works	-	-	-	-
Consulting Services	-	-	-	-
Non-Consulting Services	-	-	-	-
Grants	-	-	-	-
TOTAL	-	-	-	-

STEP 1: Enter the **Country, Project Name, Project ID, Version** **Version Date** and Name(s) of the person(s) preparing and/or approving the Plan.

Managing versions, updates and upgrades

The Version of the Procurement Plan (and the version date) must be updated for every **Update** and **Upgrade** to the Plan. This version update shall be made to the summary sheet only. It will be automatically populated to the other sheets. The first digit (**1.0**) should be kept for the entire 18 or 12 months period that represents the Plan's duration and changed in the next period/year (for example, Year/Period 1: 1.0. Year/Period 2: 2.0) The second digit represents updates and upgrades.



An **Update** is the filling in the contents of the **Actual** rows in the Procurement Plan



All other changes are **Upgrades**. For Prior Review upgrades require an IFA

Do not populate this section. Total amounts are automatically calculated from the Procurement Plan Sheets for each category.

Prior Review Thresholds					
Category	Goods and goods-related Non-Consulting Services	Works and works-related Non-Consulting Services	Consulting Services and related Non-Consulting Services and/or MoU/Agreements	Individual Consultants	Decisions concerning Abnormally Low Bids shall be subject to the No Objection of IFAD.
Threshold	>= US\$ 0.00	>= US\$ 0.00	>= US\$ 0.00	>= US\$ 0.00	Only for procurement activities subject to prior review OR For all procurement activities

All Direct Contracting and Single-Source Procurements are **Prior Review** (in alignment with IFAD Procurement Handbook), or based on the thresholds stipulated in the LTB. The exchange rate at time of submission will be used for reviews.

Procurement Method Thresholds						
	CQS	QBS/LCS/FBS	QCBS	Shortlisting	SSS - Firms	SSS - Individuals
Consulting Services and related Non-Consulting Services	<= US\$ 0.00	< US\$ 0.00	>= US\$ 0.00	>= US\$ 0.00	<= US\$ 0.00 (subject to prior review. Justification required if above threshold)	<= US\$ 0.00 (or with a contract duration of 3 months or less; subject to prior review)
Goods and goods-related Non-Consulting Services	Direct Contracting	Shopping	NCB	ICB	Other Procurement Methods or Arrangements	
Works and works-related Non-Consulting Services	>= US\$ 0.00 (subject to prior review. Justification required if above threshold)	<= US\$ 0.00	< US\$ 0.00	>= US\$ 0.00	Force Account	Up to a maximum aggregate amount of US\$ 0.00 (subject to prior review)
	>= US\$ 0.00 (subject to prior review. Justification required if above threshold)	<= US\$ 0.00	< US\$ 0.00	>= US\$ 0.00	Community Participation	Allowed OR Not Allowed

ncy	USD	ypes	Amount (USD)
	USD		Amount (USD)
	SDR		Amount (SDR)
	EUR		Amount (EUR)

Note: If currency is neither **USD** nor **LOCAL CURRENCY**, modify the USD labels in the template using the dropdowns where provided or typing directly if required option is not available.

STEP 2: Enter the **Prior Review Thresholds and Procurement Method Thresholds** for the project. These are defined in the Letter to the Borrower.

Goods, Works and Consulting Worksheets

Planning and Actual data on each procurement item is entered in these worksheets, by category. All worksheets are generally structured the same way.

Overall Structure of the Worksheets

The 3 rows shown are not part of the Plan and must not be modified. Copy these rows to create new procurement items or replace Plan Dates formulas if needed.

For each worksheet, 3 rows (Plan, Actual and a blank row) are provided at the top to facilitate copying/pasting of new items, or retrieval of plan date formulas. **Do not edit/delete these rows.**

Procurement Plan - Goods
 Wakanda
 Community Livestock and Agriculture Project (CLAP)
 Project ID: 2600021264
 Entered by:
 Approved by:
 Version: 1.0 1/26/20

The basic information is automatically populated from the Summary table.

Total Amount		
USD	LCU	
15,000.00	0.00	Plan
0.00	0.00	Actual

Plan and Actual total amounts are calculated automatically.

Procurement Item Ref	No	Description	Funding	Lot No/Description	Project Area	Plan vs. Actual	Plan Start Qualification	Prior or Post Review	Procurement Method	Envelope	Amount (USD)	Amount (LCU)	Plan vs. Actual	Prop of BCI	No-objection Date
RRB-CS-01	1	Stationery and Office Supplies	IFAD			Plan	POST-QUAL	Prior Review	No	1	13,000.00		Plan	1/26/20	1/26/20
						Actual							Actual		

A Procurement item should be expressed in a **Planned Row** and an **Actual Row**, with a blank row at the bottom.

Adding a New Procurement Item

STEP 1: To add a new procurement where rows are still available, fill out all the items in the Plan until you get to the date. This is the "Basic Data" section, and reference to the corresponding AWPB, Procurement No., Description, Funding, Number of Lots, Project Area (where applicable), Procurement/selection methods and the Planned Amount in USD or Local Currency. *The date cells for Goods and Works start with the cell directly under Submission of PreQual docs, and for the Consulting Services worksheet, the cell directly under Submission of REOI.*

AWPB/Component Ref	No	Description*	Funding	Project Area	Plan vs. Actual	Shortlist (Yes/No)	Prior or Post Review	Procurement Method	Amount (USD)	Amount (LCU)
RRB-CS-01	1	Climate Vulnerability Assessment	IFAD	All targeted districts	Plan	Yes	Prior Review	QCBS	64,000.00	
					Actual					

Submission of REOI	No Objection Date	REOI Launch Date
Enter Date		

You can only enter amounts in one currency for each

Grant	Non Consulting
Yes	

NEW! Select "Yes" for Grants and Non-consulting activities if applicable.

STEP 2: Based on the selected criteria, you will be prompted to **Enter the first date** of the process in the relevant field.

Plan vs. Actual	EOI Shortlist Procedure						
	Submission of REOI	No Objection Date	REOI Launch Date	EOI Submission Deadline	Submission of Shortlist Report	No Objection Date	Submission of RFP/RCQ
Plan	1-Feb-20	8-Feb-20	10-Feb-20	2-Mar-20	16-Mar-20	23-Mar-20	27-Mar-20
Actual							

Planned dates are calculated using formulas, from **start to finish**. **Note:** If you enter a Procurement Method that is not listed in the dropdown, the formulas will not work, however you may proceed with manual entry.

Modifying Planned Dates

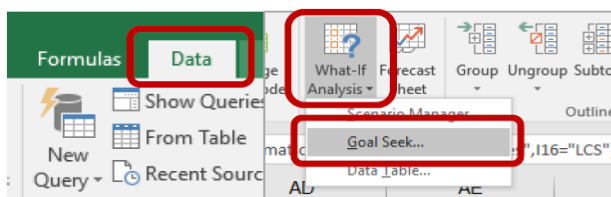


Planned dates provided by the formulas are not prescriptive and may be modified as needed.

- **Planning from Finish to Start:** As long as no manual entries have been made to the planned dates and the formulas are still in place, you can **adjust the timeline based on an END DATE** as follows:

No-objection Date	Date Contract Award	Date Contract Signature
22-Aug-20	24-Aug-20	31-Aug-20

STEP 1: Follow steps 1 and 2 in the previous section, entering a start date. Once you have planned dates in the cells based on the formulas, **select the cell that contains the last/finish date.**



STEP 2: Click **Data** and select the dropdown menu on the button called **What-If Analysis**. Select the **Goal Seek** feature from the dropdown.

- STEP 3:** Fill in the popup box as indicated below:
- **Set cell:** this is already selected from step 1. If not, click the field and select the cell containing the last/finish date.
 - **To value:** enter the **target finish date** for the procurement.
 - **By changing cell:** click the field and select the cell containing the **first/start date**.
 - Click OK, and then click OK again on the following popup.

The timeline will be adjusted, with a new calculated start date.

- **Modifying the number of days in the timeline:** This can be done in two ways:
- **Using the Time Estimation worksheet:** Modifying the approximate (Approx) number of days for specific processes (by procurement methods) within the Time Estimation worksheet. **Note:** this timeline applies to all items in the procurement worksheet using that method.
 - **Directly modifying planned dates** for a procurement item within the procurement plan worksheet. **Note:** modifying dates in the worksheets should be done from earliest to latest date, to ensure remaining dates are adjusted accordingly by the formulas.

Using the Time Estimation Sheet to modify timelines by procurement method

This spreadsheet provides estimated timelines by procurement methods, for each step of the procurement process based on experience and guidance in the Procurement Handbook where specified.

Goods & Works	Bid Invitation Date			Bid Closing-Opening			Su Tec
	Min	Max	Approx	Min	Max	Approx	
Single Envelope							
RFQ/Shopping (NS/IS)	1	3	1	5	21	14	0
NCB (no PreQual)	1	3	2	30	45	45	0
ICB (no PreQual)	1	3	2	45	70	45	0
LIB (no PreQual)	1	3	2	45	70	45	0
NCB (with PreQual)	1	3	2	30	45	45	0
ICB (with PreQual)	1	3	2	45	70	30	0
LIB (with PreQual)	1	3	2	45	70	45	0
Direct Contracting	1	3	1	7	30	14	0
Two Envelope							
NCB (no PreQual)	1	3	2	30	45	45	3
ICB (no PreQual)	1	3	2	45	70	45	3

ACTION: Identify the Approx cell value for the step in the process, and procurement method for which you wish to modify the timeline, and change the number of days.

Note: Cells will be highlighted for your attention if the value entered is below the Minimum number of days (as shown in this example).

Zero indicates steps that are not applicable to the method, and are indicated as N/A in the Formulas.

Directly modifying planned dates

ACTION: Simply enter new dates manually.

Note: Start editing from earliest to latest to ensure that the following dates are adjusted by the formulas.

Note: If you need to restore one or more planned date formulas, you can do so by copying and pasting the corresponding cell (in the same column) from the upper most row in the worksheet.

Plan				
Actual				
	EOI Shortlist Procedure			
Plan vs. Actual	Submission of EOI	No Objection Date	REOI Launch Date	EOI Submission Deadline

Entering Actual Dates and Information

AWPB/Component Ref	No	Description*	Funding	Project Area	Plan vs. Actual	Shortlist (Yes/No)	Prior or Post Review	Procurement Method	Amount (USD)	Amount (LCU)	Plan vs. Actual
RRB-CS.01	1	Climate Vulnerability Assessment	IFAD	All targeted districts	Plan	Yes	Prior Review	QCBS	64 000.00		Plan
				All targeted districts	Actual	Yes	Prior Review	QCBS	-	-	Actual

Submission of REOI	No Objection Date	REOI Launch Date	EOI Submission Deadline	Submission of Shortlist Report	No Objection Date
1-Feb-20	8-Feb-20	10-Feb-20	2-Mar-20	16-Mar-20	23-Mar-20
3-Feb-20	9-Feb-20	11-Feb-20	3-Mar-20	16-Mar-20	23-Mar-20

This cell contains a formula
Actual amounts can be entered at the end of the spreadsheet.

Note: Enter the Actual Amount at the end of the worksheet.

Date Contract Award	Date Contract Signature	Amount (USD)
24-Aug-20	31-Aug-20	64 000.00
30-Aug-20	10-Sep-20	60 000.00

ACTION: As the procurement processes are implemented, update the Actual Rows for the Basic Data, Actual Dates and finally, the Actual Amount at the end of the worksheet. **NEW!** Columns have been added for Contract No., Vendor Name/ID, Contract Completion and Remarks

USD LCU

Total Amount	USD	LCU	
	80 000.00	0.00	Plan
	65 000.00	0.00	Actual
Non-Consulting:	30 000.00	0.00	Plan
	20 000.00	0.00	Actual

NEW! Total values are included for Non-Consulting activities on each worksheet and in the summary worksheet.

Procurement Category	Plan		Actual	
	USD	LCU	USD	LCU
Goods	50 000.00	-	45 000.00	-
Works	-	80 000.00	-	75 000.00
Consulting Services	15 000.00	-	10 000.00	-
Non-Consulting Services	30 000.00	-	20 000.00	-
TOTAL	95 000.00	80 000.00	75 000.00	75 000.00

Entering Actual Data and Information for Multiple LOTS

In cases of multiple LOTS, insert a new Actual Row for each LOT. The Actual Dates will likely be the same until the Submission of Technical Evaluation Report.

1								Plan
2								Actual
3								
4								

The 3 rows above are not part of the Plan and **must not be modified**. Copy these rows to create new procureme

STEP 1: Select and Copy the Actual Row (Row 2) from the top section of the worksheet, and insert the copied row in your worksheet to create another Actual row as shown in the screenshot below.

STEP 2: In the Lot No./Description section of the Planned Row, indicate the number of LOTS in the Plan row, and individual lots in each Actual row. Fill in the information as shown in the example below.

Lot No./Description	Project Area	Plan vs. Actual	Pre-or Post Qualification	Prior or Post Review	Procurement Method	Envelopes	Amount (USD)
2 Lots	N/A	Plan	Post-Qual	Post Review	NS	1	25 000.00
1. Desktops	N/A	Actual	Post-Qual	Post Review	NS	1	15 000.00
2. Monitors	N/A	Actual	Post-Qual	Post Review	NS	1	10 000.00

NOTE: The Amount entered on the Plan row is the total amount for all the lots, while the amount entered in the Actual row reflects the amount for each lot.

Adding Rows for New Procurement Items

											Plan					
											Actual					

The 3 rows above are not part of the Plan and must not be modified. Copy these rows to create new procurement items or retrieve Plan Dates Formulae if needed.

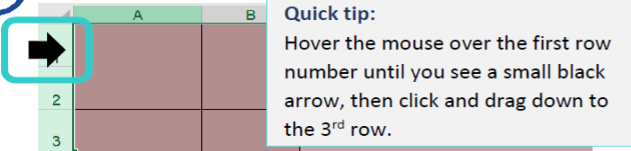
Procurement Plan - WORKS

Version	1.0	Country:	
Date	1-Jan-20	Project/Programme:	
		Project ID:	
AWPB/Component Ref	No	Description*	Fundit

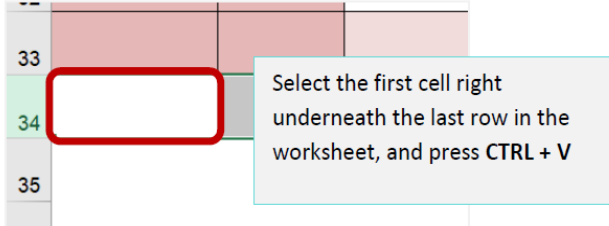
For all worksheets (Goods, Works, Consulting), 3 rows (Planned row, Actual row, and the blank row) are provided at the top of the worksheet, before the start of the Procurement Plan.

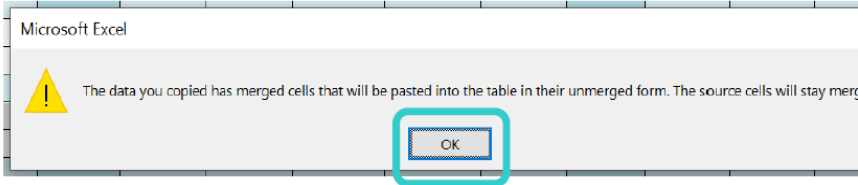
Do not modify or delete these rows. They are not part of the Plan and serve only to create new procurement items or retrieve formulas if needed.

To add rows for a new procurement item

- 1** Scroll to the top of the worksheet and select the first 3 rows.


Quick tip:
Hover the mouse over the first row number until you see a small black arrow, then click and drag down to the 3rd row.
- 2** Copy the selected rows

Right click anywhere within the selected area and select Copy on the dropdown menu.
OR press CTRL + C on the keyboard.
- 3** Paste the rows at the end of the Plan


Select the first cell right underneath the last row in the worksheet, and press CTRL + V
- 4** Click OK on the following popup.


Things to Note

- Do not insert or delete a column in the **Time Estimation** worksheet;
- Users are advised against inserting or deleting columns in the worksheets for Goods, Works, Consulting. If this is necessary, please note that the automation will be lost and manual entry will be required;
- Do not copy rows and columns from other Plan worksheets to paste in a worksheet;
- Users of the Plan are advised not to change any of the formulas in the document, with the exception of changing (a copy of the formulas are provided at the top of every worksheet for new rows or inadvertent deletions).

Procurement Plan SUMMARY

Country:	Nigeria			
Project Name:	Value Chain in Northern Nigeria			
Project ID:	2000003909			
Version	1.0			
Version Date	20-Mar-24			
Prepared by:	Franklin Ibemessie			
Approved by:				
Procurement Category	Plan		Actual	
Currency	USD	LCU	USD	LCU
Goods	2 382 000.00	-	-	-
Works	1 003 000.00	-	-	-
Consulting Services	8 134 000.00	-	-	-
Non-Consulting Services	19 000.00	-	-	-

Grants	-	-	-	-
TOTAL	11 538 000.00	-	-	-

The threshold tables below are based on the new LTB Template 2020.
Please fill in the fields that are applicable based on the provisions in the LTB for the project.

Prior Review Thresholds					
Category	Goods and goods-related Non-Consulting Services	Works and works-related Non-Consulting Services	Consulting Services and related Non-Consulting Services and/or MoU/Agreements	Individual Consultants	Decisions concerning Abnormally Low Bids shall be subject to the No Objection of IFAD:
Threshold	>= US\$ 80,000	>= US\$ 150,000	>= US\$ 100,000	>= US\$ 25,000	Only for procurement activities subject to prior review OR For all procurement activities

All Direct Contracting and Single-Source Procurements are **Prior Review** (in alignment with IFAD Procurement Handbook), or based on the thresholds stipulated in the LTB

The exchange rate at time of submission will be used for reviews.

Procurement Method Thresholds						
	CQS	LCS/FBS	QCBS/QBS	Shortlisting	SSS - Firms	SSS - Individuals
Consulting Services and related Non-Consulting Services	<= US\$ 100,000	< US\$ 250,000	>= US\$250,000	>= US\$ 1,000,000	all values subject to prior review.	<= US\$ 500.00 (or with a contract duration of 3 months or less; subject to prior review)
	Direct Contracting	Shopping	NCB	ICB	Other Procurement Methods or Arrangements	

Goods and goods-related Non-Consulting Services	>= US\$ 0.00 <i>(subject to prior review. Justification required if above threshold)</i>	<= US\$ 50,000	< US\$ 250,000	>= US\$ 250,000	Force Account	Not Allowed
Works and works-related Non-Consulting Services	>= US\$ 0.00 <i>(subject to prior review. Justification required if above threshold)</i>	<= US\$ 100,000	< US\$ 500,000	>= US\$ 500,000	Community Participation	Not Allowed

Plan	Actual
Plan	Actual

The 3 rows above are not part of the Plan and must not be modified. Copy these rows to create new procurement items or remove Plan Dates formulas if needed.

Procurement Plan - Goods

Nigeria
Value Chain for Northern Nigeria

Project ID: 20050500

Approved by: Ibrahim Hassan

Approved:

Procurement Methods

- Open
- Restricted
- International
- E-procurement
- Competitive Bidding
- Non-competitive
- Least Cost
- Direct Purchase
- Other

USD		GBP	
Total Estimated	2,041,000.00	836	234
Plan	2,041,000.00	836	234
Actual	0.00	0.00	0.00

ID/Item/Component	Lot	No.	Description	Risk Rating	Funding	M/W/Disadvantaged	Project Phase	Pre-qualification											Bidding Process										Contract Award & Execution							Remarks		
								Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual	Plan vs. Actual					
1			Supply of medical beds (500, 1000, 1500, 2000)				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
2			Supply of surgical gowns (500, 1000)				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
3			Medical Bedding for other facilities				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
4			Supply of Diagnostic Tablets for State				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
5			Supply of Diagnostic Tablets for State				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
6			Supply of Diagnostic Tablets for State				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
7			Office Equipment for NPHCS & NPHS				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	
8			Office Equipment for NPHCS & NPHS				Procurement	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	

							Plan								Plan												
							Actual				-	-	Actual														

The 3 rows above are not part of the Plan and **must not be modified**. Copy these rows to create new procurement items or retrieve Plan Dates formulas if needed.

Procurement Plan - WORKS

Nigeria

Value Chain in Northern Nigeria

Project ID: Z000003909

Prepared by: Franklin Ibeemesie

Approved by:

	USD	LCU	
Total	1 003 000.00	0.00	Plan
Amount	0.00	0.00	Actual
Non-Consulting:	0.00	0.00	Plan
	0.00	0.00	Actual

Version	1.0	20-Mar-24	Basic Data												Pre-Qualification						Bidding Process				Bid Eval	
AWPR/Component Ref	No	Description	Non Consulting	Funding	Lot No/Description	Project Area or Procuring Entity	Plan vs. Actual	Pre- or Post Qualification	Prior or Post Review	Procurement Method	Envelopes	Amount (USD)	Amount (LCU)	Plan vs. Actual	Submission of PreQual Docs	No Objection Date	PreQual Invitation Date	PreQual Closing Date	Submission of PreQual Report	No Objection Date	Submission of BD	No objection Date	Bid Invitation Date	Bid Closing-Opening	Submission Tech Eval Rpt	No objection Date
	1	Rehabilitation of Access Roads					Plan	Post-Qual	Prior Review	ICB	1	1 003 000.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	1-Apr-25	9-Apr-25	10-Apr-25	25-May-25	N/A	N/A
							Actual				-	-	Actual													

					Plan															
					Actual															

The 3 rows above are not part of the Plan and :

Procurement Plan - WORKS

Nigeria

Value Chain in Northern Nigeria

Project ID: 2000003909

Prepared by: Franklin Ibemessie

Approved by:

Procurement Methods
 NS: National Shopping
 IS: International Shopping
 NCB: National Competitive Bidding
 ICB: International Competitive Bidding
 L1B: Limited (International) Bidding

Version		1.0		20-Mar-24		Duration		Contract Award & Signature										Remarks
AWP/Component Ref	No	Description	Submission Combined Eval Rpt*	No-objection Date	Plan vs. Actual	Issue of NOIT&Standstill	Date Contract Award	Submission of Draft Contract	No-objection Date	Date Contract Signature	Contract No.	Vendor Name/ID	Amount (USD)	Amount (LCU)	Date Contract Completion	Remarks		
	1	Rehabilitation of Access Roads	15-Jun-25	22-Jun-25	Plan	29-Jun-25	10-Jul-25	15-Jul-25	22-Jul-25	26-Jul-25			1 000 000.00	-				
					Actual													
					Plan													
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Day Ranges These tables provide estimated timelines by procurement methods, based on experience and guidance in the Procurement Handbook where specified.

The approximate number of days are used in the default Procurement Plan Formulas. Timelines in the Approx fields/Formulas are not prescriptive, and may be modified by the project.

Approx figures entered will be highlighted/flagged, if below the Minimum number of days. Zero indicates steps that are not applicable to the method, and are indicated as N/A in the Formulas.

Goods & Works

Procurement Method	Submission of PreQual docs			No Objection Date			PreQual Invitation Date			PreQual Closing Date			Submission of PreQual Report			No Objection Date			Submission of BD			No-objection Date			Min
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	
Single Envelope																									
RFQ/Shopping (NS/IS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	N/A-Start Date	7	10	7	1
NCB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
ICB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
LIB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
NCB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7	1
ICB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7	1
LIB (with PreQual)	1	4	N/A-Start Date	5	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7	1
Direct Contracting/ Force Account	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	N/A-Start Date	7	10	7	1
Two Envelope																									
NCB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
ICB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
LIB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
NCB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7	1
ICB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7	1
LIB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7	1

Services

Selection Method	Submission of REOI			No Objection Date			REOI Launch Date			EOI Submission Deadline			Submission of Shortlist Report			No Objection Date			Submission of RFP/RCQ			No-objection Date			Min
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	
QCBS (w/Shortlist)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	14	14	21	14	7	10	7	1	7	4	7	10	7	1
FBS (w/Shortlist)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	7	4	7	10	7	1
LCS (w/Shortlist)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	7	4	7	10	7	1
QBS (w/Shortlist)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	7	4	7	10	7	1
CQS (w/Shortlist)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	5	4	7	10	7	1
ICS (w/Shortlist)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	5	4	7	10	7	1
QCBS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
FBS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	N/A-Start Date	7	10	7	1
LCS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
QBS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1
SSS/ Selection (Design/PIM)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7	1

NOTE

- Some procurement methods for low-value processes might require No Objections based on the Prior Review Thresholds. Where they do not require, No Objection number of days should be zero.
- RFP: Request for Proposals: standard procurement document used for Services.
- RCQ: Requests for Consultants Qualifications: Procurement document used for CQS and LCS. The RFP is used for all other procurement methods
- Consulting services and Good/Works methods could either be used for Non-Consulting Services
- All days are calendar days

Do not edit or delete these cells	Validation List Source
	Yes
	Prior Review
	Post Review
	NS
	IS
	NCB
	ICB
	LIB
	DC
	Force Account
	QCBS
	FBS
	LCS
	QBS
CQS	
ICS	
SSS	
Selection (Design/PIM)	

Day Ranges

Goods & Works

Procurement Method	Bid Invitation Date		Bid Closing-Opening			Submission Tech Eval Rpt			No-objection Date			Submission Combined Eval Rpt/Bid Evaluation Report			No-objection Date			Issue of NOITA & Standstill			Date Contract Award			Submission of Draft Co	
	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max
Single Envelope																									
RFQ/Shopping (NS/IS)	3	1	5	21	14	0	0	0	0	0	0	1	7	7	7	10	7	0	0	0	4	-	6	3	7
NCB (no PreQual)	3	2	30	45	30	0	0	0	0	0	0	3	21	14	7	10	7	1	3	3	14	-	15	3	7
ICB (no PreQual)	3	2	45	70	45	0	0	0	0	0	0	3	21	21	7	10	7	1	3	3	14	-	15	3	7
LIB (no PreQual)	3	2	45	70	45	0	0	0	0	0	0	3	21	21	7	10	7	1	3	3	14	-	15	3	7
NCB (with PreQual)	3	2	30	45	30	0	0	0	0	0	0	7	21	14	7	10	7	1	3	3	14	-	15	3	7
ICB (with PreQual)	3	2	45	70	45	0	0	0	0	0	0	7	21	21	7	10	7	1	3	3	14	-	15	3	7
LIB (with PreQual)	3	2	45	70	45	0	0	0	0	0	0	7	21	21	7	10	7	1	3	3	14	-	15	3	7
Direct Contracting/ Force Account	3	1	7	30	14	0	0	0	0	0	0	3	21	7	7	10	7	0	0	0	4	-	6	3	7
Two Envelope																									
NCB (no PreQual)	3	2	30	45	30	3	21	3	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15	3	7
ICB (no PreQual)	3	2	45	70	45	3	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15	3	7
LIB (no PreQual)	3	2	45	70	45	3	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15	3	7
NCB (with PreQual)	3	2	30	45	30	7	21	14	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15	3	7
ICB (with PreQual)	2	2	45	70	45	7	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15	3	7
LIB (with PreQual)	2	2	45	70	45	7	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15	3	7

Services

Selection Method	P/RCQ Launch Date		Proposal submission deadline			Submission of TER			No-objection Date			Submission of CER			No-objection Date			Issue of NOITA & Standstill			Date Contract Award			Negotiations comple	
	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max
QCBS (w/Shortlist)	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15	10	28
FBS (w/Shortlist)	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15	10	28
LCS (w/Shortlist)	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15	10	28
QBS (w/Shortlist)	3	2	21	60	45	14	21	14	7	10	7	0	0	0	0	0	0	1	3	3	14	-	15	10	28
CQS (w/Shortlist)	3	2	14	30	21	0	0	0	0	0	0	14	21	14	7	10	7	0	0	0	4	-	6	7	14
ICS (w/Shortlist)	3	2	14	30	21	0	0	0	0	0	0	14	21	14	7	10	7	0	0	0	4	-	6	7	14
QCBS (noShortlist)	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15	10	28
FBS (noShortlist)	3	2	14	30	21	7	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15	10	28
LCS (noShortlist)	3	2	21	30	25	7	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15	10	28
QBS (noShortlist)	3	2	21	60	45	14	21	14	7	10	7	0	0	0	0	0	0	1	3	3	14	-	15	10	28
SSS/ Selection (Design/PIM)	3	2	7	30	30	0	0	0	0	0	0	7	21	14	7	10	7	0	0	0	4	-	6	7	21

Validation List Source
Yes
Prior Review
Post Review
NS
IS
NCB
ICB
LIB
DC
Force Account
QCBS
FBS
LCS
QBS
CQS
ICS
SSS
Selection (Design/PIM)

Day Ranges

Goods & Works

Procurement Method	Contract	No-objection Date			Date Contract Signature			Totals			
		Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx
Single Envelope											
RFQ/Shopping (NS/IS)	5	7	10	7	4	7	4	40	78	58	1m 27d
NCB (no PreQual)	5	7	10	7	4	7	4	78	123	94	3m 3d
ICB (no PreQual)	5	7	10	7	4	7	4	93	148	116	3m 25d
LIB (no PreQual)	5	7	10	7	4	7	4	93	148	116	3m 25d
NCB (with PreQual)	5	7	10	7	4	7	4	126	208	164	5m 12d
ICB (with PreQual)	5	7	10	7	4	7	4	141	233	186	6m 4d
LIB (with PreQual)	5	7	10	7	4	7	4	139	233	186	6m 4d
Direct Contracting/ Force Account	5	7	10	7	4	7	4	44	101	58	1m 27d
Two Envelope											
NCB (no PreQual)	5	7	10	7	4	7	4	88	147	104	3m 13d
ICB (no PreQual)	5	7	10	7	4	7	4	103	172	137	4m 16d
LIB (no PreQual)	5	7	10	7	4	7	4	103	172	137	4m 16d
NCB (with PreQual)	5	7	10	7	4	7	4	136	232	185	6m 3d
ICB (with PreQual)	5	7	10	7	4	7	4	151	256	207	6m 25d
LIB (with PreQual)	5	7	10	7	4	7	4	151	256	207	6m 25d

Services

Selection Method	Contract	Submission of Draft Contract and MoN Date			No-objection Date			Date Contract Signature			Totals			
		Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx
QCBS (w/Shortlist)	15	3	7	5	7	10	7	4	7	4	172	268	193	6m 11d
FBS (w/Shortlist)	15	3	7	5	7	10	7	4	7	4	172	268	200	6m 18d
LCS (w/Shortlist)	15	3	7	5	7	10	7	4	7	4	172	268	200	6m 18d
QBS (w/Shortlist)	15	3	7	5	7	10	7	4	7	4	134	244	179	5m 27d
CQS (w/Shortlist)	14	3	7	5	7	10	7	4	7	4	113	195	142	4m 21d
ICS (w/Shortlist)	14	3	7	5	7	10	7	4	7	4	113	195	142	4m 21d
QCBS (noShortlist)	15	3	7	5	7	10	7	4	7	4	128	190	145	4m 24d
FBS (noShortlist)	15	3	7	5	7	10	7	4	7	4	90	158	121	3m 30d
LCS (noShortlist)	15	3	7	5	7	10	7	4	7	4	97	160	125	4m 4d
QBS (noShortlist)	15	3	7	5	7	10	7	4	7	4	90	166	124	4m 3d
SSS/ Selection (Design/PIM)	21	3	7	5	7	10	7	4	7	4	55	126	103	3m 12d

Validation List Source
Yes
Prior Review
Post Review
NS
IS
NCB
ICB
LIB
DC
Force Account
QCBS
FBS
LCS
QBS
CQS
ICS
SSS
Selection (Design/PIM)

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex 9: Project Implementation Manuals

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 9: Project Implementation Manuals (PIM)

FEDERAL REPUBLIC OF NIGERIA

Value Chain Programme in the North of the Country (VCN)

**PROGRAMME IMPLEMENTATION MANUAL (PIM)
DRAFT**

JUNE 2024

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 - 13.12.3 CPAT - Financial Inclusion**
 - 13.12.4 CPAT - Community Infrastructure**
 - 13.12.5 CPAT - Summary Technical Note on VCN Design**

Abbreviations and acronyms

AFD	Agence Francaise de Developpement
AfDB	African Development Bank
AMIS	Agricultural Market Information System
API	application programming interface
AWPB	annual workplan and budget
BOA	Bank of Agriculture
CAF	commodity alliance forum
CASP	Climate Change Adaptation and Agribusiness Support Programme
CBN	Central Bank of Nigeria
CCA	climate change adaptation
CDA	community development association
CRG	credit risk guarantee
CSA	climate smart agriculture
COSOP	country strategic opportunities programme
FSA	financial services association
ESCMF	Environmental, Social and Climate Management Framework
ESCMP	Environmental, Social and Climate Management Plan
FFS	farmer field school
FGN	Federal Government of Nigeria
FI	financial institution
FMARD	Federal Ministry of Agriculture and Food Security
FMF	Federal Ministry of Finance
FMITI	Federal Ministry of Industry, Trade & Investment
FO	farmer organization
FSA	financial services association
FSP	financial service provider
GALS	Gender Action Learning System

GAP	good agricultural practices
GDP	gross domestic product
GEWE	gender equality and women's empowerment
GHG	greenhouse gas
GIS	geographic information system
HH	household
ICT4D	information and communications technology for development
IDP	internally displaced person
IFAD	International Fund for Agricultural Development
IITA	International Institute of Tropical Agriculture
IOM	International Organization for Migration
IsDB	Islamic Development Bank
KM	knowledge management
LGA	local government area
LIFE-ND	Livelihood Improvement Family Enterprises in the Niger Delta
LR	landscape rehabilitation
M&E	monitoring and evaluation
MBEP	Ministry of Budget & Economic Planning
MDDW	minimum dietary diversity-women
MFB	microfinance bank
MG	matching grant
MIS	management information system
MT	metric ton
MTR	midterm review
NAIC	National Agricultural Insurance Corporation
NAITS	National Animal Identification and Traceability System
NAVSA	National Adopted Village for Smart Agriculture
NBSAP	National Biodiversity Strategy and Action Plan
NDC	Nationally Determined Contribution

NGN	Nigerian Naira
NiMET	Nigerian Meteorological Agency
NIRSAL	Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
NITDA	National Information Technology Development Agency
O&M	operation and maintenance
PESP	private extension service provider
PHM	post-harvest management
PDO	programme development objective
4Ps	public-private-producer partnership
PWD	person with disability
RAAMP	Rural Access and Agricultural Marketing Project
RAMP	Rural Access and Mobility Project
SAPZ	special agro-industrial processing zone
SDG	Sustainable Development Goal
SECAP	Social Environmental Climate Assessment Procedures
SHF	smallholder farmer
SLM	sustainable land management
SMEs	small and medium enterprises
SO	strategic objective
SWC	soil and water conservation
ToT	training of trainer
UNDSS	United Nations Department of Safety and Security
USD/US\$	United States dollar
VC	value chain
VCDP	Value Chain Development Programme
VCF	value chain financing
VCN	Value Chain Development Programme in the North of the Country
WHH	woman headed household

Currency equivalents

Currency Unit	=	NGN
US\$1.0	=	XX (as at xx August 2024)

Weights and measures

1 kilogram	=	1000 g
1 000 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

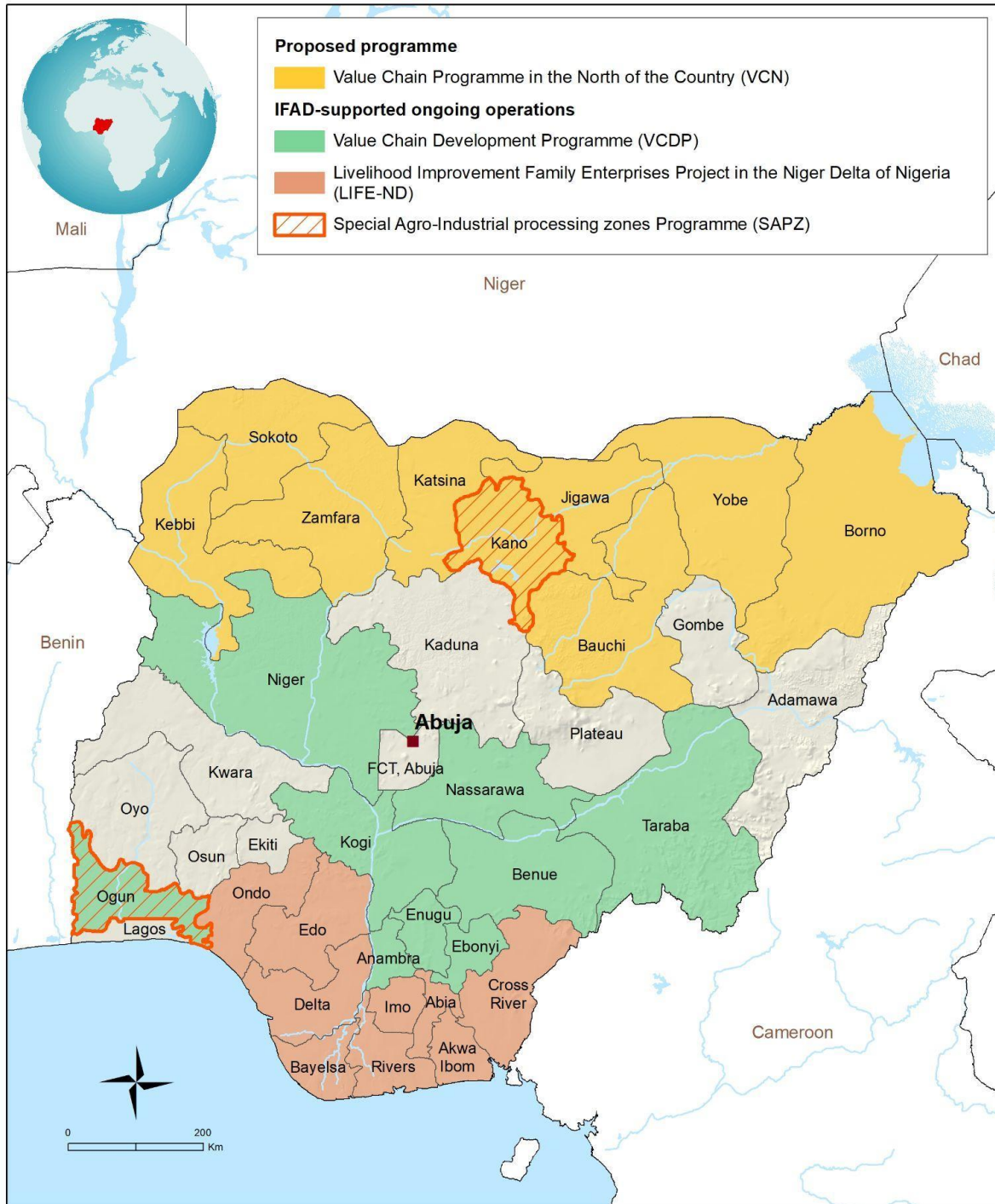
Fiscal year

January to December

Programme history

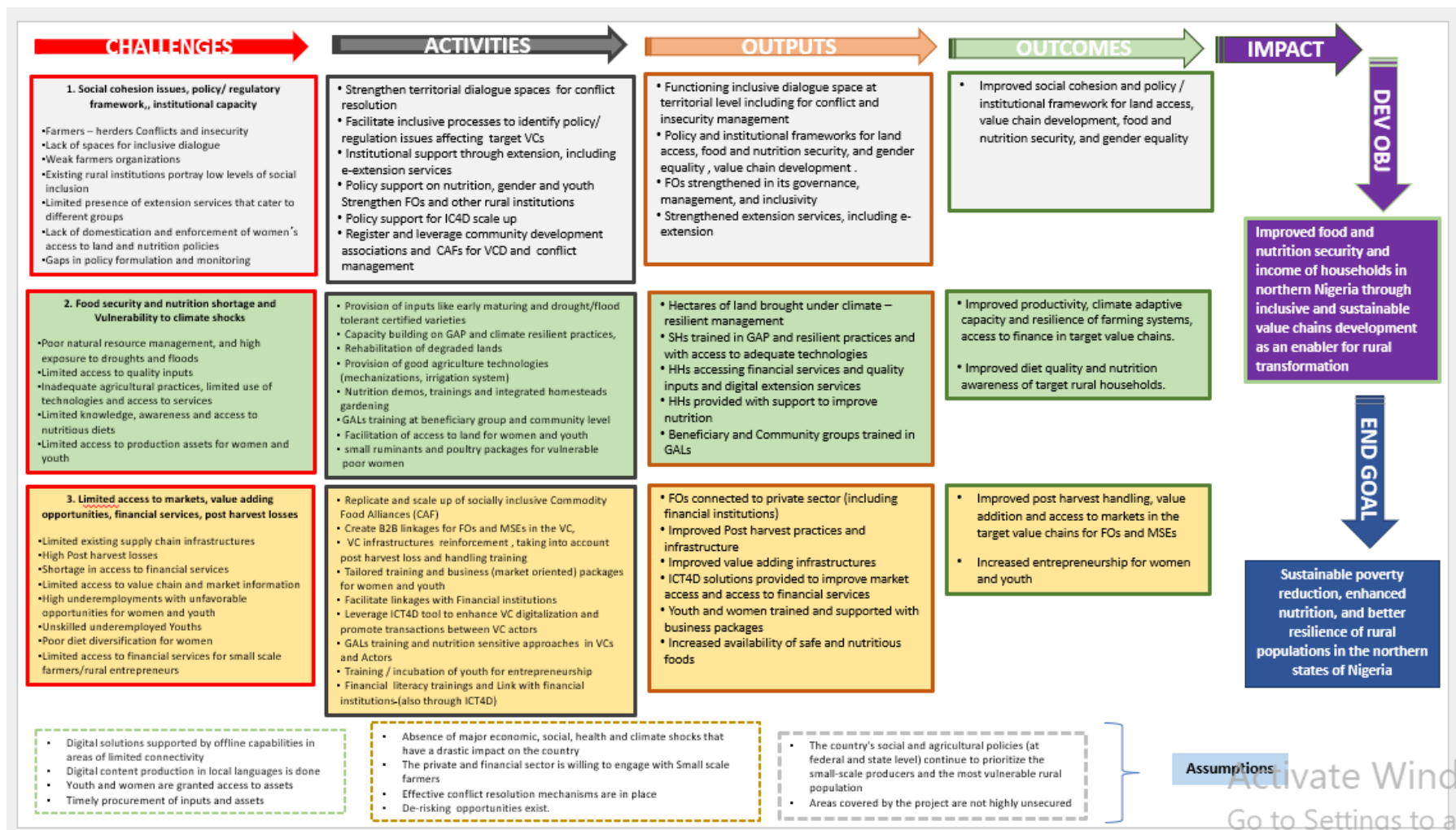
Item	Date	Other information
Approval Signing Entry into force First disbursement Midterm review Completion Financial closure		

Map of programme area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.
 Map compiled by IFAD | 19-06-2024

Theory of change



Annex 2: VCN Draft LOGICAL FRAMEWORK

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach Value Chain Programme VCN	Federal Republic of Nigeria Value Chain Programme Design Report Persons receiving services promoted or supported by the project				Programme M&E System	Quarterly Annual	Coordination Unit & IFAD	Average HH 6.82 persons/H. It is considered that VCN will account for one (max.) beneficiary per household. One HH member per household is a direct beneficiary. Maintained existing CASP beneficiaries and identification of new VCN beneficiaries in the new and old targeted states.
	Males - Males		218880	273600				
	Females - Females		145920	182400				
	Young - Young people		109440	136800				
	Total number of persons receiving services - Number of people		364800	456000				
	Male - Percentage (%)		60	60				
	Female - Percentage (%)		40	40				
	Young - Percentage (%)		30	30				
	Persons with disabilities - Number		36480	45600				
	1.a Corresponding number of households reached				Programme M&E System	Quarterly Annual	Coordination Unit & IFAD	
	Households - Households		25536	68400				
	1.b Estimated corresponding total number of households members					Quarterly Annual	Coordination Unit & IFAD	

Results Hierarchy	Indicators				Means of Verification			Assumptions			
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility				
	Household members - Number of people		2,487,936.00	3,109,920.00	Programme M&E System						
	Persons receiving services promoted or supported by the project				Project M&E System	Annually	National Programme Coordination Office (NPCO)				
	Internally Displaced Persons - IDPs - Percentage (%)		5	10							
	Women Headed Households - Number - Number		31920	68400							
	Women Headed Households - Percentage - Percentage (%)		7	15							
	Persons living with Disabilities - Percentage (%) - Percentage (%)		5	10							
	Internally Displaced Persons- IDPs - Number		5	10							
Project Goal Contribute	Percentage contribution in prevalence of severe food insecurity in the targeted population during the Project years							IFAD, FAO, UN -The	Baseline / Mid term/ Endline	NPCO, IFAD	Acceptable level of major economic, social, health

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria	Reduction - Percentage (%)	21.3	20	18	State of Food Security and Nutrition in the World Reports			and climate shocks that have a drastic impact on the country especially on the VCN targeted area.
Development Objective Improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chains development as an enabler for rural transformation	1.2.8 Women reporting minimum dietary diversity (MDDW)				COI Survey	Baseline, Midterm, Completion	NPCO	Beneficiaries will have consistent and sufficient access and use of resources including adopting climate-resilient inputs/supplies/ technologies for improved livelihoods Youth and women are granted access to assets; Effective conflict resolution mechanisms are in place.
	Women (%) - Percentage (%)		38	75				
	Women (number) - Females		138624	342000				
	Households (%) - Percentage (%)		38	75				
	Households (number) - Households		138624	342000				
	Household members - Number of people		945416	2332440				
	Households reporting increased income				Project M&E System	Baseline, Midterm, Completion	NPCO	
	HH reporting increased income - Number		182400	364800				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Household - Percentage (%)		50	80				
	Total number of Household - Number		1243968	2487936				
	IE.2.1 Individuals demonstrating an improvement in empowerment				COI Survey	Baseline/Midterm/Endline	PMU in consultation with IFAD	
	Total persons - Percentage (%)		22	44				
	Total persons - Number of people		80000	200,000.00				
	Females - Percentage (%)		50	55				
	Females - Females		40000	110000				
	Males - Percentage (%)		50	45				
	Males - Males		40000	90000				
	SF.2.1 Households satisfied with project-supported services							COI Survey
	Household members - Number of people		1,243,968.00	2,798,928.00				
	Households (%) - Percentage (%)		50	90				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households (number) - Households		182,400.00	410,400.00				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI Survey	Baseline/Midterm/Endline	PMU in consultation with IFAD	
	Household members - Number of people		621984	1865952				
	Households (%) - Percentage (%)		25	60				
	Households (number) - Households		91200	273600				
Outcome Outcome 1 Improved productivity, climate-adaptive capacity and resilience of farming systems in target value chains	1.2.2 Households reporting adoption of new/improved inputs, technologies or practices				COI survey /Thematic studies	Baseline/Midterm /Endline	NPCO and IFAD	Beneficiaries will have consistent and sufficient access and use of resources including adopting climate-resilient inputs/supplies/ technologies for improved livelihoods Youth and women are granted access to assets; Effective conflict resolution mechanisms are in place.
	Total number of household members - Number of people		1243968	1865952				
	Households - Percentage (%)		50	60				
	Households - Households		182400	273600				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices					Baseline/Midterm /Endline	NPCO and IFAD	

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Total number of household members - Number of people		995174	2176944	COI survey /Thematic studies			
	Households - Percentage (%)		40	70				
	Households - Households		145920	319200				
Output Output 1.1 Increased land brought under climate/water resilient management and good agricultural practices, including Improved access to agricultural inputs and advisory services	3.1.2 Persons provided with climate information services				M&E system	Annual	NPCO	Digital solutions supported by offline capabilities in areas of limited connectivity Digital content production in local languages is done Beneficiaries are responsive to climate interventions and try new tools and technologies
	Males - Males		114000	228000				
	Females - Females		109440	182400				
	Young - Young people		54720	136800				
	Persons provided with climate information services - Number of people		223440	410400				
	Persons with disabilities - Number		18240	45600				
	3.1.4 Land brought under climate-resilient practices				M&E System and Progress reports	Quarterly Annual	PMU	
	Hectares of land - Area (ha)		7000	17500				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	1.1.2 Farmland under water-related infrastructure constructed/rehabilitated				M&E system	Annual	NPCO	
	Hectares of land - Area (ha)		4892	7756				
	1.1.3 Rural producers accessing production inputs and/or technological packages				Project M&E system	Annually	NPCO	
	Males - Males		218880	273600				
	Females - Females		145920	182400				
	Young - Young people		109440	136800				
	Total rural producers - Number of people		364800	456000				
	Persons with disabilities - Number		36480	45600				
	Number of persons accessing digital extension services to increase production and productivity				M&E system	Annual	NPCO	
	Male - Number		218880	273600				
	Female - Number		145920	182400				
	Young - Number		109440	136800				
	Persons living with disabilities - Number		36480	45600				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Internal Displaced Persons - IDPs - Number		36480	45600				
Total persons accessing digital extension services - Number of people - Number		364800	456000					
Output Output 1.2 Increased targeted action to improve nutrition diet diversity and gender transformative approaches	1.1.8 Households provided with targeted support to improve their nutrition				M&E system Progress Reports	Quarterly Annual	PMU	Youth and women are granted access to participate in nutrition and gender equality learning activities. Beneficiaries show interest in diversifying food consumption through self-production and consumption/ purchase of nutritious food through increased awareness.
	Total persons participating - Number of people	0	159600	319200				
	Males - Males	0	54264	136800				
	Females - Females	0	105336	182400				
	Households - Households		159600	319200				
	Household members benefitted - Number of people		1,088,472.00	2,176,944.00				
	Young - Young people		47880	95760				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Women-headed households - Households		1915	4104				
	Number of persons with disabilities - Number		15960	31920				
	Households reached in the Gender Action Learning System (GALS) methodology				M&E system	Annual	NPCO	
	Households - Number		36480	182400				
	Households - Percentage (%)		10	40				
	Total number of household members - Number of people - Number		248794	1243968				
	Output Output 1.3 Dialogue spaces supported at territorial level	Policy 2 Functioning multi-stakeholder platforms supported				Progress Reports / M&E system	Annual	
Number - Platforms			1	3				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
								regulatory frameworks improvement for food and nutrition security, gender equality, youth inclusion, value chain development, land access.
Outcome Outcome 2 Improved post harvest handling and value addition, and inclusive policies that support access to markets and entrepreneurial opportunities for youth and women along the target value chains.	2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities				COI survey /Thematic studies	Baseline/Midterm /Endline	PMU in consultation with IFAD	The social and agricultural policies (at federal and state level) continue to prioritise the most vulnerable rural population; Community buy-in and willingness to formalise business processes/systems. Proper uses and maintenance of climate resilient of community/social/market infrastructure
	Percentage of POs - Percentage (%)		80	100				
	Number of POs - Organizations		4590	5400				
	Women in leadership position - Females		30	40				
	Number of POs - crop - Organizations		4590	5400				
	2.2.6 Households reporting improved physical access to markets, processing and storage facilities				COI survey /Thematic studies	Baseline/Midterm /Endline	PMU in consultation with IFAD	
	Households reporting improved physical access to markets - Percentage (%)		30	70				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Size of households - Number of people		746381	2176944				
	Women-headed households - Households		22344	47880				
	Households reporting improved physical access to markets - Households		109440	319200				
	2.2.1 Persons with new jobs/employment opportunities				COI survey	Baseline/MidTerm /Endline	PMU in liaison with IFAD	
	Males - Males		5400	18000				
	Females - Females		3600	12000				
	Young - Young people		6435	19500				
	Total number of persons with new jobs/employment opportunities - Number of people		9000	30000				
	Persons with disabilities - Number		450	3000				
	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment				COI survey /Thematic studies	Baseline/Midterm /Endline	PMU in consultation with IFAD	

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Number - Number		1	3				
Output Output 2.1 Improved access to market infrastructure and post-harvest practices and facilities (storage, processing, food safety)	2.1.6 Market, processing or storage facilities constructed or rehabilitated				M&E system Progress Reports	Quarterly Annual	PMU	Community buy-in and support for the construction and rehabilitation of market infrastructure
	Total number of facilities - Facilities		87	217				
	Market facilities constructed/rehabilitated - Facilities		32	81				
	Processing facilities constructed/rehabilitated - Facilities		15	37				
	Storage facilities constructed/rehabilitated - Facilities		40	99				
Output Output 2.2 POs, Youth, and women trained and supported with business packages for entrepreneurship and professional partnership	2.1.2 Persons trained in income-generating activities or business management				M&E system	Annual	NPCO	Youth and women are granted access to entrepreneurship training activities and business start-up packages.
	Males - Males		2268	5400				
	Females - Females		1287	3600				
	Young - Young people		2349	6300				
	Persons trained in IGAs or BM (total) - Number of people		3555	9000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Persons with disabilities - Number		322	715				
	2.1.3 Rural producers' organizations supported				M&E system Progress Reports	Quarterly Annual	PMU	
	Total size of POs - Organizations		363920	456000				
	Rural POs supported - Organizations		4590	5400				
	Males - Males		218000	273600				
	Females - Females		145920	182400				
	Young - Young people		109440	136800				
	Persons with disabilities - Number		36480	45600				
	Output Output 2.3 Improved uptake of agri-finance and digital services	1.1.5 Persons in rural areas accessing financial services						
Women in rural areas accessing financial services - savings - Females			72240	144480				
Young people in rural areas accessing financial services - savings - Young people			39600	79200				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Men in rural areas accessing financial services - savings - Males		47760	95520				<p>entrepreneurs including for strengthening climate-resilience i.e loan for climate-smart inputs/ equipment.</p> <p>Private and public financial institutions willing to work with VCN to scale up access to responsive financial services (i.e credit, savings, weather-based index insurance, digital finance, climate finance) to FSA, FO, SHFs/rural entrepreneurs.</p> <p>Beneficiary are willing to build their financial literacy capacity leveraging training provided through the VCN programme.</p> <p>Beneficiaries maintain a level of trust and are willing to do business with participating financial institutions.</p> <p>Digital solutions supported by offline capabilities in areas of limited connectivity.</p> <p>Digital content</p>
	Men in rural areas accessing financial services - credit - Males		11840	23880				
	Women in rural areas accessing financial services - credit - Females		18000	36120				
	Young people in rural areas accessing financial services - credit - Young people		9900	19800				
	Total persons accessing financial services - savings - Number of people		120000	240000				
	Total persons accessing financial services - credit - Number of people		29840	60000				
	Farmers accessing digital e-voucher for production inputs				M&E system	Annual	NPCO	
	Male - Number		109440	273600				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Female - Number		72960	182400				production in local languages is done.
	Young - Number		54720	136800				
	Persons living with Disabilities - Number		18240	45600				
	Internally Displaced Persons - IDPs - Number		18240	45600				
	Total Farmers - Number		182400	456000				
	Households - Number		182400	456000				
	Households - Percentage (%)		160	100				
	Total number of household members - Number		1243968	3109920				

PART I: INTRODUCTION

I.1 PURPOSE OF THE MANUAL

This draft Programme Implementation Manual (PIM) provides overall guidance on the implementation of the Value Chain Programme in the North of the Country (VCN). Together with the Financial Procedures Manual and the Administrative Manual (presented as appendices), and the other guidelines for the implementation of specific subcomponent activities as well as the reporting of physical progress and expenditure, the PIM is the basic guidance tool regarding most of the common situations that the Lead Programme Agency and other Programme Parties, at the Federal, State, and Local Government Area (LGA) will be confronted with when implementing the VCN. The PIM will also serve as a tool for supervision and monitoring by the National Steering Committee, the International Fund for Agricultural Development (IFAD), and the Agence Francaise de Developpement (AFD).

The draft PIM draws extensively from the draft Programme Design Report (PDR) of the VCN and from the PIM of ongoing IFAD- and AFD-assisted projects in Nigeria. The lessons learned that influenced the PDR are presented in this Part.

I.2 USERS OF THE MANUAL

The primary users of the draft PIM would be the technical and financial management staff of the National Programme Coordination Office (NPCO) and the State Programme Coordination Offices (SPCOs), as well as long-term national or international consultants engaged in programme implementation. Other users of relevant sections of the draft PIM would be the oversight agencies at the Federal, State and local government area (LGA) levels, implementation partners, and programme participants at the community level. The relevant sections of the PIM would be packaged in a simpler form for use at the community level.

1.3 VERSION HISTORY

The table below provides the version number of the PIM (and subsequent versions), the author and the date of the version, the name of the person approving the version and the date that particular version was approved, and a brief description of the reason for creating the revised version.

Version #	Developed By	Revision Date	Approved By	Approval Date	Reason
1.0	IFAD Country Team	June 2024	<name>	<mm/dd/yy >	Draft PIM for Programme Start-up
2.0	VCN NPCO				Revised PIM for ...

1.4 PORTFOLIO AND LESSONS LEARNED

The current IFAD portfolio in Nigeria comprises five projects with total IFAD financing of USD 350.8 million, which leveraged a total of USD 688 million domestic and international co-financing. The projects are: VCDP, LIFE-ND, SAPZ, NSO Babban Gona, and the grant-assisted Zero Hunger Initiative and AgriHub Project. VCN is the successor of the Climate Change Adaptation and Agribusiness Support Programme (CASP) which was completed in September 2021. The design of VCN benefitted from three of the major lessons highlighted in the COSOP:

Successful pro-poor and nutrition sensitive VC development can be achieved even in fragile environments, using the producer-private-public partnership (4Ps) platform, integrated with support for women, youth, FOs, climate resilient infrastructure, skills development, community-driven development (CDD) approach, and third-party support for supervision and monitoring. VCN will reinforce it with the following lessons from the design process: (i) **The strategic partnerships through the CAF enabled VCDP's substantial contribution to Nigeria's food security**, by facilitating farmers' access to markets and cashless credit, and contributing 184,146MT of rice and 347,000MT of cassava to Nigeria's food security, and USD 156.5 million for rice and USD 29.5 million for cassava to the economy¹. VCN will scale up the CAF model; (ii) **Community-based institutions can be adapted for VC development**. CASP successfully mobilized the community development associations (CDAs) and the financial services associations (FSAs) for community cohesion and voice, and to facilitate access of the community agribusinesses to financial services and entrench a culture of agribusiness. VCN will strengthen and use these community institutions; (iii) **Climate-resilient rural market infrastructure development improves the livelihoods of SHFs**, based on data from CASP and RAAMP which indicate that the roads constructed helped to reduce post-harvest losses, and improved connection to markets and processing centers, and business engagements between SHFs and the private sector. VCN will scale up market infrastructure development; and (iv) Based on the analysis of some staple VCs supported by VCDP and CASP, **People's nutrition and diet diversity can be enhanced through several entry points**, including crop selection, farming practices, post-harvest handling and nutrition awareness. VCN will promote these entry points along the priority VCs.

Priority must be given to gender transformation through the Gender Action Learning System (GALS) approach and targeting gender sensitive VCs, as evidenced by the Independent Office of Evaluation (IOE) study² and the Community Based Natural Resource Management Programme (CBNRMP) experience. The VCN design adopted gender transformation and the use of GALS, and will reinforce the lesson with the following specific lessons: (i) **From the IOE study, appropriate targeting is an enabling factor for achieving results in fragile contexts**. VCN will target: CASP-supported states to consolidate and scale-up successful interventions, boosted by the inclusion of Kano State for markets for the VCs and linkage with the IFAD/AfDB SAPZ programme; and VC crops that meet the programme objectives in terms of climate sensitivity, targeting women and youth, and nutrition value. VCN will also ensure flexibility: for each state to select its priority crops in line with its specific fragility context and comparative advantage; and, for farmers to choose their preferred crops; and (ii) **Use of the GALS methodology and women-only groups positively impacts gender equality and women's empowerment (GEWE)**. From CASP, the use of women-only groups and farmer field schools (FFSs) influenced women's engagement for knowledge acquisition and skills development. From VCDP and CASP, the GALS methodology contributed substantially to women's economic empowerment as evidenced by the performance of women rice and

¹IFAD. VCDP AF MTR (2022).

²Independent Office of Evaluation (IOE, 2023). Sub-regional evaluation of countries with fragile situations in IFAD-WCA. Learning from experiences of IFAD's engagement in the G5 Sahel countries and northern Nigeria.

cassava processors in many states, and to address gender dynamics at HH level. From the IOE study, strong linkages exist between gender equality and fragility.

Targeted young beneficiaries in Nigeria were able to "mitigate the effects of fragility drivers such as poverty, climate change, and natural resource degradation" by diversifying and growing their economic activity through CBNRMP, VCDP, and CASP, according to the IOE study. The demand-driven strategy used by the projects for youth in the chosen VCs, involved innovative models such as LIFE-ND's incubation model, AgriHub's youth employability model, and VCDP's youth-sensitive implementation approach. The increased income the youth got led to reduction in youth migration, crime and vandalism. This lesson is corroborated by the lesson at the design of VCN that **Youth empowerment through entrepreneurship interventions shows prospects of keeping youth in agriculture**, using the same evidence from LIFE-ND³ and the Agrihub grant project⁴ which provided entrepreneurship opportunities to youth through an incubation process. CASP promoted youth self-employment through engaging them in training, mechanization, and other high-income enterprises in agriculture. VCN will support youth entrepreneurship in line with the strategies employed in CASP and LIFE-ND.

The design of VCN noted three other lessons. First, **scaling up digital solutions and relevant tested technologies can enhance resilience to climate change**. From CASP: (i) climate information and services provided by NiMET, and digital agronomic advice provided by Precision Development (PxD) to 52,000 SHFs improved crop productivity and climate adaptation; (ii) capacity building of SHFs on simple, proven sustainable land management (SLM) technologies enhanced their resilience and helped preserve the environment and natural resources; and (iii) training of SHFs accompanied by the provision of inputs lead to rapid adoption of good agronomic practices (GAP) with benefits for higher yield, improved environment, and climate resilience. From VCDP, promoting environmental sustainability and climate resilience in a VC project also creates win-win livelihood opportunities for youth along the VC, e.g. spraying groups and conversion of waste to wealth. VCN will scale up the proven technologies for enhanced resilience and integrate the use of Information and Communications Technology for Development (ICT4D) to enhance efficiency in all the subcomponents.

Second, **Government buy-in to project facilitated policies depends on the extent of alignment of such policies with the priorities of the political leadership at the state level**. Government buy-in to VCDP policy interventions was strong due to: (a) VCDP's inclusive, private sector-driven approach to VC development, which reduced the fiscal burden on state governments to support SHFs; and (b) VCDP meeting the felt needs of state governments, i.e. support to land development. Evidence of the government buy-in include: establishment of cooperative registration offices in States' Ministry of Agriculture for better proximity to farmers; enactment of regulations defining norms and standards for produce quality, packaging, weights and measures; and including the VCDP State Programme Coordinators in the state-level VC development committees. For CASP, three state governments (Sokoto, Kebbi and Katsina) made institutional and/or budgetary provisions for the sustainability of the project activities because of the governments' appreciation of the CDA serving as a de facto fourth tier of government. VCN will scale up policy engagement in the successful areas under VCDP.

Third, **the monitoring and evaluation (M&E) and knowledge management (KM) functions of the projects need to improve substantially for enhanced effectiveness**. The M&E units of the closed and ongoing projects in the IFAD-Nigeria portfolio faced challenges in monitoring and timely reporting of project activities and

³ IFAD, LIFE-ND MTR (2023). The incubator model trains and mentors youth and women for self-employment in the priority VC activities and related services.

⁴ IFAD Agrihub Nigeria. <https://agrihub.youthagripreneurs.org/>. The project, aims to realize IFAD's vision of empowering African youth through the establishment of a network of youth-centered Agribusiness Hubs in Nigeria, for transformational and integrated agricultural production and processing at two levels, through imparting skill sets for youth employment, and equipping and backstopping young entrepreneurs.

results, due to: (i) weak capacity of M&E Officers in understanding IFAD core indicators and their reporting guidelines; and (ii) low adoption of management information system (MIS) and mobile technologies to improve the efficiency and standardization of data reporting. The VCN will aim to leverage these challenges closely from CASP and IFAD-funded projects to improve their monitoring experience of remotely collecting information and monitoring the project's progress in critical crisis affected areas. In addition, VCN NPCO and SPCOs can also benefit in engaging officers experienced in conflict monitoring within the region. For KM, there is weak complementarity between the M&E and KM functions, affecting the production of KM products with reliable and validated evidence-based data. VCN will develop, in collaboration with IFAD and AFD, a digitized MIS-based M&E system that will routinely monitor outputs and outcomes attributed to the Theory of Change, coherent with the KM function and adequately funded through a dedicated budget for M&E/KM activities and capacity building.

PART II: SUMMARY PROGRAMME DESCRIPTION

Part II describes the key features of the VCN, the goal and objectives, programme area, target groups, components and cost and financing of the programme.

II.1 PROGRAMME OBJECTIVES AND TARGETS

Goal. The goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northern states of Nigeria.

Programme development objective (PDO). The PDO is to improve food and nutrition security and income of households (HHs) in northern Nigeria through inclusive and sustainable value chain (VC) development as an enabler for rural transformation. The PDO is aligned with:

- (i) the IFAD COSOP (2024-29) strategic objectives of *Sustainably increase rural people's productive capacities, and strengthen the organizational and policy frameworks, for inclusive and resilient agricultural VCs*;
- (ii) the three 2016-2025 IFAD Strategic Objectives (SOs): SO1: Increase poor rural people's productive capacities, SO2: Increase poor rural people's benefits from market participation, and SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities.
- (iii) the four mainstreaming priorities of gender, youth, nutrition and climate change; and
- (iv) the AFD Country intervention strategy⁵ of financing solutions that contribute not only to the development of a competitive economy that creates jobs and wealth, but also to shared, inclusive and resilient development, seeking complementarity with other donor investments.

The core indicators for assessing the PDO of the VCN are: (i) HHs reporting increased income; (ii) Women reporting minimum dietary diversity (MDDW); (iii) HHs satisfied with project-supported services; (iv) HHs reporting they can influence decision-making of local authorities and project-supported service providers; and (v) Individuals demonstrating an improvement in empowerment.

Outreach, goal and PDO targets

The following targets are expected to be achieved at programme completion:

Outreach: 456,000 persons receiving services promoted or supported by the VCN

Goal: 250,800 HHs reporting improved livelihoods and reduction in poverty

Objective: (a) 95,760 women reporting minimum dietary diversity (MDDW)

(b) 364,800 HHs reporting increased income

(c) 200,000 individuals demonstrating an improvement in empowerment

(d) 410,400 HHs satisfied with project-supported services

(e) 273,600 HHs reporting they can influence decision-making of local authorities and project-supported service providers

II.2 TARGETING STRATEGY AND TARGET GROUPS

VCN's Targeting Strategy encompasses three dimensions: geographic targeting, direct beneficiary targeting and value chain (VC) screening.

II.2.1 Geographic targeting

Programme area. VCN will target nine States in northern Nigeria, based on the high levels and depth of poverty as well as fragility. VCN will target: (i) the seven states

⁵AFD (2021). AFD and Nigeria. <https://www.afd.fr/en/ressources/afd-and-nigeria>. Globally, for the agriculture and rural development sector, AFD works to strengthen the autonomy, sustainability and resilience of the sector through an integrated strategy that combines the objectives of preserving natural resources and biodiversity, agricultural economic development, territorial development in rural areas, and gender equality. <https://fundit.fr/en/institutions/french-development-agency-afd>

previously covered by the IFAD-assisted Climate Change Adaptation and Agribusiness Support Programme - CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe) in response to the Federal Government of Nigeria (FGN) strategy for continuity of support to these states; and (ii) Kano State with a prominent West African regional market for agricultural produce which offers important market opportunities and linkages with the IFAD and African Development Bank (AfDB) financed Special Agro-industrial Processing Zone (SAPZ) programme. (iii) The additional State Bauchi will be included considering it is covered by AFD-financed RAAMP.

Participating LGAs Specific LGAs will be selected within the nine states based on the following criteria: (a) CASP/RAAMP targeted; (b) within cluster of LGAs where VCN supported VCs are viable; (c) peace and security; (d) poverty level; and (e) commitment of the State Government and the LGA. The International Organization for Migration (IOM) 's Stability Index generates recurrent security scores and information indicating citizen's perceived security or insecurity levels and their intention to stay or to leave the location, and cluster analysis which enables the identification of pockets of stability⁶. The project will not be operating in highly unsecured areas. The selection of the LGAs will be overseen by the Projects Coordination Unit (PCU) and Country Programme Advisory Team (CPAT) of the Federal Ministry of Agriculture and Food Security (FMAFS).

Participating communities will be selected in consultation with the LGA administration applying the geographic criteria used in selecting the LGAs. The selection of communities will be done by service providers and approved by the LGA and SPCO. An elaborate community mobilization and engagement plan will be developed to ensure social inclusion and full participation of the target beneficiaries

II.2.2 Direct beneficiary targeting

A total of 456,000 rural HHs will be directly targeted, representing about 456,000 people.

Target groups. VCN targets people living under the poverty line, but also acknowledges the need to target people who are vulnerable to falling into poverty. Thus, VCN targets people who can make economic progress with limited programme support, primarily at agricultural production level (farmers) as well as at other levels of the VC (entrepreneurs). Target groups have been classified as follows:

- a. **Subsistence and semi-subsistence producers** (very poor/poor HHs) - 40%
- b. **Market oriented producers** (poor and HHs vulnerable to poverty) - 30%
- c. **Entrepreneurs** (very poor, poor and HHs vulnerable to poverty), with a special focus on women and youth - 30%.

The design of VCN follows a socially inclusive perspective with 40% of all beneficiaries being women, broken down to: 15% women headed households (WHHs), 10% married women, and 15% female youth; and 60% men, broken down to: 15% male youth and 45% other males. Thus, youth aged 15-29 years constitute 30% of the beneficiaries. Across these groups 10% will be PWDs. IDPs and host communities will be included as beneficiaries in communities affected by displacement and the influx of returnees, as relevant. Beyond the individual HHs targeted in line with the description above, VCN will also target small and medium enterprises (SMEs) which generate benefits for the programme's core target groups at community level.

The youth and gender action plans will be developed at start-up, and encompassed under a social inclusion action plan.

⁶ An example of the stability index report is: <https://dtm.iom.int/reports/nigeria-stability-index-overview-round-3-september-2023>

Beneficiary eligibility and selection.

The following general criteria will be considered for project beneficiaries:

- Resident in the community for a period of at least one year.
- Aged 18-55 (youth will be considered as being aged 18-29).
- Have at least one child under 15 years of age.
- Having previous experience or some knowledge / proved interest in the area of project support of interest to the candidate.
- Requiring support to strengthen activities to improve food security, nutrition and income levels.
- Income levels do not meet all HH needs.
- Commitment to participate in all activities offered by the project.

Applications will be received by interested applicants after socially inclusive mobilization. A service provider will employ a robust screening methodology to obtain a list of eligible candidates. Eligible applications will be ranked with higher points given to those displaying highest levels of compliance (for example those with more children who comply with all other eligibility criteria will receive more points than those with only one child under the stipulated age). The final selection of beneficiaries will be carried out with the facilitation of the service provider who will involve a community beneficiary selection committee composed of community representatives (poor men and women of different ages, PWDs, IDPs). The list will then be shared with local leaders and authorities for validation.

Additional targeting measures.

VCN will:

- (a) target one person per HH⁷. Representatives of all the target groups ((including youth, women, PWDs and IDPs) will be involved in all stages of the project cycle (project launch, mobilization, beneficiary selection, implementation of activities and M&E) in the target sites.
- (b) employ a self-selection targeting process whereby interested candidates will submit applications for programme support. Actual beneficiaries will be selected according to agreed selection criteria.
- (c) For the selection of target groups engaged in agricultural production activities use existing FOs, new groups constituted in response to programme mobilization activities, and off-taker out-grower schemes.
- (d) employ inclusive, open and robust beneficiary selection procedures to avoid the risk of elite capture. These include: self-targeting and the participatory identification of the very poor and poor HHs, and rigorous screening to ensure the inclusion of these HHs as beneficiaries in relevant programme activities; monitoring by programme staff at state and LGA levels; beneficiary feedback and

⁷Polygamy is widespread in the programme area, and women in polygamous marriages are among the very poor and poor. The dynamics in polygamous HHs would require the assets and benefits of programme intervention received by a woman in a polygamous marriage to be shared with co-wives, thus reducing the likelihood of producing the intended benefits. As an exception to the principle of one beneficiary per HH, VCN may consider specific packages for very poor/poor eligible women in polygamous HHs that account for the number of co-wives who will benefit from programme investments and count each co-wife as a separate HH.

a grievance redress system; providing group members conflict resolution skills; promoting fixed tenure of executive members and rotation of leadership of groups to ensure the poor are equally represented in leadership positions; creation of awareness about the programme benefits and eligibility criteria for all target groups using community level open announcements, focus group discussions (FGD) and consultations with community institutions; capacity building on representative governance structures, ensuring regular stakeholder meetings, and setting up transparent rules, regulations and decision-making processes; detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption, by the NPCO and SPCOs; and, ensuring compliance with pre-approved, objective selection criteria and transparent information-sharing and decision-making.

- (e) integrate empowering activities to ensure that all target groups are able to achieve programme outcomes.

II.2.3 Value chain screening

Prior to the design stage, the Concept Note had preliminarily identified rice, maize, sorghum, millet, and cowpea as crops, with a competitive production advantage over the other regions of Nigeria, and more resistant to climate or environment shocks. The need to support these crops was reinforced by the decline in their production in recent years due to insecurity. A more robust crop selection approach developed during the design of VCN, involved: (i) incorporation of the FMAFS, State crop strategies, field consultations, and mainstreaming themes (women and youth, nutrition, climate and environment); (ii) development of criteria including, importance to food security and nutrition, market orientation, and potential for inclusion of target groups, and weights for scoring of the VC crops; and (iii) development of a potential crops basket with a mix of: *Staple foods for food security* (Sorghum, Maize, Rice or Millet), *Cash crops for incomes* (Cowpeas, Sesame, Groundnuts or Soyabean), and *Horticulture crops* to improve dietary diversity and health (Fruits, Vegetables). For effectiveness, VCN will support a maximum of seven crops, with flexibility for each state to prioritize a maximum of five crops based on its fragility context, comparative advantage, and flexibility. Complementary market studies financed by AFD will be carried out to support the VC screening.

II.2.4 Socioeconomic characterization

Underpinning the VCN targeting strategy and measures is the socioeconomic characterization of the population in the programme area, and a review of the literature related to gender, youth, PWDs and IDPs in northern Nigeria. The table below summarizes the poverty classifications in the programme area based on interactions with stakeholders during the design mission.

Very poor 50%	Poor 30%	Non-poor but vulnerable to poverty 15%	Rich 5%
Varying family size.	Large families.	Favorable ratio of working adults vs. dependants.	Small families.
Low education / illiteracy.	High levels of illiteracy.	Usually have some education.	The head of HH often has higher education.
Low social capital.	Low social capital.	Have some connections with powerholders.	Have connections, influence, and power.

No assets or depletion of all assets due to conflict.	Have some access to land.		Have access to land and other assets (house, equipment, machines).	Have assets of economic value.
Beg or receive food from neighbors/relatives, or transactional exchanges. Some HHs go 1-2 days without eating.	At least 1 meal a day is secured.		2 meals a day secured.	Dietary diversity and 3 meals a day.
Most HHs in this category are WHH, child headed HHs, HHs with a PWD, and people who have lost all their assets due to insurgency/banditry but can easily re-establish their socioeconomic status.	WHH also present in this group.			
Work for others as farm labourers servants, or as petty traders for others.	Work for others but also farm to meet some HH consumption needs and sell some produce at times.		Engage in farming/commercial activities. But can fall back into poverty when they face external or internal shocks.	Diversified income stream. Usually involving salaries, assets generating income and business.

Gender. Gender inequalities are pervasive in the programme area, fueled by norms limiting women’s access to services and productive assets (including land), which affect their participation in economic activities and family/community decision making. In the agricultural sector, women are largely engaged as unpaid family labour or as cheap labour in the harvesting, processing and marketing of farm produce. The high incidence of early marriage and childbearing, and the high rate of polygamy in the area has made many women widowed and vulnerable, upon the death of their husbands. WHHs are estimated at about 40% of the HHs who live under the poverty line. Sexual harassment, exploitation and abuse (SHEA) from IDP camp staff and other men in a position of power are common in a situation of displacement, and when the women are resettling back to their communities into precarious shelters with men. The implication for VCN is that widowed women and female youth may carry high levels of trauma associated with gender-based violence (GBV) and others, which could further condition their access to spaces and information, and promptness to respond to programme activities. VCN needs to consider this in the mobilization and selection processes and ensure that women are protected during programme implementation.

Youth. Youth unemployment and underemployment are high in northern Nigeria due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. In more conservative communities, male youth are easier to target because they are more visible than female youth. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Without deliberate efforts, rural youth with low education, especially females can be missed by the VCN interventions. Overall, youth have an untapped potential to become the food producers of the present and the future in the programme area.

PWDs. In Nigeria, it is estimated that approximately 15% of the population of Nigeria lives with at least one disability⁸. Yet, anecdotal evidence in states affected by insurgency indicates that many people have acquired a disability because of terrorist attacks. As such, many more PWDs are likely to be present in the programme area than documented in recent population data. PWDs in the programme area rely strongly on

⁸<https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law> Accessed 1st January 2024.

family members and non-governmental organizations (NGOs) and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their HHs or are abandoned to beg for survival⁹.

IDPs Northern Nigeria has experienced significant displacement due to conflict and insecurity, leading to a substantial number of internally displaced persons (IDPs). In line with the FGN's National Action Plan (NAP) for implementation of the Nigeria National Policy on Internally Displaced Persons (2023-2028), there is a critical need for VCN to facilitate the reintegration of IDPs returnees into their ancestral settings, focusing on sustainable agricultural value chains as a means to restore livelihoods, ensure food security, and promote economic development.

IDPs and their host communities. VCN will be implemented in communities with proven rates of safety and security. Given the trend in displacement of populations in most target States, it is likely that the project targets entire communities that were displaced due to conflict or returning IDPs and their host communities. The project will only intervene in the development landscape; as such it will not target people living in temporary (formal or informal) IDP camps. Because of its context specific and adaptive nature, the project will not establish a quota for IDPs.

In communities where some or all community members are constituted by returnees, the project will:

- IDPs receive information about the project, eligibility criteria, beneficiary selection and the project's GRM.
- Ensure that returning IDPs are considered as potential candidates if they meet all established criteria.
- That IDPs in targeted communities are included in all project processes.

Beneficiary selection. VCN will apply eligibility criteria to select beneficiaries as well as participatory processes. Self-targeting measures will reduce the risks of inequality and elite capture.

Entry points for the selection of target groups engaged in agricultural production activities (target groups (a) and (b) above) will be selected from existing FO, new groups constituted as a response to project mobilization activities and off-taker outgrower schemes.

Participatory poverty and livelihood analysis and stringent pre-agreed selection criteria for each type of beneficiary be used in each target community to select beneficiaries. Representatives of all the different target groups (men, women, youth, PWDs, IDPs) will be involved in the application validation and selection process.

Enabling measures. Enabling measures will include: (i) information and mobilization campaigns to the communities; (ii) a broad range of skills training activities; (iii) monitoring of inclusiveness of women, youth, PWD and IDP groups; (iv) capacity building of technical service providers on group strengthening, markets, business skills, and climate adaptation measures through refresher courses with a strong focus on gender, youth and social inclusion; (v) developing strategic partnerships to harness resources and support to the communities; and (vi) adopting a conflict sensitive approach across all levels of the interventions by implementing context specific actions in response to a detailed analysis of the drivers of conflict in the programme area.

II.3 PROGRAMME COMPONENTS

⁹<https://borgenproject.org/disabilities-in-nigeria/> Accessed 1st January 2024.

The VCN comprises of two programmatic components:

II.3.1 Component 1: Foster climate resilient and nutrition sensitive production.

More details on component 1 and subcomponents are included in the technical notes below.

33. This component aims to improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs, enhance diet quality and nutrition awareness of the target rural HHs, and strengthen social cohesion and policy/institutional frameworks. ICT4D will be mainstreamed in the implementation of this component by: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; and (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model.

34. This component consists of three subcomponents (a) *Subcomponent 1.1. Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices*; (b) *Subcomponent 1.2. Promote nutrition and gender awareness and practices, aims to provide HHs with targeted support to improve their nutrition, and to reach HHs with the gender transformative GALS methodology*; (c) *Subcomponent 1.3 Promoting social cohesion and an enabling policy/ institutional framework for value chain development, as well as empowerment of FOs, management of fragility, enhancement of social cohesion, food and nutrition security, youth and gender equality. VCN will support herders and farmers with infrastructure water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aim to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.*¹⁰

35. II.3.2 Component 2: Enhance inclusive and profitable integration of target groups in the VCs. *More details on component 2 and subcomponents are included in the technical notes below.*

This component aims at improving post-harvest handling, value addition, and access to markets in supported VCs; increasing business and entrepreneurial opportunities for youth and women along the target VCs; and improving policy/institutional frameworks for value chain development, poverty reduction, empowerment of FOs, management of fragility and enhancement of social cohesion food and nutrition security, and youth and gender equality. Nutrition will be enhanced by promoting fortification, nutrition-sensitive processing of foods, food safety, packaging, and labeling. ICT4D will be mainstreamed in the implementation of this component by: (i) leveraging mobile applications to digitize training content to enable efficient extension of training using an agent assisted delivery model; (ii) promoting access to finance through development of digital products. The component consists of three subcomponents: *Subcomponent 2.1. Improving post-harvest, value addition, market linkages and partnership for VCs actors*; *Subcomponent 2.2. Promoting entrepreneurship for women and youth*; and *Subcomponent 2.3. Improving access to financial services.*

36. II.3.3 Component 3: Programme coordination and management.

Through this component, investments and activities will be undertaken to ensure compliance, the efficiency and the effectiveness of the programme, with the core mainstreaming themes and M&E and KM integrated in all aspects of operations. This component will be implemented in line with policy and guidelines for programme management. ICT4D will be mainstreamed in the implementation of all the activities under this component. Building on the experience of CASP, VCN will maintain a

¹⁰ Livestock Productivity and Resilience Support Project -LPRES World Bank Project Appraisal Document Page 28

decentralized implementation approach to the community, with the participation of the farmer organizations, community development associations, private sector, and LGA, state and federal levels of government. The National Programme Coordination Office (NPCO) will be located in Abuja, while each participating state will have a State Programme Coordination Office (SPCO). The NPCO will report to the Programme Steering Committee (PSC) through the FMAFS's Project Coordination Unit (PCU).

37. The component 3 also includes a **Response to Emergency and Disaster (RED)**. This mechanism will enable VCN to respond and adapt quickly in case of natural disasters, through a dedicated risk reduction disbursement allocation, not to exceed 5% of the undisbursed amount of the IFAD and AFD financing and any additional IFAD and AFD loans/grants eventually allocated to VCN. Detailed implementation measures are found in the draft PIM, which would be strengthened after project start-up. In summary: a designated government agency determines that a crisis or emergency has occurred; the Borrower representative sends a request to IFAD supported by a Preliminary Assessment of Damages and Needs (PADN) to activate the mechanism; IFAD gives a no-objection (full or partial) to the PADN which contains the list of activities to be implemented, procurement plan, safeguards and targeting mechanisms for the activities; the expense, only for eligible items, must be incurred and paid during the eligibility period, which is within 12 months of the IFAD no-objection to the PADN.

II.4 FRAGILITY CONTEXT

In 2023, the World Bank Group listed Nigeria as one of the 37 "fragile and conflict-affected" countries¹¹. The level of fragility of the Nigerian context is more pronounced in northern Nigeria, where VCN will operate, driven by: high levels of **unemployment and poverty**^{12,13}; **insecurity** and violence, from Boko Haram insurgency, banditry, and communal and farmer-herder conflicts¹⁴; **climate change impact**^{15,16}; **social exclusion** of vulnerable groups from access to resources^{17,18}; (v) **food insecurity and malnutrition**¹⁹; and (vi) **challenges to agricultural productivity**. The conflicts have led to substantial destruction of livelihoods, loss of lives, and displacement of people (a total of 3.5 million in November 2023, with about 240,000 from Sokoto, Yobe and Borno states seeking refuge in Chad and Niger²⁰). Fragility in the north poses significant risks to Nigeria's development prospects. A number of policies exist to address fragility but their implementation and monitoring need to be intensified and adapted to the context of northern Nigeria²¹. For the agricultural sector, conflict is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, in turn exacerbated by population growth, poverty, lack of access to land, inequitable distribution of resources, corruption, proliferation of arms and ethnic and religious

¹¹<https://thedocs.worldbank.org/en/doc/a91e714e0a53291b569c4a41981aa2c5-0090082023/original/FCSList-FY06toFY23.pdf>

¹²FGN (2021). National Poverty Reduction with Growth Strategy (NPRGS)

¹³<https://www.statista.com/statistics/1121438/poverty-headcount-rate-in-nigeria-by-state/>

¹⁴IFAD (2024). Technical Note on Assessment and Strategies for Promotion of Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict. Annex 13.11 of the PDR.

¹⁵<https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf>

¹⁶Database from ND-GAIN, 9 March 2023.

¹⁷Nigeria food system mapping report 2021.

¹⁸https://africa.unwomen.org/sites/default/files/Field%20Office%20Africa/Images/Publications/2020/NE%20Nigeria%20RGA%20digital_compressed.pdf

¹⁹https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/ch/Fiche_Com_CH_Nov2023.pdf

²⁰UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.

²¹IFAD (2024). elite capture.11 of PDR. The policies include: National Gender Policy (2021-2026), National Gender Policy in Agriculture (2019), National Counter Terrorism Strategy (NACTEST, 2016), National Security Strategy (2014), Policy Framework and National Action Plan for Preventing and Countering Violent Extremism (2017), Terrorism (Prevention) Amendment Act (2013), National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria (2017-2020), The Nigerian Legislatures Role in Advancing Women, Peace and Security (2020).

tensions. The impact of fragility and insecurity on the sector includes: riskier farming, traveling, and access to markets both for inputs and sales of produce.

The Fragility Assessment Note prepared for the new Country Strategic Opportunity Programme (COSOP)²² identified the following risks posed by fragility to the IFAD programme in Nigeria, and measures to reduce the risks: (i) *localized conflict(insurrection)* - Focus on locations with lower risk in consultation with the United Nations Department of Safety and Security (UNDSS), Increase the use of digital communications, and Emphasize partially remote reviews; (ii) *localized farmers-herders conflict* - Work with community organizations and state security agencies, Integrate both livestock and crops into projects; (iii) *widespread environmental degradation* - Focus on productive restoration, for example: agroforestry and fertility management, area enclosures, and community-based management; and, (iv) *climate change* - Awareness-raising at all levels, Focus on climate change adaptation (CCA) and resilience for smallholders, Use options from the World Overview of Conservation Approaches and Technologies (WOCAT)'s Global Sustainable Land Management (SLM) Database.

II.5 PROGRAMME PERIOD, COST AND FINANCING, ECONOMIC AND FINANCIAL ANALYSIS

II.5.1 Programme period

VCN will be implemented over an 8-year period.

II.5.2 Programme cost and financing

Programme cost. Total estimated programme cost over the 8-year implementation period is US\$ 158.15 million, comprising base costs of US\$ 147.7 million and price and physical contingencies of US\$ 10.3 million (US\$ 4.8 million and US\$ 5.4 million respectively). Investment costs are estimated at US\$ 133.1 million (90% of base costs) and recurrent costs at US\$ 14.6 million (10% of base costs). Subcomponent 1.1 - Promoting sustainable agricultural systems, improved technology and climate resilient agricultural practices, will fully contribute to IFAD climate finance²³ with a total amount of US\$ 21.2 million (24% of IFAD funding). Component 1 - Foster Climate-Resilient and Nutrition-Sensitive Agriculture, is allocated US\$ 59.5 million (38% of the total costs), followed by Component 2 - Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs which accounts for US\$ 74.8 million (47%). The remaining US\$ 23.7 million (15%) is for Component 3: Programme Coordination and Management.

Programme financing/co-financing strategy and plan. The financing of VCN includes: **IFAD PBAS** US\$ 56.7 million (36% of the total cost); **IFAD BRAM** US \$30 million (19%); **parallel co-financing loan from AFD US\$ 50.8 million (32%)**; and Domestic co-financing from the FGN/member states and Beneficiaries US\$ 20.6 million (US\$ 12 million and US\$ 8.6 million, respectively) in form of both cash and in-kind contribution. The summary of VCN costs and financing by component/subcomponent and categories is presented in the tables below. Parallel financing loan and there will be one PCU for both financiers (IFAD and AFD). AFD loan approval expected for December 2024 and clarify the timeline for the AFD's funding approval process. AFD will be funding across all components and sub-components including Programme Coordination and Management. The summary of VCN costs and financing by component/subcomponent and categories is presented in the tables below.

²² IFAD (2023). Fragility Assessment Note, Nigeria COSOP.

²³ [As per the MDB Methodologies for Tracking Climate Adaptation and Mitigation Finance](#)

Table 1: Programme costs by component (and subcomponents) and financier

(Thousands of United States dollars)

Nigeria		Value Chain North (VCN)		AFD		FGN & States		Ben Cash/In-Kind		Total			
Components by Financiers		IFAD BRAM		AFD		Cash/In-Kind		Ben Cash/In-Kind		Total			
(US\$ '000)		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%		
A. Foster Climate-Resilient and Nutrition-Sensitive Agriculture													
Promoting Sustainable Agricultural Systems, Improved Technology and Climate-Resi		18,518	55	2,694	8	10,672	31	622	2	1,434	4	33,940	22
Promoting Nutrition and Gender Awareness and Practices		8,502	40	5,901	28	6,778	32	-	-	-	-	21,182	13
Promoting Social Cohesion and an Enabling Policy/ Institutional		1,136	26	1,897	43	1,427	32	-	-	-	-	4,461	3
Subtotal		28,156	47	10,493	18	18,878	32	622	1	1,434	2	59,582	38
B. Enhance Inclusive and Profitable Inclusion of Target Groups in the VCs													
Improving Post-Harvest, Value Addition, Market Linkage, and Partnership		15,369	32	9,854	21	16,298	34	1,695	4	4,182	9	47,398	30
Promoting Entrepreneurship For Women And Youth		2,335	23	4,038	40	3,210	32	-	-	448	5	10,031	6
Improving Access to Financial Services		4,476	26	4,793	28	5,582	32	-	-	2,593	15	17,444	11
Subtotal		22,180	30	18,685	25	25,090	34	1,695	2	7,223	10	74,872	47
C. Programme Coordination & Management													
Programme Coordination & Management		6,364	27	822	4	6,833	29	9,683	41	-	-	23,703	15
Response to Emergency and Disaster (RED)		-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		6,364	27	822	4	6,833	29	9,683	41	-	-	23,703	15
Total PROJECT COSTS		56,700	36	30,000	19	50,800	32	12,000	8	8,656	6	158,157	100

II.5.3 Economic and financial analysis

Benefits. The major sources of benefits for the economic and financial analysis (EFA) are: (i) improved productivity, as a result of access of farmers to: quality climate-resilient seed, inorganic and organic fertilizers, and small-scale irrigation facilities for year-round production, especially for horticulture crops; and (ii) reduction in post-harvest losses due to access to: appropriate equipment/technologies and training for post-harvest handling, agro-processing and aggregation/bulking facilities to preserve and enhance the nutrient quality of the food at farm level and at aggregation centers, value adding infrastructure which result in premium prices for the farmers' produce, as well as a reduction in transport cost and time taken to reach markets as a result of the construction of access roads.

Beneficiary outreach, cost per beneficiary and adoption rates. VCN targets 456,000 HHs equivalent to 2,471,520 HH members, assuming 5.4 people per HH. With the overall programme investment of USD 114 million, the cost per beneficiary HH is estimated at USD 250 and per HH member USD 46. The adoption rate is assumed at 60%, in line with the log-frame indicator "1.2.2 Households reporting adoption of new/improved inputs, technologies or practices". This corresponds to a total of 273,600 HHs who will adopt the proposed programme interventions.

Financial analysis. Nine crop models were developed, based on a land size of one hectare which is the typical land size of beneficiaries in the programme area, to examine the financial impact of programme intervention on incomes at HH level. The crops are: sorghum, maize, rice and millet in the staple food/food security category; cowpea, sesame, groundnut and soybean in the cash crops/domestic income category; and tomato in the horticulture crops/dietary diversity/health category. The selected VC crop models were found profitable from an individual perspective, discounting the incremental benefits at the rate of 4% over a period of 10 years to calculate the present value (NPV) of the future flows. The table below summarizes the results for the key indicators: financial internal rate of return (FIRR), NPV, benefits/cost ratio, return to family labour.

Project Year	Farm models' net incremental benefits (in Naira '000)									
	Staple food for food security				Cash crops				Horticulture	
	Rice	Maize	Sorghum	Millet	Cowpeas	Sesame	Groundnuts	Soyabean	Tomato	
PY1	(215)	(193)	(81)	(56)	(117)	(96)	(82)	(84)	(113)	
PY2	(152)	(71)	(41)	(43)	11	(12)	(39)	(26)	58	
PY3	181	89	(17)	114	53	29	25	(28)	63	
PY4	204	187	103	253	205	187	289	58	279	
PY5	204	187	103	253	205	187	289	58	279	
PY6	204	187	103	253	205	187	289	58	279	
PY7	204	187	103	253	205	187	289	58	279	
PY8	204	187	103	253	205	187	289	58	279	
PY9	204	187	103	253	205	187	289	58	279	
PY10	204	187	103	253	205	187	289	58	279	
IRR	41%	42%	40%	111%	73%	69%	86%	24%	101%	
NPV (Naira 000) @10%	886	813	410	1,340	1,024	907	1,427	177	1,468	
B/C Ratio	1.42	1.75	1.88	1.55	1.34	1.63	1.93	1.11	1.76	
Return to Family Labour (Naira '000)	3.5	7.6	6.9	5.0	3.7	4.8	7.2	1.2	4.5	

Economic analysis. VCN is projected to yield a baseline Economic Internal Rate of Return (ERR) of 31% with a positive NPV of USD149.6 million (Naira 116.6 billion at the rate of 1 USD=780 Naira), discounting all quantifiable benefits over a period of 20 years including 8 years of programme implementation period using a rate of 14.4%, the rate on 10-year Government long-term bonds in Nigeria²⁴. The baseline ERR is higher than the discount rate used for the economic analysis which confirms the justification of the proposed VCN investment. The BCR for the whole investment is estimated at 14.9.

Sensitivity analysis, risks and assumptions. The sensitivity test on the robustness of the overall programme analysis, showed that: (i) a change in benefits by 20%, an increase in costs and a decrease in benefits by the same proportion yielded an ERR of 29% and 28% with positive NPV of USD 140.3 million and USD 110.4 million, respectively; (ii) an increase in benefits by either 10% or 20% yields a higher ERR of 31% and 32% respectively, both with positive NPV; and (iii) a delay in benefits by one and two years still yields ERR of 28% and 25%, with positive NPV. The results of the sensitivity analysis indicate that VCN remains economically viable under the various assumptions considered.

PART III: IMPLEMENTATION OF PROGRAMME COMPONENTS

III.1 COMPONENT 1 - FOSTER CLIMATE RESILIENT AND NUTRITION SENSITIVE PRODUCTION

The **expected outcomes** are: (a) improved productivity, climate adaptive capacity and resilience of smallholder farmers (SHFs) farming systems in the target VCs; and (b) improved diet quality and nutrition awareness of target rural HHs.

The **expected results** at programme completion are: (i) 273,600 HHs reporting adoption of new/improved inputs, technologies or practices; (ii) 273,600 HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices; (iii) 15,000 HHs reporting using rural financial services.

The component consists of three subcomponents. **ICT4D** will be mainstreamed in the implementation of this component in the following strategic areas: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights, leveraging successful market examples to enhance accuracy and accessibility of services; (ii) leveraging mobile applications to digitize training content to enable

²⁴ 10-year government bond yield by country 2023 | Statista

extension of training coverage to remote areas using an agent assisted delivery model;
(iii) 26.

[1] The subcomponent activities are summarized here, with details in the PIM, and Technical Notes on matching grant and financial inclusion in Annex 13.

III.1.1 Subcomponent 1.1. Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices

This subcomponent will build on two key lessons from CASP on climate resilient farming: (i) climate change and natural resource management (NRM) combined with rehabilitated basic infrastructure improve resilience; and, (ii) mass adoption of soil and water conservation (SWC), landscape rehabilitation (LR) and soil fertility management technologies are key to catalyzing sustainable and climate-resilient smallholder agriculture. The activities supported under this subcomponent include: SWC; agroforestry; farm management with appropriate production inputs and/or technological packages, including on-farm organic bio-fertilizers; and, provision of infrastructure for irrigation.

Expected results. At programme completion the following results are expected from the implementation of the activities under this subcomponent:

- (a) 456,000 rural producers accessing production inputs and/or technological packages
- (b) 456,000 persons accessing digital extension services to increase production and productivity
- (c) 456,000 persons provided with climate information services
- (d) 17,500 ha of land brought under climate-resilient management
- (e) 7,756 ha of farmland under water-related infrastructure constructed/rehabilitated

VCN will support PWDs and returning IDPs to access agricultural inputs through a one-time in-kind input (climate resilient seed and fertilizers) distribution and training on GAP.

Activity III.1.1.1 Provision of quality inputs to farmers

VCN will facilitate timely access of producers to quality climate resilient seeds²⁵ (early maturing, flood/drought resistant, and insect/disease tolerant varieties, direct seeded rice) and fertilizers (inorganic/organic) using different models such as: (i) **Project-driven**- where VCN provide a matching grant by paying a percentage of the input costs for up to two seasons with the rest of the amount to be paid by the farmers. Farmers receive inputs only after payment of their matching contributions (see table below for details) ; (ii) **Off-taker-driven** - a cashless in-kind VC financing where off-takers provide credit for inputs. The off-taker buys inputs from agro-dealers, passes the inputs to farmers, and buys back farm produce after harvest at prevailing market price. In the off-taker-driven model, the motivation is access to land, increased volume of supplies, and supply niche markets. Very poor farmers who are unable to pay their matching contribution upfront, can benefit from the VCN MG. The off-takers pre-finance the farmers' matching contribution and recover their investment at harvest time; and (iii) **Producer-driven** - where FOs access seed and fertilizers through bulk buying by their cooperatives and reach an agreement with the agro-dealers to pay for the inputs upon harvest. The cooperatives generate a profit by selling the products and paying the debt to the suppliers. The motivation here is access to new markets, increased bargaining

²⁵Quality climate resilient certified seed can contribute about 20-30% of crop productivity.

power, access to inputs, technical assistance, secure market position, and farmer empowerment.

VCN will partner with international agricultural research centers in Nigeria such as IITA, AfricaRice, and International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) to source and promote the use of certified **seed of climate resilient varieties**, and engage credible agro-dealers/seed companies for timely delivery of inputs to farmers (before the beginning of the cropping season). VCN will also partner with the research institutes to train youth on the multiplication of certified seeds under the supervision of the National Seed Council of Nigeria (NSCN). The estimated quantity of certified seed needed by the beneficiaries are: 50 kg/ha for rice (e.g. FARO 44, FARO 59, FARO 66 and FARO 67); 5 kg/ha for millet; and 30 kg/ha for cowpea.

In addition to linking the VCN producers to available subsidized federal and state government schemes for inorganic **fertilizer** distribution, VCN will explore the use of liquid organic fertilizers alongside organic manure (cow-dung, litter and plant leftovers, poultry wastes, and compost) by farmers in their farms. Qualified agro-input dealers will be engaged to train selected farmers on the use and application of liquid organic fertilizers as it is new to farmers. Apart from being climate resilient, organic fertilizer is much cheaper than inorganic fertilizer, e.g. during the design, a 100 kg bag of poultry waste was NGN5,000 and cow-dung NGN3,000, compared with NGN50,000-60,000 for the same quantity of inorganic fertilizer. The inputs will be distributed to farmers via e-voucher systems, while concretizing horizontal and vertical linkages through demand/supply contractual arrangements with major off-takers.

Activity III.1.1.2 Training of farmers on good agricultural practices

VCN will engage qualified private extension service providers (PESPs), under performance-based contracts, to strengthen existing CASP extension agents, public government extension agents (ADPs), and lead farmers through training of trainers (ToT) approach on sustainable agricultural practices (e.g. GAP). In turn, the trained extension agents and lead farmers will conduct step-down training to a larger number of farmers, including women and youth using a mix of training and demonstration approaches. Trainers will be deployed on gender basis – more female trainers to reach more women and male trainers to reach the men. Climate smart technologies will be integrated into the GAP training manuals. Information and communication technology for development (ICT4D) mobile applications will be leveraged to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model.

Activity III.1.1.3 Promotion of soil and water conservation

The practices to be promoted include: the alternate wetting and drying (AWD) technology in irrigated lowland paddy fields to keep the soils in proper aerobic state via percolation and evapotranspiration, cover cropping (e.g. cowpea), mulching to help soil moisture retention; other on-farm technologies including half-moon (Tassa), planting pits (Zai), contour ridges, contour bund, tie ridges, stone lines, gully control; as well as LR and watershed rehabilitation through woodlots, wind breaks, and shelter belts.

The first step in the implementation of this activity is an assessment to identify and prioritize the lands to be conserved, and where tree nurseries will be established etc. The NPCO/SPCO will, if necessary, engage consultants to undertake the assessments, in close consultation with the LGAs and the local communities to ensure that the sites are the most needed. Tree nurseries for propagating appropriate agroforestry trees, shrubs and grasses will be established in the target LGAs where SWC activities will be taking place. VCN will support each nursery with a borehole water supply, equipped with a solar pumping system. The borehole will also be equipped with facilities for domestic and livestock water provision.

VCN will engage a land husbandry service provider to manage the implementation of the SWC activities, including: preparation of land husbandry guidelines; mobilization of the

local authorities, opinion leaders, and farmers, through contacts and awareness meetings; delivering a refresher course for the land husbandry field technicians and local leaders on land husbandry technologies and their implementation; production of a detailed and farmer-friendly manual on trees/shrub, grass/legume and fruit trees management as well as a selection of crops suitable for the zone including the crop husbandry; and, training the communities on land husbandry technologies implementation, management and maintenance. Implementation by the communities will follow after the training.

VCN will partner with research institutions (AfricaRice, IITA, International Water Management Institute, International Center for Agricultural Research in the Dry Areas), Lake Chad Basin Authority, service providers, and farmers, to: (a) support the development of small-scale irrigation land close to reliable underground water sources, streams, and rivers, and provide farmers with small-scale irrigation facilities (boreholes, tubewells, wash bores) to facilitate year-round production; (b) support land preparation by tractor/tiller or animal traction service providers through the MG, to enhance access to production land by women, youth and PWDs. Minimum tillage techniques will also be promoted for the fragile tropical soils in the programme area; (c) support the farmers to build water storage ponds for rainwater harvesting for supplemental irrigation or off-season planting; (d) promote soil and water conservation (SWC) practices such as, the alternate wetting and drying (AWD) technology in irrigated lowland paddy fields, cover cropping, mulching; other on-farm technologies including half-moon (Tassa), planting pits (Zai), contour ridges, contour bund, tie ridges, stone lines, gully control; as well as landscape rehabilitation (LR) and watershed rehabilitation through woodlots, wind breaks, and shelter belts.

Activity III.1.1.4 Irrigation, land preparation and water-smart practices

VCN will partner with research institutions (AfricaRice, IITA, International Water Management Institute, ICRISAT), Lake Chad Basin Authority, service providers, and farmers, to:

- (a) develop **small-scale irrigation** land close to reliable underground water sources, streams, and rivers, and provide farmers with small-scale irrigation facilities (boreholes, tubewells, wash bores) to facilitate year-round production. The first step in this activity is an assessment, using contracted hydrogeological consultants, to identify the sites where the different irrigation technologies will be feasible, including the identification of the ground water sources. This will be followed by: the preparation of the tender documents including bills of quantity for drilling and equipping boreholes, tube and wash bore wells as well as constructing dams; a tendering process up to award of the contract for drilling or construction; and equipping the boreholes with overhead tanks and domestic and livestock watering points.

The potential water sources will determine the type of irrigation facilities to be developed. For example, where the water table is above 15 meters deep, a tubewell will be implemented; where the water table is below 15 meters a wash bore well will be constructed; and where a surface pool exists, an earth dam. The following is the tentative allocation of the irrigation facilities: 4,744 tube wells equipped with pumps each capable of irrigating one ha of land, to cover 4,744 ha; 1,482 wash bore wells equipped with solar pumps each capable of irrigating one ha of land, to cover 1,482 ha; and 357 small earth dams with pumps, each capable of irrigating 4 ha of land or more, to cover 1,428 ha. Women will benefit from 50% of the land development and associated irrigation facilities. The irrigation facility users will be trained in the technical aspects of sustainable operation and maintenance (O&M) of the infrastructure. Where the infrastructure will serve more than one farmer, they will be required to form an Irrigation Water User Association (IWUA), collect fees for maintenance of the system, and establish a sustainable O&M arrangement.

- (b) support farmers to build on-farm **rainwater harvesting** ponds for supplemental irrigation or off-season planting. The target is 533 on-farm water harvesting ponds each capable of irrigating 0.1 ha of land, to cover 53 ha.
- (c) support **land preparation** by tractor/tiller or animal traction service providers through the MG, to enhance access to production land by women, youth and PWDs. Minimum tillage techniques will also be promoted for the fragile tropical soils in the programme area. All infrastructure activities are expected to be completed in year 7 of the programme.

Annex 9A is an Infrastructure Implementation Manual with details of implementation of all the types of infrastructure in VCN.

Activity III.1.1.5 Promotion of appropriate intercropping systems

In the face of climate change, VCN will promote a careful selection of crops which when grown together can enhance soil fertility, and reduce soil erosion and habitat/biodiversity loss, including: (i) intercropping early maturing cowpea with millet/sorghum/upland rice because cowpea roots have nodules in which soil bacteria called Rhizobia help to fix nitrogen from the air, some of which are utilized by the crops intercropped; (ii) cultivating cowpea in erosion-prone areas as cover crop because it covers the ground quickly, preventing soil erosion; (iii) promoting integrated soil fertility management and agroforestry by planting "fertilizer tree" (*Faidherbia albida*) with millet/sorghum. Key partners include: research institutions - IITA, AfricaRice, International Centre for Research in Agroforestry (ICRAF), NGOs, farmers. This activity is expected to be completed by year 7 of the programme.

Activity III.1.1.6 Environment and climate mainstreaming

In addition to the climate, environment and social safeguard activities captured in the SECAP and related frameworks and assessments, the following activities are proposed to mainstream climate change and environment into the VCN, build resilience and increase the adaptive capacity of SHFs to climate and environmental change-driven risks, as well as provide positive impacts in terms of natural resources and biodiversity protection: (a) climate information production and seasonal rainfall prediction downscaling and dissemination with NiMET to the communities; (b) in partnership with the Nigeria Hydrological Services Agency (NIHSA), production and dissemination of periodic information on expected hydrological risks (especially flooding), to help farmers to prepare ahead for flood occurrence; (c) support NiMET and NIHSA to equip meteorological and river gauge stations and roll-out app-based hydrometeorological information dissemination; (d) promote nature-based SLM solutions including SWC, LR, and erosion control measures (including planting of grasses and shrubs -- *Vetiver grass*, *Datura arborea*, Gamba grass, *Andropogon gayanus*--, and fertilizer trees); (e) promote integrated soil fertility management technologies including inorganic fertilizers, other farm additives, organic fertilizers and farmyard manure; (f) in collaboration with RAAMP, invest in construction/rehabilitation of climate-resilient market infrastructure, including small earthen dams for crops and livestock, tubewells and wash bores equipped with solar pumps for smallholder irrigation, and solar powered boreholes equipped with water points for both human and livestock watering, backed with capacity building of the users on O&M; (g) invest in small irrigation structures for improving productivity and resilience of smallholder farmers; (h) support farmers with climate-resilient planting materials, and women farmers with nutrition crops; (i) build awareness and capacity through extension services, including FFS, TOT, e-extension; (j) build capacity in waste valorization and sustainable agrochemical applications, including briquettes/biochar²⁶ production from rice, maize, sorghum, and millet husks, animal feed production from the hull/straw, rice bran/husk, rice husk conversion for litter, handicrafts, and training of youth to create enterprises in correct agrochemicals application.

²⁶Biochar efficiently concentrates the fertility and acts as background manure. But only a few farmers can be supplied.

To enable the implementation of the above activities, VCN will, under ICT4D:

- (a) Contribute towards the establishment of a centralized integrated digital farmer registry with geographical information system (GIS) capabilities to support mapping of intervention areas. This will be done under the guidance of FMAFS and in collaboration with the National Information Technology Development Agency (NITDA), IFAD, and the AgroPocket Initiative. The comprehensive farmer registry will facilitate traceability of access to services as well as foster partnerships with public and private sector players. The farmer registry data will also support de-risking access to financial services through, for example alternative credit scoring and credit risk assessment based on production information of the farmers.
- (b) Establish an integrated digital agricultural advisory services platform, with e-advisory platforms tailored to specific crops and themes using innovative delivery methods like Artificial Intelligence enabled Agribots, SMS and voice, to support delivery of services in the context of fragility. Digital advisory services will also attract women and youth into agriculture through new opportunities as service providers/entrepreneurs, improve personalized farm management decision making, and ensure inclusivity through the use of the local language and mobile applications given the high illiteracy levels among women²⁷.
- (c) Implement a digital e-voucher system to ensure traceability of quality inputs, and transparency and efficiency in input distribution. The e-voucher will be aligned to the Farmer Registry and AgroPocket initiative and seek opportunities to integrate e-wallet for input related credit. This initiative will be supported by reputable service providers, such as International Fertilizer Development Center (IFDC) and Cellulant. Agro-dealers, seed producers and FSPs will be onboard to facilitate access of SHFs to credit and inputs.

Currently, the National Adopted Village for Smart Agriculture (NAVSA) facilitated by the National Information Technology Development Agency (NITDA) serves as a platform to manage farmers' crowdfunding and payment systems within the agricultural ecosystem. It features a unique account structure that combines closed and open options. The NAVSA platform aims to extend its reach by implementing more robust and comprehensive solutions, including wider advisory services coverage and the integration of e-vouchers for input aggregation utilizing advanced technology for farm and crop monitoring, aligned with existing government input subsidy schemes.

NITDA will manage the NAVSA platform and oversee the integration of various services through an open Application Programming Interface (API). Private sector agritech partners will collaborate with NITDA to offer their services on the platform, ensuring a seamless and comprehensive digital ecosystem for the agricultural sector. This collaboration will facilitate innovation and scalability while ensuring efficient service delivery to farmers and other stakeholders. To support the initiative's long-term sustainability, VCN will cover the initial operational expenses for fine-tuning, customization, and piloting of the integrated platform. Revenue streams will be identified to ensure financial viability, with selected agritech partners expected to contribute to ongoing operations.

Phasing of activities, implementation partners, sustainability and risks

Phasing. The implementation of most of the physical activities under Subcomponent 1.1 will start in year 2 to give time for the assessments and studies, capacity building of

²⁷ VCN will partner with: NiMET to facilitate access of farmers to simple climate smart weather readers, and with agritech firms to build the capacity of farmers on the use of the weather and crop calendar App; potential partners such as AfricaRice, Digital Green, and IITA will support VCN for access of the farmers to digital extension advisory tools such as RiceAdvice Lite (for optimization of fertilizer use in lowland rice production systems, WeedManager/AKILIMO (for optimization of herbicide use in rice and cowpea production), Land Area Calculator (for measurement of farmers' land area for correct use of production inputs) and farmer chat. The Project will also leverage on drones for pest control, especially Quelea birds; and others, including the Department of Extension Services under the FMAFS, CAF, NITDA, Babban Gona, and other agritech firms.

programme actors, as well as the community preparation. The implementation is timed to end by year 6 except for the agroforestry activities which continue to year 8.

Implementing partners. The SPCO will be the main implementer with the NPCO having a guiding and oversight role. The States, LGAs, user communities, private sector actors and service providers will also be key implementation partners. The key service providers include: land husbandry firms to lead the implementation of the SWC, agroforestry and land fertility management; hydrogeologists and contractors for the water facilities; agro-input dealers; trainers; ICT4D firms; and government ministries, departments and agencies (MDAs).

Exit strategy/sustainability. The exit strategy/sustainability is anchored on: (i) the engagement with major off-takers or operators who provide reliable market outlets to rural producers to sustainably produce and supply to the processing industry; (ii) the partnership with major off-takers to provide cashless in-kind value chain financing to poor rural producers who are unable to pay their matching contribution upfront (the off-takers recover their investment at harvest time); (iii) the establishment of lead farmers to train and mentor new farmers in the farming communities after the completion of VCN; and (iv) well-developed O&M systems for the infrastructure developed, backed by budget provision to ensure that targeted capacity building is done for the users of each of the facilities.

Risks and mitigation. The table below summarizes the main risks to the implementation of the Subcomponent 1.1 activities and the proposed mitigation measures.

Main risks	Mitigation measures
Reductions in yield due to poor quality seed of climate resilient crop varieties supplied	Promote quality seed of climate resilient varieties through reputable agro-input dealers and youth seed producers in the farming communities
Occurrence of drought, flooding from excess rainfall, and pest outbreaks	Promote early maturing climate resilient, flood/drought tolerant, high yielding and pest/disease tolerant crop varieties, and access to crop insurance cover for the farmers
Hike in prices of production inputs and cost of transportation to farmers	Timely and bulk purchase of production inputs from agro-input dealers close to farming communities
Insecurity of farming locations/communities due to kidnapping, communal conflicts, armed robbery/banditry	Identify alternative locations/communities to guarantee safety of project staff in case of insecurity in the chosen project location/community, and monitor security situation shift dynamics based on advice from the UN system and local security agencies
Inadequate capacity of subcomponent staff recruited.	Recruit staff on a competitive basis with emphasis on skills and experience, and strengthen their capacities through refresher on-the-job training by specialized agencies and service providers
Inadequate O&M of irrigation water facilities	Adequate capacity building of the users who are responsible for the day-to-day O&M of the infrastructure, specific to their facility

III.1.2 Subcomponent 1.2. Promote nutrition and gender awareness and practices

This subcomponent seeks to promote nutrition awareness and best practices to the targeted HHs with a focus on women. Further details on this subcomponent are provided in the Nutrition Technical Note in Annex 13.

Expected results. At programme completion the following results are expected from the implementation of the activities under this subcomponent:

- (a) 319,200 persons provided with targeted support to improve their nutrition
- (b) 182,400 HHs reached in the GALS methodology

Activity III.1.2.1 Promotion of nutrition sensitive VC crops

VCN will prioritize VCs with the highest nutrition advantage for each state, while meeting the other criteria established for selection of VC crops. In the interest of ensuring dietary diversity, selection of VC crops will take into consideration representation of crops from each category of staple crops, cash crops, and horticulture crops. Mainstreaming of nutrition throughout each VC will be ensured by articulating actions that enhance nutritive value at production, processing, marketing, distribution and consumption.

Activity III.1.2.2 Promotion of market-oriented nutrition sensitive approaches along VCs and among VC actors

VCN will link the farmers to the market by leveraging food environment opportunities to amplify nutrition value. This will involve: (i) support for income generating value addition and processing activities targeted at cottage/community level Small-scale Food Enterprises (SFEs), to produce a variety of food products high in nutritional value, that are low risk from a food safety standpoint, using the VCN crops as raw materials. It will include the empowerment of targeted youth and women with basic business skills to run the SFEs; (ii) development of Commodity Aggregation Centres for nutrition (N-CACs) to facilitate ease of supply to the SFEs; and (iii) exploring market linkages for highly demanded nutritious commodities in northern Nigeria such as the Tom Brown complementary food. FOs in the various VCs will be linked to already established markets (at community level-voucher kiosks, nutrition centers and organizational/institutional levels). Potentially, the capacity of the N-CACs will be built to supply key ingredients to WFP for the Tom Brown which relies on locally grown foods such as ground nuts, maize, sorghum, millet and soybean.

Activity III.1.2.3 Gender sensitive social behavior change communication and nutrition education (SBCC)

VCN will support increased production efforts by creating adequate demand for more nutritious foods from the VC crops in the targeted states. This will involve awareness creation and knowledge transfer at HH, community and VC levels, encompassing various dimensions of consumption, such as food preparation methods and recipe development using VC commodities aimed at nutrient preservation and food safety promotion. To strengthen the role of gender dynamics at HH level, nutrition sensitive GALS tools will be applied. A nutrition formative study is proposed to inform geographical SBCC typologies that effectively address existing barriers to good nutrition for sustained impact. Targeting awareness creation and knowledge transfer for nutrition at HH, community and VC levels. The digital advisory applications to be deployed to promote nutrition awareness and practices possess the ability to transform nutritional content into user-friendly, interactive electronic platforms, facilitating the dissemination of information on healthier eating habits. The dissemination process will be customized to accommodate individual preferences and needs, ensuring that beneficiaries receive guidance tailored to their specific dietary requirements.

Activity III.1.2.4 Promotion of context appropriate homestead food production

With the aim of increasing the diversification of HH diets through additional production of nutritious foods, particularly horticultural crops for home consumption and income

generation, coupled with the integration of small livestock to build nutrition resilience through livelihood support, VCN will support:

- (a) backyard gardens for nutrient rich vegetables, tubers, fruits and food trees in areas with adequate water.
- (b) adoption of climate-resilient backyard gardening technologies (such as multi-storey cone gardens) in areas with water challenges but served by VCN's small water infrastructure.
- (c) targeted very poor women with starter packages for small livestock (goats, sheep, local chickens)

Activity III.1.2.4 Promotion of policy dialogue for nutrition at state and local levels

VCN will build on CASP's local institutions to promote the voice of FOs at policy level through fostering participation in nutrition fora and multisectoral platforms. Through the CDAs, VCN will support the establishment of Farmer Organizations Nutrition Dialogue Centres (FONDiCs) which will provide a platform for nutrition engagement at community level aimed at capacitating CDAs for greater participation in transformative nutrition activities sustainably. These activities will be captured in the Community Action Plans for ownership and resource allocation. VCN will:

- (a) establish FONDiCs in all targeted LGAs.
- (b) support FOs to have a voice in nutrition fora at local and state levels.
- (c) participate in policy engagement and advocacy on food security and nutrition.
- (d) promote policy dialogue for nutrition at state and LGA levels.
- (e) support policy domestication at state and LGA levels for improved nutrition.

Activity III.1.2.5 Delivery of the GALS methodology to beneficiaries.

Using GALS in the project will require several phases: i) preparing the GALS manual specific for the VCN; ii) training project staff and GALS champions to implement the GALS process among beneficiaries; and iii) delivering the methodology to beneficiaries; this includes monitoring, learning and adjusting the implementation strategy and the technical approach to maximize benefits for beneficiaries.

Preparation of the GALS Manual: A GALS Specialist will be hired to review the GALS Manual used in the IFAD supported VCDP and SAPZ to adapt it to the reality of Northern Nigeria and of the VCN project (to include FO dimension and community dimension). In addition, the Specialist will integrate key issues related to nutrition that are consistent with the rest of the nutrition related information used by the project. The aim is to equip beneficiaries to make the best use of food products easily accessible to them while preserving the nutritional content, and ensuring that intra-HH inequalities related to access to food or food taboos are overcome for all members (infants, children, women, men, as well as pregnant and lactating women) all improve the nutritional intake of all HH members).

(Process oriented) training of project staff and GALS champions: The project will engage a GALS Specialist to train key project staff with responsibilities related to the methodology (including programme specialists, M&E specialists from each state where the methodology will start being implemented (in a pilot phase) and central level, key government officials as well as champions selected at community level in the communities where the targeting of beneficiaries has started. It is important that at least two people be trained in each community so the champions can support each other and reach all beneficiaries in the same community later. It could be a beneficiary and the spouse of a male and a female beneficiary.

Ideally, the training should be conducted in two phases, where the content is divided in half, and the other half about 4-6 weeks later after trainees have had the opportunity to integrate the learnings from the methodology in their own lives. The training should conclude with a clear implementation plan that is realistic for these community volunteers. The plan will include accountability lines related to monitoring progress. A follow-up meeting should be held between all participants and the trainer three - four months after the GALS champions start implementing

activities at community level to go through the implementation experience, assess difficulties faced and best solutions forward.

It should be noted that the same training cycles will have to be repeated as the project expands its geographic outreach from community to community. That is, the logic is the same as when agricultural extension services are offered to beneficiaries. However, the second training could be done by the GALS Specialist, but subsequent ones should be done by project staff who by then should have acquired sufficient knowledge to do it themselves.

Champions should be project beneficiaries and ideally their spouses who can then dedicate some of their time to spreading the methodology among other project beneficiaries in their communities. They should not be among the most vulnerable and time poor beneficiaries, empathetic in character, and with disposition and capacity to help their fellow beneficiaries and their spouses, FOs and have the legitimacy to work with the community leadership to use the methodology at community level, where needed. Because the Champions will rely on reading the VCN GALS Manual and there will be communication with the project and reporting, it is best that the GALS Champions be literate.

Implementation of the GALS methodology. Rather than spreading the methodology everywhere simultaneously, the project will start in a limited number of communities to gain its first experience and fine tune operational strategies and technical capacities to ensure the methodology is implemented with high quality standards. Low delivery will mean low performance and very few or no results.

GALS champions will deliver the methodology to project beneficiaries and their spouses in small groups of 8-10 people in his / her community. The female GALS champions may be best suited to work with women headed HHs and female youth, also in small groups. Whereas the male may be best suited to work with married men or women targeted by the project in that community. The methodology will be administered through a series of 8-10 meetings occurring fortnightly. Each meeting will cover different aspects described in the VCN GALS Manual. At the end of these meetings, participants graduate from the GALS cycle. Together, these trained beneficiaries should at the end of the training devise a plan on how to spread the methodology through joint efforts among other project beneficiaries, target FOs and at community leadership level to help develop a fair and equitable development vision for the larger community. Champions are free to also share the methodology with any other community members; the commitment with the project is to spread it among those detailed above.

Phasing of activities, implementation partners, sustainability and risks

Phasing of activities. The Nutrition Formative Study will be done before the official launch of VCN if possible. Otherwise, it should be considered a priority activity immediately after the launch of the programme. At inception, a partner assessment will be done to inform the possibility of engaging an implementing partner for nutrition. Sensitization and capacity building activities will precede the production activities. Policy related activities and market-oriented nutrition sensitive activities will commence in the second year. GALS will be delivered to beneficiaries following the delivery of key core activities, from year two onwards; however, to do this, the GALS manual for VCN must be produced before the end of year one.

Delivery mechanisms and partnerships. The owner of nutrition implementation in VCN is the FMAFS whose structure is replicated at State level through the State Ministry of Agriculture (SMA). At programme level, the NPCO has a Food and Nutrition Specialist, and each SPCO a Food and Nutrition Officer. The FFS will be the main entry point for implementing nutrition activities at the supply end. This will involve training extension workers. Collaborative efforts will be sought by VCN to engage the CHIPS agents and WDCs already in existence under the Ministry of Health. GALS specialists will be engaged by the project to develop VCN's capacity to manage the delivery of the methodology at three levels: Individual beneficiaries, the community level livelihood related groups they participate in and communities in which populations are returning after having been internally displaced and returnees are no longer requiring humanitarian but rather development support. Please see details above under the "Implementation of the GALS Methodology".

Exit strategy and sustainability. Implementation of VCN's nutrition activities takes into consideration sustainability through leveraging existing community led institutions such as CDAs and FONDiCs. This will ensure community ownership of nutrition investments beyond the programme timeline and continuity of improvements in issues affecting nutrition which will be captured in the CAPs. Also, the capacities built to the FOs through the FONDiCs platform, and to extension workers, CHIPS agents and WDCs, will ensure continuity beyond the programme timeline. The establishment of N-CACs and SFEs will provide continuity to market-oriented nutrition activities because they will be capacity built to operate independently by the time of program completion. The experience with GALS in each target community in which it is used is expected to generate a catalytic effect at different levels as a result of the implementation approach. The project will document the experience with GALS and share with other development players, local government and sector authorities (agriculture as well as women affairs) with the view to encourage wider use.

Main risks and mitigation. The fragile context of VCN presents multiple risks to the success of the proposed nutrition interventions. Sustainability of nutrition investments under VCN will require context informed approaches. The nutrition formative study will help mitigate the risks of ineffective interventions and approaches that would otherwise hinder sustainability. The use of GALS requires visionary leaders within the project willing to take bold steps towards gender equality that empowers both men and women for a better present and future. However, it is possible that project leadership chose not to give GALS the same weight as other interventions. This could affect budgetary allocations or the quality of implementation. With either of these situations the results that could be expected are very likely not to be delivered, and the opportunity to propel socio-economic progression and multiply the core impacts of the project will be lost. As a mitigation measure, the project places GALS as one of the key areas of intervention for this gender transformative project and allocates sufficient resources in the budget for its effective implementation.

III.1.3 Subcomponent 1.3 Promoting Social Cohesion and enabling policy/institutional framework

The objective of this sub-component is to advocate for supportive policies at the local, State and national levels that promote sustainable agriculture and value chain development. It is also to empower local communities to take ownership of their development by involving them in decision-making processes. Under this component, VCN will (i) support the development of enabling policies and regulatory frameworks for agricultural Value chain, (ii) facilitate local policy dialogue for conducive and inclusive market linkages, (iii) strengthen quality control, grading and standardization systems, (iv) Establish and strengthen conflict management mechanisms. The expected outcomes of sub-component 1.3 are: (i) Improved policy & institutional framework for poverty reduction, food, and nutrition security & gender equality; (ii) Dialogue spaces supported at the territorial level; (iii) Rural producers Organizations strengthened in their governance, management, and inclusivity.

Expected target: Three functioning multi-stakeholder platforms supported.

Activities under sub-component 1.3 will focus on initiatives aimed at fostering a conducive environment for private sector investments in the VCN, promoting investment, enhancing policy and regulatory frameworks, and facilitating inclusive market linkages, establishing and strengthening effective conflict management and resolution mechanisms. These activities include:

Enabling policies and regulatory framework for agribusiness. VCN will support: a) Enabling business environment and incentives to support private sector investments in

agricultural value chain development; b) Investment promotion, branding and marketing of agricultural product of the beneficiaries; c) Policy and regulatory frameworks to improve smallholder farmers, women and youth access to land, finance and quality technical and material inputs; d) enhance gender equality in geographic covered, e) Technical assistance and capacity building for staff of relevant public institutions; f) Specific and targeted policies, laws, rules, and regulations to address inefficiencies and market failures in agricultural value chains.

b. Investment promotion and marketing. Efforts of the VCN's implementation team will be directed towards promoting investment and business opportunities through the 4P model as well as marketing strategies.

c. Facilitate local policy dialogue for conducive and inclusive market linkages VCN will specifically focus its support to the setup/ institutionalization of the CAF contributing to an enabling local policy and investment environment that ensures that VCN's target group can benefit from the opportunities created by the project's initiatives. Policy dialogue at CAF level will aim to bring out key policies and regulatory issues affecting the activities and businesses of the direct beneficiaries. This may involve specific studies. CAF and its members will be capacitated in advocacy for an improved business environment. Building on the policy dialogue facilitated through the CAFs, VCN will develop with FMAFS a policy guidance notes to provide an environment conducive of market linkages with off-takers, creating opportunities for vulnerable smallholders and small VC actors to increase incomes and employment.

d. Strengthen quality control, grading and standardization systems: The program will support the establishment of quality control, grading and standardization systems which are a precondition for credible and transparent markets, and smallholders' participation in them. Collaboration with relevant regulatory authorities will be facilitated to ensure compliance with agricultural commodity norms and standards.

e. Establish and strengthen effective conflict management and resolution mechanisms for addressing disputes between smallholder farmers and pastoralists in a timely and peaceful manner. This includes the development by the community development associations (CDA) and CAF and key stakeholders of an action plan for conflict resolution in the participating LGAs, which will be based on lessons learned from VCDP's best practices in the field of violence prevention. Community-based conflict resolution committees, comprised of respected elders, religious and traditional leaders, and local authorities from both farming and pastoralist communities, will mediate disputes, facilitate dialogue between FOs and local peace committees/local conflict resolution committees, facilitate dialogue, and promote reconciliation through culturally sensitive approaches, utilizing local radios and other Information and Communication Technology (ICT) tools. Training community members in conflict resolution techniques and negotiation skills will also empower them to resolve conflicts at the grassroots level before they escalate.

f. Implementing sustainable resource management practices involves establishing clear guidelines and regulations for land use, water access, and grazing rights. Encouraging the adoption of modern farming techniques that optimize land productivity can help reduce competition over limited resources. Additionally, promoting the establishment of community-based natural resource management committees composed of both farmers and pastoralists can facilitate dialogue and collaboration in resource allocation decisions.

g. Encouraging livelihood diversification and creating alternative economic opportunities will help reduce the dependency of both smallholder farmers and pastoralists on a single source of income, thereby mitigating competition and potential conflicts over resources. Providing training and support for income-generating activities such as small-scale agribusiness, animal husbandry, and non-farm enterprises can improve economic resilience and reduce vulnerability to external shocks. Additionally, by investing in infrastructure development, market access, and value-chain linkages, VCN will stimulate economic growth and create employment opportunities for both communities, fostering mutual benefits and cooperation.

h. Promotion of territorial dialogue. Efforts will be made by VCN to promote and strengthen territorial dialogue spaces, enhance extension services, amplify the voices of women and youth, institutionalize farmer organizations, and facilitate platforms for collaborative problem-solving among stakeholders.

Phasing of activities, implementation partners, sustainability and risks

Phasing of subcomponent activities

Key phases of subcomponent 1.3 include:

- (i) Assessment and analysis of existing policies pertaining to agricultural value chain development in fragile and insecure beneficiary States of VCN, identifying areas for improvement and innovation in the first year.
- (ii) Stakeholder engagement, involving farmers, processors, government agencies, NGOs, and private sector entities. The VCN implementation team will solicit their insights to comprehensively grasp their needs, hurdles, and aspirations within the agricultural value chain.
- (iii) Policy development that comprehensively support the entirety of the agricultural value chain, encompassing aspects from production to marketing; addressing critical issues such as farmers/herders conflicts, access to credit, market infrastructure, land tenure, and incentives for technology adoption; ensuring policy flexibility to accommodate diverse needs across different value chains and States.
- (iv) Development of legal and regulatory framework to support or amend existing laws or enact new ones as necessary to address fragility, insecurity, and emerging challenges and opportunities within agricultural value chain development.
- (v) Promotion and communication. VCN will Craft a robust communication strategy to disseminate awareness about the advantages of the new policies and institutional changes. The project will also engage in advocacy endeavors to garner support from diverse stakeholders and ensure widespread acceptance and implementation.

Implementing mechanism and partners for the subcomponent

VCN will establish a robust inclusive policy advocacy platform that convenes representatives from diverse sectors including:

(i) relevant Ministries, Departments, and Agencies (MDAs) and beneficiary States to align policies with local and state development objectives; (ii) agricultural research institutions to provide evidence-based insights and recommendations for informed policy formulation; (iii) farmer organizations to integrate the perspectives of smallholder farmers, women, and youth into policy discussions, thereby ensuring inclusivity and responsiveness to their needs; (iv) Non-Governmental Organizations (NGOs) and development agencies with expertise in agricultural training and capacity building to bolster human capital within the sector; (v) private sector stakeholders to strengthen market connections and advocate for the interests of agricultural businesses in both regional and national markets; (vi) financial institutions to facilitate access to capital and financial services for agricultural stakeholders; and (vii) trade associations to advocate for favorable trade policies and market access for agricultural product

Exit strategy/sustainability

Exit Strategy for building local capacity and sustainable value chains in Northern Nigeria Comprises the following:

- Policy and institutional development through (i) close collaboration of VCN with government agencies for the formulation and implementation of conducive policies; (ii) bolster existing institutions and, if necessary, establish new ones to support the initiative effectively.
- Local ownership through (i) facilitation of a gradual transfer of project ownership to local institutions and communities; (ii) ensuring active participation of local stakeholders in decision-making processes to enhance ownership.
- documentation and reporting of processes, including encountered challenges and gleaned lessons as well as dissemination of comprehensive information among pertinent stakeholders and the broader development community.

Main risks and mitigation

1. Social isolation and discrimination:

- Risk: Individuals or groups may experience discrimination, leading to social exclusion and hindering community cohesiveness.
- Mitigation: Foster an inclusive policy and regulatory framework by creating spaces for open dialogue, addressing concerns, and building connections to promote social cohesion.

2. Economic disparities:

- Risk: Economic inequality can exacerbate social fragmentation, marginalizing vulnerable groups such as youth, women, persons with disabilities (PWDs), and internally displaced persons (IDPs).
- Mitigation: Support and advocate for policies that provide equal opportunities for all community members, support poverty-alleviation initiatives, and facilitate access to education and skills training.

3. Political instability and insecurity:

- Risk: Local political instability may fuel social unrest and divisions.
- Mitigation: Promote transparent and inclusive governance policies, enhance civic participation, empower community members in decision-making processes, and foster a sense of civic responsibility.

4. Cultural barriers and social exclusion:

- Risk: Cultural barriers may perpetuate gender inequality and social exclusion, reinforcing stereotypes and prejudice.
- Mitigation: Promote inclusivity and gender-transformative approaches through methodologies like Gender Action Learning System (GALS). Organize events celebrating diversity and inclusion and ensure diverse representation in decision-making bodies to prevent the marginalization of specific groups.

5. Limited access to services and opportunities:

- Risk: Cultural barriers and social exclusion may impede certain community members from accessing essential resources, services, education, or employment opportunities.

Mitigation: Advocate for policies that ensure equitable distribution of resources and opportunities among cultural groups, address disparities, and promote equal access to benefits through an enabling environment policy framework.

Supporting fragility and conflict management

To mitigate the risks from extreme weather events and conflicts, VCN will:

- (a) build the capacity of farmers for effective conflict resolution at the community level, and support mechanisms to compensate farmers and processing centers for conflict related damages.
- (b) support dedicated services by CAF to their members in conflict and fragile environments, especially as it affects farmers/herders.
- (c) deploy digital solutions for climate information to guide VC operations, app-based hydrometeorological information to serve as flood alert, and e-extension for areas that are difficult to access.

III.2 COMPONENT 2 - ENHANCE INCLUSIVE AND PROFITABLE INTEGRATION OF TARGET GROUPS IN THE VCS WHILE PROMOTING CONDUCTIVE POLICIES AND INSTITUTIONAL FRAMEWORKS

The expected outcomes are: (a) improved post-harvest handling, value addition and access to markets in supported VCs; (b) increased business and entrepreneurial opportunities for youth and women along the target VCs; and (c) Improved access to financial services.

The expected results at programme completion are: (a) 5,400 rural producers' organizations engaged in formal partnerships/agreements or contracts with public or

private entities; (b) 319,200 HHs reporting improved physical access to markets, processing and storage facilities; (c) 136,800 beneficiaries with new jobs/employment opportunities; (d) 3 existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment.

The component consists of three subcomponents. ICT4D will be mainstreamed in the implementation of this component in the following strategic areas:

- (a) improving farmers' access to output markets. VCN will: (i) scale up initiatives like the FMAFS Agricultural Marketing Information System (AMIS); (ii) incorporate mobile-based solutions for accessing market information into AMIS; (iii) promote equitable and transparent transactions; (iv) undertake a comprehensive review of existing agritech e-marketplace applications currently being piloted in the country; (v) explore innovative market linkage models that cater to the diverse needs across the entire VC.
- (b) facilitating the choice of location and scale of infrastructure. Data on market demand, production sites, transport infrastructure, land availability, farmers access, as well as scalability potential will assist in the choice of location and scale of the infrastructure. GIS and market intelligence tools will be factored into the logistics modeling of storage strategies and linked to the farmers' registry.
- (c) facilitating planning at the CAF level through mobile-based applications for monitoring and managing post-harvest processes and providing online training modules on their use.
- (d) deploying digital platforms (e-commerce) to provide VC services (market information, technical advice etc.) and connect demand and supply.

III.2.1 Subcomponent 2.1. Improving post-harvest, value addition, market linkages/partnerships with VC actors

This subcomponent is structured in two sets of activities. The first will invest in post-harvest infrastructure and equipment which will help the farmers to reduce post-harvest losses and add value to their produce.

Expected results. At programme completion the following results are expected from the implementation of the activities under this subcomponent:

- (a) 218 market/processing/storage facilities constructed or rehabilitated of which: Market facilities 81, Processing facilities 37, and Storage facilities 100.
- (b) 229 km of roads constructed or rehabilitated directly by the Project, 174 km of roads by the community, and 444 road drainage structures.

Activity III.2.1.1 Acquisition of post-harvest infrastructure

VCN will support SHFs to acquire more efficient equipment for immediate post-harvest handling such as threshers, shellers, dryers, and storage facilities to reduce post-harvest losses. Needs assessments will be undertaken to inform decision-making on the quantity and types of post-harvest facilities required.

Activity III.2.1.2 Construction/rehabilitation of various market infrastructure

VCN will invest in:

- (a) basic close-to-producer bulking/aggregation centers, to enable the farmers to preserve the quality of products, reduce post-harvest losses, reduce transportation cost, ease the collection of products by off-takers, and ease the pressure to sell immediately after harvest when prices are usually low. Trained personnel will manage the centers and ensure proper handling, record keeping and product quality controls.
- (b) basic processing, grading and packaging infrastructure which will enable farmers to add value to their produce, improve on efficiency of operation, quality, and the return on investment, as well as ease access to larger aggregators and final processors' facilities. Choices will consider multi-purpose equipment.
- (c) market stalls/sheds/stores which give farmers a place for direct sale of their products, and avoid intermediate sales which dilute the margin. These facilities will be executed in an environmentally friendly way, with a management system for the effective usage of the market facilities. The established RAAMP infrastructure will be leveraged wherever possible.
- (d) last-mile access roads to link production areas to markets, improving the delivery of production inputs as well as evacuation of the produce.

The construction of the market infrastructure facilities will be undertaken by competitively recruited contractors. Data on market demand, production sites, transport infrastructure, land availability, farmers access, as well as scalability potential will assist in the choice of location and scale of the infrastructure. Geographical information system (GIS) and market intelligence tools will be factored into the logistics modeling of storage strategies and linked to the farmers' registry. When relevant, infrastructure design will be friendly to PWDs and nursing women and mothers with young children. O&M committees will be established at the community level for the community infrastructure facilities. The rehabilitation of last mile community access roads will be in two categories: programme implemented, and community implemented. Community roads improvements will include constructing drainage infrastructure such as bridges, culverts, drifts, etc. which will, to the extent possible, be designed to leverage water harvesting by channeling water to water storage ponds/dams in the farms. VCN will partner with state and local governments, FOs, research institutes, especially the National Stored Products Research Institute (NSPRI), agro-input dealers, equipment suppliers/fabricators, CAF, and contractors to support the implementation of Subcomponent 2.1. Aggregation/bulking facilities as well as agro-processing facilities will be equipped with solar powered boreholes for human consumption and sanitation services. Annex 9A is an Infrastructure Implementation Manual with details of implementation of all the types of infrastructure in VCN.

Phasing of activities, implementation partners, sustainability and risks

Phasing of subcomponent activities. Construction of the facilities will start at the beginning of the second year and be completed latest by the end of the seventh year. The first year will focus on community organization and capacity building so that they become full participants during the construction phase. The first year will be used for the necessary assessments, studies and engineering designs to be done. Ending construction by the seventh year will give time for the defects liability period to be within the project period.

Implementing mechanisms and partners. The SPCO will be the main implementer with the NPCO playing a guiding and oversight role. The States/LGAs will also be key partners in implementation, as well as user communities, private sector actors and service providers. The first set of service providers are engineering consulting firms that undertake assessments/studies, carry out the designs and supervise the construction. Construction firms are the second set of service providers, with responsibility for carrying out the construction of the infrastructure facilities. Where necessary, the SPCO will collaborate with other government ministries and agencies.

Exit strategy/sustainability. The exit strategy/sustainability is anchored on a well-developed O&M system for each infrastructure. A budget provision has been made under the subcomponent to ensure that targeted capacity building is done for the user of each of the facilities.

Main risks and mitigation. The main risk for the infrastructure is inadequate O&M. This risk will be mitigated by providing adequate capacity building for the users who are responsible for the day-to-day O&M of the infrastructure, to handle the O&M requirements specific to their facility. For access roads, however, the responsibility for funding maintenance lies with the State/LGAs where the risk of non-funding is high. The mitigation is for the States to develop, and commit to funding, a community-based roads maintenance system which is included in this design.

The second set of activities will enhance the resilience of the VC actors by strengthening the FOs, creating links between all the VC actors, especially between FOs and off-takers, and replicating and scaling up multi-stakeholder platforms such as CAF. Complementary studies will be conducted to comprehend the market prospects for agricultural products, enabling improved decision-making regarding their selection in agreement with the states. At programme completion, the target is: 5,400 rural producers' organizations supported.

Activity III.2.1.3 FOs mapping, formation and strengthening

VCN will identify FOs (formal or informal) in the targeted LGAs and assess their institutional maturity as a foundation for their strengthening. New groups will be formed only where there are no existing groups. FO formation activities will be supported for poor women and youth who are not part of existing FOs but come together as a group to access project opportunities. Geographic clustering of FOs will be encouraged in order to generate economies of scale through: bulk purchase of high-quality inputs and/or equipment rental; stronger bargaining power with off-takers and processors for their produce; an opportunity for off-takers to offer a full package of services (inputs supply, loan in kind and market access); and better alignment of the quality standard requirement on the farmers' side through capacity enhancement, easy access to extension service and knowledge and innovation sharing. Competitively recruited institutions strengthening consultancy firms will be engaged by VCN for the FO identification, formation and strengthening activity.

Activity III.2.1.4 Promote collaborative planning

VCN will use a participatory approach that involves multiple stakeholders in the planning process to achieve consensus in decision making. VCN will institutionalize the CAF where all VC actors (FOs, out-growers, input suppliers, off-takers, marketers, etc) interact to generate trust among the actors, exchange information about product quality, production risks and prices, develop a suitable service strategy for better supply chain

efficiency and effectiveness, and foster FOs access to market. For example, if FOs inform input suppliers of their requirements on time, the suppliers may be able to increase the availability of high-quality inputs and prepare timely for their production, shipping and distribution based on the total lead time for the items. The CAF will be supported to leverage data collection and analysis about each VC node's requirements (FO land size, production, yields, inputs availability, processing capacities, storage capacity, transportation network, customer preferences, packaging preferences), to enable each actor in the chain to fulfill their needs timely. Technical working groups will be formed on production planning, quality standard requirement, distribution and logistics, and market. The CAF would meet on a regular basis to discuss progress and challenges.

Activity III.2.1.5 Scale up digital platforms (e-marketplace)

The digital platforms will provide VC services (market information, technical advice etc.) and connect demand and supply, based on the needs and information of all stakeholders in the VC. The comprehensive data will be used to identify synergies, create common objectives, and maximize the value of transactions and partnerships. The state governments, CAF, FOs and agritechs will be major actors on the platform.

Activity III.2.1.6 Leverage the 4Ps platform for value chain financing (VCF)

Building on the experience of the VCDP on VCF by major off-takers, VCN will leverage contract farming and out-growers' schemes for financing the production of the priority VCs based on the relationship and trust among the actors. Three segments of the VC chains are identified for the purpose of access to finance: the pre-upstream segment comprising the input suppliers and equipment dealers as actors; the upstream segment with the farmers as the actors; and the midstream segment with the off-takers, processors and aggregators as actors. Olam Ltd is an example of a 4Ps partner that is both an input supplier and off-taker, with a wealth of experience in supporting poor farmers with cashless credit at the beginning of the planting season and recovering the credit at harvest. Babban Gona plays a similar role to Olam. Flour Mills Ltd which is currently running at 20% processing capacity is interested in securing more quality inputs, and the regional agricultural Dawanau Market in Kano State already has experience in supporting farmers with informal credit to produce grains to supply the Market Association to enable it meet the huge demand for produce by the processors and export market.

III.2.2 Subcomponent 2.2. Promoting entrepreneurship for women and youth

Expected results. At programme completion the following result is expected from the implementation of the activities under this subcomponent: 4,000 rural women and youth who are not integrated in FOs and whose access to land is limited, are trained in income generating activities (IGAs) or business management and supported with start-up business packages for entrepreneurship.

Activity III.2.2.1 Promote entrepreneurial activities

VCN will raise the awareness of women and youth on the diversity of employment opportunities in the agricultural sector, and its linkage with other sectors. It will leverage entry points at production stage such as seed multiplication, equipment hiring and maintenance, community-level agro-input trade, extension/advisory services, and safe chemical spraying. The post-harvest stage offers added value opportunity in threshing,

storage, processing, and packaging, retailing, transportation, and O&M services that ensure the smooth running of the VCs.

Activity III.2.2.2 Capacity building

Capacity building will be provided to the potential beneficiaries, who may where appropriate, be organized into small groups for participation in these activities. Capacity building activities will include training and incubation/mentoring on technical aspects of the enterprises (business management, basic accounting, product or service development, business planning, marketing and sales etc.), GAP, financial literacy (data recording, budgeting, loans, spend and net margin), and development of business models for service provision. Beneficiaries may consider successful business models such as the farmers paying for services rendered by the women and youth entrepreneurs at the end of the crop harvest, compared to cash payment before service provision. VCN will also link the beneficiaries to FSPs and/or be supported by programme equipment grants to which the beneficiary would make a 30% contribution for the start-up capital.

III.2.3 Subcomponent 2.3 Improving access to financial services and scale access to digital financing solutions

Financial inclusion under VCN aims to provide access of the target beneficiaries to financial services/products such as payments, savings, deposits, insurance, and credit facilities, to empower them for effective participation in the programme. In line with the IFAD Inclusive Rural Finance Policy, VCN will use a variety of financial instruments, including grant and credit, working capital and asset loans and equity, and for risk-mitigation, guarantees, risk-sharing facilities and insurance. Matching grant will be used as a short-term financing instrument to promote diffusion of technologies and enable target groups to carry out productivity-enhancing investments, compensating for the limited availability and high costs of term finance. Further details on this subcomponent are provided in the Financial Inclusion Technical Note in Annex 13.

Expected results. At programme completion the following results are expected from the implementation of the activities under this subcomponent:

- (a) 15,000 persons accessing financial services - savings
- (b) 15,000 persons accessing financial services – credit
- (c) 456,000 farmers accessing digital e-voucher for production inputs

VCN will partner with FSAs and FIs to enhance access to financial services (i.e. savings, working capital and asset loans, guarantees and risk-sharing facilities, insurance) in combination to project's capital grant for FSAs loan revolving funds matching grant (MG) funds for youth, women and other vulnerable target groups. The strategy will be to use appropriate financing instruments to promote the adoption of technologies and enable target groups to carry out productivity-enhancing investments and ultimately get included in the financial sector. This subcomponent will support:(a) Capacity building of the demand for rural financial services through formal training on financial literacy followed by mentoring by experienced beneficiaries; (b) Linkage of farmers and SMEs with FIs, input suppliers and off-takers after training for proper use of grant and credit; (c) Capacity building of the supply of rural financial services through formal training of FIs including FSAs on the development of new financial products including digital services; (d) De-risking lending to farmers through the Credit Risk Guarantee instrument; (e) Strengthening FSAs and linking them with commercial financial service suppliers to scale up financial inclusion of the target groups. Fragility issues for access to financial services will be mitigated through intensive capacity building of stakeholders both for the supply and demand of financial services,

and access to the RED subcomponent, which by responding to emergencies and disasters will restore the production base of farmers accessing financial services.

Activity III.1.3.1 Capacity building of the demand for rural financial services

VCN will build the capacity of the two broad categories of farmers (marginalized and disabled, and matured FOs and SMEs) on financial literacy and the improved technologies promoted by VCN. The training in financial literacy, will give the beneficiaries skills to take advantage of financial resources that will advance their productive and social endeavors. VCN will engage accredited training service providers to deliver formal training on financial literacy (topics including: relevant financial products, starting with savings, record keeping, accounting and management, investment analysis, and budgeting). Mentoring will be provided by the service providers, stakeholders, and successful beneficiaries to guide and motivate the new beneficiaries, while digital messaging in the local language will be used to continue to remind the beneficiaries on the information they received, when they are on their own and away from the formal setting of VCN.

Activity III.1.3.2 Linkage of farmers and SMEs with FIs

After the training, the marginalized and disabled farmers will be linked to input suppliers, off-takers, and partner FIs, mainly in groups, to enable them implement the improved technology they had been taught. The initial grant support to the marginalized/disabled category of beneficiaries will be for a low but flexible farm size in hectares depending on the crop type. This will be done in several ways. One option is that the FI pays the value of the required inputs to the input supplier and the cash portion to the account of the beneficiary. At harvest, the off-takers buy the produce and make payments into the beneficiaries' accounts with the partner FIs. This is essentially the VCDP MG model, where major off-takers provided substantial value chain financing (VCF) to producers based on the relationship and trust among the actors, except that the partner FI will play a stronger financial inclusion role under VCN. Since the majority of the rural dwellers, especially the women, are financially excluded hitherto, a graduation approach shall be adopted in which beneficiaries who are trained on financial literacy and management capacities can open savings accounts with formal FIs and leverage their savings to get access to loans.

After training, the matured FOs and SMEs will also be linked to the input suppliers, off-takers and partner FIs, to access credit (say for inputs, insurance and labour) from the partner FIs. At harvest, the off-takers buy the produce and make payments into the beneficiaries' accounts with the partner FIs, from where the value of the credit will be collected by the FI and the surplus left for the beneficiaries. Each beneficiary will access the VCN funded credit or grant only once. Successful beneficiaries who need renewal of their credits will be served from the balance sheet (funds) of the partner FIs, input suppliers or off-takers based on the relationship and trust that has been built. For youth and women beneficiaries, a similar capacity building strategy will be implemented, with the exception that this group will have access to both grant and credit financing.

Grant beneficiaries will graduate into the use of credit following successful use of the grant. The initial credit support under the VCN will be targeted at the upstream segment actors (farmers). Actors in the other segments are expected to be matured and established enough to access credit support on their own from the FIs. The FIs are expected to continue extending credit to actors, especially the upstream segment of the VC, as the need arises and after the withdrawal of IFAD support.

The deposit money banks (DMBs) that have indicated willingness to participate in the VCN, would receive programme funds to disburse to the target beneficiaries. It is expected these banks would retain the beneficiaries who have performed creditably in the use of VCN funds and continue to maintain a business relationship with such good customers/beneficiaries from their own internal resources. The Bank of Agriculture (BOA), which is a development financial institution (DFI) with considerable experience in serving SHFs and the poor, if restructured as promised by the FGN through the National Council on Privatization, could be a partner FI, along with microfinance banks (MFB) with presence in rural places not covered by the DMBs. The Katsina State Government, for instance, wants to strengthen the state-owned MFB in 2024, and use it for financial empowerment programmes in the State.

Blended financing was recently discussed and negotiated with the banks in Nigeria under the Green Climate Fund (GCF)/IFAD Inclusive Green Financing Initiative (IGREENFIN) II Programme. Some of the banks agreed to participate in the blended financing arrangement, and to provide counterpart contributions for the climate finance project. This was before the current sweeping controls in the banking sector were introduced. A formal engagement with the banks to acquaint them with the objectives and goals of the VCN, and the expectations from partner FIs will be organized, in order to extract fresh commitments from them. For extension of credit under the VCN, a mixture of DFI, DMB, MFB and FSA is contemplated.

Activity III.1.3.3 Capacity building of the supply of rural financial services

VCN will build the capacity of partner FIs on the development and deployment of digital financial products, financing of SHFs and actors in the targeted VCs of the VCN priority crops. The formal training sessions to be delivered by appointed consultants, will be adapted to the role expected to be played by the FI in enhancing financial inclusion under VCN. Digital financing under the VCN will involve the origination, disbursement and collection of the credits through the use of mobile phones, especially in locations where the physical services of the FIs are not available. VCN will encourage the partner FIs to develop the prototype digital products and make it available for the beneficiaries to access through their phones. This shall be part of the financial literacy package for the beneficiaries and the capacity building package of the FIs. The digital financial services will play a role in de-risking access to finance through credit risk assessment based on production data in partnership with financial service providers (FSPs) and/or fintech companies supporting the targeted VCs.

Activity III.1.3.4 De-risking instruments

VCN will warehouse the credit and grant funds in the partner FIs, competitively selected on the basis of such criteria as network of branches in the north, experience in financing agriculture and rural activities, level of non-performing loans ratio in relation to the industry benchmark etc. It is expected that the FIs would retain the beneficiaries who have performed satisfactorily in the use of VCN funds, and lend to them from the FIs' internal resources. However, the FIs still have a high-risk perception towards agricultural VC actors, in addition to the monetary policy rate and the recent inflation rate that do not favor VC actors to obtain profitable loans.

VCN will engage Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) Plcto de-risk lending to farmers through the Credit Risk Guarantee (CRG) instrument. The CRG protects financiers and investors from possible losses in a finance/credit transaction through a risk sharing arrangement under which NIRSAL

indemnifies the lender or investor of the principal and accrued interest to the limit of a pre-agreed CRG rate. Providing credit facilities and applying the NIRSAL Interest Drawback (IDB) scheme which rewards diligent borrower behaviour through discretionary rebates of up to 40% of interest paid on NIRSAL CRG-backed agribusiness loans, reduce the effective interest rate for borrowers with a good credit history. The procedure for NIRSAL de-risking will be as follows:

- Farmers/beneficiaries apply for a loan under VCN and request for NIRSAL CRG cover.
- Partner FI approves the loan and sends CRG requests and relevant documents to NIRSAL on behalf of the farmer/beneficiaries.
- NIRSAL reviews the FI's request and checks documents for completeness, accuracy and validity.
- If the documents are in order, NIRSAL and the FI conduct farm/site visitation and prepare a report which is subjected to NIRSAL's internal approval process.
- Upon approval by NIRSAL and payment of CRG fee, NIRSAL issues CRG in favour of the FI on behalf of the farmer/beneficiaries.
- The FI disburses the loan to the farmers/beneficiaries and NIRSAL commences project monitoring through its nationwide Project Monitoring, Reporting & Remediation Offices (PMRO).

The following instruments are proposed as acceptable collateral to secure credit given under VCN: (i) Cross and several guarantee by beneficiaries in cooperatives formed on the basis of contiguous location of their farmlands, in order to satisfy the requirements of NIRSAL on the formation of agro-geo cooperatives; (ii) Tripartite agreement signed by the beneficiaries, other VC actors and partner FIs; (iii) Equity contribution of 10% by beneficiaries; (iv) Credit Risk Guarantee (CRG) for at least 50% risk cover; (v) Nigerian Agricultural Insurance Corporation (NAIC) insurance cover against common perils; (vi) Executed Global Standing Instruction (GSI) mandate; and (vii) All assets debenture which shall be registered on the National Collateral Registry (NCR).

The NAIC is an FGN-owned insurance company set up specifically to provide agricultural risks insurance cover to Nigerian farmers. The agricultural insurance products of NAIC include crops and livestock, as well as multi-peril cover on marketing and processing activities. A subsidized premium of 2% of the estimated production cost is charged on subsidized crops like maize, beans and all food crops, while for cash crops, a premium of 1.5% without subsidy is charged. These days, since most of the farmers who procure insurance policies for their farms do so because of loans, the premium is now usually estimated as a percentage of the loan volume. In competition with NAIC in this business are the many private insurance companies such as Leadway Insurance Ltd, UNIC, etc.

Activity III.1.3.5 Strengthening FSAs and linkage with commercial FSPs

The grassroots FSAs which tend to combine the attributes of an investment company, microfinance and community based financial outfit, will play a central role in financial inclusion under the VCN. VCN will engage the identified FSAs operating in the programme area, strengthen them if necessary, and introduce them to the partner FIs to receive VCN funds from the FIs to serve the VCN beneficiaries who are their members.

Mature FSAs from CASP intervention will be linked with commercial FSPs such as the Lift Above Poverty (LAPO) MFB and Development Exchange Centre (DEC) Microfinance for credit. The identification of the matured FSAs will be done by the consultants to handle the complementary studies on FSA or by the other beneficiaries from such localities. VCN beneficiaries shall then register and operate with the FSA to access VCN funded financial services to be rendered by the FSA.

Use of Matching grant (MG)

The project will provide Matching grant for Climate Smart and environmentally friendly production, processing and value addition, inputs, equipment and infrastructure for the beneficiaries. This will help mitigate climate and environmental risks, strengthen resilience and reduce the impacts while simultaneously improving the adaptive capacity of the beneficiaries for improved productivity, production, income and food security.

VCN will partner with FSAs and other larger FIs to enhance access to a combination of financial services (i.e. savings, working capital and asset loans, guarantees and risk-sharing facilities, insurance) in combination to project matching grant (MG) funds. The project will pilot a new arrangement in the country in which grant funds will be managed by FIs to maximize opportunities for crowding in. This will not apply to inputs which will be procured and distributed in kind as per well proven practice in other IFAD-funded projects in Nigeria. The strategy will be to use short-term financing instruments to promote the adoption of technologies and enable target groups to carry out productivity-enhancing investments and ultimately get included in the financial sector. VCN will partner with FIs to develop digital financial products that will support farmers' access to finance by leveraging farmer registry data for credit scoring.

IFAD-funded VCDP used MG for: (a) inputs (seeds, cassava cuttings, fertilizer, chemicals – 50% MG); (b) mechanization support (land preparation like: ploughing, harrowing and ridging – 50%); (c) equipment (production, harvesting, processing, packaging - 70%); (d) farm infrastructure (irrigation, land development – 90%); (e) market infrastructure (stores, stalls, warehouse/processing buildings – 90%). A group business plan was the major requirement for benefiting from the MG.

Matching contribution (MC) was to be paid upfront by beneficiaries for inputs and equipment, but it failed in several cases (argument of poverty, despite good revenues from the previous crop). Sometimes, LGAs, philanthropists and off-takers paid the MC. MG support for inputs and mechanization support was supposed to be for two seasons, but some FOs did not want it to stop. MG support to equipment and infrastructure was one-off. Disbursement performance was low for equipment (inability of FOs to provide the 30% MC upfront).

MG was still popular with IFAD (and the World Bank, as in the Fadama Project) at the time of design of VCDP and even CASP. MG still has a role to play to promote adoption of technologies and enable target groups to carry out productivity-enhancing investments and ultimately get included in the financial sector. Commercial banks in Nigeria consider SHFs high risk and are reluctant to grant credit to them. The FGN is in support of MG and wants a higher percentage IFAD contribution (MTR of VCDP AF). VCDP did not use financial institution intermediaries, but direct procurement and distribution (especially of inputs) by the project.

Below are the provisions for the implementation of MG under VCN.

Provisions in the VCN	
General	Special cases

1. Financial empowerment

- | | |
|--|---|
| <ul style="list-style-type: none"> · Beneficiaries trained on financial inclusion, business management etc, linked to input suppliers, off-takers, financial institutions for grant or loan · Beneficiaries to have account with FI for the transactions with all actors mentioned above and enhance bankability prospects/credit record · Credit or grant from VCN funds would be available for two seasons per beneficiary, after which the FI/other actor uses own resources | <ul style="list-style-type: none"> · Grant for marginalized/PWDs · Credit for matured FOs/SMEs - Successful marginalized farmers/PWDs graduate to credit after the two season grants |
|--|---|

VCN Financing categories and co financing rules

Expenditure category / Activity	Project matching grant funding %	Target people counterpart funding
Production inputs		
Pro-poor kick-start package for target VCN farmers: provided only for 2 seasons	60% male adult +IDP Returnee	40% male adult+IDP Returnee
	80% women/youth+IDP Returnee	20% women/ youth+IDP Returnee
	90% PWDs	10% PWDs
Production equipment		

On-farm investments (e.g. tillers, harvesters)	individual (e.g. sprayers, harvesters) 70% male adult +IDP Returnee 80% women/youth+IDP Returnee 90% PWDs	30% male adult +IDP Returnee 20% women/ youth+IDP Returnee 10% PWDs
Collective assets	productive 60% Mixed Organization producers Org or SMEs 80% women/youth groups or micro-enterprises	40% Mixed producers Org or SME 20% women/youth groups or micro-enterprises
Post-production equipment		
Investments on post production equipment (e.g., processing machinery)	70% Mixed Producers Organization or SMEs/Women/Youth Groups or Micro-Enterprises 80% women/youth groups or micro-enterprises	30% Mixed producers Org or SMEs/Women/Youth Groups or Micro-Enterprises/Host 20% women/youth groups or micro-enterprises
Production and post-production infrastructure		
Investments on production infrastructure (e.g. small irrigations for farms) and	90% Mixed producers Org or SME/ women/youth groups or micro-enterprises	10% from the Mixed producers Org or SME/ women/youth groups or micro-
Post-production MoU is usually signed between FGN/IFAD programmes and		

relevant land holders -
Community
(Community Leaders,
family,
representatives, etc.)
to grant and secure
access to the land for a
minimum of 10years.

enterprises /Host Community²⁸ (to be
contributed in-cash or in-kind) (in-kind
could include: land, labour, material,
etc.)

(e.g storage facilities,
processing centres)

Phasing of activities, implementation partners, sustainability and risks

Phasing of subcomponent activities. The first phase will be capacity building in financial literacy and skills, and the development of financial products by selected financial institutions, while the second phase will be access to finance and linkage to other relevant institutions.

Implementing mechanisms and partners. The subcomponent will be implemented in collaboration with relevant partners, including:

- (a) Processors/Anchors. They shall provide access to markets for the farmers through guaranteed off-take agreements issued directly to FOs. The Processor shall also be responsible for supporting FSAs/SHFs in the provision of farmer education and/or sponsoring the cost of inputs for the FOs, to guarantee improved yields.
- (b) Farm Aggregators. These are intermediary companies that work directly with the SHFs. They are responsible for collection of produce from individual SHFs and aggregating them at collection centers before they are delivered to the Processors. They are agents of the processors.
- (c) FSAs. They shall be responsible for registering farmers and FOs for the purpose of accessing credit.
- (d) Farmers. They shall be responsible for planting and harvesting the crops. The farmers repay the loans in kind to the farm aggregators/processors.
- (e) DMBs & MFIs. As partner FIs, shall key into the wholesale fund of the VCN and lend to SHFs.
- (f) Insurance Companies. These are duly registered insurance companies with the capacity to provide agricultural insurance products with an array of value-added services.
- (g) Credit Risk Guarantee Institutions: They shall provide partial credit risk guarantee cover for the FOs.

Exit strategy/sustainability. VCN shall build the capacity of FSAs as they are the first response and the most sustainable supplier of FSAs in the fragile states covered by the project. VCN will also identify the key institutions that have been providing financial services and provide them with capacity building that will prepare them to continue

support of FSAs/SHFs after the conclusion of the programme. Another exit strategy that will ensure sustainability shall be to reduce or avoid activities and approaches likely to require substantial financial support after programme conclusion.

Main risks and mitigation. These are summarized on the table below.

Main risks	Mitigation measures
Financial risk	
Lack of participation by financial institutions	<p>VCN shall target the involvement of diverse FIs such as the FSAs, DFIs, DMB and MFBs that will demonstrate commitment and capacity to support agriculture and value chains development in the geographic area of the project.</p> <p>To encourage the participation of the DMBs, an engagement will be initiated with them on the importance and goals of the VCN. There will also be technical assistance to the Banks under the programme. Already, a number of DMBs, DFI and MFBs have indicated interest to participate in the VCN.</p>
Credit Risk	
Non-payment of loan	<p>Loan disbursement will, to a large extent, be in kind to prevent loan diversion</p> <p>Loan repayment under the smallholder farmers will be in kind through the delivery of harvested produce in the right quantity and quality to off-takers/anchors who are to remit cash to the loan accounts of farmers in satisfaction of loan repayment</p> <p>VCN will explore part-guarantee on loans disbursed under the Programme with the Credit Risk Guarantee Institutions. Discussions will be held NIRSAL, and other FIs and projects interested.</p> <p>The SPCO will monitor project implementation by farmers and ensure satisfactory performance which aids loan repayment.</p> <p>Agricultural insurance will be provided for the beneficiaries.</p>

Response to Emergency and Disaster (RED)

This instrument will enable VCN to respond and adapt quickly in case of natural disasters, through a dedicated risk reduction disbursement allocation, not to exceed 5% of the undisbursed amount of the IFAD and AFD financing and any additional IFAD and AFD loans/grants eventually allocated to VCN as additional financing. Detailed implementation measures are provided below.

Activation. The following steps shall be followed to activate the RED:

- (a) The designated government agency²⁹ of the FGN determines that a crisis or emergency has occurred, and the competent body of the FGN declares a state of emergency in some or all of the VCN states, in line with government established procedures, laws and regulations around this subject.
- (b) The Borrower/Recipient (Federal Ministry of Finance), as specified in the Financing Agreement, submits a request to IFAD (see Appendix III.1.4.1) supported by a Preliminary Assessment of Damages and Needs (PADN, Appendix III.1.4.2) to activate the mechanism. A causal link between the crisis and eligible activities needs to be presented in the PADN to activate the subcomponent. The emergency must be linked to an event that has caused, or is likely to imminently cause, a major negative environmental, economic and/or social impact and this should be described in the document. Specifically, the PADN includes: (i) a list of activities to be implemented and the Procurement Plan (PP) to meet emergency and recovery needs; and (ii) the necessary safeguards and targeting mechanisms for the proposed activities.
- (c) IFAD reviews and provides a no-objection to the PADN instruments in order to start implementation. IFAD will reserve the right to not provide its no-objection or to partially accept the FGN request for any reason that will be officially communicated to the FGN in writing, including when IFAD estimates that the proposed activities are not in line with IFAD mandate or that IFAD beneficiaries are not likely to receive the benefits of the proposed activities.

Eligible expenses. An expense is considered eligible if it meets the following requirements and is adequately documented:

- (a) It must be directly related to the emergency, as stipulated in the official Emergency Declaration.
- (b) The expenditure is included in the PADN which was approved by IFAD.
- (c) The expense must have been incurred and paid during the eligibility period which is within 12 months of the IFAD no-objection provided to the PADN.
- (d) The expenditure relates to one of the eligible activities listed below.
- (e) The activity proposed to be financed is implemented within the geographical scope of the VCN as identified in the Financing Agreement.
- (f) The RED subcomponent financing envelope has not been depleted.

All other standard IFAD eligibility criteria are applicable to all expenditures falling under this subcomponent. This includes the right to IFAD to declare ineligible any expenditure for which sufficient supporting documentation is not available and for which the proof of reception of the activity by the final beneficiary is not fully documented. Any expenditure that may be declared ineligible will be refunded to IFAD in line with the Fund's standard procedures.

As specified in VCN Financing Agreement, eligible expenditures to this subcomponent will consist of the following financing categories: Training and capacity building, Works,

²⁹ The institution in charge of declaring the state of emergency as per government laws procedures and regulations should be communicated to IFAD during negotiation or at project start-up and included in the PIM.

Services, and Salaries and allowances. The eligible activity type for IFAD financing under each category is described in the table below:

List of eligible expenses	
Category	Description
Training and capacity building	(i) Crop productivity training, (ii) Small ruminants training, and (iii) Operation and maintenance training.
Works	(i) Rehabilitation of shallow wells, boreholes, dams for domestic water supply and livestock water points, and installation of elevated water tanks for domestic water storage, (ii) Rehabilitation of small-scale infrastructure, (iii) Rehabilitation of small access roads.
Good and inputs	(i) Procurement of production implements, including solar pumps, (ii) Procurement of small-scale machinery such as combined grain sheller/thresher and agricultural machinery for smallholder farmers, (iii) Procurement of fertilizers, seeds (crops, vegetables) and animal feed, and (iv) procurement of small ruminants.

The FGN cannot use emergency funds for military or paramilitary expenditures or any other explicitly stated expenditure excluded by the financing agreements.

Disbursement and financial management arrangements. The expenditures related to this subcomponent will be managed, incurred, accounted for and justified by the NPCO through the project designated account and in line with the procedures outlined in the PIM for all other project expenditures. Specifically, for this subcomponent:

- (a) The NPCO will coordinate with the designated government body for crisis relief in order to ensure that project efforts remain in line with government priorities and that no duplication with other financiers is taking place.
- (b) Disbursements for eligible activities will take place only after IFAD notification to the VCN that the FGN request to activate the RED subcomponent has received IFAD no-objection.
- (c) After receiving IFAD no-objection on the activation of the RED subcomponent, VCN will start the procedures to amend the relevant AWPB to include all eligible activities to be undertaken under this subcomponent. IFAD will accept that the agreed-upon activities and related expenditures are undertaken even before the AWPB amendment is formalized and received IFAD no-objection.
- (d) Specific procurement procedures may be applied to the expenditures related to this subcomponent.

Procurement. Detailed procurement guidelines will be further developed at start-up, in line with the guidance note on simplified project procurement for fragile and conflict affected situations.

Appendix: Request for activation of the RED Subcomponent

XXX Agency
Abuja, Nigeria
Date

Ms. Dede Ekoue
IFAD Country Director for Nigeria
Address

Dear Madam,

Ref: Activation of the Emergency Subcomponent of VCN

I have the honour to request the activation of the Response to Emergency and Disaster (RED) Subcomponent of the Value Chain Programme in the North of Nigeria (VCN) to cover emergency recovery activities for an amount equal toXXX *US dollars*, following the *crisis/emergency* occurring since the *date* in xx, xx, xx States.

Please find attached copies of the Government Communiqué declaring the Emergency, dated xxx, as well as the Preliminary Assessment of Damages and Needs.

Insert a paragraph providing a brief description of the emergency situation, the damage suffered and the activities to be carried out.

Please accept, Madam Country Director of IFAD in Nigeria, the expression of my distinguished feelings.

Signature

Name

Designation

Copy: National Programme Coordinator, VCN

Appendix: Preliminary Assessment of Damages and Needs

I. General Description of the Event						
Event type						
Event date						
Event time						
Circumstance of the event						
Cause of the event						
Affected area	National	<input type="checkbox"/>	Regional	<input type="checkbox"/>	State	<input type="checkbox"/>
	LGA	<input type="checkbox"/>	Community	<input type="checkbox"/>		
Affected population	Number of families			Number of persons		
Affected infrastructure	Accommodation _	<input type="checkbox"/>	Agriculture	<input type="checkbox"/>		
	Network infrastructure	<input type="checkbox"/>	Forestry _	<input type="checkbox"/>		
	Essential Infrastructure	<input type="checkbox"/>	Environment	<input type="checkbox"/>		
	Social Infrastructure	<input type="checkbox"/>	Trade	<input type="checkbox"/>		
	Water and sanitation	<input type="checkbox"/>	Tourism	<input type="checkbox"/>		
	Health	<input type="checkbox"/>	Industry	<input type="checkbox"/>		
II. Specific description of the event						
A	Event type:	Description:				
	Flood	Flooded area				
	Drought	Affected area				
	Bushfires/Fire	Magnitude, location of victims, risk of spread, specific risks				
	Epidemic and Epizootic	Type of condition, date of observation of first cases				
	Pests and Locusts	Type of pests, infested crops, infested areas, compromised production				
	If a specific scale is not available, provide a brief description of the event:					
B	Total affected population					

	Number of families			
	Number of persons			
	By gender	Men		
		Women		
	By social groups	Children		
		Old men		
		Disabled		
C	Affected social infrastructure			
	Total community centers affected			
	Community collection/activity centers completely damaged			
	Community collection/activity centers partially damaged			
	Description:	The type of construction		
D	Network Infrastructure			
	Total water and sanitation network affected			
	Network completely damaged (linear meters)			
	Network partially damaged (linear meters)			
	Destroyed infrastructure (to be described)			
	Partially damaged infrastructure (to be described)			
	Total road network affected (km)			
	Total Rural		Destroy	Damaged
	Total bridges		Destroy	damaged
	Description:	Type of road (lateritic, asphalt, rural track), type of bridges, etc.		
	E	Agroforestry sector		
	Agriculture			

	Type of crops:	
	Description:	Losses recorded (crops, equipment and infrastructure), area of crops/wood damaged, value of monetary losses, compromised production in tonnes, damaged agricultural equipment
	Type of crops:	
	Description:	Losses recorded (crops, equipment and infrastructure), area of crops/wood damaged, value of monetary losses, compromised production in tonnes, damaged agricultural equipment
Livestock		
	Kind	
	Description:	Number of heads lost, losses recorded by category (cattle, sheep, camels, horses, donkeys, poultry), values of losses recorded in monetary species, equipment and infrastructure
	Kind	
	Description:	Number of heads lost, losses recorded by category (cattle, sheep, camels, horses, asians, poultry), values of losses recorded in monetary species, equipment and infrastructure
Forestry		
	Type/Activity	

		Description:	Values of losses recorded in monetary cash, equipment and infrastructure	
		Type/Activity		
		Description:	Values of losses recorded in monetary cash, equipment and infrastructure	
F	Environment sector			
	Qualitative and quantitative description of damage			

Activity	Amount	Procurement method	Document to be used	Contract award date	Estimated completion date
Purchase of supplies					
XX					
Procurement of services					
XX					
XX					
XX					
XX					
Works					
XX					
XX					
XX					
Emergency salaries and allowances					
Total					

Activity	Applicable targeting mechanism and safeguards	Monitoring	Costs
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Number/name

Description

Number/name

Description

Number/name

Description

General safeguards

Supporting outstanding policy areas for VC development under VCDP

To enhance sustainability, VCN will support the outstanding policy areas from VCDP which will also likely influence the effectiveness of VC development under VCN, including: formulating guidelines for enforcing/controlling standards; developing a rural regulatory framework to address the abuse (especially produce diversion) of farmers/off-takers agreement; engaging the key actors to improve the security of investments and market enhancement; strengthening the framework for the establishment and operational scope of CAF at state level; and adoption of land development as one of the key functions of the government to improve access to agricultural land by SHFs.

III.3 MAINSTREAMING THEMES

VCN will mainstream gender, youth, nutrition, and climate and environment in the planning and implementation of all its activities.

III.3.1 Gender transformative

To be gender transformative and meet the specific needs of women in terms of economic empowerment, workloads and increase in voice, the project will:

- VCN will create opportunities for women as beneficiaries in their own right, with a quota of **40% of VCN beneficiaries being women.**
- Understanding that women are not a homogeneous group and that some subsets of women can be more vulnerable than others, specific attention will be placed on targeting young women and women-headed households (WHH). (Half of women targeted will be WHH).
- As part of its gender transformative nature, the project will promote women's access to land and work towards strengthening the enforcement of systems protecting women's tenure security.
- VCs and specific self-employment nodes of interest to women will be included among opportunities supported by the project. The matching grant scheme will provide more favorable terms to poor women given this social group's limited capacity to access financing.

Opportunities offered to women will seek to improve the resilience of food production for consumption and income with activities executed as close as possible to their homes. In locations in which access to land is a serious constraint and there is access to water, measures such as vertical farming in large bags will be promoted.

- Women will receive knowledge acquisition and skills development activities from the project in separate groups in communities where women and men do not generally participate in joint groups. Measures will be created for trainers to be women. Participants will be able to bring their children under 10 years of age to the training. The training will occur in locations in proximity to HHs of convenience to women at times that are suited to them.
- Special considerations will be employed to poor eligible women in polygamous marriages by including other co-wives who have a child under 15 years of age as additional individual beneficiaries (each of the eligible wives will be counted as a separate HH given their responsibility over their children). This measure seeks to avoid the distribution of project support given to one woman in a polygamous marriage among several wives and results thus not being achieved due to dispersion of investments.
- Additional gender equity measures will be employed, as needed, to ensure that women receive all the support required to effectively access project opportunities in line with the VCN's targeting and overall project strategy. This could include

integrating additional capacity building activities, easing procedures, and adjusting packages to enable poor women to achieve envisaged beneficiary outcomes.

- Support will be provided to women to create women's only cooperatives if this is women's preference.
- Women representatives will be involved at all moments in the project cycle to ensure that women receive information on project opportunities; that they understand application processes as well as the project's GRM (including SH/SEA) principles and procedures; and participate in beneficiary selection as well as in project monitoring and planning processes.
- VCN will include a robust zero tolerance policy to SH/SEA and be included in the project's GRM.
- The Gender Action Learning System (GALS) intervention will be offered primarily to men and women beneficiaries who are married (and to others when possible) to equip HHs to remove persistent gender barriers limiting women's empowerment and HH socio-economic progression. Given their responsibilities as managers of HH nutrition but men's heavy influence in their decisions, the project will embed nutrition in the GALS methodology.

The methodology will be employed as well in FOs, CAFs, and communities directly affected by conflict to develop a vision and path towards gender equality and socially inclusive development.

In addition to these programmatic measures, and to comply with gender transformative, the project will integrate measures at management level, such as training all staff on gender (as part of a broader training on social inclusion), GEWE responsibilities will be embedded in the job descriptions and contracts of all staff, performance appraisals will also assess the level of successful contribution in achieving gender transformation. A Social Inclusion Specialist will be hired at project HQ level and a social inclusion assistant in each State which will be responsible for all GEWE activities. The monitoring system will collect gender disaggregated data and determine if women are heads of household or not, and the ToC includes gender transformative pathways. Finally, the project will adopt a zero-tolerance stance towards SH/SEA; the GRM will include clear indications of procedures to follow in the specific occurrence of a case of SH/SEA.

The adoption of a gender transformative approach requires commitment at the highest level. While gender transformative projects have specific requirements to meet to be considered transformative, the absence of understanding, commitment and leadership at the highest level hampers its actual implementation. It will be necessary that in addition to the comprehensive set of measures outlined in this design, the project management structures are committed to making important advancements in GEWE.

III.3.2 Youth sensitive

As a youth sensitive project, VCN will integrate the following measures:

- **VCN will adopt a 30% targeting quota for youth aged 18-29.** Of these, half will be women and half men. Understanding that older youth (youth aged 25-29) are easier to reach by development interventions, the project will strive to also reach younger youth (youth aged 18-24); at least 30% of youth will be of the younger youth category.

- Capacity building measures will be adopted by the project to enable youth access to productive resources (land and investment capital); services, goods and skills adapted to their capacities and interests; and include them in all processes and groups supported by the project to ensure that: (i) youth receive information about project opportunities, eligibility criteria, application process and the project's GRM; (ii) participate in the selection process of youth and other social groups to be targeted by the project; (iii) ensure their voices are heard and taken into account

at all levels; and (iv) that they participate in project monitoring and planning processes.

- VCs and specific self-employment nodes of interest to youth will be included among those supported by the project, i.e., those offering quick returns and low capital investment and short cycle.
- Work with the Federal Ministry of Agriculture and Food Security to promote policy dialogue in relation to youth's sustainable access/tenureship to land.
- The incubation model promoted under VCDP and LIFE-ND, or the wage employment promotion efforts of the Agri-business hubs are not suited to the levels of poverty and underinvestment prevalent in rural communities in the States to the targeted by VCN.

Being a youth sensitive project, VCN will also integrate additional management measures to ensure that programmatic actions outlined above are effectively managed and achieve stipulated results. Among these are training of project staff on youth sensitive programming (as part of a social inclusion training), include responsibilities towards youth targeting and success in job descriptions, contracts and performance appraisals, allocate youth sensitive programming responsibilities to SI personnel, integrate youth pathways out of poverty in the logframe and equip the project's M&E system to capture beneficiary age, so that monitoring of targeting performance and beneficiary performance can be tracked regularly.

III.3.3 Nutrition and food security

The prevalence of malnutrition is high in the northern states. The North Western states (Zamfara, Kebbi and Sokoto) are the most affected by anemia in the country's prevalence rates in the range of 78%-84%. Dietary diversity is poor among women and children, and the proportion of women who consume five or more food groups, as well as children who consume foods rich in vitamin A and iron, is lower in the northern zone than the southern zone. More than half of the HHs in the North East (57.3%) and North West (51.5%) zones experience stressed food consumption, and a significant proportion of HHs in the North are in a crisis food consumption state³⁰. A complex web of factors contributes to food insecurity and malnutrition -- inadequate care for infants and young children leaving them vulnerable to illness and poor nutrition; limited access to healthcare, clean water, and proper sanitation, affecting basic wellbeing; armed conflict and banditry disrupting food production and access; erratic rainfall patterns destroying harvests; unemployment, poverty, seasonal food shortages, and volatile food prices trapping many in a cycle of food insecurity. VCN is **nutrition sensitive**. It will explore multiple impact pathways to address nutrition challenges in the targeted communities, using a nutrition lens to select priority VCs while aligning with context specific characteristics of each of the targeted states. Key actors at the national level for food security and nutrition are, the: Multisectoral Nutrition Coordination Mechanism led by the Federal Ministry of Health, which is also the Scaling Up Nutrition focal point in Nigeria, MBEP, and National Committee on Food and Nutrition, which is the national focal point for nutrition policy, programme planning, and coordination, as dictated by the National Policy on Food and Nutrition in Nigeria³¹.

III.3.4 Climate and environment

The semi-arid northern Nigeria is substantially covered by dry Sudan and Sahel savanna vegetation³². Agriculture is predominantly rain-fed and depends on 3-4 months of wet season rainfall. Flood, drought, soil erosion, heat waves, windstorm, desertification, land degradation, soil infertility, and pest and diseases are the most important climate risks

³⁰NCFMS (2021). Households in crisis food consumption in North West (42.3%) and North East (36.7%) zones.

³¹<https://nigeria.savethechildren.net/sites/nigeria.savethechildren.net/files/library/NPFN%20manual%20design%20%20v13.pdf>.

³²<https://openknowledge.worldbank.org/handle/10986/15811>

in the region³³. High exposure and sensitivity coupled with low adaptive capacity result in high vulnerability to climate and environmental change with concomitant impacts including disasters, resource conflicts, poverty, malnutrition, food insecurity and nutrition issues. Yields of the major VC crops including Rice, Sorghum, Maize and Millet are expected to decrease by as much as 25% in northern Nigeria by 2050 due to the impact of climate change. It is speculated that the widespread banditry and insurgency in the region is driven indirectly by climate change. The combination of disasters, conflicts and insecurity produced about three million IDPs in Nigeria in 2022³⁴, most of them in northern Nigeria. VCN will **mainstream climate and environment**, putting in place measures to minimize climate and environmental risks to agricultural production and food systems, strengthen resilience and reduce the impacts, while simultaneously improving the adaptive capacity of the beneficiaries. The VCN risk to **biodiversity** and the necessary mitigations are captured in the safeguard documents including the Integrated Project Risk Matrix (IPRM), and the Environmental, Social and Climate Management Plan (ESCMP) in both the Social Environmental Climate Assessment Procedures (SECAP) and the management and monitoring plans in the Environmental, Social and Climate Management Framework (ESCMF). VCN will also carry out an assessment of the biodiversity status across the programme area to provide more data on biodiversity to enrich the ESCMP and matching grants for climate smart and environmentally friendly production, processing, value addition, inputs, equipment and infrastructure for the beneficiaries, this will help mitigate climate and environmental risks, strengthen resilience and reduce the impacts while simultaneously improving the adaptive capacity of the beneficiaries for improved productivity, production, income and food security.

III.3.5 Financial inclusion

One of the challenges faced by the VCN target groups is access to affordable financial services, as well as markets. This limits the capacity of this category of people to have resilience to climate vulnerability, malnutrition and other crisis situations. VCN will help the beneficiaries build adequate levels of **financial inclusion** and **financial literacy** to enable them to manage their finances, develop budget strategies, avoid crippling debt, and plan for the future. VCN will develop partnerships to help access of farmers to financial support to carry out their small businesses and mitigate losses due to climate change

VULNERABLE GROUPS (women, youth, PwD, IDPs etc)

As per the project's targeting strategy all social groups will need to be integrated into all community groups of relevance to them. At FO level and in irrigation/water management associations, it is important that women, youth, IDPs and PwDs (as relevant) be given the opportunity to participate, their voices to be heard and for them to assume positions of leadership in these groups. Given the focus given to PwDs and IDPs under component 1 to production related activities, it is likely that the opportunity for social inclusion will be restricted to FOs. Women and youth however, should be considered as seed producers, road maintenance associations, infrastructure operation and maintenance groups and others.

III.4 PROGRAMME SUSTAINABILITY, SCALING UP AND EXIT STRATEGY

III.4.1 Sustainability

A sustainable VCN will produce project outcomes that improve efficiency and effectiveness of project delivery, enhance opportunities for private sector player participation and crowd-in for wealth creation, mainstream social inclusion, and generate transformative buy-in from the government that will elicit mainstreaming of VCN project

³³Participatory Climate Change Vulnerability Mapping and Training in CASP Areas. March 2021.

³⁴https://data.unhcr.org/en/situations/nigeriasituation#_ga=2.230200476.1815407674.1679758863-832797932.1679758863

approach into government core ministries' portfolios. In addition, it will also strengthen rural institutions and elicit popular participation and ownership from beneficiaries and communities. Sustainable management of environment and climate change will enhance assets at farm levels, deepen social networks, improve access to basic services, strengthen adaptive capacity and resilience, and enhance nutrition. A detailed sustainability plan would be developed at the start-up phase of the project and will highlight the key factors for sustainability such as required resources, responsible stakeholders, timeframe and monitoring and evaluation. The implementation of this strategy will be monitored during supervision and in-depth assessment of their results will be done during supervision MTR and PCR.

The major thrust for sustainability of VCN is addressing the high levels of poverty, vulnerability, food and nutrition insecurity, climate shocks, and social and financial inclusion challenges that affect SHFs and vulnerable groups in the fragile northern Nigeria states. For **climate, environmental and social sustainability**, VCN will ensure: the risk mitigation recommendations in the SECAP safeguard documents are adhered to during implementation; ICT4D is leveraged to deepen digital climate solutions; there is strong women involvement with emphasis on the processing stage of the VC which is more attractive for women; support for home gardens, especially for female IDP-returnees to promote income and nutrition; and involvement of PWDs in condition-appropriate VCs.

For **institutional sustainability**, VCN will: (i) leverage ICT4D to drive M&E, including developing a GIS database to track programme activities, improve data management and reporting; (ii) ensure that competent staff are recruited and trained before the commencement of implementation; (iii) promote strong buy-in of programme activities by the states, (iv) promote partnerships with relevant agencies to support programme implementation; (vi) strengthen the technical capacity of the rural institutions (vii) support policy dialogue and engagements: to encourage the states to mainstream VCN rural development activities into the core ministry portfolios. For **economic sustainability**, VCN will: (a) adopt the VCDP's 4Ps model, deepen private sector participation and market linkages, and access to finance; (b) promote VC crops that have a market; (c) equip the user community with skills for O&M of market infrastructure; (d) identify and build the capacity of key FSPs to continue service provision after programme completion; and (e) promote savings by the beneficiaries through their various FSAs, to qualify them to be linked with formal FIs.

III.4.2 Scaling up

The scaling-up strategy in VCN involves: (i) adopting a decentralized approach to scale up innovations, (ii) continuous learning and adaptation through regular feedback loops, impact assessments, learning and sharing of experiences; (iii) drawing insights from past IFAD and AFD projects to inform the adaptive approach to scaling-up successful activities; and (iv) focus on a few key monitorable innovations and results to scale-up. VCN will strategically focus on scaling up: (a) *expansion of the 4Ps model building on the success of the CAF collaborate with NSOs such as Babban Gona, to tap into their resources and expertise, for further scaling up innovative approaches;* (b) *implementation of e-vouchers for input distribution,* (c) *utilization of the data collected by tech companies as alternative datasets that enhance credit scoring engines,* for farmers to access credit without the need for collateral. (d) *leveraging agricultural credit guarantee facilities to support derisking loan processes for remote rural areas,* (e) *expansion of the community-based FSA arrangement across the participating states to increase the number of beneficiaries with access to credit.*

III.4.3 Exit strategy for VCN is flexible, considering that northern Nigeria is a very fragile context. The exit strategy which is linked to the sustainability objectives, will be factored into programme implementation from the stage of selection of the communities and activities, taking into account the beneficiaries' capacity to utilize the improved

knowledge and incomes, and manage the assets to be created under VCN. A detailed exit strategy and plan will be developed at the start-up phase of the project and will highlight the key factors for sustainability such as required resources, responsible stakeholders, timeframe and monitoring and evaluation. The implementation of this strategy will be monitored during supervision and in-depth assessment of their results will be done during supervision MTR and PCR. Key elements of the exit strategy are: (i) **ownership** by the communities, state governments, and the actors (ii) reinforced community **institutions**; (iii) sustained **market linkages** and collaboration (iv) **M&E system** continued after programme completion to assess performance and build knowledge for other projects, and (v) full deployment of **ICT4D** opportunities to manage fragility and insecurity. Strategically, the implementation of exit strategy will be formally assessed at MTR in Year 4, and then in Year 6 to capture emerging opportunities and challenges.

PART IV: ORGANISATION AND MANAGEMENT

IV.1 COMPONENT 3 - PROGRAMME COORDINATION AND MANAGEMENT

The expected outcome of this component is: an efficiently and effectively managed programme achieving results, with the core mainstreaming themes and monitoring and evaluation (M&E) and knowledge management (KM) integrated in all aspects of operations. This component establishes the guidelines and actions for programme management. ICT4D will be mainstreamed in the implementation of all the activities under this component through: applications such as Farm Monitor³⁵ that promotes project level management; and leveraging ICT4D tools with GIS capabilities for an integrated M&E and KM system to support project monitoring, reporting and evaluation and learning. Building on the experience of CASP, VCN will maintain a decentralized implementation approach to the community, with the participation of the private sector, and LGA, state and federal levels of government.

IV.2 ORGANISATIONAL SET-UP AND GOVERNANCE

IV.2.1 National level

At the federal level, a **National Steering Committee** (NSC) to be chaired by the Minister of Agriculture and composed of stakeholders representatives which will include: the Permanent Secretary of the FMAFS, Director of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Finance, Ministry of Budget and Economic Planning, Water Resources and Sanitation, Environment and Ecological Management, Women Affairs, Health and Social Welfare, and Labour and Employment, CBN, and a representative of Youth Group, will provide oversight to the implementation of VCN and approve the annual work plan and budget (AWPB). The National Programme Coordinator (NPC) will serve as Secretary to the NSC which is expected to meet once per year.

The **National Programme Coordination Office** (NPCO) based in Abuja will report to the FMAFS, through the FMAFS's Project Coordination Unit (PCU) and be responsible for: (a) developing the AWPB; (b) coordinating the procurement of goods, works and services for the implementation of programme activities; (c) integrating and up-scaling the successes recorded by previous and ongoing IFAD and AFD projects; (d) undertaking the M&E and knowledge management and communication (KMC) of programme activities; (e) reporting on implementation progress and results to IFAD, AFD and FMAFS; (f) facilitating policy dialogue; and (g) establishing linkages and partnerships with relevant national and regional research institutes and other key actors.

The NPCO shall comprise the following staff: (i) NPC, (ii) Senior Internal Auditor, (iii) Financial Controller (FC), (iv) Programme Accountant, (v) Procurement Specialist, (vi)

³⁵ <https://farmmonitor.africa/>

M&E Specialist; (vii) KMC Specialist; (viii) Agricultural Production Specialist; (ix) Rural Infrastructure Engineer; (x) Value Chain Specialist; (xi) Gender and Social Inclusion Specialist; (xii) Food and Nutrition Specialist; (xiii) Environment and Climate Change Specialist; and (xiv) ICT4D Specialist. Other specialist skills required at the NPCO will be recruited as consultants on specific terms of reference and assignment duration. All recruitment and secondment to the NPCO shall be on a competitive basis and subject to IFAD no-objection. Annex 9B has the terms of reference of the VCN staff.

IV.2.2 State and local government levels

At the state level, a **State Programme Steering Committee** (SPSC) chaired by the Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGOs and FIs, will provide oversight function on VCN and approve the AWPB. The SPSC will also facilitate the effective participation of relevant actors in the programme.

Each participating state will have a **State Programme Coordination Office** (SPCO) responsible for the coordination and supervision of programme activities in the state. Headed by the State Project Coordinator (SPC), the SPCO will have the following professional staff: State Programme Internal Auditor (who could be seconded from the Accountant General's Office), Agricultural Production Officer, Agribusiness Promotion Officer, Rural Infrastructure Officer, Rural Institution & FOs Officer, Food and Nutrition Officer, Gender & Youth Officer, Environment and Climate Change Officer; M&E Officer, KMC Officer, State Programme Accountant, State Programme Finance Officer, Procurement Officer, and Administration & Logistics Officer. The more suitably qualified of either the M&E Officer or the KMC Officer will be the focal point for coordination of ICT4D activities. Other subject matter specialists will be hired as consultants when the need arises. All professional staff shall be recruited on a competitive basis. Competent and competitively engaged service providers will support programme implementation based on a service contract.

At the LGA level, VCN will maintain a **Desk Office** in the Department of Agriculture. The Local Government Desk Officer (LGDO) will be responsible for sensitization and advocacy at the community level under the guidance of the SPCO and will also participate in the selection of programme beneficiaries. At the **community level**, VCN will strengthen the existing CDAs and FSAs through capacity building and promote the formation of new CDAs and FSAs where they do not exist to promote further agribusiness among youth and women.

IV.2.3 Programme supervision

VCN will be directly supervised by IFAD jointly with AFD and the FGN. Supervision and implementation support missions will be organized annually to review progress and assist implementing partners and the NPCO in improving programme implementation. Standard IFAD procedures for project supervision will be used covering all aspects of implementation including SECAP requirements. Annual supervision missions will be complemented by continuous engagement from the IFAD Country Office (ICO), supported by consultants, regarding strategic elements of VCN.

Midterm and completion reviews. A joint Midterm Review (MTR) will be carried out in the fourth programme year and a Programme Completion Report (PCR) prepared by the end of the programme. VCN will undertake more in-depth surveys that are in compliance with IFAD Core Indicator Guidelines to evaluate whether the programme is on track to achieve its goal and development objective. At MTR, more comprehensive corrective action can be undertaken to align programme activities with intended outcomes and impacts. The NPCO will submit to the annual supervision, MTR and PCR missions full progress reports at least two weeks before the missions are deployed. The progress reports will include comprehensive M&E data on outputs, outcomes and impacts, and documentation on financial and physical progress against the AWPB.

Government role. All the missions will have the participation of the FMARD, especially the PCU, and FMF, especially its International Economic Relations Department (IERD). Proposals for restructuring or extension of the programme will be initiated by the FMARD and endorsed by the FMF before a consideration by IFAD.

IV.3 PLANNING, MONITORING AND EVALUATION

IV.3.1 AWPB

The planning of activities will be inclusive, and collaborative starting at the community level and led by the staff in the LGA. It will be based on the activities needed to achieve the targets of the project. Each AWPB will clearly specify: (i) key activities; (ii) specific unit targets; (iii) expected outputs the activity is contributing to; (iv) timeline for each activity; and (v) responsible reporting parties. The LGDO will be responsible to compile a plan of the agreed activities and share it with the SPCO, which will consolidate all the planned activities and the required budgets from the LGAs. The State M&E Officer is responsible and accountable for this consolidation activity and to ensure that the State AWPBs are in line with the VCN AWPB templates and submission timelines. All SPCOs will submit their AWPB to the NPCO for review, consolidation, validation, and timely submission to the financiers for official approval.

IV.3.2 M&E The VCN M&E system will: (i) better inform the Federal and State Governments, NSC, NPCO, and implementing partners on the progress in implementation; (ii) provide reports of results-based evidence in assessing the programme development effectiveness through routine monitoring of outputs and outcomes that are attributed to the Theory of Change; and (iii) ultimately, inform decision making. The M&E system will leverage on the key national agenda that aims to develop efficient and integrated digitalized systems of development interventions. With guidance from IFAD and the IFAD ICT4D Team, VCN will develop an MIS-based system that will be used for data storage, analysis and reporting. The MIS will have a planning module that will allow the AWPB planning process to be digitized. Moreover, the project MIS will be linked to data collections tools such as Kobo toolkits, ODK, etc. to ensure consistent field data collection. The design of VCN has allocated an adequate M&E budget to ensure that required M&E-specific capacity building investments and activities are conducted. These activities include baseline, mid-term, and completion outcome surveys, thematic studies, etc. The M&E system will align seamlessly with the mainstreaming approaches guiding VCN, incorporating disaggregated data (by gender and age), and will also measure progress towards targeting quotas and performance of different target groups. The data gathered will be used to finetune the VCN's guiding principles and operational strategies. Finally, VCN will benefit from the lessons learned and experiences of the country portfolio on M&E including the success story of VCDP which benefited from impact assessment in IFAD11.

Start-up linkage with M&E

The VCN start-up phase with integrated M&E linkages will include the following as the project will:

- **Conduct a comprehensive Baseline Survey:** the VCN project will gather baseline data on key indicators to establish a reference point for future M&E activities. This includes, but not limited to, data on agricultural practices, productivity levels, market access, and socioeconomic conditions.
- **Develop a Clear Project Plan and Timeline:** In line with the PDR, the VCN PMU will set clear, measurable, and achievable project objectives and goals and create a detailed project timeline outlining the phases of implementation, milestones, disbursement plan, and deadlines.
- **Establish a Robust M&E Framework:** the VCN team will use the set of indicators in the project LogFrame as downloaded in ORMS to monitor progress, measure outcomes, and assess the impact of the project. These should cover areas such as productivity, income levels, sustainability, and social impact. The

M&E at start-up should also highlight strategies for regular data collection processes to track progress against the baseline and project goals.

- **Utilize M&E Tools:** Considering the importance of ICT4D, the project at start-up is expected to use M&E tools and software for data collection, analysis, and reporting.
- **Conduct Training Needs Analysis:** the VCN project will conduct training need analysis to identify the specific M&E training needs of project staff, including technical skills in data collection, analysis, interpretation, and reporting. In addition, it is important to determine the level of proficiency required for different roles within the M&E framework, such as M&E officers, field monitors, and project managers.
- **Conduct Capacity Building and Training:** Following up on training needs analysis and for effective start-up, implementation, and completion, the VCN project will invest in comprehensive M&E capacity building and training.

M&E Plan. A lesson learned from previous and existing projects in the IFAD portfolio, is that most projects have had challenges in having a strong operational M&E plan that guides how M&E will be conducted throughout the project period. Guidelines have been provided (see annex 9C) in the PIM for the development of an M&E plan. In addition, sufficient budget allocation has been made to support the development of a robust M&E plan. The PIM also provides a glossary of the IFAD core indicators definitions and methods of measurement and reporting to ensure that the definitions and means of measurement of indicators are well understood.

Core Outcome Indicators (COIs) surveys. VCN will conduct mandatory periodic core outcome surveys at baseline, midterm and endline. These surveys will be in line with the IFAD COI guidelines and methodologies provided in the PIM. The baseline must be conducted within the first quarter of implementation in the first year. VCN should ensure that a baseline is conducted covering treatment and control groups. In addition to the COI surveys, after MTR, VCN will conduct thematic studies on the targeted value chains. The findings of the studies will be used for policy engagement and partnerships in the context of planning the exit strategy of the project. These activities are adequately and specifically budgeted for in the project COSTAB.

IV.4 KNOWLEDGE MANAGEMENT AND COUNTRY LEVEL POLICY ENGAGEMENT (CLPE)

IV.4.1 Knowledge management, communication (KMC) and learning

Lessons have shown that KM is improving in the IFAD-funded projects in the portfolio. VCN will develop a KMC Strategy which will reference the experience of other projects and provide tools to ensure the dissemination of information about the programme, visibility of programme interventions, knowledge transfer, and participation of key stakeholders and programme beneficiaries. The strategy should elaborate on the following KM areas: (i) provide programme beneficiaries with the necessary material to sustain the technical knowledge acquired with the support of VCN through production of training materials and communication platforms for sensitization, and continuously assess their adoption; (ii) generate evidence-based knowledge acquired from the experience of the VCN in various fields based on the information collected as part of the monitoring of results or thematic studies to inform decision making at implementation and evaluate the Theory of Change; and (iii) share this knowledge in the form of tailored KM products with the technical departments of the FMAFS, IFAD, AFD, other donors, and implementing partners to help to complement the VCN policy support activities.

The KMC Strategy will aim to develop and create channels of policy influence and dialogue through lessons, case studies, analysis of M&E impact data, and policy

briefs/strategies to be disseminated to an audience of high-level policy stakeholders in the agricultural VC sector at the state and national levels. For knowledge dissemination, VCN will reach targeted audiences through learning events, policy discussions, and contribution of lessons and knowledge to IFAD knowledge platforms for dissemination beyond the country.

Digital Integrated KM System. With the Portfolio visit to Kenya IFAD funded projects (KCEP-CRAL in Kenya) where VCDP and Life-ND project teams participated, in addition to developing a KM strategy, VCN can leverage this initial development and increase the possibility of improving beneficiaries and implementing partners in being more involved in providing efficient digital field implementational feedback and data that will supplement knowledge and learning, especially in the conflict and fragility context. This will be facilitated through digitally-based data mining reporting and communication from the MIS to analyze key trends in producing evidence-based KM products. This can be harmonized in a single project integrated system initiative that shows has been effective and works in Kenya. Operationally, there is positivity that it may be steered by CPAT to effectively ensure that 'what works' or 'does not work' knowledge is effectively disseminated among all stakeholders and is being utilized to develop KM products and influence policy. VCN will also refer to and utilize the information and tools available on the IFAD KM Resource Centre.

IV.4.2 Country Level Policy Engagement

For IFAD, policy engagement at the country level serves two critical purposes. First, it can help to create an enabling environment for project implementation and for achieving project impact. Second, it can contribute to creating the conditions for large numbers of rural people to move out of poverty, at a scale that no single project can address. The COSOP 2024-2029 incorporates support for policy reform through programmes as well as additional Technical Assistance to directly support the policy reform process. IFAD's development goal for 2024-2029 is to "promote inclusive and resilient growth of the rural economy through market-driven, agri-food system transformation for food and nutrition security". To achieve this, COSOP will address the root causes of fragility and will pursue two strategic objectives (SOs): (i) **SO1: Sustainably increase rural people's productive capacities**; and (ii) **SO2: Strengthen the organizational and policy frameworks, for inclusive and resilient agricultural value chains**.

VCN's alignment with the IFAD CLPE. In line with the COSOP 2024-2029, VCN will support the government in implementing inclusive and innovative food system policies that also address spillovers of national and regional fragility and sociopolitical instability. To this end, VCN will prioritize the following In line with the COSOP 2024-2029, The Value Chain North (VCN) will support country level policy engagement aiming at Promoting an enabling policy, institutional framework and social cohesion, as well as developing and supporting policies and strategies, institutions at the community, local, state and national levels. They will also take into account, in the development of enabling policies and strategies, the major challenges articulated by beneficiaries during field consultation missions. These include: (i) low productivity, financial difficulties and limited access to market; (ii) economic inclusion of vulnerable groups (women, youth, PWDs, IDPs returnees) in the development of agricultural value chains and rural agribusiness; (iii) The inability of most of the rural institutions (FOs, CDAs, FSAs, CAF) to fulfill their role towards their members and to influence the rules and regulations affecting their strategic interests in the development of agricultural value chains; (iv) Gender inequality, limited access to land of women and youth and lack of social cohesion; (v) recurrent conflict over resources between smallholder farmers and herders; (vi) sustainability of results and achievements. To this end, VCN under subcomponent 1.3 will prioritize the following:

1. Leverage ITC4D innovations to build capacity and to enhance efficiency, sustainability, and inclusiveness throughout the 6 subcomponents of the project. VCN's ITC4D Policy dialogue and engagement includes:

- At the national level: support to (i) the implementation of the digital Innovation Action Plan 2024-2029 to catalyze commodity value chain development; (ii) South South triangular cooperation through exchange of best practices.
 - At the states level: Support to the development of digital agricultural platforms and training aimed at collecting, analyzing and disseminating agricultural data including information on weather patterns, soil health crop performance, market prices, and supply chains.
 - At the LGAs level: development and implementation of a comprehensive digital literacy training program tailored to the needs of farmers and agricultural workers, focusing on the use of mobile apps, online marketing platforms, and precision farming tools.
2. Promote and strengthen territorial dialogue spaces and facilitate the creation of platforms for collaboration among various stakeholders, including farmers, pastoralists, government officials, civil society organizations, and private sector actors. These dialogue spaces will serve as forums for discussing issues related to value chain development, resource management, conflict resolution, and social inclusion, thereby promoting consensus-building and decision-making at the local level.
 3. Build capacity for promoting a gender transformative agenda through (a) mainstreaming gender considerations across all the VCN activities, ensuring that women have equal access to resources, training, and market opportunities. (b) using GALS as a reliable gender inclusion tool for equality; (c) promoting gender-sensitive approaches, policies and practices ensuring equitable access to resources, benefits, and opportunities for both men and women; (e) engaging men and traditional leaders as allies in promoting gender equality and challenging harmful gender norms and stereotypes that perpetuate discrimination and exclusion; (f) managing fragility and enhancing social cohesion.
 4. Ensure advocacy with relevant government actors and traditional authorities to support women and youth equitable access to land.
 5. Strengthen the capacity of FOs, FSAs, CAF and other rural and community-based institutions and committees to enable them to have a voice in policy dialogue. By providing training in leadership, entrepreneurship, and agricultural best practices, VCN will empower farmers and youth to participate more actively in policy dialogue, advocacy with relevant authorities for equitable access to land.
 6. Target and support three functioning multi-stakeholder platforms and three new laws, regulations, policies or strategies to enhance conflict management, inclusive, resilient and profitable value chain development as well as nutrition and food security in line with the Agri Food System Transformation Agenda.
 7. Enhance the management mechanism of Fragility conflict resolution and promotion of Social Cohesion by fostering inclusive dialogue, promoting economic opportunities for marginalized groups (women, youth, PWDs, IDPs returnees), and addressing underlying drivers of conflict and fragility.
 8. By building trust and cooperation among diverse stakeholders, strengthening effective conflict management and resolution mechanisms between SHFs and pastoralists (through Community peace committees, religious and traditional rulers), developing strategy for sustainability of results and achievements, VCN will contribute to peace building and resilience in fragile environments.

Expected outcomes of the promotion of an enabling policy, institutional framework and social cohesion.

The implementation of Subcomponent 1.3 will lead to the following outcomes:

1. Enhanced inclusiveness, efficiency and sustainability through ITC4D innovations
 - Integration of Information and Communication Technology for Development (ITC4D) at the National, State and Local level, leading to (i) increased capacity building of

stakeholders; (ii) inclusiveness, wider participation and improved efficiency and sustainability.

2. Strengthened territorial dialogue space

- Establishment and enhancement of platforms for collaboration among farmers, pastoralists, government officials, civil society organizations, and private sector actors.
- Creation of forums for addressing value chain development, resource management, conflict resolution, and social inclusion leading to economic empowerment and improved livelihoods, reducing economic drivers of conflict.
- Promotion of consensus-building and local-level decision-making, leading to improved stakeholder engagement and cooperation.

3. Improved gender transformative agenda

- Mainstreaming of gender considerations in all VCN activities, (i) engaging men and traditional leaders as allies in promoting gender equality and challenging harmful norms; (ii) ensuring women have equal access to resources, training, and market opportunities.
- Use of the Gender Action Learning System (GALS) to promote equality and inclusion.
- Addressing fragility and enhancing social cohesion by promoting gender equity and inclusion.

4. Improved equitable access to land

- Active advocacy with government actors and traditional authorities to ensure women and youth have equitable access to land.
- Support for policy changes that facilitate land access for marginalized groups.

5. Strengthened farmers' organizations and community institutions

- Strengthening the capacity of Farmers' Organizations (FOs), Financial Services Associations (FSAs), Community Action Forums (CAF), and other rural institutions.
- Training in leadership, entrepreneurship, and agricultural best practices to empower farmers and youth.
- Enhanced ability of these groups to participate in policy dialogue and advocacy for equitable land access.

6. Supported multi-stakeholder platforms and policy development

- Targeting and supporting three functioning multi-stakeholder platforms.
- Development of three new laws, regulations, policies, or strategies aimed at enhancing conflict management, value chain development, nutrition, and food security.

- Alignment with the Agri-Food System Transformation Agenda for resilient and profitable agricultural development.
7. Enhanced community trust leading to a reduction in conflicts
- Contribution to peace building and resilience by fostering inclusive and effective conflict resolution strategies, promoting social cohesion and conflict resolution through inclusive dialogue and economic opportunities for marginalized groups.
 - Strengthening conflict management and resolution mechanisms, such as community peace committees and engagement with religious and traditional rulers. Provide training in mediation techniques and dispute resolution methods.
8. Sustainable results and achievements
- State agency and funds: Promote the establishment of state agencies and sustainability funds to support the long-term achievements of the Value Chain North Network.
 - State agency involvement: Support the establishment and functioning of state agencies to oversee the sustainability of the VCD project's achievements. Establish sustainability funds to ensure long-term project impact.

IV.5 TARGET GROUP ENGAGEMENT AND GRIEVANCE REDRESS

14.5.1 Target group engagement and feedback

All target groups will be engaged throughout the project cycle, from the launch to mobilization, beneficiary selection, implementation as well as planning, M&E, through their representatives. VCN will use participatory processes that will enable beneficiary participation. Planning and monitoring meetings will be carried out at least once a year in each target LGA with inclusive participation from communities served. People participating in these venues will be selected by their local constituencies and provided with all necessary information to ensure they can actively participate in relevant programme-related processes. Information disseminated by VCN, and agreements made with communities will be made available in the LGA offices, and institutions representing the interests of all target groups for a period of three months. Quality of beneficiary participation will be assessed taking into account the selection process of existing and new FOs. The process of selection of the beneficiaries, LGAs, and communities will be in line with criteria defined in the PIM, and at the end of the process, it will be possible to assess the level of participation of beneficiaries and other key stakeholders. During the implementation of activities, VCN will engage the various community groups to confirm the needs, priorities and constraints of the beneficiaries, as well as issues such as access to land and other in-kind contributions, and capture beneficiary views around areas that require greater attention.

The **stakeholder engagement plan** (SEP) has identified the key stakeholders including Project Affected Parties (PAP), Interested Parties, and Disadvantaged and Vulnerable Persons and Groups. It has also identified their levels of influence and interests. The identified PAP include host communities in project area, community members in the project host communities, crop farmers, livestock farmers and pastoralists (who will benefit from water source provision), CDAs, FOs, women groups, other community associations and groups, etc. This group has a low influence, but high interest in VCN. They are mainly potential project beneficiaries. The vulnerable or disadvantaged groups in the context of this project, include elderly people above the age of 65, female headed HHs, PWDs, people living in extreme poverty (e.g., unemployed youths), IDPs, orphans, migrant laborers, etc. This group of people also have a high interest but low influence

on the project. Efforts to engage with stakeholders for the VCN Project has started from the PCN stage and extended during the field visits during the project design mission. Public consultations were held with the key line ministries at Federal and State levels (Agric and Food Security, Finance, Women Affairs and Social Development, Environment, etc.). Stakeholder engagements were convened in Sokoto, Kebbi, Katsina, Kano, Borno and Yobe states (with representatives from Yobe converging in Borno). The stakeholders consulted potential project beneficiaries (and likely project affected parties that include vulnerable people) including farmers organization, women organizations, PWDs, NGOs and CSO, traditional/community leaders, private sector operators (including banks, insurance, large scale processors and off takers) and development agencies.

Without focused assistance, the PAP and vulnerable or disadvantaged groups may not be able to participate in the decision-making process of VCN. The plan is to focus efforts on these groups of stakeholders throughout the project cycle, involving them in regular consultations, ensuring adequate use of the grievance redress and feedback channels to engage and keep them in the loop on decisions that will influence project design and implementation. The Interested Parties are made up of stakeholders who may not be directly or indirectly impacted by the project but have the potential interest to influence the project outcomes through their statutory functions and mandates or other factors. They include Ministries, Departments and Agencies (MDAs) with statutory roles in the implementation of VCN in the participating states. They include the FMAFS, FMF, and other interested MDAs at federal levels, and the Office of the State Governor and MDAs related to Agriculture, Finance, Environment, Water Resources, Women Affairs, Humanitarian Affairs, etc at the state level. This group also includes NGOs, CSOs, CBOs, and traditional/community leaders, etc.

IV.5.2 Grievance Redress

The Grievance Redress Mechanism (GRM) identifies potential issues that may necessitate grievance redress and mitigation, providing access to information on a regular basis to help prevent grievances from arising in the first place, or from escalating to a level that can potentially undermine project performance. The potential issues include community member not adhering to cut-off date as announced during consultation, dispute about ownership of assets, delay in disbursement and improper distribution of assistance, land acquisition, restriction of access and displacement, non-inclusion of community members as project beneficiary and paid labour/workforce; unclear beneficiary inclusion/exclusion criteria, unrealistic corporate social responsibility (CSR) expectations from the client or contractors by community members, omission of eligible PAPs, delay in execution of sub-projects leading to breakdown of trust, non-implementation or discrepancies in the implementation of safeguard documents, and potential risk of GBV, SH and SEA + as a result of project implementation, among others. The GRM will meet internationally accepted criteria³⁶. VCN will activate IFAD's GRM procedure that allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. The NPCO, the SPCOs and IFAD will be committed to: (i) working proactively with the affected parties to resolve complaints;(ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions³⁷; and giving specific attention (in line with IFAD guidelines) to SH/SEA. This includes developing a specific protocol for any case of GBV that contemplates a) protecting survivors with prompt interaction, empathy and information; and b) holding perpetrators associated with the project accountable in line with national legislation.

³⁶Office of the High Commissioner on Human Rights (OHCHR) (2011), UN Guiding Principles on Business and Human Rights, Geneva, pp.33-34. The criteria include: (a) Legitimate: enabling trust from the concerned stakeholder groups (b) Accessible: being known to all concerned stakeholder groups; (c) Predictable: providing a clear and known procedure with an indicative time frame for each stage; (d) Equitable: seeking to ensure that aggrieved parties have reasonable access to sources of information, advice and expertise; (e) Transparent: keeping parties to a grievance informed about its progress, to build confidence in its effectiveness; and (f) Rights-compatible: ensuring that outcomes and remedies accord with internationally recognized human rights.

³⁷IFAD(2016), Managing Risks to Create Opportunities. IFAD's SECAP (IFAD:Rome), p.12

Information Disclosure. VCN SEP will make provision for disclosure of safeguard documents to project-affected and other interested stakeholder mapped during stakeholder’s identification exercise.

IV.6 STRATEGIC PARTNERSHIPS

In line with the COSOP’s approach of supporting the national food system transformation agenda, VCN will foster strategic partnerships with: (i) the AFD-funded Rural Access and Agricultural Marketing Project (RAAMP), ongoing IFAD **projects** – Value Chain Development Programme (VCDP), Livelihood Improvement Family Enterprises Project in the Niger Delta (LIFE-ND) and the SAPZ Programme, as well as relevant projects of other **development partners** such as the German Agency for International Development (GIZ), World Bank, and United States Agency for International Development (USAID); (ii) the **Farm Settlements Scheme** for youth and women, established in all the states by the MBEP; (iii) **public sector** agencies including the Agricultural Development Programme (ADP) in each state; (iv) **private sector** actors such as CAF, off-takers, agro-input dealers, and ICT4D agritech/fintech/ climatetech firms; (v) **non-sovereign operations** (NSO) like Babban Gona, which promotes sustainable access to markets and digital solutions; (vi) **CSOs**, including gender advocacy groups; (vii) **research** organizations for technology development; and (viii) Food and Agriculture Organization (**FAO**) for linkage with the UN Food Systems Summit Coordination Hub, World Food Programme (**WFP**) for linkage of VCN farmers to the agency’s promotion of supplementary food production from local materials, and the United Nations Children’s Fund (UNICEF) which supports the implementation of the National Plan of Action on Food and Nutrition, and in the northern states, supports community level nutrition centers. Other key international strategic partners include UN-WOMEN, International Institute of Tropical Agriculture (IITA), Global Center on Adaptation (GCA), Heifer International, Details of VCN’s strategic partnerships are in Key Files Table 6.

IV.7 FINANCIAL MANAGEMENT (FM)

The FM arrangements for VCN have been designed with consideration for the fragile and conflict situation in the North while considering the IFAD’s minimum requirements, which describes the overall guidance on FM considerations. The FM system of VCN must be capable of: (i) correctly and completely recording all transactions related to the project; (ii) facilitating the preparation of regular, timely and reliable financial statements; (iii) safeguarding the project’s assets; and (iv) being subject to auditing diligences as required by IFAD. The arrangements also aim to facilitate disbursement and ensure effective use of project resources while using the country’s own systems to the extent possible. Regular risk assessments will continue to inform risk-based IFR disbursement adopted by IFAD. Proper ring-fenced NPCO, and SPCOs will be set up to uphold IFAD’s fiduciary responsibilities. Additional efforts will be made to ensure that project staff, implementing partners, and stakeholders, are familiar with IFAD and national anti-corruption policies.

Objectives of Financial Management System

- 1.

Objectives of Financial Management System

1. Proper oversight and management of financial resources are key to IFAD’s ability to reach its objectives and demonstrate to its stakeholders that adequate governance arrangements are in place. Project Financial Management is a key contributor to IFAD’s governance structure through risk based fiduciary assurance (compliance) and the performance of value-added inputs. Financial management also contributes to IFAD’s development effectiveness through supporting improved delivery and achieving higher disbursements.

2. IFAD adheres to its development commitments as a maturing IFI and reliable development partner, enhancing its business model and strategic operational development through harmonized financial management best practices, development of modernized operational policies and knowledge management.

Good Financial Management

3. The Agreement Establishing IFAD requires that the proceeds of loan and grant financing are used solely for the purpose/s intended under the related agreement and by the activities described in the annual work plan and budget. Financial Management refers to the budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements by which borrowers and recipients receive funds, allocate them, and record and report on their use.
4. Good Financial Management is important to a country's development because it provides assurance to citizens that their taxes are being used appropriately to donors and lenders that the funds they provide are being used as intended, and to the private sector that there is an appropriate environment for investment and growth.

Risk-Based Assurance Framework

5. IFAD follows a risk-based assurance methodology to systematically assess and mitigate fiduciary risks. A fiduciary risk rating is initially assigned following assessment during the project design stage. The fiduciary risk rating is subject to ongoing review and may be either validated or refined based primarily on findings made during annual supervision and implementation support field missions. Through the application of the risk-based assurance framework, supervision requirements and disbursement processing arrangements are determined and modified, to ensure that the fiduciary risks are effectively mitigated throughout the project lifecycle. The details of program risks and mitigation measures is presented in the IPRM.

Use of Country Public Financial Management Systems (PFM)

6. IFAD is committed, along with other donor partners, to operationalize the aims of the Paris Declaration, the Accra Agenda for Action, and the Busan Partnership to further align IFAD procedures and practices with country PFM systems.

Public disclosure of project financial data

7. Publicly disclosed project audit reports can be accessed through the [corporate document repository](#) and, where available, on the [project pages](#). The earliest available project audits cover the financial year 2017-18. As of 2019, public disclosure is mandatory for all IFAD-financed projects.

Strategy for Addressing Weak Areas

8. When adequate financial management is not properly addressed in programs, it can lead to reporting incorrect amounts to authorities for tax and regulatory purposes. Weaknesses in financial management controls have clear causes and remedies. It is

important to identify the problem areas, determine why the controls are not effective and apply the corresponding corrective actions.

Documentation

9. A major weakness in financial management is a lack of adequate documentation. Whether records are in paper or digital form, financial management has to be able to reconstruct who initiated an action, such as a payment; who approved it; who modified it, if it was modified; who executed it; and what resulted from the action. Adequate documentation of activities establishes who was responsible for an action if a problem arises later.

Function Segregation

10. Critical activities, such as engagement of expenditures, have to be segregated into multiple tasks carried out by different employees. Having the same employee handle the whole process constitutes a weakness in internal financial controls. Typically, one person issues the check, while two or more others sign it and another employee sends it out and enters it into the books. Separating functions makes fraudulent activity more difficult.

Training

11. If the Program must prepare financial statements in accordance with certain standards, the employees responsible for the work must be familiar with the standards, program policies and internal controls. Inadequate training of employees in key positions of responsibility constitutes a weakness in internal financial management.

Authorization

12. Neglecting to track approvals to make sure that employees are not exceeding their authorization levels is a key internal control function weakness. Employees have authorization to sign for certain functions and spending limits below which they can approve expenditures. If an employee doesn't respect his limits, it represents a serious weakness in internal financial controls

Reconciliation

13. Employees compile important variables within a business from multiple sources. For example, they may take physical inventory of products on hand but also calculate inventory from products received and products sold. A lack of reconciliation between the two sources is a weakness in internal financial controls. Reconciliation identifies the differences between the two sources and finds explanations that result in improvements. A lack of reconciliation means the business doesn't account for differences.

PLANNING AND BUDGETING

Planning Principles

14. The NPCO has major components and a range of implementing activities under each component and by various implementing agencies and participating states that should reinforce each other and jointly lead to achieving the objectives of the project. Clear AWPB is essential in order to integrate all activities and to coordinate the efforts of the different implementing states and entities.

Three Levels of Planning

15. Planning is not just preparation of an AWPB. Throughout the life of the project, planning should take place at three levels: (a) strategic, (b) annual work planning, (c) short-term planning

- a. Strategic Planning.* A good strategic or logical model is a critical element for a project to succeed. Initially this strategy is defined in the project design document but the NPCO will increasingly use their own analysis of what has happened, the external assessments, the participatory planning and actual implementation experience to compliment the project design. To facilitate this process, a strategic review should take place at least once a year, before planning and budgeting for the next year. Review of the Logical Framework is also important.
- b. Annual Planning.* IFAD-funded projects are implemented based on an approved AWPB, and annual planning therefore is the most important planning activity. Annual planning is expected to do four things:
 - i. Take local needs and priorities on board
 - ii. Review and where needed adjust the project strategy
 - iii. Set realistic targets for the year in line with implementation capacity
 - iv. Produce an AWPB based on inputs from the states that can direct implementation by different implementers, service providers and facilitate monitoring.
- c. Short-Term Planning.* An AWPB only defines project activities in general terms but cannot contain operational details of these planned activities. For example, an AWPB can indicate the construction of an office but not when, how, and how many bags of cement will be procured for the construction of this office. Each implementer therefore should use the AWPB as a starting point, together with the procurement plan, but needs to set its individual work.

Development of the AWPB

16. The Annual Work Plan and Budget (AWPB) and Procurement Plan will be prepared each year using the bottom-up approach. A joint (AFD, IFAD) AWPB will be developed by the NPCO and SPCOs. These budgets will be approved by the steering committees at the Federal and State levels and granted NO by the co-financiers. This exercise will commence in July each year by when, the NPCO would have prepared their plans based on the market potential and expressed demands of the FOs through the Value Chain Action Plans (VCAPs) and the clusters. The cluster level plans will be prepared with assistance from the SPCO and full participation of the beneficiaries and required inputs and information from service providers. The consolidated plan (state level) will be placed before the respective SVCSC by 15 September each year. After approval from the SVCSC, these Plans ratified at state level are later forwarded by the SPCO to the NPCO. The NPCO places the draft Plan before the VCSC for information and approval.

17. The NPCO shall prepare a consolidated final AWPB for each Program year to be submitted to the Fund for no-objection no later than sixty (60) days before the beginning of the relevant Program Year – 1 November. The AWPBs would include inter alia a Procurement Plan, a detailed description of planned Program activities during the coming Program year, and the sources and uses of the proceeds of the IFAD Financing. The AWPBs shall also provide the basis for identifying the amount of counterpart funds to be provided each year upfront by the Federal, State and Local Governments. AWPB for each financial year will be the responsibility of NPCO.

Stages in AWPB Preparation, Review and Planning Calendar

18. The AWPB of the first year of the project is usually based on the project design document and is prepared by a small team of experienced staff. From year 2 onwards, the decentralized and participatory approach should take over. Three important sources of information should be used by the NPCO and participating states:

- a. The project design document and the Log Frame
- b. The findings of needs assessment and participatory planning exercises in the states and local government levels
- c. The findings of annual strategic review and performance evaluation (review workshops, supervision missions, special reports from consultants etc.)

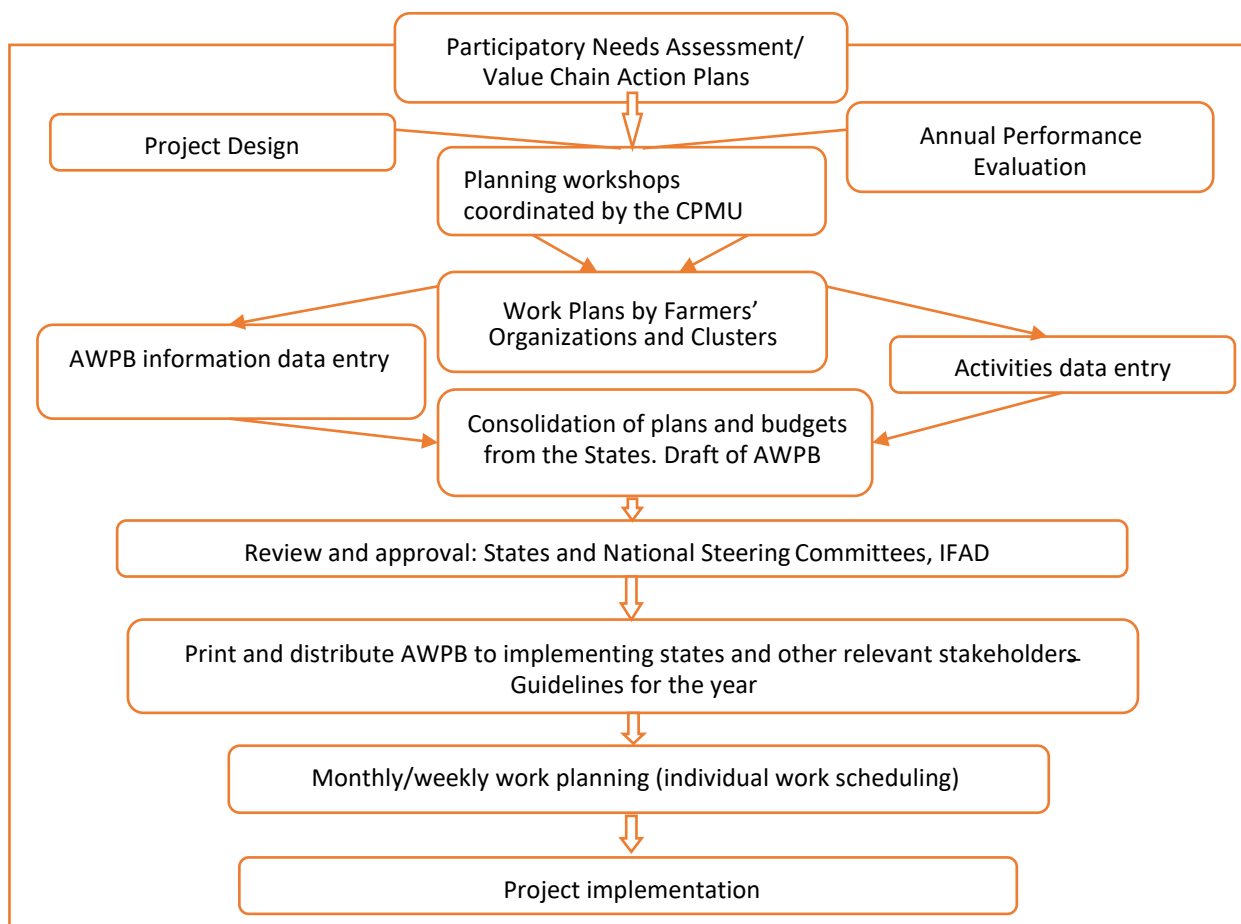


Figure 4.1: Stages in AWPB Preparation, Review and Planning

Review and Planning Calendar

19. Once the states planning process is over and the AWPBs are consolidated, the NPCO submits the draft AWPB to the National Project Steering Committee for approval not later than 20th October. The final objective is to send the final AWPB, consolidated and possibly amended, to IFAD not later than 31st October. If IFAD does not comment on the draft AWPB within 30 days of receipt, the AWPB is deemed to be approved. The NPCO shall adopt the AWPB substantially in the form approved by IFAD and the NPCO shall provide copies thereof to IFAD, prior to the commencement of the relevant project year. The AWPB thus becomes the sole authority for expenditure during the program year.
20. In accordance with the FA, a draft AWPB has to be submitted to IFAD no later than 60 days before the beginning of the relevant fiscal year of the project. If required the NPCO/FMAFS could propose adjustments in the AWPB during the relevant project year, which would become effective after IFAD's approval.
21. The AWPB must be accompanied by a procurement plan prepared by the Procurement Officer in accordance with the procurement manual of the project. In short, the procurement plan outlines what will be procured, at what cost, under what procurement method and when. The first Procurement plan should cover the first 18 months of the project lifecycle while the subsequent procurement plans should cover 12 months of the project lifecycle. Due to the fact the majority of the funds go through procurement it is vital that the Financial Controller and the procurement officer communicate regularly to ensure sufficient availability of funds. While efficiently managing the intersection between financial management and procurement does not alone ensure the achievement of the development goals, neglecting it virtually guarantees the project will fail.

Review of the AWPB

22. A sub-committee on budget should be inaugurated by the National Program Coordinator and all State Program Coordinators. Members shall include all component heads and the FC/SPA as heads of the committee. At least once every quarter, the budget sub-committee shall meet to review the budget implementation status during the quarter comparing budget with actual figures. In case of differences between the planned and actual costs presented in the AWPB, the sub-committee should identify the reasons for those differences, highlight them and advise on ways to handle such differences and guide against future occurrences.
23. Every quarter, the Financial Controller (FC) in conjunction with State Program Accountants (SPAs) shall review the costs incurred during this time period. In case of differences between the planned and actual costs presented in the Annual Budget, the FC should identify the reasons for those differences and detail them in the periodic Financial Reports presented to IFAD. In case of internal problems identified during the costs review, the FC shall take the necessary steps to eliminate them. Otherwise, the budget for the next quarters should be readjusted to reflect the difference between actual and planned figures. These should also be done in conjunction with the PM&E Advisor at both National and State levels.

AWPB and related documents approval process

24. After preparing the draft AWPB, the M&E Officer, the procurement officer and the Financial Manager (in coordination with all staff members: Head of Components) will send it to the Project Director and Steering Committee for review and clearance/approval before sending it to IFAD for no objection.

25. In accordance with the Financing Agreement, a draft AWPB has to be submitted to IFAD no later than 60 days before the beginning of the relevant fiscal year of the project. If required the PMU could propose adjustments in the AWPB during the relevant project year, which would become effective after the steering committee's approval and IFAD's no objection.
26. The checks listed below are designed to improve the quality of the AWPB during the final preparation stage.

- Is the AWPB complete and clearly presented? Does it disclose sufficient information? Does it contain the necessary financing and budget tables?
- Are the expenditures structured by component, expenditure category and financier?
- Is the AWPB in line with the project description and rational (schedule 1) as per the financing agreement and the project log-frame? Are all the activities relevant to the project?
- Are the cost categories of the AWPB in line with the Schedule 2 of the IFAD financing agreements and are expenditures within the agreed allocations?
- Does the implementation schedule seem realistic, and does it show appropriate targets and milestones?
- Do the total (and subtotal) costs add up? Are the inputs (unit cost) and outputs (physical targets) adequately quantified? Is there coherence between the inputs and outputs? And does these represent value for money (i.e., what is the unit cost for per output, e.g., cost per trained farmer)?
- Is the unit cost realistic and do they reflect market prices?
- Is the AWPB accompanied by a procurement plan? Is the AWPB consistent with the procurement Plan? For multi-year contracts or activities, does the AWPB consider the year's achievable portion only?

27. For an expenditure to be eligible for IFAD financing, it must be included in the AWPB approved by the relevant authority (usually the steering committee) and IFAD i.e., received the IFAD's no objection.

Budgeting

28. The budgeting process involves the submission of programs/activities and the required resources to the Budget Division by the Departments and their collation. Following approval of the draft budget by the Management, they are submitted to the Federal or State Ministry of Finance for consideration and approval by the respective National Assembly. The approved amounts usually differ from those requested. In line with the existing procedures, the accountant will work together as part of the program team to prepare its annual work plans and budget considering the specific components of the program for approval by the Steering Committee showing amounts to be contributed by each source of funding including government and thereafter submitted to the financing

institutions for review and endorsement. All fund transfers by the Bank under the program will be based on approved work plans and budgets.

Budgetary Control

a. Computerized budget monitoring system

29. Usually, the AWPB is developed and modified using Excel. However, once the AWPB has been developed and approved, it should be inserted in the budget module of the PMU's accounting system to ensure that expenditures not part of the AWPB are blocked reducing the risk of incurring ineligible expenditures.
30. The computerized accounting system incorporates a feature to allow for comparison of actual expenditure against budget at any time. The Financial Manager shall generate monthly budgetary performance reports comparing actual against budgeted expenditure by the financier, category, component, and sub-component. The reasons for all variances must be investigated.
31. A variance is calculated as the difference between the approved and the actual expenditure. Favorable variances occur when actual expenditure on a budget or activity line is less than the approved amount. Adverse variances occur when actual expenditure on a budget or activity line exceeds the approved amount. The Internal Auditor should investigate and report on significant variances in actual costs from approved budgeted amounts.
32. An accepted level of variance will be agreed but any excessive variance (positive or negative) should be investigated. Identifying the cause can allow the VCN to take timely and appropriate action.

b. Variance analysis and reports

33. In preparing the variance report, The Internal Auditor, in collaboration with the Financial Controller and all Officers should consider the following issues:
- What is the size of the variance?
 - Why has it happened?
 - Is this the first time or has it happened before?
 - Does it appear to be indicating a trend, or merely a one-time expense?
 - Can actions be taken to reduce or eliminate the variance (is it a controllable variance)? The budget vs. actuals reports along with variance reports must be discussed monthly with all PMU staff. The same meetings must be enlarged to implementing partners on a quarterly basis.

c. Assessment of AWPB Financial execution rates:

34. The FM should always indicate in the project's quarterly, bi-annual, and annual reports the following two rates:

- AWBP financial achievement rate
- AWBP disbursement rate

Financial achievements against AWPB are comprised of the costs of the year's achieved works and activities, received goods, supplies and services. These should be recorded under Payable at yearend, whether they are billed and paid or not yet paid. (cut-off rule).

35. Disbursements against AWPB are comprised of all payments made by the project during the year: Payment for achieved works and activities, received goods, supplies and services AND ADVANCES.

36. The Budget Vs. Actual statements are produced automatically by the accountant from the financial software and give both rates:

- Disbursement rate from the Disbursement Module
- Financial achievement rate from the Budget Monitoring Module.

The Financial Controller should review these statements and send them to the National Coordinator with brief comments on the figures.

37. The financial achievement rate should be close to the physical execution rate given by M&E as it represents the costs of all physical achievements.

38. The financial software also gives the following figures and rates:

- Disbursement rate including Commitments.
- Achievement rate including Commitments.

Commitments represent signed commitments (contracts, MoUs, purchase orders) that are not yet executed /performed. It may be part of the commitment or the entire commitment.

d. **Coherence between physical and financial execution of the AWPB**

39. An analysis of the coherence between physical and financial execution of the AWPB should be performed by the projects and included in their quarterly/semi-annual and annual reports.

The following tasks must be performed in that respect:

- Assess the coherence between the physical and the financial execution rates for each activity (main activities) and the possible facts that may have led to the incoherence if any;
- Make corrections/updates in the accounting entries or at the M&E level to correct the incoherence.
- Comment on the financial issues relating to each activity (main activities).
- Make their appreciation of the AWPB global execution at the time of the report.

40. The M&E Officer and FC should ensure coherence of budget lines with the expected results of the activity concerned. This will ease the correct interpretation of execution rates against the expected result, for each activity.

Example: Purchase of seeds to be distributed to farmers.

1. If the AWPB has 2 budget lines

- one budget line for the purchase of the seeds
- one budget line for the distribution costs of the seeds

The project may rate 100% execution on the first line, which could be interpreted as a good result. But if it rates 0% on the second, the performance is bad as the goods are stored somewhere and may deteriorate: the result of delivery to the final beneficiaries is not achieved.

2. If the AWPB has one budget line: Purchase and distribution of the seeds, one can better assess the performance because the rate of 100% (physical and financial if there are no over costs) will be reached only when the distribution is done. The detailed tasks and costs should be presented in the Budget Notes.

Budget Monitoring

e. Assessment of AWPB Financial execution rates:

41. The FC should always indicate in VCN quarterly, bi-annual, and annual reports the following two rates:

- AWPB financial achievement rate
- AWPB disbursement rate

Financial achievements against AWPB are comprised of the costs of the year's **achieved** works and activities, **received** goods, supplies and services. These should be recorded under Payable at year end, whether they are billed and paid or not yet paid. (**cut-off rule**).

Disbursements against AWPB are comprised of all payments made by the project during the year: Payment for **achieved** works and activities **received** goods, supplies and services **AND ADVANCES**.

42. The *Budget Vs. Actual* statements are **produced automatically by the accountant from the financial software and give both rates:**

- Disbursement rate
- Financial achievement rate

43. The FC should review these statements and send them to the PC with brief comments on the figures.

The financial achievement rate should be much closer to the physical execution rate given by M&E as it represents the costs of all physical achievements. The financial software also gives the following:

- Disbursement rate including Commitments.
- Achievement rate including Commitments.

Commitments represent signed commitments (contracts, MoUs, purchase orders) that are not yet executed /performed. It may be part of the commitment or the entire commitment.

f. Coherence between physical and financial execution of the AWPB

44. The analysis should be made by the projects and included in their quarterly/semi-annual and annual reports. They must:

- Analyze the coherence between the physical and the financial execution rates for each activity (main activities) and the possible facts that may have led to the incoherence if any;
- Make corrections/updates in the accounting entries or at the M&E level to correct the incoherence.
- Comment on the financial issues relating to each activity (main activities).
- Make their appreciation of the AWPB global execution at the time of the report.

FUND FLOWS AND DISBURSEMENT ARRANGEMENTS

45. **Flow of funds:** Separate DA will be opened for the IFAD loan in the CBN in US Dollars; these accounts will be separate for each financing instrument. Separate accounts will also be opened for AFD and FGN counter-part funds. To allow the FGN to monitor the income of funds, the DA will be a sub-account under the FGN Treasury Single Account

(TSA). From the DA, the funds will flow to the program loan account (Program Account A) in Naira. The federal counterpart funds will be deposited in a separate federal counterpart fund account. The NPC will be authorized to manage both the DA and the federal counterpart fund account. Each state will operate two accounts in Naira: (i) A state program account (Program Account B) to receive IFAD loan funds from Program Account A; (ii) and a state counterpart fund account to receive state counterpart funds. Each State Program Manager will be authorized to manage Program Account B and the State counterpart funds account. Particular attention will be paid to ensure that there is no co-mingling of funds.

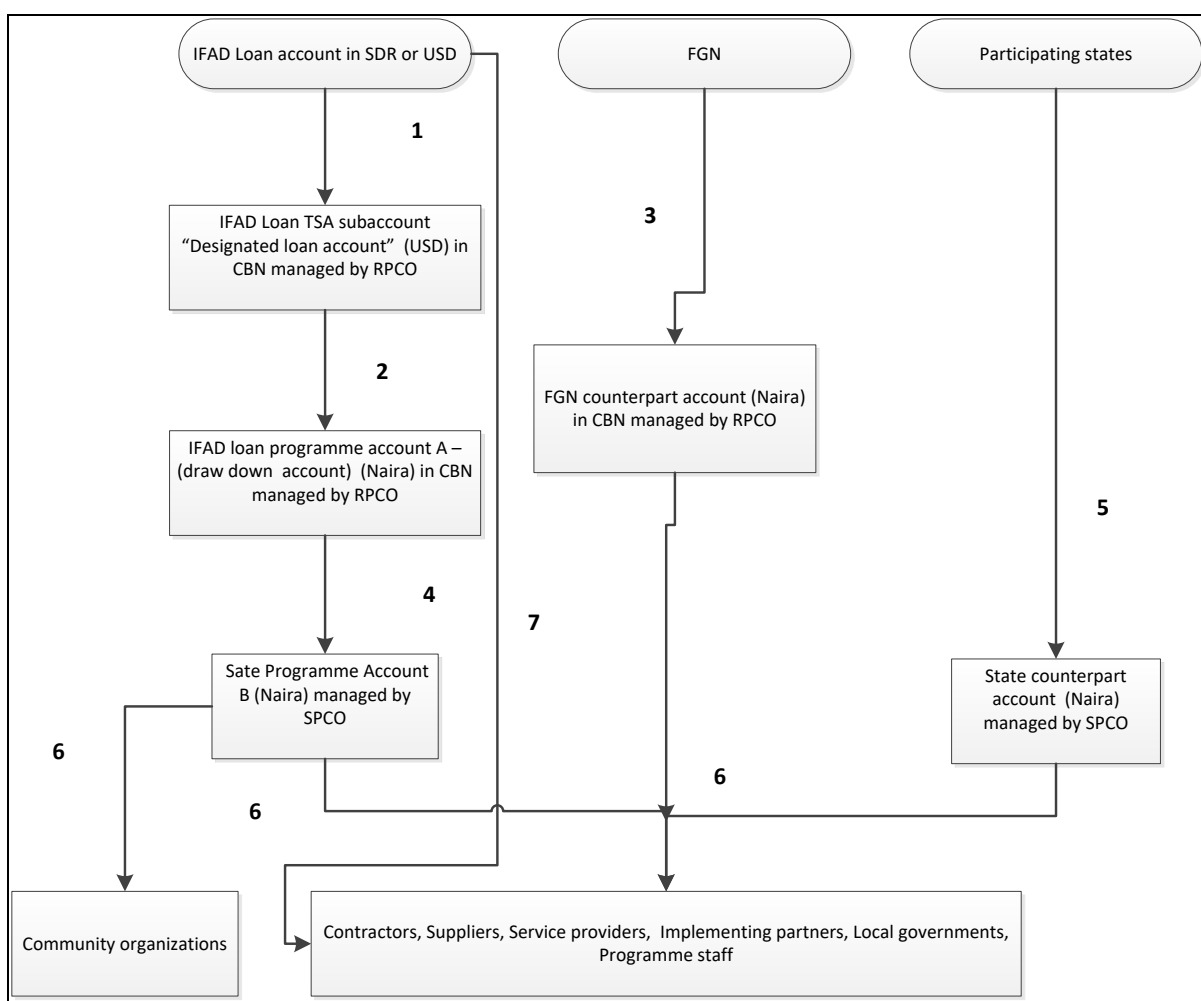


Figure 4.2: Elaboration of Fund Flow

46. **Disbursement arrangements:** The disbursement Arrangements for the Project are grounded in the Project Financing Agreement, the Project Design Report, The financial management and financial control letter and IFAD disbursement guidelines.

47. Prior to disbursement, relevant Project Accounts should have been opened by the Lead Project Agency through the NPCO and the SPCO. These accounts are:

NPCO

- g. VCN Designated Loan Account in US Dollars with CBN to receive an IFAD loan

- h. VCN Drawdown Account with CBN to receive naira equivalent of transfers from the Designated Account
- i. VCN Federal Counterpart Fund Account to receive Counterpart Fund contribution from the Federal Government

SPCO (2 States)

- j. VCN State Project Account B to receive funds from the Drawdown Account.
- k. VCN State Counterpart Fund Account to receive Counterpart Fund contribution from the State Government

48. Before withdrawal can commence (after the loan is declared effective) IFAD must receive from the FMF (the designated official representative of the Borrower as stated in the Financing Agreement) a letter designating the person or persons authorized to sign WAs, together with their authenticated specimen signatures.

Withdrawal of Funds

49. Withdrawal of Loan Funds must be carried out in accordance with the disbursement procedures of IFAD. The NPCO and SPCO must always refer to the FMFCL from IFAD or the IFAD Disbursement Handbook and ensure that project staff are trained in these procedures. The NPCO is responsible for submitting WAs to IFAD, and for providing the PCU with a copy of the application, to enable the PCU to monitor the use of the Loan Funds. AFD and IFAD will explore the use of harmonized disbursement forms to make them easy to automatically generate from the project's accounting system.

Matching Grants

Pre-Award Controls:

- 50. Eligibility Criteria: Define clear and objective eligibility criteria for potential grant recipients. This could include factors like type of farm, location, experience, and project focus.
- 51. Selection Process: Establish a transparent selection process for grant recipients. Consider a selection committee with diverse expertise to review proposals and ensure fairness.
- 52. Grant Agreements: Develop standardized grant agreements that clearly outline the terms and conditions of the grant, including the purpose of the funding, recipient responsibilities, reporting requirements, and monitoring procedures.
- 53. Matching Requirement Verification: Implement a verification process to confirm that the grant recipient can meet the matching requirement. This could involve reviewing financial statements or obtaining letters of commitment from other funding sources.

Grant Disbursement Controls:

- 54. Phased Disbursement: Consider disbursing grant funds in phases based on achieving pre-determined milestones outlined in the grant agreement. This helps ensure the funds are used for the intended purpose.
- 55. Cost Allowability: Establish clear guidelines on allowable costs under the grant program. This helps prevent misuse of funds and ensures transparency.
- 56. Dual Signatory Approval: Implement a dual signatory system for approving grant disbursements to add an extra layer of control and reduces the risk of unauthorized transactions.

Monitoring and Evaluation Controls:

57. Reporting Requirements: Set clear reporting requirements for grant recipients. Reports should detail progress made, funds utilized, and any challenges encountered.
58. Site Visits: Conduct regular site visits to monitor project progress and verify how grant funds are being used.
59. Financial Audits: Consider incorporating independent financial audits for a sample of grant recipients to ensure proper financial management.
60. Performance Monitoring: Develop a monitoring framework to track project outcomes and measure the impact of the matching grant program on rural agricultural development.

DISBURSEMENT METHODS

61. **Disbursement procedures:** The IFAD financing shall be disbursed against duly certified withdrawal applications via ICP in accordance with the IFAD disbursement procedures. Terms and conditions will be detailed in the FMFCL. Disbursement will be based on quarterly cashflow projects submitted as part of the Interim Financial Reports (IFR).

COUNTERPART FUNDING ISSUES,

62. The Federal Government and participating States' counterpart contribution shall be in cash and 'quantifiable' kind. The State Governments cash contributions will include among other things, studies (road prioritization and detailed design, agro-logistic prioritization, ESMP & CC mitigation (including woodlots establishment, and resettlement of PAPs), project monitoring vehicles and office equipment, office space, project implementation operation and maintenance costs.

MONTHLY OR QUARTERLY REPLENISHMENT APPLICATIONS,

Use of Designated Account

63. **Application for deposit of the Initial Withdrawal:** The Authorized Allocation of Initial Deposit for the implementation of start-up activities and to enable the project meet the disbursement conditions will be done in ICP and the IFR for Initial Advance will be attached as supporting document. Prior to submitting the WA for Initial advance, the project will submit the start up budget to IFAD for Non-objection. The amount of start up advance is expected to be around USD 500 000
64. Prior to this, the authorized representative of the FGN will forward to IFAD a letter containing the banking instructions, bank account signatories, WA signatories and ICP Users. Transactions from project bank account will be done suing a combination of signatory authorizations as follows:

Table 4.2: Signatories for Project Account and Withdrawal Application request

Level	VCN Project Accounts (Naira)		VCN Designated Account (USD)
	PA B (Federal Counterpart Fund)	PA A (from Designated Account)	
IFAD/Federal/NPCO (two to sign)	Project Coordinator and Financial Controller	Project Coordinator and Financial Controller	Project Coordinator and Financial Controller

IFAD/State/SPCO (Two to sign)	State Project Coordinator and Project Accountant	State Project Coordinator and Project Accountant	
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65. Note: **1.** The two NPCO staff can also: (a) sight other instruments sent to banks for the purpose of control and accountability, (b) advise IFAD of bank accounts and account signatories; **All** project accounts outside the TSA in Naira should be operated at a commercial bank with a good credit rating to minimize bank charges and ensure fast and efficient service.
66. After loan effectiveness is declared, the following details will be provided to the FMoF for submission to IFAD.

<p>(a) Specimen signatures for all the nominated signatories to bank accounts and withdrawal documents.</p> <p>(b) Details of project bank accounts for all the Project and USD accounts including:</p> <ul style="list-style-type: none"> • Name and address of bank • Title of account and account number • Names and ranks, and signatures of authorized signatories
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67. **Replenishment of the Designated Account:** After the Initial Deposits have been made by IFAD into the Designated Account as specified above, the Project shall proceed with the disbursement of funds to meet eligible Project expenditures. This will be done within the limit of the authorized allocation specified in the FMFCL.
68. WAs for the replenishment of the Designated Account which shall be denominated in US dollars shall be prepared in ICP. In order to recover the actual US dollars withdrawn from the Designated Account, the local currency expenditures that were funded from the designated bank accounts should be converted at the prevailing exchange rate at the time of the transfer of US dollars to the Project Account in Naira and not at the prevailing exchange rates at the time of payment or time of the withdrawal application.
69. At the time of transferring funds from the Designated Account, the schedule of payment which shall show the calculations of eligible project expenditures by categories and at the agreed funding percentages shall constitute the Statement of Expenditure for that WA. No payment shall be authorized from the Designated Account except for eligible expenditures based on the approved work plan and budget. Expenditures which have not been properly documented and advances which have not properly retired shall not qualify for replenishment under the Project. Note also that part payment will only be reimbursed when a bank guarantee is attached.
70. **Providing supporting documentation for Disbursement:** In the preparation of WAs for the replenishment of Designated Accounts, the following documents shall be required.
- Withdrawal Application Forms.
 - Application Summary Sheets.
 - Register of Contracts.
 - Designated Account Reconciliation Statement.

Period of Withdrawal Application

71. The period of WA starts with the date of transfer of funds from the Designated Account to the Drawdown Account to meet eligible project expenditures to the date that that transfer or any other within the application period has been fully exhausted in the Drawdown Account. An earlier date could be taken when the FC/SPA feels that enough

amounts for replenishment could be prepared from the withdrawals that have been made in the Drawdown Account.

72. Replenishment of the DA will however be done only on a quarterly basis following submission of IFRs

73. The cut-off date for item 4 should be consistent with item 5 in Form 104, i.e., the same date of closing balance should be used, and this date must be reflected on the bank statement. Designated and clear instructions should be given to the bank in requesting bank statements so that the closing date of bank statements should be consistent with items 4 and 5 in Form 104 and the end of the reporting period of Forms 101 and 102.

Evidence of Authority to Sign Withdrawal Applications

74. The IFAD requires the borrower’s representative, as designated in the financing agreement, to furnish satisfactory evidence of the authority and authenticated specimen signatures of the individuals who will sign WAs on behalf of the borrower. This evidence must reach the IFAD before the first WA is presented by the borrower and should be the original (photocopies, facsimiles or other means of transmission are not acceptable).

75. Each WA should be signed by such duly authorized individuals, and the IFAD must be notified of any change in the signatories authorized to withdraw IFADs from the loan account.

The IFAD must also be notified of the designated signatories for operating any designated and/or program or other accounts, including changes thereto, whether these authorized signatories are included in the financing agreement. Such changes, as effected during the life of the project, must be communicated promptly to the IFAD. The borrower, guided by the sample in APPENDIX 1 of the disbursement handbook, should provide the names and specimen signatures of the newly appointed signatories and include the date when such change is to take effect. The original of such changed documentary evidence is to be provided to the IFAD.

76. The NPCO will compile and consolidate, on a timely basis, eligible project expenditures for activities. From these expenditures, the NPCO will prepare withdrawal applications (WAs) for eligible project expenditures under each financing source and submit these to IFAD. All withdrawal applications will be signed by the authorized signatories under the IFAD Client Portal (ICP). The Withdrawal of Funds will follow IFAD disbursement procedures and the transfers will reflect the requirements of the Project implementation.

DISBURSEMENT BY CATEGORY

Table 4.3: IFAD loan disbursements (USD, as at [Insert date: dd-m-yy])

Category	Category description	Original Allocation	Revised Allocation	Disbursement	W/A pending	Balance	Per cent disbursed
I							
II							
III							
IV							
V							

	Initial deposit						
	Total						

INTERNAL CONTROL AND AUDITING

Internal Control

Overview

77. It is important to ensure that sound internal control arrangements are in place in the implementation of the Project, to assure the donors and other providers of Project funds that their funds are being used in the most efficient and effective manner.

Internal controls comprise all of the policies and procedures adopted by a management unit to assist in:

- Achieving the orderly and efficient implementation of the project
- Compliance with government and donor policies and rules
- The safeguarding of financial resources
- Complete and reliable processing
- The recording and reporting of financial transactions and events
- The timely issue of FM reports for monitoring and management decision-making, and
- The detection of fraud and error.

Internal control is aimed at:

- Ensuring that accounts and records are reliable and complete.
- Securing compliance with legislative, statutory, and Project agreement requirements, and adherence to organizational policies.
- Protecting assets, especially cash receipts, from being lost or stolen and safeguarding assets against wastage, fraud, and inefficiency.
- Discouraging dishonesty through the implementation of systems and procedures that would make concealment of irregularities possible only through the collusion of two or more persons, and
- Promoting disclosure and transparency.

Responsibilities for Internal Control

78. The NPCO, the SPCOs, the LGCs and benefiting communities, are all responsible for developing, implementing, and monitoring, a sound system of internal controls.

❖ **Critical Elements of Internal Control**

The critical elements of internal control are:

- **Management commitment to effective internal control:** All partners in the Project must be committed to implementing effective internal controls. NPCO and the SPCOs are responsible for maintaining and reviewing the control structures on a regular basis, to ensure that all key controls are operating effectively, and remain appropriate. The attitude exhibited by NPCO towards the enforcement of controls will strongly influence the effectiveness of the internal control mechanism in the Project.

- **Effective organizational controls:** Operational controls include effective organizational structures, well-defined responsibilities, and the segregation of functions. Segregation of functions and separation of duties, within finance functions and the accounting systems should be ensured, in order to assist with the detection and prevention of errors, fraud, or the misuse of funds. The clear specification of financial authorities and delegations is a critical part of effective organisation internal controls.
- **Qualified project personnel:** The NPCO and SPCOs should engage qualified and experienced personnel within their structures, at the LGCs and community levels and ensure that both formal and informal (on-the-job) training is provided to staff, to enable them to effectively carry out their assigned duties.
- **Clearly understood procedures and documentation:** Internal controls should be clearly documented, and job descriptions should be made available to all relevant staff. All staff involved in accounting for expenditure, revenue, assets, and liabilities, must understand both the Government and Project policies and procedures. Documents should be simple, easy to use, and designed to ensure that they will be completed correctly, to help reduce misinterpretation of information and errors.
- **Effective operational controls:** Operational controls relate to the completeness and accuracy of processing for financial transactions and events and are aimed at preventing and detecting errors. Operational controls include sequence checking, use of control totals, reconciliations, and independent checks. Regular reconciliations of bank accounts, and control accounts, will help ensure that the accounting systems are functioning properly and that the accounting data is being accurately recorded and maintained.
- **Adequate physical controls:** Physical controls are required to safeguard cash and other negotiable instruments (e.g. cheques), as well as inventories and assets. Controllable forms such as receipt books and chequebooks must be kept secure, and records must be kept for issues and usage of assets and controllable forms. Physical assets must be safeguarded and properly maintained, to retain their value and effectiveness.

❖ **Financial Delegations and Authorities**

79. The NPCO, in conjunction with the SPCOs, LGCs and benefiting Communities, must clearly define the financial delegations and authorities for project implementation. Such delegations and authorities should be agreed between NPCO and these other stakeholders. The following delegations and authorities are the minimum that should be addressed in establishing the financial arrangements and internal control system for the Project:

- a. Bank account operations: Authorized signatories for drawing funds from the project bank accounts and the signing requirements for payment withdrawals. Authorized signatories for loan fund replenishment WAs.
- b. Contracts: Authorities to approve contracts for civil works, goods, and services, including approval ceilings
- c. Receiving of civil works, goods, and services: Authorities to certify the completion/acceptance of civil works, goods, and services
- d. Expenditure payments: Authorities to approve expenditure claims/vouchers, including approval ceilings, authorities to approve petty cash expenditure claims and authorities to approve advances of funds.
- e. Receipts: Authorities to receive funds and to issue official receipts.

□ **General Financial Internal Controls**

80. Financial controls consist of measures adopted by the NPCO/SPCO to protect assets and ensure the accuracy and reliability of accounting records and financial reports. Key internal controls to be implemented by concerned agencies include:

- f. **Competent and reliable personnel:** The internal control system relies on the people administering it. Employees should therefore be adequately trained, and properly supervised, to enable them to carry out their duties and responsibilities effectively.
- g. **Separation of functional responsibilities:** One person should never have complete control of a transaction from beginning to end. A clear understanding should exist as to who will issue an approval, what is to be approved, and the limitations of authorization. Approving officers should not have responsibility for posting, or the ability to change accounting records.
- h. **Assignment of responsibility for every function:** Employee responsibilities should be clearly defined (e.g. an organization chart should be prepared), to avoid overlapping or unassigned areas of responsibility. Staff must know their responsibilities, and whom they report to.
- i. **Separation of asset custodianship and accounting:** The accounting function should be separated from the custody of assets (e.g. an employee who is entrusted to receive cash should not have access to the cash journals or ledgers).
- j. **Security measures:** Techniques, procedures, and measures, should be employed to protect assets, and ensure reliable accounting data and reports (e.g. use of mechanical devices such as vaults and cash registers; use of control accounts and subsidiary ledgers).
- k. **Supervision:** Internal regulations should include the supervision
- l. of staff (e.g. establishment of annual estimated expenditures under the supervision of the PC; or the process of setting or recording transactions made by assistants, and the preparation of financial statements, under the supervision of the FC).
- m. **Regular independent review:** Internal auditors should regularly review and evaluate the system of internal controls, to determine whether it is functioning effectively as planned (e.g. the findings and recommendations of the internal auditor should be submitted to senior management for action).
- n. **Control of transactions:** Every transaction should be authorized, approved, executed, and recorded, according to prescribed procedures (e.g. cash cannot be paid without the authority of PC/SPC).
- o. **Serially numbered documents:** Project documents should be serially numbered to check completeness of transactions (e.g. cheques, invoices, and vouchers, should be serially numbered).
- p. **Sequencing:** An accounting control system should be set up in such a manner that proper sequencing is followed with regard to payments and the posting of transactions to ledgers (e.g. payments should not be authorized or made before the goods or services to which the payment relates to has been received).

Transaction Processing Controls

81. With sound transaction processing internal controls, employee duties are arranged, and records and procedures are designed, to exercise effective accounting control over assets, liabilities, revenues, and expenditures. The work of employees is also divided, to ensure that no one employee performs a complete cycle of operations (e.g. an employee handling cash would not be assigned to post collections in the accounting records). Procedures to be followed must be defined, and such procedures should require proper authorizations by designated officials, for all actions to be taken. Table below summarizes general transaction processing, internal control objectives, and internal control outcomes.

Table 4.4: Transaction processing controls and outcomes

General objective	Internal control outcome
Validity	Recorded transactions are valid and documented
Completeness	All valid transactions are recorded and none omitted
Authorization	Transactions are authorized according to IFAD and Government policy
Classification	Transactions are properly classified in the Accounts
Accounting/Posting	Transaction accounting is completed
Proper period	Transactions are recorded in the proper period

□ **Computerized Accounting Systems Controls**

82. At the NPCO and SPCO levels, computerized accounting system should be used. When using computerized accounting systems, internal controls must also encompass the security and back up of financial accounts and records. The key computerized accounting systems internal controls that must be adhered to include:

- q. **Password Protection:** Password protection should be implemented and maintained for all IT accounting systems.
- r. **Backup Procedures:** All IT systems/Accounting Software should be regularly backed up (i.e. daily if possible), and procedures established to restore data and or software, following any operational disruption. Emergency procedures should be set up, to provide business continuity following loss of IT systems. Daily printouts of daily transactions (journals) should be made, checked, and signed by the FC and filed for future reference.
- s. **Virus Protection:** All IT systems should be protected against the threat of software viruses. Regular virus scans should be carried out (at least once a week).
- t. **Emergency Procedures:**
 - i. Electrical power systems supporting IT equipment should have appropriate UPS systems in place, together with backup batteries, which are automatically invoked following a power loss.
 - ii. Batteries will be able to provide power for sufficient time to allow an emergency generator to start up and run at full load.
 - iii. Emergency procedures detailing what actions to take, including manual procedures to be followed in the event that IT systems are unavailable, should be fully documented.
 - iv. All staff should be aware of the documented emergency procedures, and these should be tested, reviewed, and updated at regular intervals.

Auditing

83. The Internal Audit function at FMAFS, the FCTA and at the State level is being carried out under the frameworks of their financial regulations with independent checks and approvals of documents. It is aimed at safeguarding assets, enhancing compliance with internal control systems, and including the audit of all payment vouchers before payment with the existing pre-audit system in place in the government. The programs will be included in the Internal Audit program and therefore be covered under the existing internal control rules and requirements and periodic reports (quarterly) submitted to the

Bank showing work done including findings and recommendations. In addition, each PIU will prepare a Program Implementation Manual with detailed Financial Procedures as a reference guide for program staff involved in its implementation and ensure that compliance checks are done (by an internal auditor to be designated to the program by the respective Office of the Accountant General) in line with its existing systems. This will provide an enhanced internal control and accountability framework.

84. In accordance with the Constitution of Nigeria, the Office of the Auditor General for the Federation (OAuGF) and the Auditor General for the State (OAuGS) are responsible for the audit of the Federal or respective State Government expenditures, inclusive of funds sourced from development partners and State level projects. However, in practice, both the OAuGF and OAuGS considering their workload and capacity often allow project audits to be conducted by qualified private independent external auditors, recruited on a competitive basis with the audit carried out in accordance with an audit Teams of reference (TORs) acceptable to the Bank. B4.17.1 Therefore, acceptable independent audit firms will be hired as required by the respective executing agencies at Federal and State levels, using the Bank's pre-approved list of auditors with the involvement of the respective Offices of the Auditor General as applicable to carry out the respective annual program audits at the Federal and State levels. The auditor's report and management letter together with the audited program financial statements will be submitted to the Bank not later than six (6) months after the end of each fiscal year. The external audits will be carried out in accordance with a bank-approved audit Terms of reference with the costs of audit financed under the Loan resources. B4.17.2 Each audit of the financial statements shall cover a period of one (1) financial year except (i) the first audit, which may cover a period not exceeding eighteen (18) months after the date of first disbursement of the Loan if such first disbursement occurs in the second half of the applicable financial year; and (ii) the final audit, which may cover a period not exceeding eighteen (18) months, if the Closing Date occurs within the first half of the applicable financial year. Audit Report Due Date Separate Federal and each State Program annual audited financial statements and management letter No later than 30th June after the end of each financial year throughout the program implementation duration
85. *Internal audits:* The internal audit function will be strengthened to include system reviews, review of administrative processes, coordination with the auditors at the state level, and regular preparation of consolidated internal audit reports for the CPAT, PCU and IFAD. The internal audit unit of CPAT will also ensure adequate oversight of these controls. The reports of the CPAT internal audit unit and the NPCO/SPCO internal audit units should be furnished to IFAD on a quarterly basis and within 45 days after the end of each quarter. CPAT will develop a log of recommendations across assurance providers and mechanisms and ensure the program take appropriate actions to close out on the findings.

FINANCIAL REPORTING.

86. Financial Reporting System Currently, the IFMIS system is in use at both the State and Federal Level for financial reporting purposes. Periodic expenditure reports (including budget commitments and expenditure tracking reports etc.) are generated on a quarterly basis though not systematic for management decision-making, under the overall responsibility of the Director, F&A with reporting done based on the Government chart of accounts.
87. Annual audited financial statements have been prepared in accordance with IPSAS accrual basis though with some backlogs. For this program, separate accounting and reporting at both Federal and State levels will be done using stand-alone accounting

systems that will be established given the specific reporting requirements. The designated accountants from FMARD, the FCTA and each State will form part of the PIU and be responsible for the preparation of quarterly and annual program financial information to the Bank. The Bank will also continue to provide support as required throughout program implementation to program staff as a capacity-building initiative considering lessons learnt from previous and ongoing projects. In accordance with the Bank's financial reporting and audit requirements, the program will be required to prepare and submit to the Bank Interim Quarterly Financial Progress Reports (IQFPRs) no later than 45 days after the end of each calendar quarter. The quarterly financial reports will include a statement of sources and uses of funds (for the Bank, co-financier, and Counterpart sources as applicable) separately disclosed to facilitate harmonized reporting, with the uses of funds analyzed by activities/components and categories, comparing actual expenditure with budget and notes explaining significant variations in expenditures.

Interim financial reports (IFRs)

88. VCN will submit unaudited IFRs to IFAD on a quarterly basis, or as stated in the FMFCL. The IFRs must be submitted within 45 days of the period-end. The format and content of the IFRs will be discussed with the borrower/recipient during the project design stage and documented in the Project Implementation Manual and/or Project Financial Management and Financial Control Letter to the borrower/recipient, as relevant.
89. IFRs will include the sources and uses of funds, variance analysis with explanatory notes, as relevant, designated account reconciliation and cash forecast sections and be used to report quarterly expenditures and forecast disbursements for the following implementation period.
90. IFRs will replace the traditional SOEs as supporting documentation.
91. IFRs must be submitted through the Financial Execution Module of the IFAD Client Portal (ICP).

Year-End Financial Closing Procedures: A Summary

This section outlines a basic year-end closing process for VCN

❖ **Preparation and Planning:**

- **Develop a Year-End Closing Timeline:** Establish a timeline outlining key deadlines for completing each closing step. This keeps the process organized and ensures timely completion.
- **Gather Necessary Documentation:** Collect all relevant financial records, including bank statements, invoices, receipts, and payroll data.

❖ **Reconciliation Procedures:**

- **Reconcile Bank Statements:** Match bank account records with actual bank statements, identifying and resolving any discrepancies.
- **Reconcile Accounts Receivable and Payable:** Review outstanding invoices and payments, ensuring their accuracy and completeness.

❖ **Year-End Adjustments:**

- **Accruals and Prepayments:** Record accruals for unpaid expenses and wages, and prepayments for unused services or goods.
 - **Inventory Valuation:** Conduct a physical inventory count and adjust records to reflect the actual value of on-hand inventory.
 - **Depreciation Expense:** Calculate and record depreciation expense for all depreciable assets.
 - **Other Adjustments:** Record any other necessary adjustments, such as bad debt expense or fair value adjustments.
- ❖ **Preparation of Financial Statements:**
- **Trial Balance:** Prepare a trial balance after incorporating all year-end adjustments, ensuring debits and credits still have equal totals.
 - **Financial Statements:** Based on the adjusted trial balance, prepare the income statement, balance sheet, and cash flow statement.
- ❖ **Review and Finalization:**
- **Management Review:** Management should thoroughly review all financial statements for accuracy and completeness.
 - **Closing Entries:** Prepare and record closing entries to transfer net income/loss to the retained earnings account and close temporary accounts.
 - **Finalize Records:** Archive all closing work papers and finalize accounting records for the new year.

Procedure for the Preparation of Annual Financial Statements

Financial statements will be automated in the project accounting software. This section provides a high-level overview of the annual financial statement preparation process.

- ❖ **Gather Information:**
 - Collect all transaction records for the year, including invoices, receipts, bank statements, and payroll records.
 - Ensure all supplier invoices are received and recorded.
 - Verify issuance of customer invoices and record any outstanding invoices.
 - Accrue for unpaid expenses and wages.
- ❖ **2. Preparing the Trial Balance:**
 - Summarize all general ledger accounts into a trial balance.
 - The trial balance ensures debits and credits have equal totals.
- ❖ **3. Adjusting Entries:**
 - Record accounting adjustments to reflect the complete financial picture at year-end. This might involve depreciation, bad debt expense, or accrued interest.
- ❖ **4. Prepare Financial Statements:**
 - **Income Statement or Statement of Sources and Uses of Funds:** Summarizes revenues and expenses to determine net income for the year.
 - **Balance Sheet:** Shows the company's financial position at a specific date, categorized as assets, liabilities, and shareholders' equity.

- Cash Flow Statement: Details the cash inflows and outflows from operating, investing, and financing activities.

- ❖ 5. Review and Finalization:
 - Carefully review all financial statements for accuracy and consistency.
 - Prepare accompanying notes to provide additional details and explanations.
 - Obtain necessary approvals and finalize the financial statements

Here are the key principles for identifying, valuing, and recording in-kind contributions in VCN

Identification:

Measurable: The contribution should be quantifiable and have a clear market value. Donated goods, services, or expertise all fall under this category.

Directly linked to project goals: The contribution should directly support the project's objectives and activities. Volunteer time spent building a water well would qualify, while office supplies donated for general use might not.

Voluntarily provided: The contribution should be freely given without expectation of financial or other compensation.

Valuation:

Fair market value: This is the primary method. Estimate the price a willing buyer would pay to a willing seller in an arm's length transaction.

Research market rates for similar goods or services.

Consider industry standards or professional valuations for specialized expertise.

Cost Approach: If fair market value is difficult to determine, estimate the cost of acquiring or replacing the donated item or service.

Recording:

Consistency: Maintain consistent recording practices throughout the project.

Transparency: Clearly document the type, value, and source of each in-kind contribution.

Separate Accounts: Record in-kind contributions in separate accounts from cash contributions.

Benefits of Recording In-Kind Contributions:

Demonstrates project value: Provides a more complete picture of the project's resources and overall impact.

Attracts additional funding: Donors may be more inclined to contribute financially when they see the value of in-kind contributions already received.

Improves accountability: Provides a transparent record of how all project resources are being used.

As VCN will be implemented in a fragile and conflict situation, there is a heightened risk of ineligible expenditures. Here are some top key controls that will be put in place to minimize this risk:

Pre-Project Planning and Approval:

Clear Eligibility Criteria: Develop clear and well-defined eligibility criteria for all project expenditures. This should be based on donor guidelines and project objectives.

Pre-Approval Process: Establish a pre-approval process for all project expenses exceeding a set threshold. This allows for a central review to ensure expenditures align with eligibility criteria.

Detailed Budget Breakdown: Develop a detailed budget breakdown that specifies allowable expenses for each project activity. This provides a clear reference point for project staff.

Procurement and Contracting:

Competitive Bidding: Whenever possible, utilize competitive bidding processes to ensure fair market value for goods and services procured.

Anti-Fraud Measures: Implement anti-fraud measures in procurement procedures, such as vendor verification and conflict-of-interest checks.

Contract Management: Develop clear and well-defined contracts for all procurements. These contracts should explicitly outline deliverables, timelines, payment terms, and anti-corruption clauses.

Monitoring and Reporting:

Regular Expenditure Reviews: Conduct regular reviews of project expenditures to identify and address any discrepancies or potential ineligibility issues.

Strong Internal Controls: Implement strong internal controls over project finances, including segregation of duties for procurement, approvals, and disbursement of funds.

Detailed Financial Reporting: Require detailed financial reporting from project implementers, outlining expenditures with supporting documentation (receipts, invoices).

Auditing

72. The Internal Audit function at FMAFS, the FCTA and at the State level is being carried out under the framework of their financial regulations with independent checks and approvals of documents. It is aimed at safeguarding assets, enhancing compliance with internal control systems, and including the audit of all payment vouchers before payment with the existing pre-audit system in place in the government. The programs will be included in the Internal Audit program and therefore be covered under the existing internal control rules and requirements and periodic reports (quarterly) submitted to the Bank showing work done including findings and recommendations. In addition, each PIU will prepare a Program Implementation Manual with detailed Financial Procedures as a reference guide for program staff involved in its implementation and ensure that compliance checks are done (by an internal auditor to be designated to the program by the respective Office of the Accountant General) in line with its existing systems. This will provide an enhanced internal control and accountability framework.

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v 2. **Preparing the Trial Balance:**

- Summarize all general ledger accounts into a trial balance.

- The trial balance ensures debits and credits have equal totals.

v 3. Adjusting Entries:

- Record accounting adjustments to reflect the complete financial picture at year-end. This might involve depreciation, bad debt expense, or accrued interest.

v 4. Prepare Financial Statements:

- Income Statement or Statement of Sources and Uses of Funds: Summarizes revenues and expenses to determine net income for the year.
- Balance Sheet: Shows the company's financial position at a specific date, categorized as assets, liabilities, and shareholders' equity.
- Cash Flow Statement: Details the cash inflows and outflows from operating, investing, and financing activities.

v 5. Review and Finalization:

- Carefully review all financial statements for accuracy and consistency.
- Prepare accompanying notes to provide additional details and explanations.
- Obtain necessary approvals and finalize the financial statements.

Financial reporting principles relating to in-kind contribution

Here are the key principles for identifying, valuing, and recording in-kind contributions in VCN

Identification:

Measurable: The contribution should be quantifiable and have a clear market value. Donated goods, services, or expertise all fall under this category.

Directly linked to project goals: The contribution should directly support the project's objectives and activities. Volunteer time spent building a water well would qualify, while office supplies donated for general use might not.

Voluntarily provided: The contribution should be freely given without expectation of financial or other compensation.

Valuation:

Fair market value: This is the primary method. Estimate the price a willing buyer would pay to a willing seller in an arm's length transaction.

Research market rates for similar goods or services.

Consider industry standards or professional valuations for specialized expertise.

Cost Approach: If fair market value is difficult to determine, estimate the cost of acquiring or replacing the donated item or service.

Recording:

Consistency: Maintain consistent recording practices throughout the project.

Transparency: Clearly document the type, value, and source of each in-kind contribution.

Separate Accounts: Record in-kind contributions in separate accounts from cash contributions.

Benefits of Recording In-Kind Contributions:

Demonstrates project value: Provides a more complete picture of the project's resources and overall impact.

Attracts additional funding: Donors may be more inclined to contribute financially when they see the value of in-kind contributions already received.

Improves accountability: Provides a transparent record of how all project resources are being used.

As VCN will be implemented in a fragile and conflict situation, there is a heightened risk of ineligible expenditures. Here are some top key controls that will be put in place to minimize this risk:

Pre-Project Planning and Approval:

Clear Eligibility Criteria: Develop clear and well-defined eligibility criteria for all project expenditures. This should be based on donor guidelines and project objectives.

Pre-Approval Process: Establish a pre-approval process for all project expenses exceeding a set threshold. This allows for a central review to ensure expenditures align with eligibility criteria.

Detailed Budget Breakdown: Develop a detailed budget breakdown that specifies allowable expenses for each project activity. This provides a clear reference point for project staff.

Procurement and Contracting:

Competitive Bidding: Whenever possible, utilize competitive bidding processes to ensure fair market value for goods and services procured.

Anti-Fraud Measures: Implement anti-fraud measures in procurement procedures, such as vendor verification and conflict-of-interest checks.

Contract Management: Develop clear and well-defined contracts for all procurements. These contracts should explicitly outline deliverables, timelines, payment terms, and anti-corruption clauses.

Monitoring and Reporting:

Regular Expenditure Reviews: Conduct regular reviews of project expenditures to identify and address any discrepancies or potential ineligibility issues.

Strong Internal Controls: Implement strong internal controls over project finances, including segregation of duties for procurement, approvals, and disbursement of funds.

Detailed Financial Reporting: Require detailed financial reporting from project implementers, outlining expenditures with supporting documentation (receipts, invoices).

IV.8 PROCUREMENT

Nigeria uses the Public Procurement Act of 2007 (PPA) for public procurement procedures. The Act provides the legal basis for the scope, processes, procedures and arrangements for procurement. The Act establishes the Bureau of Public Procurement

(BPP) and applies to the FGN and all its agencies and entities, except where the government has specifically agreed that other regulations may be used as when a programme is funded by an international financial institution (IFI) or multilateral development bank, such as IFAD and Agence Française de Développement (AFD).

Procurement oversight structure: For the VCN, co-funded by AFD and IFAD, IFAD will exercise oversight over procurement activities, including the review and approval of the annual procurement plan, bidding documents, evaluation reports, contracts and the monitoring of the implementation of contracts, including approval of procurement decisions pursuant to the approval matrix in the Procurement Arrangements or the Handbook, or as escalated or referred. A Procurement Implementation Manual has been prepared to provide guidance and direction for the procurement process.

Procurement governance: All procurements for the VCN shall be governed by the IFAD Project Procurement Guidelines and by extension the IFAD Procurement Handbook. The standard solicitation documents provided by IFAD shall be used for all procurement activities for goods, works, consulting and non-consulting services. For certain states suffering from conflicts or fragile situations the Simplified Project Procurement Procedures for Fragile and Conflict Affected Situations in short FCAS might be applied as per Project Procurement Arrangement PPA letter. There will be as well a requirement to evaluate UNGC membership, and using scores in order to apply the relevant of the PIM.

Procurement staffing: The NPCO shall have a National Procurement Specialist (NPS) and two National Procurement Assistants (NPA). The NPS shall undertake all procurements planned for the NPCO, supported by the NPAs, and provide oversight and supervise the state procurement officers. Each SPCO shall have a State Procurement Officer (SPO) and a State Procurement Assistant (SPA). The NPS should have a relevant master's degree and a minimum of 8 years' relevant experience in public procurement. The NPA should have a relevant bachelor's degree and at least 3 years' experience in public procurement. The SPO shall have relevant qualifications and at least 3 years' experience in public procurement. Furthermore, the procurement staff will be enrolled in the BUILDPROC procurement certification program for further strengthening the procurement capacity of the PMU.

Procurement planning: VCN will have an initial 18-month Procurement Plan (PP), following which, as part of the AWPB, each SPCO shall annually prepare and submit for approval a 12-month PP using the Online Procurement End to End System OPEN IFAD. Each PP will specify, among other things, the procurement activity, its method, the level of review and the estimated budget. The NPCO shall prepare its own PP also using the IFAD PP template. A consolidated plan covering both NPCO and SPCO PPs will be submitted for IFAD's no objection. NPCO may combine procurement of similar items of NPCO and SPCOs if it is assessed that this will offer better value and/or better technical outcomes. In such cases, the PP(s) must indicate this and IFAD's no objection should be attained.

Procurement thresholds and risk: Based on the procurement risk matrix and the substantial risk rating the thresholds applicable will be inserted in the PPA and in the new OPEN system. The Prior Review and procurement thresholds are set taking into consideration this risk assessment and the thresholds of the other IFAD supported projects in Nigeria. While the NPCO and SPCOs have the same thresholds all ICB, QCBS and QBS procurements will be managed by the NPCO.

Debriefing and protest procedures for all procurement activities shall be based on the procedures laid down in the IFAD Procurement Handbook including the requirements to issue a Notice of Intent to Award and the application of a standstill period.

Arrangements for Fragile and Conflict Affected Situations (FCAS): Based on this, some procurement initiatives are allowed. These include shorter bidding periods when justified, electronic procurement initiatives, direct contracting or sole source methodology for certain procurements under justification, proceeding with less-than-3 quotations for Shopping, use of remote bid openings, use of NCB methods even for ICB

procurements that have strong national peculiarities, online evaluations and procurements through UN agencies.

Procurement Policies to be Applied

Procurement for the VCN Programme would be carried out in accordance with national procedures, to the extent that they are compatible with the IFAD Procurement Guidelines and by extension the IFAD Procurement Handbook, for each of which their latest versions shall apply. However, the standard procurement/bidding documents of IFAD shall be used for and in all procurements. These include the evaluation templates and the Request for Quotations template for Shopping.

Each procurement plan will specify, among other things, the method for each contract, the threshold, applicable preferences, and related IFAD review procedures. An 18-month procurement plan for the first year will be prepared by and submitted to IFAD for non-objection. For each subsequent year, a 12-month procurement plan will be submitted along with the AWPB which will be reviewed and approved by the different steering committees.

Procurement Methods

The National Programme Coordination Office (NPCO) and State Programme Coordination Offices (SPCO) shall select one of the methods described below to procure goods, works and services. The choice of procurement **method** depends on:

- The nature of the goods and services to be procured
- The value of procurement
- Local availability and cost of goods and services
- Critical dates for delivery
- Transparency of procedures proposed.

Procurement methods for procuring **goods and works** are:

- International Competitive Bidding (ICB)
- National Competitive Bidding (NCB)
- Shopping (S)
- Direct Contracting (DC)

Procurement methods for selection of consultants are:

- Quality and Cost Based Selection (QCBS)
- Quality Based Selection (QBS)

- Least Cost Selection (LCS)
- Fixed Budget Selection (FBS)
- Selection Based on Consultants' Qualifications (CQS)
- Hiring of Individual Consultants

Procurement Method Thresholds

Procurement Method Thresholds

The following thresholds apply to the procurement method already outlined:

- a. Works and works-related Non-Consulting Services:
 - (i) **International Competitive Bidding (ICB):** This procurement method applies to contracts estimated to cost **US\$ 500,000** or more. Under ICB, the borrower/recipient may apply a margin of domestic preference to local contractors of 7.5% for construction works only;
 - (ii) **National Competitive Bidding (NCB):** might be applied to contracts estimated to cost less than **US\$ 500,000**. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification.
 - (iii) **Shopping:** might be applied to contracts estimated to cost **US\$ 100,000** or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification; and
 - (iv) **Direct Contracting:** applies to the indicated contracts in the Procurement Plan with due justification (as mentioned in the Handbook) subject to IFAD's NO under prior review. A sufficiently detailed justification shall be submitted to IFAD to obtain its No Objection and shall include the rationale for the choice of direct contracting instead of competitive procurement and the basis for recommending a particular contractor/service provider in all such cases. Direct contracting could be justified under any of the circumstances listed in the IFAD Procurement Handbook.
- b. Goods and Goods-related Non-Consulting Services
 - (i) **International Competitive Bidding (ICB):** This procurement method applies to contracts estimated to cost **US\$ 250,000** or more.
 - (ii) **National Competitive Bidding (NCB):** might be applied to contracts estimated to cost less than **US\$ 250,000**. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification.
 - (iii) **Shopping:** might be applied to contracts estimated to cost **US\$ 50,000** or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification; and
 - (iv) **Direct Contracting:** applies to the indicated contracts in the Procurement Plan with due justification (as mentioned in the Handbook) subject to IFAD NO under prior review or alternatively without prior IFAD's NO for low-value unforeseen purchases with an estimated cost of **US\$ 500** or less per

purchase up to an aggregate amount of **US\$ 3,000** per annum. Sufficiently detailed justification shall be submitted to IFAD to obtain its No Objection and shall include the rationale for the choice of direct contracting instead of competitive procurement and the basis for recommending a particular supplier/service provider in all such cases. Direct contracting could be justified under any of the circumstances listed in the IFAD Procurement Handbook.

c. Consulting Services and related Non-Consulting Services

- (i) **Quality and Cost Based Selection (QCBS):** This selection method is the default for contracts with firms estimated to cost **US\$ 250,000** or more.
- (ii) **Quality Based Selection (QBS):** might be applied to contracts of any value if proper justification is provided.
- (iii) Fixed Budget Selection (FBS), or Least Cost Selection (LCS): might be applied to contracts with firms estimated to cost less than **US\$ 250,000**. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification.
- (iv) **Consultants' Qualification Selection (CQS):** might be applied to contracts with firms estimated to cost **US\$ 100,000** or less. A waiver for the use of this method beyond this threshold can be requested for individual activities with proper justification.
- (v) Individual Consultants Selection (ICS): applies to contracts with individuals regardless of the value.
- (vi) Shortlisting following a Request for Expression of Interest is mandatory for all CQS and ICS procedures. In addition, Shortlisting is mandatory for all consulting services contracts estimated to cost **US\$ 1 million** or more.
- (vii) **Sole/Single Source Selection (SSS):** applies to contracts with firms designated under SSS in the Procurement Plan with due justification (as mentioned in the Handbook) subject to prior review; and
- (viii) **Sole/Single Source Selection (SSS):** applies to contracts with individuals designated under SSS in the Procurement Plan with due justification (as mentioned in the Handbook) subject to prior review and/or estimated to cost **US\$ 500** or less and with a contract duration of three months or less and up to an aggregate amount of US\$ 3,000 per annum. Any request for SSS by a borrower/recipient must be accompanied by detailed justification, which will be carefully examined by IFAD to ensure that no alternative selection methods can be used. To receive IFAD's NO, it must be demonstrated that there is a clear advantage to SSS over competitive selection. Examples of such circumstances are listed in Section 7, Module F2: Selection Methods for Consulting Services of the IFAD Procurement Handbook.

The choice among QBS, FBS and LCS shall be made by the borrower/recipient in the Procurement Plan based on the nature and circumstances of the relevant procurement activity following the guidance of the IFAD Procurement Handbook.

International Advertisement is mandatory for consultancy contracts estimated to cost **US\$200,000** or more, regardless of the selection method. International Advertisement is mandatory for consultancy contracts estimated to cost **US\$200,000** or more, regardless of the selection method.

Procurements under the ICB, QCBS and QBS methods shall be undertaken by the NPCO, including those in the SPCO procurement plans.

2.2.3 Prior Review Thresholds

The following will be subject to prior review by IFAD and require IFAD's No Objection:

#	Item
i.	Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans;
ii.	General Procurement Notices
iii.	The first 3 procurement activities using the NCB method.
iv.	The TOR (Job Description), Advertisement and selection proceedings for the hiring of any staff responsible for carrying out or administering procurement processes as part of the project
v.	Award of any Memorandum of Agreement irrespective of its value
vi.	Award of any contract for goods and goods-related non-consulting services estimated to cost US\$ 80,000 or more;
vii.	Award of any contract for works and works-related non-consulting services estimated to cost US\$ 150,000 or more;
viii.	Award of any contract for consulting services provided by firms estimated to cost US\$ 100,000 or more;
ix.	Award of any contract for individual consulting services estimated to cost US\$ 25,000 or more;
x.	Award of any contract via Direct Contracting for Goods and related Non-Consulting Services above the low-value threshold specified in paragraph 6. b. (iv). Any contract below this low-value threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
xi.	Award of any contract via Direct Contracting for Works above the low-value threshold specified in paragraph 6. a. (iv). Any contract below this threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
xii.	Award of any contract via Single/Sole Source Selection of Consulting Services to firms above the threshold specified in paragraph 6. c. (vii). Any contract below this

#	Item
	threshold does not need N.O. as long as the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
xiii.	Award of any contract via Single/Sole Source Selection to individuals above the threshold specified in paragraph 6. c. (viii). Any contract below this threshold does not need N.O. as long as the cumulative threshold stated in the same paragraph is not exceeded and the contract duration is three months or less.

Operating costs shall include staff, travel expenditures and other travel-related allowances with prior clearance in the AWPB; equipment rental and maintenance; vehicle operation, maintenance and repair; office rental and maintenance, materials and supplies; utilities and communication expenses; and bank charges. Operating Costs financed by the Programme will be procured using the NPCO's administrative procedures which shall be acceptable to IFAD.

In addition, the following interim steps of the procurement process for Goods/Works/Services also require IFAD's No Objection for contracts designated for "**prior review**" in the project's procurement plan. For contracts designated for "**post review**" instead, IFAD reserves the right to request the review of any of the following interim steps on a sample basis and at any time. No downstream procurement action by the Borrower/Recipient can proceed until prior NO is issued by IFAD as to the propriety and compliance of the undermentioned steps with the IFAD PPF:

#	Activity / Step of the procurement process for Prior Review Contracts	No Objection is required
i.	Call/Request for Prequalification document and related advertisement	Yes
ii.	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes
iii.	Terms of Reference for consultancy services and related non-consulting services	Yes, usually as part of NO request for issue of the RFP (step 9 below)
iv.	Technical Specifications for Goods/Works/NCS	Yes, usually as part of NO request for issue of the bid docs (step 9 below)
v.	Composition of evaluation committees	Yes, usually as part of steps 9, 13 or 15
vi.	Prequalification report for Goods/Works/NCS	Yes
vii.	Shortlisting report for consultants' selection	Yes
viii.	The use of "prior lists" for shortlisting consultants	Yes

#	Activity / Step of the procurement process for Prior Review Contracts	No Objection is required
ix.	Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable	Yes
x.	Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee	Yes
xi.	Amendments to the Bidding Documents and RFPs, CfPs	Yes
xii.	Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS)	Yes
xiii.	Technical evaluation report (in two envelope procedures)	Yes
xiv.	The combined evaluation report (in two envelope procedures)	Yes
xv.	The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS)	Yes
xvi.	Decisions concerning abnormally low bids	Yes
xvii.	Draft contract	Yes
xviii.	Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS	Yes
xix.	Rejection of all bids/proposals and cancellation of the procurement procedure	Yes
xx.	Failure of negotiations and proceeding to next ranked consultant	Yes
xxi.	Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS	Yes
xxii.	Determination to reject a bid/proposal because of cross-debarment	Yes, usually as part of steps 13, 14 or 15
xxiii.	Amendments to contracts exceeding 10% in value (increase/decrease in quantities as a result of evolutionary changes). Additional unforeseen new items exceeding 10% of the contract value is a new procurement subject to Single Source/DC conditions.	Yes
xxiv.	Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	Yes
xxv.	Termination of a contract in Goods/Works/NC Services/Consulting Services	Yes
xxvi.	The use of Force Account	Yes

Procurement Responsibilities

The Lead Programme Agency has overall responsibility and accountability for the Programme to IFAD and is therefore required to ensure that it oversees the work of the NPCO at all times. The tasks of the Lead Programme Agency in respect of procurement include, to:

- Monitor procurement management and ensure that fiduciary responsibilities are being adhered to
- Approve the Programme AWPB and Procurement Plan before submission to IFAD
- Establish and maintain an information management system in accordance with IFAD guidelines
- Monitor the progress of implementation of the Programme and furnish IFAD with periodic progress reports
- Retain and present records as required by IFAD
- Carry out a joint MTR of programme implementation and follow up and take action on any finding, recommendation, non-compliance and internal control issue
- Keep IFAD apprised of any condition that interferes with, or threatens to interfere with, programme implementation and achievement of programme objectives
- Notify IFAD of any allegations of fraud or corruption related to the Programme
- Maintain separate accounts to adequately reflect operations, resources and expenditures related to the Programme.

The NPCO: The National Programme Coordinator (NPC) at the NPCO is ultimately responsible for the entire procurement process while the National Procurement Officer (NPO) is responsible for the day-to-day management of procurement activities at the NPCO level and at each respective SPCO. The functions of the NPCO shall include but not limited to:

- Ensuring that procurement proceedings are approved in accordance with any national levels of authority which may exist and/or in accordance with the IFAD supervision requirement of the programme;
- Preparing procurement plans and ensuring the approval of the same by the Lead Programme Agency.
- Agreeing with IFAD on the procurement method or method of selection for each procurement activity.
- Preparing statements of requirements, specifications, terms of reference and/or bills of quantities.
- Preparing solicitation documents and draft contracts.
- Issuing solicitation documents, responding to clarification requests, managing bid receipt, bid opening, bid evaluation and reporting.

- Undertaking pre-qualifications, advertising, management of expressions of interest and short-listing.
- Managing bid cancellation, contract award and negotiation, contract placement, contract management, invoicing, dispute resolution, contract completion and assessment.
- Establishing a Procurement Committee.
- Supervising State Procurement Officers (SPOs).

IFAD & AFD (the Donors): The International Fund for Agricultural Development (IFAD) and the Agence Française de Développement (AFD) – herein referred to as the Donors – have a fiduciary responsibility to ensure that Programme funds are used only for the intended purposes in accordance with the applicable Financing Agreement. The donors’ fiduciary responsibility is exerted through both oversight and advisory roles. The advisory role is by promoting capacity building for achieving the economy, efficiency and social equity mainly through its implementation support activities. The main responsibilities of the IFAD Country Programme Manager include but are not limited to: (a) working closely with the Borrower, ensure appropriate staffing of the PMU with the relevant procurement expertise; (b) validate the findings on national procurement systems’ capacity assessment; (c) working closely with the Borrower/NPCO ensure proper, realistic and timely procurement plans are prepared for the Programme in the prescribed format; (d) monitor the timely execution of such procurement plans and provide the necessary implementation support; (e) review or delegate the review of technical specifications of procurement items and bidding documents for goods, works and consultancy services during prior and post reviews; (f) provide donors’ no-objection for procurement actions subject to prior review; (g) ensure compliance with the donors’ procurement policies and procedures; and (h) ensure adequate allocation of technical and financial resources during programme implementation.

The Donors shall have joint participation in the project’s steering committees as observers; these will be preceded by a preparatory meeting between them. The Donors shall have joint participation, to the extent possible, in oversight, implementation support and review missions.

IFAD will exercise oversight over procurement activities, including the review and approval of the annual procurement plan, bidding documents, evaluation reports, contracts and the monitoring of the implementation of contracts, including approval of procurement decisions pursuant to the approval matrix in the Procurement Arrangements or the Handbook, or as escalated or referred.

Reporting Requirements for Procurement

The Programme Coordinators and Procurement Officers of the PMUs shall maintain all procurement information, from planning to contract awards and subsequent performance of contracts. As procurement plans can change quite often, either by delay or advance procurement with consequent effect on programme implementation, the NPC and the SPCs are expected to review monthly the progress of procurement actions against plans.

Quarterly procurement monitoring reports: The NPCO is required to submit Quarterly Progress Reports to the project coordination unit in the supervising ministry and IFAD Country Office. The Quarterly Progress Report shall include the following:

- Physical progress report on Civil Works
- List of Contracts
- Procurement Monitoring Report – Goods
- Procurement Monitoring Report - Consulting Firms
- Procurement Monitoring Report - Individual Consultants

The NPCO is responsible for preparing Consolidated Reports and submitting within 45 calendar days after the end of the quarter. At the end of each year of programme implementation a new 12-month procurement plan should be prepared/updated by each SPCO and included as part of the Annual Work Plan for the state, by 30 September of each year which shall be consolidated by the NPCO and submitted by 31 October in respect of the next programme year.

Contract Register: All contracts, with or without prior IFAD approval, should be listed in the Register of Contracts with the dates of approval. This contract register shall not be an Excel document, but the interactive Contract Monitoring Tool addressed under Procurement Systems.

SECAP

The inherent and residual project vulnerability to environmental risks are both “substantial”. While the Project has developed SECAP safeguard documents (SRN, ESCMF and ESCMP) which will guide environment and climate mainstreaming and natural resource management, there are a few procurement inputs of note, from a design perspective.

Sustainable Procurement Initiatives

As part of the SECAP impacts, the VCN Programme should aim to minimize the environmental footprint of its day-to-day operations and emphasize social responsibility. The purpose is to facilitate the implementation of sustainable and green procurement by providing criteria that may be used as applicable by VCN personnel for the planning and procurement of goods, works and services.

For small wins in everyday procurements, the following are proposed:

Goods Generally

Environmentally preferable goods are considered as those that have a lower impact on the environment over the life of the goods or services, when compared with competing goods or services serving the same purpose.

Goods to be procured should have better recyclability with positive environmental and social attributes and/or standards, and internationally accepted industry certifications (e.g. eco-labels, ISO standards, Ethical Trade or Fairtrade labels).

In the purchase of goods, VCN shall endeavour to:

- Operate network printers with a default setting of duplex (double-sided) printing
- Use environmentally-preferable soy-based inks;
- Use certified recycled paper, such as FSC certified recycled and chlorine-free print paper;
- Participate in recycling programs with vendors, including toner and electronics recycling, as applicable

Works Generally

For procurement of Works that exceed US\$5 million, the IFAD RFB for Works would be used with the contract conditions based on the FIDIC Red Book. Said IFAD RFB for Works shall incorporate the following as part of the specifications:

- CESCMP compliant with the borrower-prepared overall project ESCMP and the requirements/specifications of the works.
- Contractor's staff code of conduct.
- Contractor's Health and Safety Management Plan (HSMP)

Services Generally

For services, especially consulting services, while evaluation criteria awarding additional scores for firms who propose a more gender-balanced key staff schedule is not advised, bidders should be encouraged to add more women to their consulting workforce, and giving them props for this in their vendor appraisals during contract implementation is definitely an option to consider. This should be reflected right from the outset, in the bidding documents.

Environmentally-responsible decision making

To ensure environmentally and socially friendly, and cost-effective procurement decisions, VCN must endeavour to:

- a. Ensure that its bidders and contracted vendors do not engage in human trafficking and/or exploitation which will include acts with any form of domestic or sexual servitude, forced labour, bonded labour, peonage or the use of child soldiers.
- b. Consider the whole-life cost of products when selecting a supplier (e.g. energy-efficient products often have an increased capital cost that is offset over time by the reduced operational cost);
- c. Avoid buying products that are harmful to the environment if a less damaging alternative is available.
- d. Choose goods, products and materials that cause minimum damage to the environment including the impact of their manufacturing, distribution, use & disposal, over those that have a greater impact (e.g. cleaning products; energy efficient lighting; closed-loop recycling carpet, etc.); and

- e. Share information and engage with current and future suppliers to make them aware of VCN's expectations and to encourage and influence them to improve their sustainability practices.

Biodiversity Conservation

For procurement of Works that include the acquisition of timber, and/or procurement of Office Furniture under Goods where local suppliers offer locally made furniture, the bidding documents shall include the inclusion of eco-label specification as a mandatory pass/fail requirement. This eco-label specification will require that the timber is legally sourced and certified to be from sustainable forests.

It is recommended that the IFAD Request for Bids (RFB) documents be used respectively for Goods (office furniture) and for Works (construction that includes timber) for national or international competitive bidding – as per the relevant procurement thresholds captured in the Procurement Arrangements letter – with the eco-label specifications included in the technical specifications and the evaluation criteria.

Resource Efficiency and Pollution Prevention

For procurement of Goods under NCB and ICB, the technical specifications shall include the following, with the evaluation criteria incorporating VFM lifecycle costing via a merit point evaluation system:

- Use of eco-labelled products minimizes hazardous substances/emissions.
- Energy-efficient appliances and structures.
- WHO/FAO codes for safe labeling, packaging, handling, storage, use and disposal of pesticides.
- Wastewater and solid waste disposal in accordance with national codes.

For procurement under Goods for NCB or ICB, the respective IFAD RFBs should be used.

For procurement of Works that exceed US\$5 million, the IFAD RFB for Works would be used with the contract conditions based on the FIDIC Red Book. Said IFAD RFB for Works shall incorporate the following as part of the specifications:

- CESCMP compliant with the borrower-prepared overall project ESCMP and the requirements/specifications of the works.
- Contractor's staff code of conduct.
- Contractor's Health and Safety Management Plan (HSMP)

Cultural Heritage and Indigenous Peoples

For procurement of non-consulting or consulting services where cultural heritage is a significant aspect, the bidding documents can include local knowledge and/or language requirements for one or key professional staff, if applicable. Previous work experience of professional staff in same or similar geographical locations may be an ancillary requirement.

The bidding document may also include incorporating contractual safeguards for “chance finds”.

For projects where indigenous people are the beneficiaries, VCN should consider one of two (or a mixture of both) options, as follows:

- a. Inviting the indigenous peoples to assist in or take over the procurement process, or
- b. In the case of minute Works projects, having the indigenous form buyer groups to procure the items needed while having engineers from the community band together to carry out the actual works.
- c. While contracting directly with communities is possible, this is not considered a procurement method. Enacting a process where only NGOs participate in the procurements and win the contracts is a welcome option.

Labour and Working Conditions

To ensure people who are staff of firms for construction works and technical and consulting services do not experience dismal workplace hygiene, uncomfortable work environment and generally poor working conditions, the following insertions are suggested for the bidding documents:

1. Bidder qualifications

- No previous convictions for infringement of labour laws for all project risk classifications.

2. Bid evaluation:

- Employment and on-the-job skills training for unemployed youth and women above a set percentage of the contractor workforce; to be rewarded through technical merit points in bid evaluation:
- Higher-quality contractor HSMPs will receive more technical merit points in bid evaluation.
- Both of these qualifications can be worth up to 5 of 100 merit points (95 points are awarded for the rest of the other criteria).

3. Contract conditions:

- Respect ILO core labour standards (no child or forced labour; equal opportunity, non-discrimination and freedom of association);
- Contractor to establish alternative mechanisms for its workers’ grievances if national labour laws impose restrictions on freedom of association
- Decent wages compatible with similar wages for the same occupation in the region.

- Requirement for contractor HSMP.
- Main contractor to impose identical labour working conditions on its subcontractors and other suppliers.
- Mechanism for borrowers to pay subcontractors directly in case of unjustifiable delayed payments to them by the main contractor.

Community Health and Safety

To ensure proper health and safety in Works procurements, the following insertions are suggested for the bidding documents:

a. Technical specifications:

- Contractor's HSMP is to include safe disposal of construction waste and worker camp waste, mitigation of risks to and impacts on the community resulting from the contractor's work, safety of deliveries and transportation, and disposal of hazardous materials and waste.
- Contractor's HSMP is to incorporate emergency preparedness against natural or human hazards.

b. Contract Conditions:

- Maintenance and prevention of damage to site access roads.
- Gender-based violence, sexual harassment and sexual exploitation and abuse will lead to an employee's termination of contract under the contractor's code of conduct.
- Influx of workers from outside project area limited to the minimum necessary.
- Periodic reporting of accidents and infringements.

Physical and Economic Resettlement and Land Management

IFAD SPDs should be used with the necessary SECAP insertions, with Resettlement Action Plan requirements incorporated.

Climate Change

Climate change and resilience is key to this programme with the initial Procurement Plan already identifying related procurements. Dire weather incidents are rife in the region where VCN thrives. IFAD SPDs should be used for all such procurements with the following insertions proposed for the technical specifications, TORs and/or evaluation criteria:

- Respect for biodiversity, resource efficiency and reduction of GHG emissions.
- Climate vulnerability of the income source of beneficiaries.
- Use of green technologies.
- Safeguards against flooding and extreme weather.

SECAP Risks and mitigation mechanism table

Environmental and Social Safeguards			
Resource Efficiency and Pollution Prevention	Risk Rating	Consequence	Procurement recommendations
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Moderate	Minor Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.	Bidding documents will prescribe national environmental laws. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million OR borrower's national bidding documents (supplemented by SECAP standards), as prescribed in IFAD Procurement Manual & procedures of IFAD Handbook. The supplementary SECAP requirements will be in the form of an annex to the particular conditions of contract and/or higher bidder qualifications, as relevant.
2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture,	Substantial	Moderate Project is fully dependent on production of living natural resources. Project is suited in an existing agricultural area, with low environmental and/or social sensitivity.	Contract: Use of IFAD/FIDIC version of contract for ICB contracts above US\$5 million. This IFAD document is to incorporate: — CESCMP compliant with the borrower-prepared overall project ESCMP and the requirements of the works; — Contractor's staff code of conduct; — Contractor's HSMP. Use of IFAD non-FIDIC bidding document for contracts under US\$5 million; OR borrower's national bidding documents (supplemented by SECAP Standards as an annex*), as prescribed in the IFAD Procurement Manual and Procurement Handbook.

Environmental and Social Safeguards				
plantation forestry, etc)				
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Moderate	Moderate The project will require consumption of raw materials, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Bidding documents will prescribe compliance with national environmental laws implemented by SECAP Standard 2 requirements as relevant. This is informed by the project's overall ESCMF as prepared by the borrower and accepted by IFAD. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million OR borrower's national bidding documents (supplemented by SECAP standards), as prescribed in IFAD manual & procedures of the IFAD Procurement Handbook. The supplementary SECAP requirements will be in the form of an annex to the particular conditions of contract and/or higher bidder qualifications, as relevant	
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or groundwater (e.g. construction of dams,	Low	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without	Bidding documents will prescribe national environmental laws. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million OR borrower's national bidding documents (supplemented by SECAP standards), as prescribed in IFAD Procurement Manual & procedures of	

Environmental and Social Safeguards			
reservoirs, river basin developments, groundwater extraction)?		the need for extension.	IFAD Handbook. The supplementary SECAP requirements will be in the form of an annex to the particular conditions of contract and/or higher bidder qualifications, as relevant
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Moderate	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Bidding documents will prescribe compliance with national environmental laws implemented by SECAP Standard 2 requirements as relevant. This is informed by the project's overall ESCMF as prepared by the borrower and accepted by IFAD. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million OR borrower's national bidding documents (supplemented by SECAP standards), as prescribed in IFAD manual & procedures of the IFAD Procurement Handbook. The supplementary SECAP requirements will be in the form of an annex to the particular conditions of contract and/or higher bidder qualifications, as relevant
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Moderate	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Bidding documents will prescribe compliance with national environmental laws implemented by SECAP Standard 2 requirements as relevant. This is informed by the project's overall ESCMF as prepared by the borrower and accepted by IFAD. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million OR borrower's national bidding documents (supplemented by SECAP standards), as prescribed in IFAD manual & procedures of the IFAD Procurement Handbook. The

Environmental and Social Safeguards			
			supplementary SECAP requirements will be in the form of an annex to the particular conditions of contract and/or higher bidder qualifications, as relevant
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)	Moderate	Moderate The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.	Bidding documents will require compliance with national labour laws, supplemented by SECAP Standard 5. This is informed by the overall project ESCMF, as prepared by the borrower and accepted by IFAD. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million; OR borrower's national bidding documents (supplemented by SECAP Standards) as per the thresholds prescribed in IFAD's Procurement Manual and Procurement Handbook. The supplementary SECAP requirements will be in the form of an annex to the conditions of contract or higher bidder qualifications
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the	Moderate	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Bidding documents will require compliance with national labour laws, supplemented by SECAP Standard 5. This is informed by the overall project ESCMF, as prepared by the borrower and accepted by IFAD. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million; OR borrower's national bidding documents (supplemented by SECAP

Environmental and Social Safeguards				
age of 18 in supported activities or in value chains?				Standards) as per the thresholds prescribed in IFAD’s Procurement Manual and Procurement Handbook. The Supplementary SECAP requirements will be in the form of an annex to the conditions of contract or higher bidder qualifications
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic	Moderate	Minor	The project operates in a sector, area, or value chain where workers are occasionally exposed to significant OSH risks, and where regulation is known to be effective.	Bidding documents will prescribe compliance with national labour laws, supplemented by relevant SECAP Standard 5 requirements. Use of IFAD non-FIDIC bidding documents for ICB contracts under US\$5 million; OR borrower’s national bidding documents (supplemented by SECAP Standards) as per thresholds prescribed in IFAD Procurement Manual and Procurement Handbook. The supplementary SECAP requirements will be in the form of an annex to the conditions of contract or higher bidder qualifications

Environmental and Social Safeguards				
hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)				
Community Health, Safety and Security	Risk Rating	Consequence	Guidances for SPOs	
6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	Moderate	Moderate The project is situated in an area where there is past evidence of negative impacts from water-borne or other vector-borne diseases, or communicable/n on-communicable diseases, but where regulation or containment of these impacts has been shown to be effective.	Bidding documents will require compliance with national health and safety rules, supplemented by SECAP Standard 6 and informed by the overall project ESCMF, as prepared by the borrower and accepted by IFAD. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million; OR borrower's national bidding documents (supplemented by SECAP Standards) as per the thresholds prescribed in the IFAD Procurement Manual and Procurement Handbook. The supplementary SECAP requirements will be in the form of an annex to the conditions of contract or higher bidder qualifications	
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Moderate	Minor The project involves the rehabilitation of dam(s) and/or reservoir(s) meeting at least one of the following criteria:	Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million; OR borrower's national bidding documents (supplemented by SECAP Standards) as per thresholds prescribed in the IFAD Procurement Manual and Procurement Handbook. The supplementary SECAP requirements will be in the form of	

Environmental and Social Safeguards			
		- less than 10 metre high wall; - less than 300m long crest; or - less than 1 million m3 reservoir capacity.	an annex to the conditions of contract or higher bidder qualifications
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Low	Minor Minor changes to community dynamics. Resulting serious recorded cases of gender-based violence and/or sexual exploitation. Gender-based violence protocols in place in the context of the GRM.	Bidding documents will prescribe compliance with national health and safety rules, supplemented by relevant SECAP Standard 6 requirements. Use of IFAD non-FIDIC bidding document for ICB contracts under US\$5 million; OR borrower's national bidding documents (supplemented by SECAP Standards) as per thresholds prescribed in the IFAD Procurement Manual and Procurement Handbook. The supplementary SECAP requirements will be in the form of an annex to the conditions of contract or higher bidder qualifications

Fragile and Conflict Affected Situations (FCAS)

Nigeria has been identified as an FCAS country, having been identified among other conflicted affected countries but with multi-dimensional fragility across governance, gender, climate change impact and the security spectrum. Based on this FCAS, the following additional procurement initiatives are allowed for VCN.

Electronic Issue

Electronic issue refers to issuing solicitation documents to bidders through electronic means. This can be achieved via email attachment, or an app-generated weblink. The solicitation document suite (containing the solicitation document in pdf, the forms in Word format, and all other annexes) are placed in a folder. This folder is uploaded into an application (app). The app then generates a link for this folder which is then provided to the bidders who request the solicitation documents.

Bidders will click on this link and be taken straight to the folder where the solicitation document and annexes can be downloaded. If the solicitation document is a single document without annexes, the document will simply open for download. Dropbox, Sync or WeTransfer may be used for electronic issues.

Electronic Submissions

Electronic submission refers to the management of the process whereby bidders can submit their bids, quotations or proposals, solely by electronic means. For this guidance, this precludes the submission of these via email or email attachment. Once the file request link (FRL) is generated, it is entered into the appropriate clause (or clauses) in the data sheet of the solicitation document, which instructs bidders on how to submit their bids or proposals. It should also be included in the body of the email that is sent to bidders who request the solicitation documents.

To set up the weblinks, an empty folder is created using an app (either Dropbox or Sync). A file request link (FRL) is then generated from this folder. This link must have a deadline, consistent with the deadline for submission of bids or proposals or that particular procurement. The link is then provided to every bidder who requests the solicitation document. Bidders will click on the link and upload their bids/proposals. Until the link expires, a single bidder can upload any number of documents.

Electronic Initiatives for Small Value Procurements

For procurements of small value and complexity, i.e. for procurements below the advertising thresholds, all the initiatives above can be used with quotations and qualifications submitted using email, not the FRL.

Local Commodities

For procurements of commodities available locally, VCN may use the approved supplier list maintained by a government ministry as a pre-qualified list and ask for prices from these bidders. For emergency purposes, VCN may also use more direct contracting initiatives after seeking a waiver from IFAD.

Local Preference

For procurements carried out by the states where security issues are rife and the number of capable suppliers remain small, the States are allowed to carry out procurements without significant competition. The States could also proceed to evaluation even when they have a single quotation, as long as the offer is considered reasonable after evaluation. The SPCOs are advised to identify potential direct contracting and sole source procurements in their procurement plans so that these are approved long before they commence the actual procurement process.

Procurement Systems

Online Project Procurement End-to-End System (OPEN)

IFAD has developed a new online system that would automate and manage procurement reporting throughout the procurement cycle, from procurement planning to contract management (“from end to end”).

OPEN increases the efficiency of procurement teams by automating what were once manual processes and bringing together previously fragmented IT systems and offline templates. The system incorporates built-in guidance for users on how to conduct each procurement activity from start to finish and increases transparency and efficiency over the procurement processes of IFAD-financed projects.

With VCN being enrolled in OPEN, IFAD’s No Objection Tracking Utility System (NOTUS) will not be used.

IFAD Project Procurement Contract Monitoring Tool (CMT).

VCN shall send a request is sent to IFAD to access the Project Procurement Contract Monitoring Tool (CMT) in the IFAD Client Portal (ICP) and shall ensure that all contracts, memoranda of understanding, purchase orders and related payments are registered in the Project Procurement Contract Monitoring Tool in the IFAD Client Portal (ICP) in relation to the procurement of goods, works, services, consultancy, non-consulting services, community contracts, grants and financing contracts.

The Project shall ensure that the contract data is updated on a quarterly basis during the implementation of the Project.

UNGC Preference

The United Nations Global Compact (UNGC) offers a policy framework for organizing and developing corporate sustainability strategies while offering a platform to encourage innovative initiatives and partnerships with civil society, Governments and other stakeholders. The inclusion of the UNGC participation into project procurement as a margin of preference in the selection in the bidding process enhances the sustainability of the IFAD-funded projects, in line with the commitment to underpin the challenges in achieving the Sustainable Development Goals (SDGs). Also, bidders who register with UNGC benefit from the membership participation which includes networking access with UNGC participants – representing nearly every industry sector and size throughout the globe and it gives access to partnerships with a range of stakeholders – to share best practices and emerging solutions.

How is preference evaluated?

When IFAD-funded projects develop bidding documents, there would be a requirement to evaluate UNGC membership, using scores. When bidders participate in these procurements, there will be a UNGC Commitment form among others. Bidders are to fill the form, get it signed by someone with the legal authority, and submit along with their bid, or proposal. The evaluation committee will verify that all who submitted bids are UNGC members on the UNGC website. If a bidder is not found in the website but has submitted a signed Letter of Commitment form, the bidder will be considered a member for the purposes of that procurement.

How do bidders benefit from UNGC membership?

- Networking access to all UNGC members. This helps in associating with other firms for complex procurements around the world
- Sharing of best practices and emerging solutions
- Access to tools, resources and training

More information is provided in Annex 9E of the PIM.

A complete PIM on the Project Procurement Strategy is marked Annex 9E.

IV.9 RISKS AND RISK MANAGEMENT

In view of the expected continuation of the fragile context both in the programme area and in the country as a whole during the implementation of VCN, the overall inherent and residual risk is rated **Substantial**. The risk categories and subcategories rated high or substantial are summarized below, while further details of the risks and their mitigation measures are provided in the IPRM in Annex 10.

Risks external to VCN

As mitigation of the external risks is largely beyond the scope of VCN, the PDR will focus on adaptation to these risks. Under the **country context risks** category, the Macroeconomic and Fragility and security subcategories are rated High, while the Political commitment and Governance subcategories are rated substantial. VCN will adapt to the high *Fragility and security risks* in northern Nigeria by addressing the fragility drivers of poverty, youth unemployment, and climate change, and deepening the use of ICT4D tools for programme monitoring. For the substantial *Political commitment risk* arising from governments increased focus on food security and other emergency actions as a result of socio-economic crisis, VCN will support national food and nutrition security priorities while investing in inclusive sustainable food systems transformation. On the substantial *Governance risk* associated with the high perception of corruption in the country, IFAD ICO will explore collaboration with the Office of the Auditor General of the Federation to strengthen compliance to rules of borrowing and project implementation. VCN will also mitigate the risk for the project by leveraging the CPAT expertise to strengthen the capacities of the programme management in financial management, procurement, audit and M&E to reinforce compliance.

Under the **Sector Strategies and Policies** category, the inherent and residual *Policy development and implementation risk* is Substantial in northern Nigeria as a result of economic inequality, insecurity, and cultural barriers that increase gender inequality and limit access to services and opportunities within the community. VCN will mitigate this risk by: promoting policy and regulatory framework fostering inclusivity, and creating spaces for open dialogue; implementing programme activities that create opportunities for all community members; empowering community members to have a voice in decision-making processes; promoting gender transformative approach through GALS methodology; and ensuring that decision-making bodies and community leadership reflect the diversity of the population.

Project risks

The most critical project risks that could directly affect the success of VCN include: (i) **Implementation arrangements risks**, including: weak staff capacity following the gap between the close of CASP and the start of VCN. This risk will be mitigated by open recruitment of qualified staff. The Substantial risk rating for **M&E arrangements** will be mitigated by ensuring that an adequate budget for M&E, that considers issues of conflict and fragility, is outlined in the COSTAB and guidance provided in the PIM to improve data collection, analysis and reporting. The two Substantial risk categories under **Procurement** are *Accountability and transparency* and *Public procurement processes*. The mitigation measures proposed for VCN including the use of IFAD's Standard Solicitation Documents across the board for all advertised procurement, and the IFAD Handbook for contract management are expected to lower the overall procurement risk to moderate. The High **Financial Management** risk will be mitigated through: ensuring that VCN has a solid internal controls framework and FM arrangements for accurate and timely record keeping and financial reporting; recruiting qualified FM staff for the NPCO and SPCO; IFAD providing hands-on capacity building on FM and internal audit on a regular basis to VCN; and implementation of hybrid (cloud-based and desk) accounting software for accounting record keeping, financial reporting and accounts reconciliations.

IV.10 ENVIRONMENTAL AND SOCIAL AND CLIMATE RISK CLASSIFICATION

Environment and Social category

The VCN's Environmental and Social Category is rated '**Substantial**' based on the IFAD Environmental and Social Safeguards Screening Checklist in the ORMS. VCN being a natural resource dependent VC project, which includes agricultural intensification and/or expansion of crop production clusters in non-sensitive areas as well as the development of medium-sized agro-processing centres, the risk of environmentally unsustainable production is substantial, via unsustainable land management, agrochemical use issues, unsustainable drawdown of groundwater resources for irrigation, the use of firewood in processing, and potential release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse impacts. The risks of biodiversity losses and physical and economic displacement are low. The ESCMF and ESCMP have been developed to enable mitigation/remediation/considerable reduction of potential risks as appropriate. Sub-project-specific Environmental and Social Management Plan (ESMP) will be required for land development and development of market infrastructure on a case-by-case basis. VCN is not envisaged to negatively affect indigenous peoples or sites of historic, religious, or cultural significance, and will not support the opening of lands in virgin forests, sensitive areas, and protected areas. The processing systems offer opportunities for creating additional VCs, such as making use of crop waste for fuel and animal feed.

The social risk is also **Substantial** across the states due to insurgency, banditry, and kidnapping by non-state actors, as well as resource conflicts (especially between farmers and pastoralists) and related threats to human security as well as the operation in working conditions that do not meet national labour laws or international commitments, child labour and labour influx; and health and safety issues related to dams construction. The VCN will build on existing channels including CAF and the CDAs, as well as the LGA conflict resolution committees established by the government in some of the states to deepen conflict resolution. It will also support mechanisms to compensate farmers and processors for conflict-related damages. VCN will prioritize women in targeting and support policy dialogue on land reform as a mitigation strategy for both land access for women and conflict management. VCN will promote a framework to discourage child labour and unpaid women labour, sensitize on community health and safety, and establish an open and well publicized grievance reporting channel and redress mechanism. Various safeguard documents have been developed with the PDR, and VCN will develop an Integrated Pest Management Plan and Labour Assessment and Management Plan at the early stage of programme implementation. The financial intermediaries will be required to submit their environmental and social governance (ESG) framework at the early stage of implementation. The co-financier (AFD) will also be required to disclose their ESG framework to ensure compliance with IFAD's SECAP framework.

Climate Risk classification

VCN's climate risk is **Substantial** based on the IFAD Climate Screening Checklist in the ORMS. The programme area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and market infrastructure. The risk of water scarcity leading to drought for agriculture is substantial. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, unsustainable land management practices, and operation of environmentally unfriendly processing machines. The VCN target group is substantially dependent on climate-sensitive rainfed agricultural plots. All parts of the project area have been subjected to extreme flooding in the recent past. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability, that could lead to increased dry spells and high intensity rainfall leading to pluvial floods, erosion and landslides, and risk of river damage to road infrastructure. Increased local processing further represents a greater risk of use of firewood with concomitant GHG emissions from deforestation.

VCN has the potential to integrate climate resilience measures without extensive additional costs. Upscaling the achievement of CASP in resilience-enhancing practices including capacity building programmes in climate-smart agricultural production, collaboration with extension services and NiMET to promote weather/climate monitoring and agro-climatic information, use of climate resilient seed varieties, partnerships to enable farmers to get access to market linkages and information, and investment in market infrastructure could strengthen the resilience of SHFs. Investment in rural renewable energy technologies including conversion of cereal into briquettes and biochar will reduce GHG emission, and micro-insurance to cover losses to floods will be promoted. VCN will promote the critical adaptation options indicated by the Targeted Adaptation Assessment to strengthen the resilience of the beneficiaries across the target states.

IV.11 IMPLEMENTATION READINESS

The target is to obtain IFAD Board Approval for VCN in September 2024, complete the financing agreement negotiations during Q4/2024, and achieve readiness for first disbursement in Q1/2025. A comprehensive draft Programme Implementation Manual (PIM) has been prepared as a part of the design process, as well as a draft AWPB and a draft procurement plan for the first 18 months of programme implementation. These documents aim to ensure that the programme implementation starts as scheduled, without unnecessary delays during the first programme year.

An approval of VCN in September 2024 will offer an auspicious window for the programme to pass through parliamentary endorsement, in time for the submission of the federal and state draft budgets to parliament late in November, against parliamentary approval of the programme budget, as part of the budget for the FMAFS in December. The draft AWPB in this PDR will facilitate the budgeting process.

A robust start-up workshop is planned for the recruited staff in January/February, building on the lesson in the CASP PCR that the lack of a formal orientation of the staff at the start of the programme contributed to the capacity lapses during implementation. The potential delay of start of VCN will be mitigated by close involvement of the FMF and FMAFS in the review process of the PDR, the financing agreement negotiations and in timely preparation for fulfilling the effectiveness conditions, especially the recruitment of the key staff and the signing of subsidiary loan agreements between the FGN and the participating states.

It is not anticipated to apply for a Facility for faster Implementation of Project Start-up (FIPS) but the programme will benefit from a start-up advance of US\$ 500,000. The table below summarizes the proposed next steps for VCN.

Activity	Responsibility	Time frame
Signing of Financing Agreement	IFAD/FGN	October 2024
Development of 1st AWPB	FGN	November 2024
Recruitment of Key NPCO staff	FGN	November/December 2024
Start-up workshop/Training	IFAD/FGN	January/February 2025
Development and Finalisation of the PIM	FGN/IFAD	February 2025
Development and finalization of VCN targeting strategy	NPCO	Q1 2025
Development and finalization of the M&E and KM strategies	NPCO	Q1 2025
Procurement/ Installation of FM system	NPCO	Q1 2025
Signing of State Level Agreements	FGN/Respective states	Q1 2025

Annex 9A: Infrastructure Implementation Manual

COUNTRY: NIGERIA

Value Chain Programme North of the Country

Infrastructure Implementation Manual

Contents

1. Introduction
2. Proposed Activities Under the Sub-Components
 - Irrigation Systems
 - Post Harvest and Value Addition Facilities
3. Sub-Projects Selection Process
4. Implementation Arrangements
 - Water Supply for value chain infrastructure
 - Water Supply from Small Earth Dams
 - Access Roads
5. Sustainability

Abbreviations and Acronyms

BoQs	Bills of Quantities
CASP	Climate Change Adaptation and Agribusiness Support Programme
CN	Concept Note
COSOP	Country Strategic Opportunities Programme
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FGN	Federal Government of Nigeria
FOs	Farmer Organizations
Ha	Hectare
IFAD	International Fund for Agriculture Development
IWUOs	Irrigation Water User Organization
Km	Kilometer(s)
LGA	Local Government Areas
LGCs	Local Government Councils
MMC	Market Management Committee
MOU	Memorandum of Understanding
m ²	Square Meters
M ³	Cubic Meters
NBC	Nigerian National Building Code 2006
NPMU	National Project Management Unit
O&M	Operation and Maintenance
PWD	People With Disabilities
RMCS	Road Maintenance Committees(s)
VCN	Value Chain Northern Nigeria Programme
SECAP	Social, Environmental and Climate Assessment Procedures
SP	Service Provider
SPMU	State Project Management Unit
SVCIO	State Value Chain Infrastructure officer
USD	United States Dollars
UO	User Organization
VC	Value Chain
VCDP	Value Chain Development Programme
WUOs	Water User Organization

1. INTRODUCTION

1. This Infrastructure Implementation Manual (PIM) provides guidelines for the implementation of the infrastructure related sub-components of the Value Chain North Project (VCN). The PIM elaborates the procedures and processes that are to be followed in the implementation of activities in the infrastructure related sub-components. These are *Sub-component 1.1: Promoting sustainable agricultural systems, improved technology and climate-resilient agricultural practices* and *sub-component 2.1: Reducing postharvest losses and promoting processing agricultural products*. This PIM is an annex of the Project Design Report (PDR) PIM and thus processes and procedures presented in this document are to be read in conjunction with the relevant sections of the main PDR.

2. The process presented here is a framework that is meant to assist the VCN implementation staff including those from States and the Local Government Authorities (LGAs) in thinking through the processes for the different infrastructure sub-components. It is proposed that at startup, the implementing staff be facilitated to review the activities and processes presented herein. The review would amend or beef up the activities and processes as necessary. The value in undertaking such a review would be that through the process, the implementing staff would "own" the PIM. Such ownership would ensure that the staff would follow the PIM during the implementation of activities. The activities proposed under the two subcomponents are described in the following sections.

2. PROPOSED ACTIVITIES UNDER THE SUB-COMPONENTS

3. Under this subcomponent, the Project will invest in irrigation systems, consisting of tube wells, wash boreholes and small earth dams and on-farm rainwater harvesting ponds. They are meant to enable the farmers in the target areas to engage in year-round production. The expected result is that the farmers will increase their agricultural productivity, with resultant increase in incomes, which would invariably build their resilience to climate change. The activities to achieve these results and their implementation process are described here below.

Irrigation Systems

4. **Tube wells and Wash bore wells equipped with solar pumps:** Bore wells and tube wells are basically similar, both drilled wells that are used to extract water from underground aquifers. However, there are some differences, the key ones being that bore wells are shallow, usually drilled to about 15 meters. On the other hand, tube wells are deeper starting from 15 meters and above. The choice of which type to drill depends on the underground soil conditions and is best determined by a hydrogeologist. Whichever choice they will be drilled, test pumped to establish the yield and equipped with submersible solar powered pumps. The pumped water will be directly applied to the farms.

5. **Construction/Rehabilitation of small earth dams:** Earth dams are basically structures constructed across a water course be it a valley, a river or stream to create water storage space upstream. The dam structure can also be constructed of the water course and the water diverted into the reservoir. Small earth dams usually have a crest of about 2 to 5 meters high that supports the storage of between 5,000 and 1 million cubic meters (m³). Since they are made with soil, care is needed to ensure that only soil of good compaction quality is used. This is necessary so that during construction, the soil is properly compacted for the dam to gain the right strength since it is the dead weight of the dam that resists the horizontal forces of the water. Another important feature is the spillway that evacuates the excess water once the reservoir is full to capacity. A poorly located spillway can be a danger to the system because it can lead to overtopping off the excess water leading to failure of the dam.

6. Under this Project, the dams will be constructed to harvest and store rainwater primarily for irrigation and livestock watering. Water extraction will be done using solar powered irrigation pumps, which are increasingly becoming affordable and the preferred choice for rural farmers.

7. **On-farm lined ponds:** these are lined on-farm rainwater harvesting ponds for harvesting rainwater for supplemental irrigation. They are on-ground dug ponds with a storage capacity of 50- 100 m³, lined with UVR plastic and roofed with simple metallic structure and shade net to reduce water loss through evaporation. The ponds are sited in the farm in a section where it is possible to trap runoff to flow to the pond by gravity. The water will be pumped to an overhead storage tank with a solar powered pump and used for production under low-head drip irrigation systems.

8. **Small flood control works:** these are additional drainage measures that will be needed in specific sites to control flooding. These could be gully protection measures, particularly affected gulleys or infrastructure that would be needed to control and drain excessive rainfall from areas prone to damage by floods. These would be drains of about 300 m length on average to reach streams or rivers.

Post Harvest and Value Addition Facilities

- a) Post harvest storage & value addition
 - Market stalls, with storage space and solar powered bore hole for human consumption and sanitation services
 - aggregation/bulking facilities with solar powered bore hole water supply for human consumption and sanitation services
 - Agro Processing facilities constructed or rehabilitated with solar powered borehole water supply for human consumption and sanitation services
- b) Rehabilitation of last mile rural roads
 - Project implemented
 - community implemented
 - drainage infrastructure including water storage ponds, culverts, bridges, etc.

3. SUB-PROJECTS SELECTION PROCESS

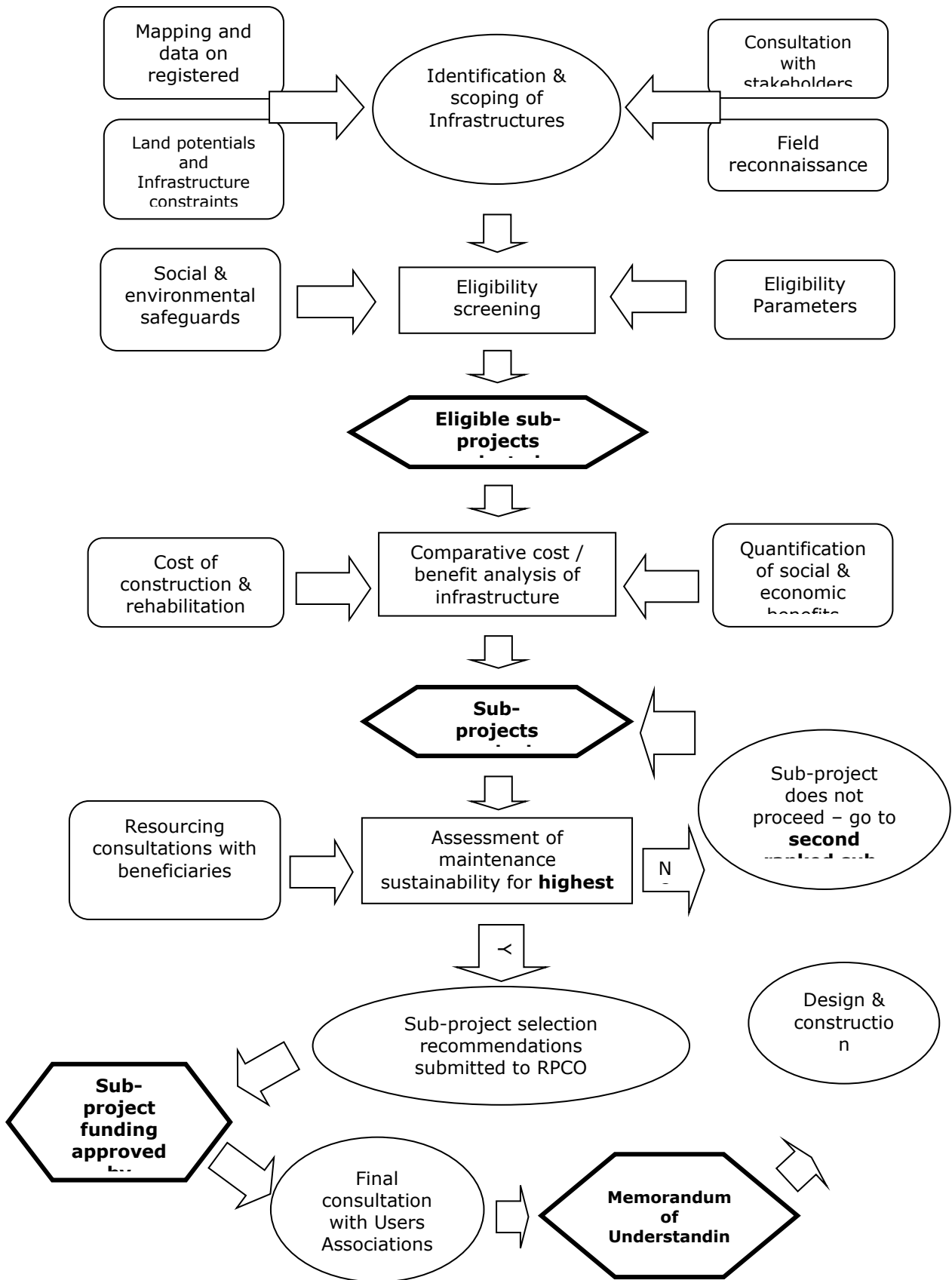
9. The infrastructure sub projects are to be implemented in LGAs already selected using the Projects agreed criteria. However, it will be necessary to select what sub projects are implemented where. Under each of the sub-components, studies/assessments will be done to establish demand for the infrastructure vis-à-vis the selected value chain crops versus the land potential for instance. The outcome of these studies/assessment will be listing of potential sub projects that will then be screened for eligibility using agreed upon criteria. While that criteria will be agreed upon by the Project and other stakeholders, some overarching criteria include:

- The sub-project has potential to contribute to the objectives of the VCN
- For the communally owned sub projects, the State/LGAs are ready to avail the land where it will be constructed
- Where the sub project involves a groundwater source, the site is assessed to establish that it has the potential to yield enough water to meet the expected demand;
- For markets, aggregating centers and processing infrastructure, the location would be close to where the production is taking place;
- The target users/Fos are willing to contribute the funds for operations and maintenance
- Access roads that qualify to be rehabilitated are those in poor state that are constraining the delivery of production inputs and produce evacuation in areas where production is being supported.
- The State/LGAs commits to develop and operationalise a community-based roads maintenance and to avail funds for the maintenance.

10. From among the infrastructure that is finally selected, there will be some that will require engineering design. The design process will comprise of activities such as topographical or hydrogeological surveys and the actual engineering designs with drawings and bills of quantities for use in tendering. The process and procedures are described in the section following here below.

11. As described above, the infrastructure or technologies proposed are different categories but once selected, each of them constitutes a sub project. The process for identifying and selecting the sub projects will be similar as outlined in Flow Chart 1 here below.

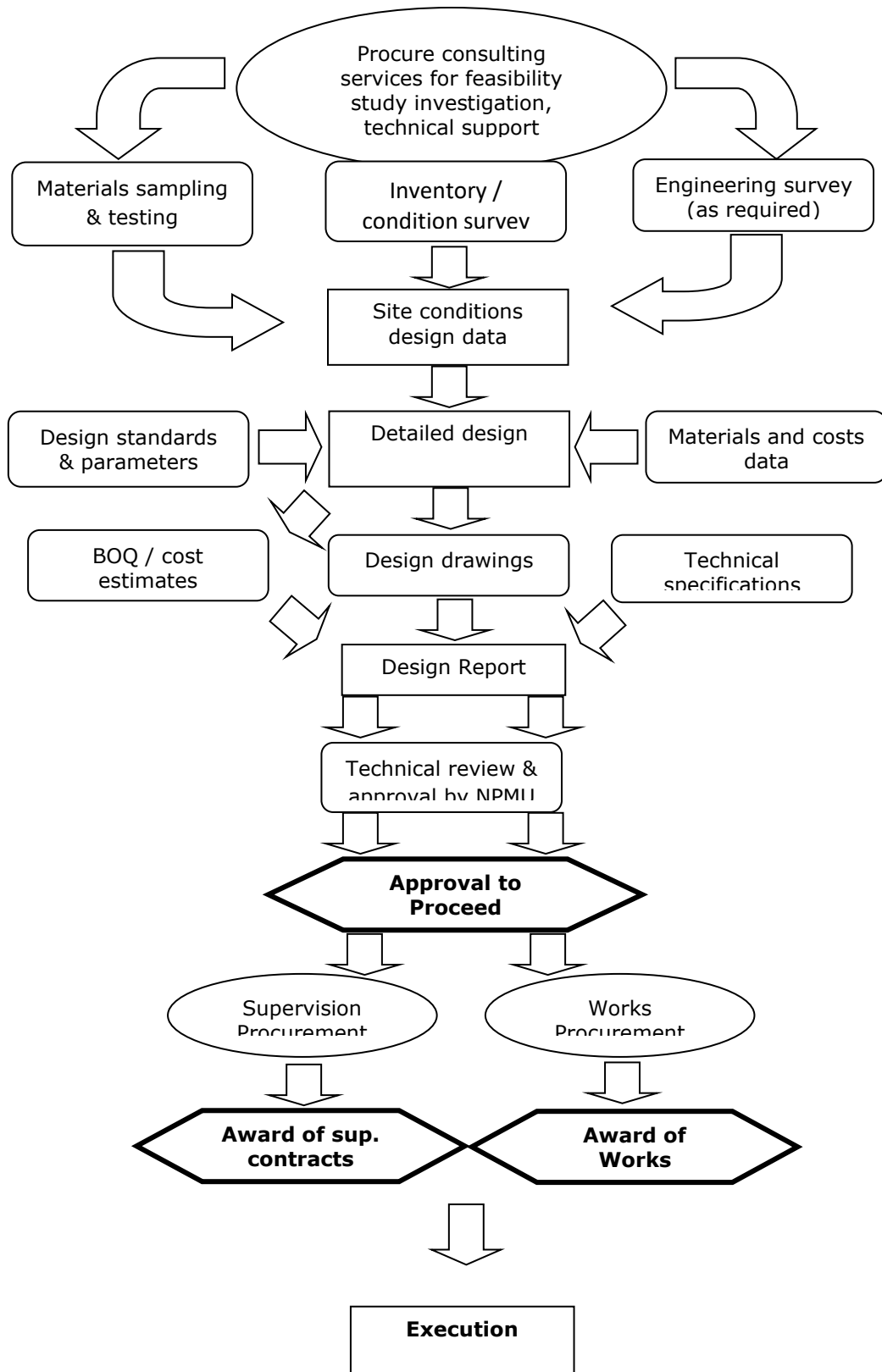
Flow Chart 1: Process of Identification and Selection of Sub-Projects



Source: Adapted from the VCDP Project Implementation Manual

12. Once the sub projects have been selected, they will go through engineering designs that will include tender documents. The SPMU will use tender documents to contract the works to contractors. The process will be a show in Flowchart 2 below.

Flow chart 2: The Design and Tender Process



4. IMPLEMENTATION ARRANGEMENTS

Institutional framework

13. The institutional framework for implementing the VC infrastructure sub-components will be as presented in the Box 1 below.

Box 1: Institutional Arrangements

- The State Value Chain Infrastructure officer (SVCIO) of the SPMU will be responsible for supervising all civil works, supported by the Engineers from the respective LGAs.
- For each of the infrastructure, the SPMU will form a user' organisation that will assume responsibility for O&M. These will be organisations such as Irrigation Water Users Association (IWUA), Market Management Committee (MMC), Road Maintenance Committees (RMCs) etc.
- For the feeder roads, the SPMU will also sign an MOU with the concerned State Ministries so that they assume full responsibility for recurrent, periodic and emergency maintenance which are beyond the capacity of the LGAs and communities, so as to ensure a stable financial base for maintenance. The SPMU action will be aligned to the Federal Government of Nigeria (FGN) Draft National Transport Policy, which proposes to give top priority to effective routine, periodic and emergency maintenance of rural roads in all LGAs and communities through the use of RMCs that will be created at LGA level.
- The SPMU will ensure that MOU are developed and signed by relevant parties including community representative and representative of Fos before execution of work commences.
- If applicable, the SPMU will also collaborate with the Ministry of Commerce and Industry, municipalities and/or Local Government Councils (LGCs) to facilitate the construction or rehabilitation of assemble markets and processing infrastructures in the target LGAs.
- The Project will support the training of each of the users' organisation on the Organisation and Management necessary for the organisation to carry out the Operation and Maintenance of physical infrastructures.

Source: Adapted from the VCDP Project Implementation Manual

Irrigation Systems

14. The VCN will also support irrigation infrastructure with the objective of providing water for irrigation to enable all year production where the water sources are sufficient or supplemental irrigation where the water may not be enough for all year irrigation. A key criterion in selection of where the irrigation infrastructure will be provided is that the land has potential of having water sources. It is the potential water sources that will determine the type of irrigation facilities to be developed. Thus, where there is potential for water above 15 deep, a tube well will be implemented; where the water table is high below 15 meters a wash bore well will be constructed, and so on. On farm water harvesting ponds will be provided to poor households to produce both for sale and for improved nutrition. Other criteria would include availability of surface or subsurface source of reliable water supply; and, where the infrastructure will be serving more than one farmer, they be willing to organize into an Irrigation Water User Association (IWUA), collect fees for maintenance of the system and establish required systems for sustainable operation and maintenance of the system. The Project will support those that meet these criteria with the necessary capacity building to gain knowledge and skills in organization and management to enable them to sustainably operate and maintain their irrigation infrastructure.

15. The irrigation water provision will be through different technologies depending on the availability and reliability of the water source. A total of 7,707 ha of land will be irrigated through the combination of technologies as follows include:

- 4,744 tube wells equipped with pumps each capable of irrigating 1 ha of land, thus are total of 4744 ha irrigated using tube wells;
- 1,482 wash bore wells equipped with solar pumps each capable of irrigating one ha of land, thus are total of 1482 ha irrigated using wash bore wells;
- 357 small earth dams with pumps, capable of irrigating 4 ha of land or more thus are total of 1428 ha irrigated small earth dams; and,

- 533 on-farm water harvesting ponds each having a potential of irrigating 0.1 ha of land thus are total of 53 ha irrigated using on-farm rainwater harvesting ponds

16. The drilling and equipping of tube wells and wash bore well will be contracted to drilling contractors with process being as follows:

Table 1: Drilling and Equipping of Tube Wells and Wash Bore Wells

No	Activity	Responsible
1	Prepare the tender documents including bills of quantity for drilling and equipping the boreholes	SPMU
2	Carry out the tender process up to award of the contract to drill and equip the boreholes	SPMU
3	Undertaking the consultancy and construction services for the boreholes development by implementing the activities as follows:	Contractor
	1- Hydro-geological investigations	
	2- Drilling works	
	3- Pumping test all the boreholes to establish the yields	
	4- Provide submersible portable solar powered pumps	
4	Supervise on daily basis the all works related to Hydro-geological survey, pumping testing, drilling works & equipping of the boreholes	SPMU/LGA Engineers

Water Supply for value chain infrastructure

17. Some of the value chain infrastructure including markets and processing facilities will be equipped with water supply for domestic use and sanitation services. The supply of water for these facilities will be improved through the development of boreholes equipped with overhead storage tanks and solar pumps. The selection of where to invest in livestock watering facilities will be informed by the agreed criteria. The drilling of boreholes is of these boreholes will follow similar process as the tube well and will be implemented as follows:

Table 2: Drilling and Equipping of Boreholes

No	Activity	Responsible
1	Prepare the tender documents including bills of quantity for drilling and equipping the boreholes	SPMU
2	Carry out the tender process up to award of the contract to drill and equip the boreholes	SPMU
3	Undertaking the consultancy and construction services for the boreholes development by implementing the activities as follows:	Contractor
	5- Hydro-geological investigations	
	6- Drilling works	
	7- Pumping test all the boreholes to establish the yields	
	8- Install submersible solar powered pumps	
	9- Construct livestock watering troughs & domestic water points	
	10- Install Water tanks and associated plumbing systems.	
	11- Train WUA in the technical aspects of O&M of the infrastructure	
4	Supervise on daily basis the all works related to Hydro-geological survey, pumping testing, drilling works & equipping of the boreholes	SPMU/LGA Engineers

Water Supply from Small Earth Dams

18. As observed above, some irrigation water will be supplied through construction of small earth dams. The design of the dams and supervision of their construction will be contracted to consulting firms. The process will be as follows:

Table 3: Consultancy Services for Design & Supervision of Construction of the Small Dams

No	Activity	Responsible
1	Prepare the Terms of Reference for the consultancy to design and supervise construction of dams	SPMU
2	Carry out the tender process, up to award of the contract, to design the dams and prepare the bills of quantities	SPMU
3	Carry out the design including bills of quantity for construction of dams	Consultant
4	Carry out the tender process up to award of the contract to construct the dams	SPMU
5	Undertake the design of dams by implementing the activities as follows:	Consultant
	1- Soil Survey.	
	2- Topographic Survey.	
	3- Dam Design.	
4	4- Preparation of the Bills of quantities and tender documents	
4	Supervise on daily basis the all works related to Construction and equipping of the dams	SPMU/LGA Engineers

19. Once the designs are ready construction will be contracted to contractors with the process being as follows:

Table 4: Construction and Equipping of Small Dams

No	Activity	Responsible
1	Prepare the tender documents including bills of quantity for constructing and equipping the dams	SPMU
2	Carry out the tender process up to award of the contract to construct and equip the dams	SPMU
3	Undertaking the construction services for construct and equip dams by implementing the activities as follows:	Contractor
	1- Preliminary works (site installation and bush clearing)	
	2- Excavation and compaction work	
	3- Construction of Spillway.	
	4- Supply and installation of submersible solar powered pump	
	5- Supply and installation of storage tanks	
	6- Construction of watering troughs and plumbing system	
	7- Construction of fence	
	8- Construction of security guard house and sanitation facilities	
	9- Buffer zone around the dams	
	12- Train WUA in the technical aspects of O&M of the infrastructure	
	4	
5	Supervise on daily basis the all works related to Hydro-geological survey, pumping testing, drilling works & equipping of the boreholes	SPMU/LGA Engineers

20. As noted above, the Project will support the construction of rainwater harvesting ponds. These will be targeted at poor households and especially female headed households. They will enable the households to irrigate small gardens from which they will be able to improve household nutrition and to sell some of the produce for income.

Table 5: Farm level Rainwater harvesting ponds

SNO	ACTIVITIES	How to be implemented	Responsible
1	Mobilization of farmers and local authorities, opinions leaders on farm ponds technologies	SPMU and LGAs and organize awareness creation meetings for farm water ponds technologies	SPMU/LGAs
2	Identification of farm pond beneficiaries	Farm ponds beneficiaries will be jointly identified in	SPMU/LGAs

		concerned LGAs and local leaders	
3	To hire service provider for supply, installation of farm ponds	Service provider recruitment	SPMU
4	farm ponds Excavation: Excavation	SP and beneficiaries carry out the construction. LGA engineers provide oversight	SPMU/LGA
5	Provision of dam liners, sheets, tubes, fencing materials, pumps and tanks, pipes and related fittings for gravity fed irrigation or any other appropriate technologies	The SP will mobilize required materials and equipment for farm ponds installation and operationalization	SP
6	Installation of farm ponds and gravity fed system or any other appropriate technologies	Under supervision of Project engineer, the recruited service provider will install the farm ponds and test its operation	SP and beneficiaries
7	Construction of fence with tubes and wires, top protection of farm ponds with sheet roof, gutter installation and connecting to farm ponds	This will be done by hired service provider	SP and beneficiaries
8	Protection of surrounding area of farm ponds	Protection with different grass species and excavations cut of drain on upstream part surrounding ponds by local beneficiaries	SP and beneficiaries
9	Monitoring & oversight	To ensure the SP is following specifications	SPMU/LGA

Post-Harvest and Value Addition Facilities

21. The process of selection of post-harvest infrastructure will be done the same way as for other infrastructure. Once the sites for the different infrastructure are agreed upon, the process will also be similar to that used for sub component 1.1. The SPMU will engage engineering consulting firms to carry out the designs, bills of quantities and tender documents followed by engagement of contractors to carry out the works.

22. The SPs under the supervision of the SPMU staff will lead the process of implementation of the activities as follows:

Table 6: Consultancy Services for Design & Supervision of Construction of Post Harvest infrastructure

No	Activity	Responsible
1	Prepare the Terms of Reference for the consultancy to design and supervise post-harvest infrastructure	SPMU
2	Carry out the tender process, up to award of the contract, to design the post-harvest infrastructure and prepare the bills of quantities	SPMU
3	Carry out the design including bills of quantity for construction of post-harvest infrastructure	Consultant
4	Carry out the tender process up to award of the contract to construct the post-harvest infrastructure	SPMU
5	Undertake the design post-harvest infrastructure with the activities as follows:	Consultant
	5- Soil Survey.	
	6- Topographic Survey.	
	7- Infrastructures design and drawings	
	8- Preparation of the Bills of quantities and tender documents	

6	9- Carry out the tender process up to award of the contract to construct the post-harvest infrastructure	SPMU
7	10- Undertake the construction of the post-harvest infrastructure activities as follows:	
	11- Preliminary works	
	12- Construction of the building: excavation, foundation, floor, walling, roofing, finishes, etc.	
	13- Construction of auxiliary works such as, fences security guard house and sanitation facilities as necessary	
8	Supervise on daily basis the all works related to construction the infrastructure	Consultant
9	Oversight of construction of the infrastructure	SPMU/LGA Engineers

23. For facilities that will have borehole water supply, the contract for the borehole would be separate and carried out as described earlier.

Access Roads

24. In the areas where production will be taking place, the VCN Project will invest in last mile access roads. The objective of the access roads will be to improve the delivery of production inputs as well as improving market access for the produce. The roads will be constructed in sites that will be selected in such a manner that they link the production areas with the nearest post harvesting facilities. These will be the centers where there would have been constructed market stalls, processing/aggregation or processing facilities or connecting to a main road.

25. While evacuation of the farm produce will be the main objective of the access roads, it is proposed that the access roads be designed in a way that they also be used for water harvesting. The approach referred to as Green Roads for Water (GR4W) is recommended because the access roads so constructed would contribute to the resilience of the land. They do this by taking advantage of the road drainage structures which are designed in such a manner that they contribute to rain water harvesting. In that way, the runoff from the roads, rather than being a nuisance by causing erosion, is deliberately directed into ponds in the farms or into gravel/laterite quarry borrow pits for storage. Thus, the roadside drainage infrastructure: cut-off mitre drains, cross-drains or diversion from cross culverts, gabions, check dams, non-vented river drifts/road crossings, and so forth are all designed to the extent possible to support rainwater harvesting.

26. International development agencies such as the World Bank and many international non-governmental organisations (NGOs) are increasingly adopting this approach when supporting rural roads construction. The World Bank has gone further and developed guidelines that explain the techniques that can be used to make access roads instruments for water management. The guidelines "Green Roads for Water: Guidelines for Road Infrastructure in Support of Water Management and Climate Resilience" is available for use by the Project during the design of the access roads³⁸. Another useful document is a handbook developed by the Royal Danish Embassy in Kenya that describes techniques to use for harvesting water from roads. The handbook "Water from Roads: A handbook for technicians and farmers on harvesting rainwater from roads", is also available for use by the Project³⁹.

27. The Project will support the construction/rehabilitation of 229 km of roads directly by the Project, 174 km of roads done by the community and 444 road drainage structures. The PMU in consultation with the SPMU will determine the kilometers of roads and the

³⁸ <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/102951623742853259/green-roads-for-water-guidelines-for-road-infrastructure-in-support-of-water-management-and-climate-resilience#:~:text=The%20concept%20of%20Green%20Roads,without%20sacrificing%20or%20diminishing...>

³⁹ https://www.samsamwater.com/library/Book6_Water_from_roads.pdf

number of road drainage structures that will be allocated to the different States using criteria that they will have agreed upon. Once the numbers are agreed upon, the SPMUs will engage consulting firms to carry out the assessments and feasibility of the proposed infrastructures. For the selected sites, the SPMUs will engage consulting firms to carry out the engineering designs of the infrastructure that will be found to be feasible. The designs will include the Bills of Quantities (BoQs) and tender documents which the SPMUs will use to tender the works to private contractors for carryout the construction works. The maintenance of the constructed roads will be by the LGAs and the local communities through a roads maintenance system that is described under the sustainability section.

28. The support will include the opening up of new access roads, rehabilitation of degraded access roads, spot improvement of degraded road sections and construction of bridges, culverts, drifts, water storage ponds, etc., at strategic locations within the selected clusters. The process of identification of the specific feeder roads to be opened up/rehabilitated and road sections that will be improved will be contracted to a consulting firm. Once the roads and road sections/spots that will need construction or rehabilitation/improvement have been selected, the designs will be done following the specifications given in the highways design manual and guidelines and techniques described in the documents referred to above.

5. SUSTAINABILITY

29. Sustainability of the infrastructure is dependent on having robust operations and maintenance systems. All the infrastructure except for roads will be operated and maintained by the user communities and will therefore be requiring robust community-based O&M systems. Each of the different categories of infrastructure require different O&M arrangement but the Project has the onus of establishing O&M established for the different categories of infrastructure. Even for roads, the main difference is that since the community where the road passes are not the "owners", they would not be expected to shoulder the burden of meeting the costs of maintenance of the road. A maintenance system specifically tailored for access roads will also require to be set up.

30. A robust community O&M system is one that meets the following criteria:

- The user community has skills in organization and management;
- They develop and operationalize a well set up revenue generation and management system;
- The have the technical skills to undertake necessary repairs and operational routines of technical nature; and,
- Spare parts for their particular infrastructure are easily available.

31. Under Organization and Management, the management committee will require capacity building to gain the organizational and management skills they need to become effective in managing the O&M requirements specific to their facility. These are skills that they will need to effectively govern their operation as well as raising and managing the funds required for O&M. Among the topics they would be trained on would include areas such as:

- **Leadership and Governance:** including aspects such as making and using the by-laws to guide the operations of their facility; roles and responsibilities of the different users of the facility; how to organize meetings including records keeping and decision making, communication, conflict management, etc.; and,
- **Financial Management:** including areas such as: understanding the costs involved in maintaining the facility to guide them in setting user fees and preparing budgets that cover both management costs and O&M costs; collecting and managing user fees, etc. specific to setting the user fees, the committees would require to be guided on how to make a user fees pricing strategy. The pricing strategy is based on the premise that for consumers to pay fees O&M of their facility it must be affordable to the local community and also be able to meet, as a minimum, the operational and maintenance costs of the project. If the fees don't meet the O&M costs the facility will collapse.

Depending on the circumstances of the community, the policy could also include meeting the capital replacement costs.

32. Under Operations and Maintenance, the committees would be capacity built to understand the technical aspects of their facility. Depending on the complexity of the facility there are aspects they would be trained to manage at their level and others, such as repairing a submersible pump, which would require engaging external technical service providers. The committee would be trained to understand the day-to-day operational routines of their facility and the maintenance requirements of the technology including estimated costs of such maintenance.

33. The committees would also be capacity built to effectively participate in the supervision, monitoring and evaluation of the scheme operations from the onset so that they would be part of oversight of contractors during construction as well as to ably monitor the performance of their scheme once it becomes operational.

34. At the Project level, community capacity building is provided for under sub-component 2.2, output 2.3.2 "Rural producers Organizations strengthened in its governance, management and inclusivity". However, this capacity building is geared towards building the capacity of the Farmer Organizations (FOs) to better manage the production. This level of training is not suitable as capacity building for O&M of the infrastructure. For this reason, this design has provided for funds to carry out these training separate from the FO training under sub-component 2.2. The capacity building which will be tailored for each category of infrastructure will be carried out before the construction of the infrastructure, during the construction and post construction. The pre-construction training will address the organization and management skills and knowledge that the UO will require to manage the O&M of their facility. The construction stage training will address the technical operation and maintenance requirements for the particular infrastructure.

35. The capacity building of the facility UOs will be a two-step process. The first step will be to train trainers at the LGA level who will be responsible for training the different user organizations in the particular LGA. The staff to be trained as trainers would be State and LGA officers from the relevant department for each infrastructure category. For instance, trainers for maintenance of water facilities would be from the ministries responsible for water and irrigation, finance, as well as social/community services. The NPMU/SPMU will, from the beginning of the Project, contract qualified service providers to carry out these trainings. The next step will be for the trained trainers to, on a continuous basis, keep training the user committees of the infrastructure: before the facilities are constructed, as they are constructed and after construction as discussed above.

36. Setting up such an O&M system would then follow the following sequence.

Table 7: Sequence in Formation & strengthening of Community O&M Systems

no	Activities	Responsible
1	The SPMU engages a qualified service provider to train trainers who would be carrying out the community trainings and also select the LGA staffs that would be trained as trainers	SPMU
2 3	The SP would prepare guidelines and training Manuals for O&M specific to the different categories of infrastructure (buildings, dams, boreholes, etc.)	SP
4	The SP would train the trainers	SP
5	The trained trainers would undertake the training on continuous basis and as the infrastructure comes on board	LGA trainers
14	The WUOS in collaboration with the District and RAB will support the WUAs in the registration process and fulfilling requirements for signing IMTA	SPMU/RAB/District

37. The operational routines for the different infrastructure categories are as follows.

Table 8: Borehole Maintenance Routines

Component	Routine Maintenance	Preventative/periodic maintenance	Corrective maintenance
Pump house	<ul style="list-style-type: none"> ●Sweeping and cleaning; ●removing of cobwebs and other routines like for building above 	<ul style="list-style-type: none"> ●Chiseling of cracks and ●repointing with mortar; painting of walls, floors, ceilings and other preventative maintenance routines like for buildings above 	<ul style="list-style-type: none"> ●Rebuilding of damaged ceilings, floors, etc. and corrective maintenance other routines like for building above
Pump	<ul style="list-style-type: none"> ●Its submersible so no routine maintenance but only the turning on and off as an operational routine 	<ul style="list-style-type: none"> ●Its submersible so no periodic maintenance 	<ul style="list-style-type: none"> ●Rewinding of a burnt motor
Solar systems	<ul style="list-style-type: none"> ●Cleaning of solar panels ●checking of batteries, inverters, switch boards 	<ul style="list-style-type: none"> ●Refilling of acid in batteries, if necessary ●repair of electronics 	<ul style="list-style-type: none"> ●Replacing of panels, batteries and other devices

Table 9: Building Components and their Maintenance Requirements

Infrastructure component	Routine Maintenance	Preventative/periodic maintenance	Corrective maintenance
Building interiors	<ul style="list-style-type: none"> ●Sweeping and cleaning; ●removing cobwebs; checking for bird nests and removing them, if necessary, etc. 	<ul style="list-style-type: none"> ●Chiseling of cracks and repointing with mortar; ●painting of walls, floors, ceilings, etc 	<ul style="list-style-type: none"> ●Rebuilding of damaged ceilings, floors, etc.
Walls and ventilation bricks	<ul style="list-style-type: none"> ●Checking for dirt and for cracks; ●checking and repairing of mosquito screens; ●regular cleaning 	<ul style="list-style-type: none"> ●Chiseling of cracks and ●repointing with mortar; ●plastering and painting 	<ul style="list-style-type: none"> ●Rebuilding of damaged walls ●replacing of broken bricks
Doors and windows	<ul style="list-style-type: none"> ●Checking and repairing of locks, ●replacing broken glass panes, etc. 	<ul style="list-style-type: none"> ●Anti-termite painting of wooden structures ●anti-rust painting ●greasing of metal mounts 	<ul style="list-style-type: none"> ●Replacing of damaged windows and doors
Roofs	<ul style="list-style-type: none"> ●Inspection of the structure ●cleaning of roof sheets when soiled 	<ul style="list-style-type: none"> ●Painting to avoid the build-up of rust and corrosion 	<ul style="list-style-type: none"> ●Replacing damaged roof sheets
Rainwater drainage and harvesting	<ul style="list-style-type: none"> ●Cleaning of gutters, ensuring the correct running of water ●inspection of water valves ● checking of water quality 	<ul style="list-style-type: none"> ●Replacing damaged gutters, valves, etc ●ensuring water quality in tanks through regular disinfections 	<ul style="list-style-type: none"> ●Replacing damaged pipes or water storage tanks
Latrine and toilet facilities	<ul style="list-style-type: none"> ●Cleaning after use ●maintaining hygienic conditions ●checking of pipe joints in water borne systems ● ensuring that the surroundings are clean 	<ul style="list-style-type: none"> ●Emptying the pit or arranging for an alternative pit ● Checking and repairing the slab 	<ul style="list-style-type: none"> ●Replacing the cover or slab when damaged

38. Due to the nature of feeder roads whose ownership is not with the local community, the O&M management arrangements would be different from the schemes “owned” by the users. The proposal is to form and capacity build Road Maintenance Committees (RMCs) along sections of the feeder roads where improvements have taken place. The process of formation of the RMCs will start during construction where the contractor will be obliged

to employ the community living along the road sections, and especially the women and youth. The contractor will train them on road construction skills, which skills will be used in the maintenance of the roads. The Project will demand and include it in the construction contract that the contractor will create a community-based maintenance system.

39. The actual execution of these tasks requires the creation or development of a feeder roads maintenance system consisting of personnel that are trained on management of road maintenance and equipped with the necessary tools and equipment. However, developing and operationalizing a system that responds to the needed actions to actualize the feeder road maintenance is challenging. The challenge comes about because unlike other community-based infrastructure which are owned, used and maintained by the target communities, feeder roads are neither owned nor exclusively used by the target community. Thus, the responsibility of funding feeder roads maintenance, unlike operations and maintenance of other community-based infrastructure, cannot be expected to be met by the target community. While the maintenance of feeder roads can be community based, the responsibility for financing of the activities is (or should be) a government responsibility.

40. The setting up of functional access road maintenance systems in Nigeria has generally been a challenge. Projects such as the Value Chain Development Programme (VCDP) had recognised this challenge and initiated action by developing a feeder roads maintenance strategy. That strategy proposes a maintenance management cycle comprising of the following steps: preparation of a road inventory; an inspection and analysis of defects; determination of the works and resources needed to remedy the defects; setting priorities, especially due to budgetary constraints; preparation of maintenance plans; carrying out the maintenance works; and, monitoring and reporting. The VCN will adopt a roads maintenance system designed along lines similar to the strategy adopted by VCDP.

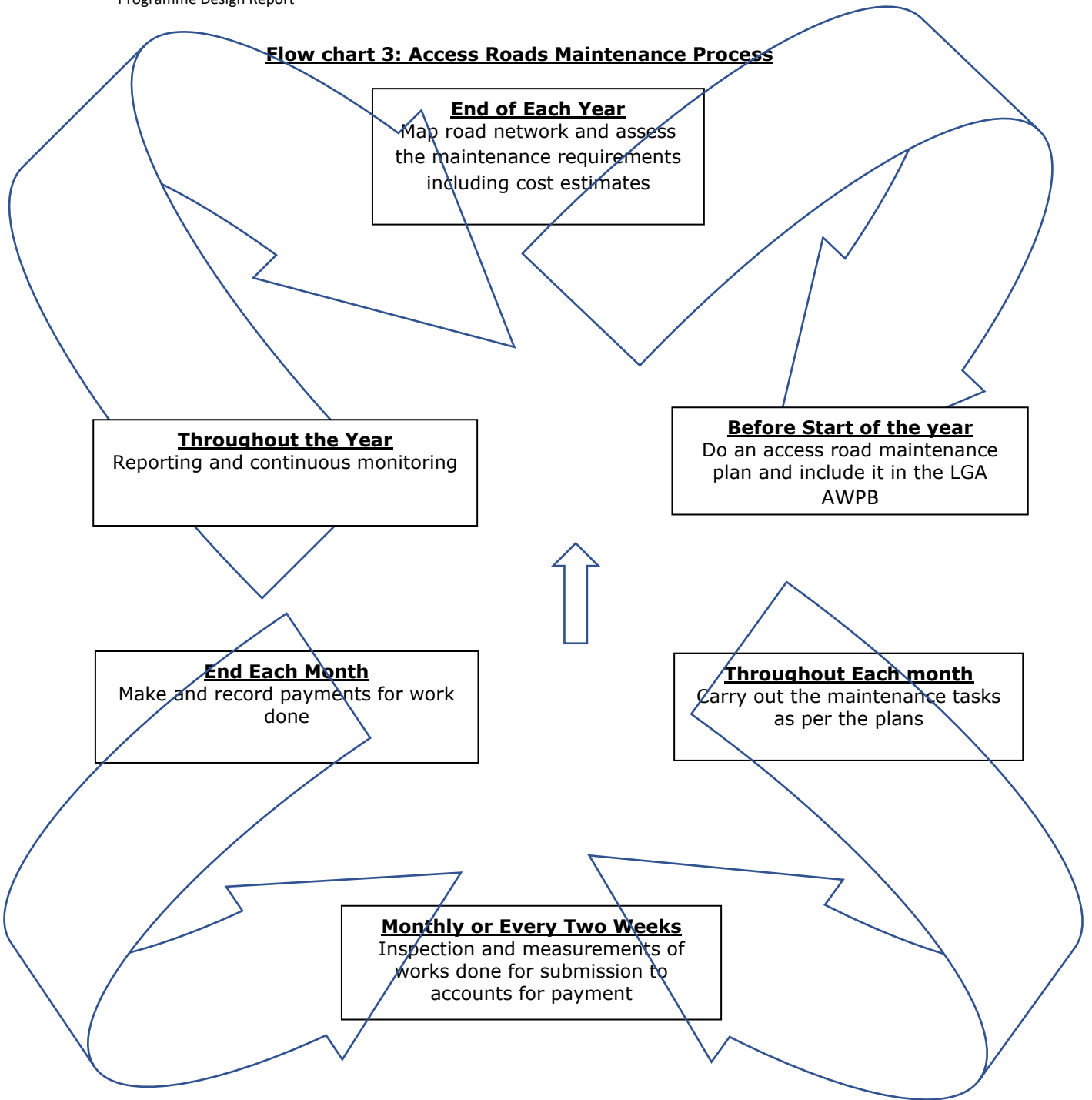
41. The proposed system is the "length-man" system whereby a small team is assigned a given length of road which they maintain and are paid based on actual maintenance work done. Supported by the State and LGA technical roads personnel (engineers, inspectors and roads supervisors), they will be formed into Road Maintenance Committees (RMCs) and equipped with the necessary organizational and technical skills as well as equipment to execute the maintenance tasks, among them including:

- a) Annually mapping the roads network, assessing their condition and determining their maintenance requirements;
- b) From the results of the assessment, developing an annual maintenance plan and including it in the States/LGA annual work plan and budget;
- c) Annually for each road or a number of roads lumped together and deriving from the States/LGA AWPB, a rural roads maintenance plan is made and broken down into monthly work plans;
- d) Throughout the year carry out the routine, periodic and emergency tasks as necessary;
- e) Measure, record and make payments for tasks completed; and,
- f) Write and file the reports (both technical and financial) as necessary.

42. This proposal envisages a system that would start at the State level down to LGA level and to RMCs operating at the LGA levels. The tasks a) and b) are quite technical which means they would require a level of knowledge and skills that would be found at the State or LGA level. Thus, carriage of these tasks would be at the State Ministry responsible for infrastructure. The annual assessments and maintenance plans for a particular road (or a number of roads lumped) together can be undertaken by an inspector or technician at the LGA level together with a road supervisor. From the LGA AWPB, the LGA personnel would jointly with the RMCs be making the monthly work plans for the different roads. The roads supervisor would oversee the RMCs carry out the maintenance tasks, measure the tasks done and write the technical reports. The payments for the RMCs can be made at

the LGA treasury with the LGA accountant recording the payments and writing the financial reports. Such a system would operate as illustrated in Flow Chart 3 below.

Flow chart 3: Access Roads Maintenance Process



43. Implementation of the access roads maintenance system would be implemented following the approach outlined in the paragraphs below:

44. **Formation and Capacity Building the RMCs:** The development of the road maintenance system will start during construction where the contractors will be required to employ the local communities living along the roads being constructed. As the local people work on the construction, they will acquire road construction skills which they will use during maintenance. Towards the end of construction, the contractor will select the most promising staff and organize them into road RMCs that will be assigned different road sections. Over and above the construction skills they will have acquired, the contractor will build the capacity of the RMCs on the technical aspects of road maintenance. Concurrently, the VCN capacity building trainers will train them in organisation and management, just like the committees for the other value chain infrastructure. This way the RMCs will have both the organisational and management skills as well as the technical skills to manage the maintenance of the roads. The RMCs would also be supported to get legal registration like other community-based organizations such as the water users associations.

45. With the RMCs trained and ready, the VCN working with the Ministry in charge of roads, will link them with the LGA technicians that they will be working under. The VCN has provided a budget of 2% of the road's allocation for community capacity building. This budget can be used for the initial setting up of the maintenance arrangements which would be done towards the end of the construction and piloted during the defect's liability period. The supervising consulting firms will train the LGA engineers/technicians in carrying out the assessments of the road conditions (if they don't already know how to) including estimating the costs of the needed repairs and prioritizing them. With this knowledge, they will be undertaking the assessments of the roads during the budget planning period of each year and making an Annual Roads Maintenance Plan for which funds would be included in the State/ LGA AWBP.

46. **Contracting the RMCs:** At the beginning of the maintenance arrangements, the LGAs will enter into contracts with the RMCs. The RMCs will be engaged on a performance-based contract. Performance-based contracting involves a set of performance standards that determine the required condition of the different road elements after the maintenance has taken place. The RMCs need to comply with these performance standards ensuring that the defects in the different road elements are repaired to the specifications. This means that they will be paid based on compliance with a set performance standard not on the amount of time spent working. This performance-based approach has advantages for both the Supervisors and the RMCs. For the Supervisors, it reduces the administrative burden since they don't have to monitor the actual working of the RMCs but rather will only carry out a simple inspection to ensure the results comply with the standards agreed upon. For the RMCs, the advantage is that they have the freedom to choose what part of the day to work depending on their other responsibilities.

47. **Monthly Work Plans:** The LGA road technicians/inspectors and RMCs will be preparing the monthly work plan taking into account the timing of activities throughout the year. For instance, during the rainy season the attention should be focused on the proper working of the drainage system, guiding water away from the road into the farm water storage ponds, removing landslides and avoiding erosion. During the dry season, on the other hand, drainage is of less importance and attention can be given to other activities. Thus, the monthly work plans will be having different maintenance activities depending on the season. The scope of work will be defined in the work plan in terms of the road sections, road elements and maintenance activities to be covered, and the required quality of the work will be defined by means of the set performance standards.

48. There are activities, especially periodic maintenance activities such as repair of potholes, and re-gravelling, which will require materials such as gravel which may not be available locally. The LGA Engineers/technicians will be making arrangements to have such materials delivered before the scheduled days for undertaking the activities. They may also require heavy equipment such as graders or compactors which are not among the

equipment the RMCs are equipped with. During the work planning the LGA Engineers/technicians will be scheduling for such machinery to be available on the scheduled days. Similar arrangements may be needed for some of the emergency maintenance that may be needed from time to time.

49. **Inspection of Works:** The LGA Engineers/Inspectors will be responsible for supervision and monitoring of the work of RMCs. The inspection will be carried out on a monthly or bi-monthly basis and timed to coincide with the work plan period. During the inspection, the new work plan for the next month can also be discussed and agreed upon. All inspections should be carried out together with representatives of the RMCs. During the inspection, the road sections indicated in the work plan will be inspected with respect to the road elements and maintenance activities indicated in the work plan and ensuring that the resulting road conditions are compared to the performance standards and allowable defects.

50. **Payments to RMCs:** The Inspectors having inspected and certified the maintenance activities carried out will record it in the road inspection forms. They will prepare payment certificates and submit to the LGA accountant for payment of the RMCs.

51. **Monitoring and Reporting:** The roads supervisors overseeing the RMCs in the carriage of the maintenance tasks, will be measuring the tasks done and level of effort for doing the task and writing reports of the same. The reports would inform the Inspectors in certifying the works for payment and they too would be writing reports on the works and the payments thereof. It is these Inspectors' reports that the LGA engineers would be using to prepare their reports to the State Ministry in charge of roads. The reports will be useful tools in assessments and work plans in the following year.

52. The system created to manage the maintenance of the access roads as described above would be expected to be carrying out activities such as the ones outlined in the Table 10 below following the Annual Maintenance Plan described above.

Table 10: Maintenance Routines for Feeder/Access Roads

Category of maintenance	Activities/Routines
Routine maintenance	<ul style="list-style-type: none"> ● grass cutting and vegetation control ● removing small landslides ● cleaning/re-shaping of side drains ● desilting of culverts and channels ● repairing potholes ● maintenance of signs and traffic safety facilities ● uprooting of vegetation from roadways and across bridges ● clearing of flood debris, etc.
Periodic Maintenance	<ul style="list-style-type: none"> ● reshaping or re-gravelling of the road surface ● repair of culverts ● resurfacing and major repair or reconstruction of cross-drainage structures ● spot maintenance, etc.
Emergency Maintenance	<ul style="list-style-type: none"> ● these are unforeseen but they do occur, e.g. floods, landslides, etc., that require urgent or emergency remedial action

53. The proposal described in the above paragraphs gives a roadmap, which if followed, would greatly improve the conditions of the feeder roads in the VCN area. However, as mentioned before, it can only be implementable if the Government provides the funds for maintenance and they are included in the States/ LGAs AWPB. This will only be possible if the entire government from the federal level to the State and lower levels appreciate the importance of road maintenance so that the States/LGAs can prioritize it and provide for the necessary funding in their budgeting plans. Otherwise, sustainability of the feeder roads will not be assured and if it is not assured the States/LGAs will end up being locked in a "build-neglect-rebuild" syndrome that has affected feeder roads in many developing countries.

Annex 9B: Terms of Reference of VCN Staff

NATIONAL PROGRAMME COORDINATOR (NPC)

Place of assignment: Abuja, Nigeria

Main responsibility and reporting lines: Under the direct supervision of the Director of the Project Coordination Unit (PCU) of the Federal Ministry of Agriculture and Food Security (FMAFS), the NPC will be responsible for the overall management and implementation of the VCN. S/he will also be responsible for managing the team of specialists within the NPCO and ensuring their performance and that of the service providers hired to implement programme activities. A key element of the position will be to ensure that the programme achieves its development objectives.

Specific duties:

- Head the secretariat of the National Steering Committee (NSC) at meetings related to VCN.
- Coordinate the implementation of VCN among the participating states.
- Provide guidance to the Programmestaff at both the national and state levels.
- Collaborate with and support the Country Programme Advisory Team (CPAT).
- Liaise with other relevant programmes and technical departments in the public sector and private Sector.
- Consolidate the states' Annual Work Plan and Budget (AWPB) along with that of the NPCO and submit timely to the Lead Agency and IFAD for approval.
- Oversee the contracting of support staff and consultants, and service providers.
- Supervise and coordinate the State Programme Coordination Offices (SPCO)
- Convene and host periodic meetings with the NPCO staff and key staff of the SPCOs.
- Ensure timely delivery of quality reports (AWPB, semi-annual reports, financial statements, audit reports, M&E reports, etc.) to FMAFS, IFAD and AFD.
- Coordinate supervision missions and ensure the implementation of recommendations (supervision and audits).
- Organize impact evaluation, beneficiary assessment, Mid-Term Review and Final Evaluation of VCN.

Qualifications and experience

- Masters or higher-level University degree in Agriculture, Agricultural Economics or other relevant discipline.
- Minimum of 10 years post-qualification experience, including at least 6 years in agriculture-related management positions.
- Proven record in the field of project preparation, coordination and supervision of agricultural projects, particularly agricultural Value Chains.
- Good writing skills and computer literacy.
- Fluency in written and spoken English and local Northern Nigeria languages.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

MONITORING & EVALUATION SPECIALIST(MES)

Place of assignment: Abuja, Nigeria

Main responsibility and reporting lines: Under the direct supervision of the National Programme Coordinator (NPC), the MES will be in charge of all VCN M&E activities, including overseeing the State and LGA levels. The MES will also be responsible for compiling,

validating and reporting M&E results and progress through collaboration with SPCOs and other Implementing Partners and for timely submission of reports.

Specific duties:

- Develop a Project-Specific M&E Plan that will clearly detail: (i) description of the VCN M&E approach; (ii) VCN processes and activities to be implemented; (iii) the tools to be used for data collection and processing (iii) the deliverables to be produced and; and(iv) M&E responsibilities of all project teams to ensure smooth collaboration;
- Support the MIS Developer in the development of the VCN M&E MIS to ensure that data collection, beneficiaries database and reporting templates are consistent with the project M&E plan;
- Prepare and consolidate, in collaboration with the Finance Unit and technical specialists, the annual work plan and budget (AWPB);
- Coordinate with State teams and implementation partners to collect and report data of project activities using the MIS as per the appropriate project data collection and tools that are outlined in the M&E Plan;
- Provide technical support to project, State staff and partners on M&E and MIS related issues, including data collection, analysis and reporting;
- Submit a timely updated Project Logframe and Physical progress performance and submit to IFAD before annual supervision missions;
- Ensure the quality of data collected and reported by conducting quality assurance checks and providing feedback to project staff and partners;
- Guide the service providers contracted to conduct COI survey by ensuring survey methodology and questionnaire adheres to the IFAD COIs;
- Ensure compliance with IFAD and Project requirements and ethical considerations related to data collection and use;
- Provide capacity to VCN, LGA and State staff and partners on M&E and MIS related issues including data collection, analysis and reporting;
- Manage project information; particularly the beneficiary database, documentation and other project related information;
- Collaborate with the VCN KM Specialist by providing evidence-based data of the impact of project interventions to guide the development of KM products;
- Carry out any other assignment or relevant duties in the field of his/her competences as may be assigned by the Project Coordinator and/or other Authorities.
- Perform other duties as directed by the NPC.

Outputs:

- Elaborated VCN contextual Project Specific M&E Plan by project start up (Q1 2025)
- Fully operational M&E Management Information System by project year 1
- Fully Developed data collection tools by project start up (Q1 2025)
- AWPB
- Quarterly data analysis reports to inform implementation
- Quarterly monitoring reports to support decision-making
- Technical assistance to project and implementation partners
- Capacity building materials (training material, guidelines, toolkits) to build capacity of project and implementation partners on M&E related issues
- Management of the beneficiaries' database to ensure outreach is up to date reporting avoids double counting

Competencies:

- Technical expertise: Possess a strong understanding of M&E concepts, methods, and tools. This includes ability to design and implement M&E plans, develop data collection tools and analyze data;
- Communication Skills: Excellent communication skills to effectively communicate project progress, results and recommendations to stakeholders such as donors,

- partners and project staff;
- **Analytical Skills:** Strong analytical skills to analyze data and identify trends, patterns, and areas of improvement. This includes the ability to use statistical software and other analytical tools to analyze data;
- **Project Management skills:** Strong project management skills to effectively manage M&E activities, including developing plans, coordinating data collection, and ensuring timely reporting;
- **Teamwork and collaboration:** Ability to work closely with project staff, implementing partners and stakeholders to ensure that M&E activities are integrated into VCN implementation;
- **Problem solving skills:** Proven ability to identify issues and challenges related to M&E and to develop solutions to address them;
- **Ethical and professional conduct:** Demonstrate ethical and professional standards in all aspects of work, including data collection, analysis and reporting. This includes maintaining confidentiality and respecting the rights of beneficiaries;

Qualifications and experience:

- University degree in statistics, demographics, public policy, international development, economics, or related field. Advanced certificate in M&E, statistics or economics preferred.
- Minimum of three (3) years of professional experience in an M&E position responsible for implementing M&E activities of international development projects and performing M&E in conflict and fragility zones.
- Experience in designing, implementing, and operating project M&E systems and plans from project initiation to closeout stages.
- Experience in designing and managing beneficiary monitoring and database systems.
- Experience in managing project level M&E Management Information Systems (MIS).
- Knowledge of the major evaluation methodologies (e.g. qualitative, quantitative, mixed-method, and impact) and data collection and analysis methodologies.
- Experience in developing and refining data collection tools.
- Experience with data quality assessments and oversight.
- Extensive knowledge of IFAD COI guidelines and policies is an advantage.
- Fluency in written and spoken English and local Northern Nigeria languages.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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AGRICULTURAL PRODUCTION SPECIALIST (APS)

Place of assignment: Abuja, Nigeria

Main responsibility and reporting lines: Under the direct supervision of the National Programme Coordinator (NPC), the APS will be responsible for the overall management of the activities related to productivity enhancement of smallholder farmers, working in close collaboration with the Food and Nutrition Specialist, Value Chain Specialist, Gender, Youth & Social Inclusion Specialist, Environment & Climate Specialist at the NPCO, and the State Agricultural Production Officers (SAPO) and the State Rural Infrastructure Officers at the SPCO.

Specific duties:

- Provide guidance and supervision to the SAPOs in the implementation of all production activities;
- Facilitate the introduction and cultivation of climate resilient, high yielding and pest/disease tolerant crop varieties;

- Liaise with relevant service providers in timely procurement and distribution of inputs (seeds, fertilizers) to farmers;
- Oversee the contracting of private sector extension service providers to strengthen existing CASP extension agents, State government extension agents (ADPs) and lead farmers on GAPs;
- Represent the NPC and speak at periodic meetings convened by the NPC on production activities and during periodic field visits to the states;
- Consolidate the state AWPBs for the Subcomponent and contribute to the drafting of yearly Programme progress reports of the NPCO;
- Work closely with other technical departments in the Federal Ministry of Agriculture & Food Security, the National Agricultural Seed Council, public and international research institutions, private sector, etc.
- Perform other duties as directed by the NPC.

Qualifications and experience

- Master's or higher-level University degree in Agronomy, Crop production, and other relevant disciplines.
- Minimum of 10 years post-qualification experience including at least 5 years in implementation of productivity enhancement projects using participatory approaches.
- Experience with international organisations, public sector institutions and/or donor funding agencies in implementing agricultural projects.
- Good writing skills and computer literacy.
- Fluency in written and spoken English and local Northern Nigeria languages.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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STATE AGRICULTURAL PRODUCTION OFFICER (SAPO)

Place of assignment: State Capital

Main responsibility and reporting lines: Under the direct supervision of the State Programme Coordinator (SPC), the SAPO will be responsible for the coordination of all production activities of rural farmers, working closely with the Agricultural Production Specialist, the ADPs, State Ministry of Agriculture, private sector, research institutions, etc.

Specific duties:

- Provide guidance and supervision to the SAPOs in the implementation of all production activities;
- Oversee the overall process of selection of FOs and target beneficiaries in the participating LGAs;
- Plan and execute annual work plans and oversee performance of value chain crops under field conditions;
- Liaise with agro-input dealers in timely procurement and distribution of production inputs;
- Supervise and build the capacity of farmers and other value chain actors on good agricultural practices (GAP);
- Represent the Agricultural Production Specialist and SPC at State periodic meetings on production activities convened by the Permanent Secretary of the State Ministry of Agriculture;
- Contribute to the drafting of project progress reports of the SPCO.

Qualifications and experience

- First degree (B.Sc.) or Higher National Diploma degree in Agronomy and other

relevant disciplines.

- Ability to assist farmers in timely completion of planned work plans and quality data collection for analysis.
- Minimum of 5 years post-qualification experience including at least 3 years in implementation of productivity enhancement projects.
- Experience of working in the fields with rural farmers in Northern Nigeria will be an advantage.
- Experience in digital agronomy advisory tools or ICT4D will be an added advantage.
- Good writing skills and computer literacy.
- Fluency in written and spoken English and local Northern Nigeria languages.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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RURAL INFRASTRUCTURE SPECIALIST (RIS)

Place of assignment: Abuja, Nigeria

Main responsibility and reporting lines: Under the direct supervision of the National Programme Coordinator (NPC), the RIS will be responsible for the coordination of the implementation of the infrastructure sub-projects in VCN. S/he will ensure that the sub-projects are of high technical quality and conform to the technical specifications and other relevant design parameters that are applicable to the concerned infrastructure. In addition to this primary function of quality assurance, the RIS shall work closely with, and assist, external consulting firms contracted to carry out the studies and designs of the sub-projects.

Specific duties:

- Participate in the pre-construction activities in the subcomponent such as:
 - Jointly with the other NPCO members, prepare the AWPB for VCN by providing reports and information on infrastructure investment as necessary;
 - Jointly with other relevant NPCO staff, participate in consultation and sensitization workshops for the Farmer Organizations to be appraised about the sub-projects and issues such as eligibility criteria, and application and selection procedure;
 - Participate in the screening and ranking of the sub-projects proposed by the communities and give recommendations on selected sub-projects resulting from evaluation; and,
 - Assess whether the proposed civil works are the best to address the requirements of the communities or whether there could be other more appropriate works.
- Support the implementation of the selected projects:
 - Participate in the procurement process (studies, works and supervision) for the construction of the sub-projects: (i) preparing terms of reference for studies and technical specifications of the work; (ii) analysis of bids and proposals and selection of consultants and contractors, (iii) preparation and negotiation of contracts and (iv) preparation and/or review of tender documents;
 - Supervise and control the activities of consulting engineers responsible for the preparation of feasibility and detailed design studies and improve the quality of the studies by conducting any further detailed complementary studies, if necessary, as well as review some existing studies before starting their execution;
 - Assist with supervision and quality control of contractors for all construction

- works to ensure that contractors are respecting the engineering and construction standards, working conditions, execution techniques and time schedule provided in the contracts;
- Confirm and approve the executed quantities reported in the contractors payment certificates;
- Contribute in the provisional and final acceptance of works;
- Organize the "handover" of completed infrastructure facilities to the user organizations according to stipulated procedures.
- Manage the user's organization capacity building including:
 - Assist With the formation and effective functionality of the infrastructure users' associations including developing a list of users, establishing a system for collection and maintenance of user fees where necessary;
 - Assist with developing a program of capacity building and training for facility user organizations and contribute to its implementation;
 - Assist with supervision of State and LGA based training of community members in operation and maintenance (O&M) of the specific infrastructure including establishing and enforcing a calendar of maintenance activities.
- Perform other duties as directed by the NPC.

Qualifications and experience

- Minimum of a Bachelor's Degree in Civil Engineering or related field with a minimum of ten (10) years' experience in design and supervision of infrastructure projects and be registered with the Engineers Registration Board of Nigeria.
- A minimum of five years working experience with rural infrastructure projects.
- A minimum of two years' experience in engineering design and its related requirements, and the construction supervision.
- Fluency in written and spoken English and local Northern Nigeria languages.
- Capable of working independently and result-oriented.
- Ability to work with stakeholders on multiple levels including non-government organizations, people's organization, donors, and local government units.
- Proven organizational skills and ability to manage multiple tasks simultaneously.
- Computer literate with high proficiency in MS word, excel, and powerpoint.
- Familiarity with IFAD or other international funding agency procedures and regulations would be an added advantage.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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FOOD AND NUTRITION SPECIALIST (FNS)

Place of assignment: Abuja, Nigeria

Main responsibility and reporting lines: Under the direct supervision of the National Programme Coordinator (NPC), the NPS will be responsible to coordinate and facilitate the implementation of the nutrition interventions of VCN at national level. He/she will work closely with the IFAD nutrition focal points (country and regional) to ensure the operationalization of nutrition mainstreaming in the programme investments.

Specific duties:

- Conduct the analysis of food security and nutrition situation in the project locations and develop the programme nutrition strategy;
- In close liaison with other NPCO staff, ensure adequate integration of nutrition in the Project documents such as Programme Implementation Manual during the start-up phase, M & E system, AWPB and Progress reports;

- In collaboration with the M&E Specialist and State level nutrition specialists, ensure adequate data collection on nutrition indicators and entry in the Programme's M&E database (e.g. develop terms of reference for baseline/endline studies);
- In close liaison with the IFAD staff, support the documentation of best practices and lessons learned for in-country and global dissemination;
- Establish and maintain working relationships with the line ministries (such as agriculture, health, gender, education) to build synergy in nutrition-sensitive interventions in project interventions and establish coordination mechanisms;
- Support the NPC to establish local partnerships on nutrition (UN, Private sector, CSO) to support implementation and technical assistance;
- Facilitate the implementation of nutrition activities in close collaboration with relevant stakeholders (e.g., implementing partners, extension workers, community service providers);
- Develop a nutrition communication strategy in the programme interventions, including development of campaign messages, training events/forum, materials;
- Coordinate capacity building and training sessions on nutrition-sensitive interventions for project staff, implementers and extension workers;
- Track and document substantive data and information on food security and nutrition indicators and maintain regular progress reporting especially at supervision, midterm and completion;
- Work collaboratively with VCN technical experts, including gender, youth and climate in the implementation and documentation of interface on nutrition outcomes;
- Perform other duties as required in the overall operations of the programme.

Qualifications and experience

- Master's or higher-level University degree in Agronomy, Crop production, and other relevant disciplines.
- Advanced University degree from an accredited institution in the field of Human Nutrition, food science or equivalent in a field related to food security.
- At least 2 years of experience in, and demonstrated understanding of food and nutrition initiatives in rural development. Knowledge of and experience in the country is preferable.
- Experience in training and capacity building is required. Knowledge on the interactions between nutrition, gender, youth and climate change is strongly desirable.
- Experience of interacting with a variety of internal and external stakeholders is desirable.
- Strong project management and coordination skills; and basic knowledge on M&E is desirable.
- Good writing skills and computer literacy.
- Fluency in written and spoken English and local Northern Nigeria languages.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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ICT4D SUPPORT SPECIALIST (ICT4D)

Place of assignment: Abuja, Nigeria

Main responsibility and reporting lines: Reporting to the National Programme Coordinator (NPC), the ICT4D will Have the following duties and responsibilities.

Duties and responsibilities:

- Coordination with Ministry and NitDA to conduct a needs assessment and develop a framework for the development of digital services under the project
- Coordinate the identified ICT working group members to develop key entry points and technological requirements for the development of Farmer registry and supervise the system deployments and infrastructure according to the agreed terms of reference.
- Provide technical guidance to Service Providers deploying Digital extension advisory services through digital bundled services, E-market (AMIS) as well as deployment of e voucher in liaison with FAMFS.
- Support training and capacity development of Extension agents/Farmer through Lead Farmers on use of digital technologies
- Assist in the development support systems designed for transmission to the various departments of the ministry, relevant extension services and the private sector/business partners
- Support with review of additional technical documents including but not limited to technical bids, proposals.
- Produce technical documentation for all the digital systems supported under VCN
- Support in the development, coordination and dissemination of lessons learnt towards implementation of digital solutions
- Carry out any other duties as assigned to him/her by his/her superior.

Expected outputs:

- Digital technologies are well integrated and contributing to effectiveness of all project's activities

Qualifications:

Minimum 4 years of experience in digital technologies in international development. Relevant experience in digital technologies for agriculture is desirable
Master's degree in information management, public policy, development and social sciences or similar fields.

Key competences:

- Understanding of GIS, Remote Sensing and AI will be an advantage
- Advanced level competencies in ICT Systems supporting rural development
- Good communication and results-oriented skills
- Experience in working with Private sector, mobile network operators
- Ability to work in an interdisciplinary team
- Working experience with IFAD funded project is an advantage

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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GENDER, & SOCIAL INCLUSION SPECIALIST (GSIS)

Place of Assignment: Abuja

Main responsibility and reporting lines: Reporting to the National Programme Coordinator (NPC), the GSIS is responsible for coordinating all activities to ensure that all outreach processes are implemented in alignment with the project targeting strategy; and ensure that all measures considered in project design, or thereafter, to render the projects gender transformative, youth sensitive and fully inclusive are effectively implemented and results delivered.

Specific duties:

- Coordinate all mobilization and beneficiary selection processes to guarantee social inclusion, and no elite capture.
- Coordinate with project colleagues in core project areas to ensure that strategies and approaches used are sensitive to the socially inclusive nature of the project.
- Coordinate all activities related to the management and delivery of quality results of the GALS methodology.
- Ensure that Gender and Social Inclusion Officers at State level are technically equipped to carry out their duties at local level; technically oversee their performance and support as necessary.
- Identify emerging opportunities to reach male and female youth and the promotion of gender equality and wider social inclusion in programme activities.
- Support State Project Coordinators to become leaders for gender equality and social inclusion.
- Liaise with sector authorities (agriculture, women and social affairs, youth and any other necessary ones) to ensure that project interventions support policy implementation and that field experience supports policy development.
- Participate in national level fora related to youth empowerment and gender equality so as to ensure that NOPP is aligned with emerging policies and lessons learnt from other programmes and actively shares best practices and lessons learnt to feed into policy development processes.

Qualifications:

- Degree in sociology, anthropology, rural development, women's studies, or similar field.
- 10 years of experience in managing development programmes.
- Proficient in English (oral and writing); main local languages from the target area will be an advantage)
- Committed, motivated, empathetic, interested in transforming the lives of project beneficiaries.
- Team player, but self driven to achieve results in challenging contexts.

GALS SPECIALIST(45 days over a period of 6 months - consultancy)

VCN will be integrating the GALS Methodology in project activities with the view to address barriers limiting households' economic potential and the promotion of gender equality. It is expected that the use of the methodology will enable households to better organize themselves and the use of their resources to achieve better livelihood outcomes, which can be sustained over time.

VCN seeks to hire a Nigerian GALS Specialist who can provide consultancy services, as follows:

- (i) Review GALS Manual developed by VCDP and SAPZ, and adapt it to the context of Northern Nigeria, the project context and integrate nutrition into it in liaison with nutrition staff and authorities. Ensure alignment with VCN design.
- (ii) Support the process of identifying suitable participants for the training, including champions.
- (iii) Develop, prepare and implement a skills-based training plan to build the capacity of community level champions and project staff and collaborators.
- (iv) Document and advise VCN staff how to organize, coordinate, support and oversee community level champions.
- (v) Provide on-going technical support to VCN staff and champions to assess quality of implementation and support the development of high delivery skills and standards.

The candidate will be expected to: (i) be trained in the use of GALS; (ii) at least 5 years of training experience on participatory methodologies at community level; (iii) At least 3 years' experience in implementing or supporting GALS activities, including experience in Nigeria; (iv) understanding of the need to promote nutrition seeking behaviours and of the intersection between gender and nutrition; and (iv) speaking relevant local languages will be an advantage.

CLIMATE AND ENVIRONMENT SPECIALIST (CES)

Place of Assignment: Abuja (and the State Capitals)

Main Responsibility and Reporting Lines:

The Climate and Environment Specialist will be responsible to the National Project Coordinator (at National Level) and State Project Coordinator (SPC) at State Level. The individual will manage the activities related to mainstreaming the environment and climate change adaptation into the VCN project to ensure climate change and environmentally sustainable agricultural value chain. He or she will ensure the implementation of SECAP documents including the SECAP Review Note, Environmental, Social and Climate Management Framework, Environmental, Social and Climate Management Plans, Targeted Adaptation Assessment, Integrated Pesticide Management Plan, Labour Assessment and management Plan, Stakeholders' Engagement Plan, Grievances Redress Mechanism, Water Management Plan, Waste Management, and any other plans.

The individual will also identify opportunities for green growth, deepening climate adaptation and strengthening climate resilience along the value chain. He/she will also ensure that recommended mitigation and adaptation measures are adhered to. He/she will also develop sensitization and training schedules for awareness and capacity building in environment and climate change for stakeholders to ensure overall environmental sustainability of the VCN project.

Specific duties

- Develop activities for the Annual Work Plans and Budgets (AWPBs).
- Oversee the implementation of the SECAP and the Environmental, Social and Climate Assessment Framework (ESCMF) to ensure full compliance with IFAD guidelines.
- Oversee the implementation of the Environmental and Social Management Plans (ESMP)
- Implement the Targeted Adaptation Assessment
- Work with the relevant staff to implement the Integrated Pesticide Management Plan, Labour Assessment and Management Plan, Stakeholders' Engagement Plan, Grievances Redress Mechanism, Water Management Plan and Waste Management
- Monitor activity-specific environmental and social management plan for market infrastructure.
- In close consultation with the Monitoring and Evaluation Officer Track implementation of environment and climate change activities
- Ensure the inclusion of climate resilience and environmental data collection in the baseline studies to be undertaken by the VCN.
- Plan and facilitate awareness creation and capacity building for stakeholders on environment and climate change issues in the VCN.
- Ensure adherence to environmental standards and discourage production and processing enterprises that are environmentally unsustainable.

- Work closely with climate services and extension services to improve dissemination of climate information and technology to farmers to guide on farm activities.
- Facilitate training of on waste valorization and integrated pest and agrochemicals management value chains
- Create a baseline information for all specific project locations and develop an environmental information system within a GIS to monitor the project locations during the project life cycle!

Qualification and Experience

- Advanced Degree in Agriculture, Geography, Environmental Management, Natural Resource Management, Climate Sciences or Rural Development or related fields.
- Minimum of 5 (five) years experience in the field of Climate Change Adaptation, Environment and Natural Resource Management with strong knowledge of climate change adaptation. climate-related physical and transition risk assessment, climate resilient development, climate change models, tools and/or datasets, etc.
- Good knowledge and experience in Geographic Information System (GIS) and environmental database development and remote sensing.
- Thorough knowledge of climate change adaptation and environmental and social safeguards and familiarity with all the governmental and non-governmental actors and stakeholders in the environment and climate change space at the national/state level.
- Proven experience in leadership and coordination of multidisciplinary teams and in the planning, implementation, and monitoring of complex projects.
- Strong practical experience in applying tools and instruments for mainstreaming climate adaptation and resilience, green growth, and climate finance into development concerns in investment operations.
- Familiarity with operations, policies and procedures of international financial institutions, and experience in processing and implementation of projects, is preferable.
- Demonstrated ability to work effectively in a multicultural environment and build effective working relations with clients and colleagues.
- Excellent and proven presentation, facilitation, and negotiation skills.
- Good knowledge of communication tools and technologies.
- Good oral and presentation skills.

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

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FINANCIAL CONTROLLER (FC)

Main Responsibilities

The Program Financial Controller (FC) will be responsible for overseeing the management and administration of the Program's finances.

Specific Duties

- Be responsible for financial management of the NPCO including preparation of budget, monthly disbursement, timely replenishment of funds into Special Account, prepare monthly, quarterly, and annual financial report, ensure timely undertaking of annual audit of accounts and submission of same to relevant stakeholders.

- Ensure adherence to the financial management system and procedures of the funding partners IFAD.
- Ensure maintenance of records and proper management of NPCO's assets
- Be responsible for the entire Program accounting and provide guidance on account and financial control systems, including the Financial Management System to be developed under the VCN.
- Provide and assist in organizing training for the project accounts staff.
- Provide leadership and be responsible for the financial management of the program.
- Monitor accounts and analyze financial commitments and expenditure trends/returns.
- Prepare monthly returns in accordance with accounting reporting requirements.
- Monitor quarterly financial performance against agreed financial performance indicators to be prepared under the Program.
- Any other duties as may be assigned by the National Program Coordinator.

Qualifications, Experience and Skills

The selected candidates should meet the following:

- At least Master's degree (in Accounting/Finance or a related field of specialization)-essential
- Qualified Accountant with ACCA, CIMA, ICAN (Nigeria), CA (England and Wales), CPA or related financial management qualification (essential).
- Experience in setting up and maintaining a computerized accounting system (essential).
- At least 7 years of relevant post-qualification working experience of which 3 years must be in a senior management position in a reputable organization. (essential).
- Practical working experience with government programs, donor-funded projects, and auditing experience (essential).
- Have a good understanding of tax and statutory requirements.

Skills

- Presentation of highly complex financial and non-financial information
- Inspiring confidence and developing highly working relationships with finance and non-finance colleagues within Programme, Cooperating Institutions and implementing partners.

Reporting and location

Located in Abuja, the FC will report directly to the NPC.

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ACCOUNTANT

Main Responsibilities

The accountant will work under the direct supervision of the Finance Controller, in close collaboration with the Finance Officer at NPCO Management officer to oversee the establishment and proper maintenance of the finance.

Specific Duties

- Ensuring the Program's financial procedures as detailed in the Program Implementation and Financial Manuals are strictly adhered to by all Program staff and implementing partners at the state level.
- Facilitating the timely disbursement of Program funds to the various accounting units mainly the service providers and farmers' groups.
- Compiling SOEs for the NPCO and other implementing partners for timely preparation of withdrawal applications.
- Ensuring adherence to the International Financial Reporting System as well as Government of Nigeria financial practices and circulars as issued from time to time.
- Maintaining a sound accounting system, ensuring installation of good and complete charts of accounts, and maintaining all relevant books of accounts that ensures complete recording and reporting of all financial and non-financial transactions of the Program at the state level.
- Facilitating and ensuring that external auditors are availed of all necessary documents and information during the audit as detailed in the Financing Agreement.
- Preparing financial reports and advising the National Program Coordinator on the Program's financial status and trends.
- Supporting the Financial Management Controller in the installation and management of sound Integrated Financial Management Information System (Computerized Accounting) for NPCO
- Undertaking any other duties (related to the Program's activities) as may be assigned by the National Program Coordinator.

Qualifications, Experience and Skills

The selected candidates should meet the following:

- At least a masters advanced degree (in Accounting/Finance or a related field of specialization)-essential

- Membership of professional body of accountants or chartered accountants such as ACCA, CPA, ANAN, ICAN etc
- At least 5 years of relevant post-qualification working experience of which 3 years must be in a similar position in a reputable organization. (essential).
- Practical working experience with Government of Nigeria, donor-funded projects (IFAD, World Bank), (essential).
- Have a good understanding of tax and statutory compliance requirements.
- Knowledge of the operations of Computerized Accounting systems
- Preparing the monthly budget forecast for the National office and all the relevant supporting documentation needed to submit the replenishment request for the operational Account.
- Preparing the bank account reconciliation statement of the operational account among others
- Supporting the Financial Controller in all the tasks related to financial management at all levels of Project implementation.
- Maintaining and keeping the project reports

Skills

- Presentation of financial and non-financial information
- Inspiring confidence and developing highly working relationships with finance and non-finance colleagues within Project, Cooperating Institutions and implementing partners.
- Computer skills, word processing, spreadsheet and presentation software
- Very strong technical skills in accounting

Reporting and Location:

The position will be based in the NPCO office in Abuja. The accountant will report directly to the NPC.

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FINANCE OFFICER

Main Responsibilities

The Finance Officer will work under the direct supervision of the Finance Controller, in close collaboration with the Accountant at NPCO Management officer to oversee the establishment and proper maintenance of the finance.

Specific Duties

- Manage all financial aspects of the project, including budgeting, forecasting, expenditure tracking, and financial reporting.

- Oversee the disbursement of funds according to the project budget and donor requirements.
- Prepare accurate and timely financial reports for project management, donors, and other stakeholders.
- Ensure compliance with all financial regulations and accounting standards, including IFAD guidelines.
- Work closely with project staff to ensure proper documentation and justification of all project expenditures.
- Conduct internal control reviews to identify and mitigate financial risks.
- Analyze financial data and provide insights to inform project decision-making.
- Manage relationships with external auditors and ensure timely completion of audits.
- Contribute to the development and implementation of financial management systems and procedures.

Qualifications, Experience and Skills

The selected candidates should meet the following:

- At least a masters advanced degree (in Accounting/Finance or a related field of specialization)-essential
- Membership of professional body of accountants or chartered accountants such as ACCA, CPA, ANAN, ICAN etc
- At least 5 years of relevant post-qualification working experience of which 3 years must be in a similar position in a reputable organization. (essential).
- Practical working experience with Government of Nigeria, donor-funded projects (IFAD, World Bank), (essential).
- Proven experience in managing project budgets, financial reporting, and donor compliance.
- Strong understanding of International Financial Reporting Standards (IFRS) and International Public Sector Accounting Standards (IPSAS)
- Excellent analytical and problem-solving skills.
- Strong attention to detail and accuracy.
- Excellent communication and interpersonal skills, with the ability to work effectively with a diverse team.
- Fluency in English and strong written and verbal communication skills.

Skills

- Presentation of financial and non-financial information
- Inspiring confidence and developing highly working relationships with finance and non-finance colleagues within Project, Cooperating Institutions and implementing partners.
- Computer skills, word processing, spreadsheet and presentation software
- Very strong technical skills in accounting

Reporting and Location:

The position will be based in the NPCO office in Abuja. The accountant will report directly to the NPC.

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INTERNAL AUDITOR Main Responsibilities

The Finance Officer will work under the direct supervision of the Finance Controller, in close collaboration with the Accountant at NPCO Management officer to oversee the establishment and proper maintenance of the finance.

Specific Duties

- Conduct independent and objective internal audits in accordance with International Standards for the Professional Practice of Internal Auditing
- Assess the adequacy and effectiveness of the project's internal controls over financial reporting, operations, and compliance.
- Identify and evaluate potential risks of fraud, waste, and abuse within the project.
- Prepare comprehensive audit reports with clear findings, recommendations, and action plans for improvement.
- Work collaboratively with project management to implement corrective actions and strengthen internal controls.
- Monitor and track the implementation of audit recommendations and ensure continuous improvement.
- Maintain a strong understanding of the project's objectives, activities, and challenges.
- Maintain confidentiality of all audit findings and project information.
- Contribute to the development and implementation of the project's internal audit charter and methodology.

Qualifications, Experience and Skills

The selected candidates should meet the following:

- Bachelor's degree in Accounting, Finance, or a related field (CPA or similar qualification a plus).

- Minimum 5 years of experience in internal audit, preferably within the development sector or international organizations.
- Certified Internal Auditor (CIA) designation is mandatory.
- Certified Fraud Examiner (CFE) designation is a strong advantage.
- Proven track record of conducting independent, objective, and impactful internal audits.
- Strong understanding of internal control frameworks and risk management principles.
- Excellent analytical and problem-solving skills.
- Strong attention to detail and accuracy.
- Excellent communication, interpersonal, and negotiation skills.
- Ability to work independently and as part of a team.
- Fluency in English and strong written and verbal communication skills.
- Proficiency in Microsoft Office Suite (Excel, Word, PowerPoint).
- Experience with internal audit software (e.g., ACL, IDEA) is a plus.
- Demonstrated integrity and commitment to ethical conduct are paramount.

Skills

- In-depth understanding of International Standards for the Professional Practice of Internal Auditing
- Strong understanding of risk assessment methodologies and the ability to identify and evaluate potential risks within an organization
- Ability to analyze financial and operational data to identify trends, anomalies, and potential areas of concern
- Proven experience in planning, conducting, and reporting internal audits using accepted methodologies

Reporting and Location:

The position will be based in the NPCO office in Abuja. The accountant will report directly to the NPC.

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PROCUREMENT SPECIALIST

A. Objective

- The objective of the assignment is to increase the efficiency of the processing of procurement tasks under VCN and to ensure smooth and quality implementation of procurement processes for all project related activities.
- The Procurement Officer will lead, manage, execute and coordinate tasks related to the procurement of goods, works and services for the implementation of VCN. S/he will ensure that all VCN related procurement and contract management activities are performed in a fully professional, transparent, and ethical manner in accordance with the Loan Agreement, IFAD Procurement Guidelines, National Regulations, Project Implementation Manual, and in line with the Public Procurement Act, 2016 as amended and its guidelines.
- The job holder will be responsible for the coordination, preparation, monitoring and updating of the procurement plan. S/he will also act as Secretary to the Procurement Committee and Evaluation subcommittees.

B. Specific Tasks

- The Procurement Officer will be part of the Project Team working on the implementation of the project's activities. Under the supervision and coordination of the Project Coordinator, she/he would be responsible for the specific procurement activities needed for project implementation. The Procurement Officer will provide leadership and guidance to all PMU and Regional level project staff on procurement issues for goods, services and works contracts. Specific responsibilities include but are not limited to the following:
 - Review and provide more detail, where required, on the procurement section of the draft PIM;
 - In collaboration with other members of the PMU and implementing partners, and based on the AWPB, update the rolling the procurement plan for works, goods and services required by the project in accordance with IFAD PP Template and submit same for approval by the Government and IFAD;
 - Ensure the timely and transparent procurement of goods, works and services as identified in the procurement plan and in accordance with the applicable rules and procedures;
 - Ensuring that procurement of goods, civil works and services are implemented in accordance with the provisions of the Loan Agreement, IFAD Procurement Guidelines, National Regulations and Project Implementation Manual;
 - Prepare bidding documents and coordinate the preparation of relevant inputs such as TORs, technical specifications and bills of quantities by technical staff or consultants;
 - Lead the orientation events for all VCN Reginal Coordination Units and implementing agencies on the principles and application of procurement procedures and guidelines for VCN and use of the PIM guidelines;
 - Participate in relevant tender committee meetings and assist with the preparation of the committee reports;
 - Review and provide professional opinion on tender evaluation reports and make necessary follow-up;
 - Notification of results of tenders to all successful and unsuccessful bidders;

- Manage the Contract Monitoring Tool and prepare periodic reports on the status of procurement for the Project that will allow IFAD to measure the level of project performance in terms of procurement;
- Compile and confidentially keep up-to-date procurement files containing high quality and readily available information, ensuring proper documentation, transparency and ease of reference;
- Monitor the administrative implementation of contracts in coordination with the Finance Unit.
- Ensure a sound contract administration of international contracts, including handling of contractual claims, arbitrations and termination of contracts;
- Follow up timely completion of works, receipt of the goods and consultant's status reports, confirming acceptability of the goods delivered, and also acceptability of consultants reports as reviewed, and recommending payments to the service providers as they become due;
- Report in writing to the Project Coordinator on unethical behaviour, potential or actual violation of contractual terms by contractors and service providers and propose the appropriate remedial actions in accordance with the Contract General and Special Conditions;
- Coordinate supervision / Supervise progress of implementation of contracts financed by the project in accordance with the contract agreements including review and processing of payments, physical inspection, review of consultants' reports, advice management appropriately on contract arbitrations and contract termination, and closing of contracts;
- Constantly review procurement arrangements in relation to the procurement plan to ensure consistency with the financing agreement and identify weaknesses, if any, and measures that should be undertaken to mitigate the risks posed by any weaknesses;
- Train Project and implementing partners staff on procurement rules under the project;
- Establish and regularly update a performance monitoring database for all suppliers and consultants;
- Maintain close liaison with IFAD on all issues pertaining to procurement;
- Participate in Project management meetings and IFAD supervision missions, including the preparation of all information required, in particular the procurement records for facilitating post-procurement reviews to ascertain the level of compliance with the project procurement guidelines and quality of output; and
- Carry out any other activities that are assigned by the Project Management.

C. Qualifications and Experience

- A minimum of first degree in Procurement Management, or Supply Chain Management, or Procurement and Supply Chain Management, or Logistics and Supply Chain Management or Engineering or any other relevant field. A post graduate qualification will be an added advantage;
- Chartered Member of any of these Professional Bodies; CIPS, CILT, and CISCM;
- Minimum Ten (10) years relevant working experience, of which Seven (7) years' experience is in procurement management at Government/donor funded projects;

- A comprehensive knowledge of IFAD Procurement Guidelines and the Public Procurement Act, 2016 as amended and its Regulations;
- Experience in working with the Ministry of Agriculture and Food Security (MAFS) will be an added advantage;
- Experience in training, capacity building and setting up procurement systems in a new organisation will be a distinct advantage;
- Computer literacy and competence, Microsoft Word, Excel, Access, Power Point;
- Proven ability to work and interact with people from diverse, professional, social and cultural backgrounds;
- Fluency in written and spoken English and National language;
- Excellent analytical skills and report writing.

D. Other Requirements

- Strong management skills, particularly ability to provide strategic direction and technical supervision,
- Excellent communication skills and ease in interpersonal relationships;
- Reliable and responsible personality and capacity to work under demanding professional circumstances and in an international environment;
- Excellent coordination and negotiation skills;
- Excellent planning, organizing and recordkeeping skills;
- Experience in dealing with senior business executives and government officials;
- Good team player while being independent and able to work autonomously.

E. References

Verifiable references and membership of professional organization(s). Previous work experience in Donor funded projects.

F. Performance criteria

The performance of the Procurement Specialist will be evaluated bi-annually. The criteria used to measure his/her performance will be:

- Timely processing of procurement requisitions;
- Ability to meet deadlines in terms of procurement;
- Compliance with procurement procedures foreseen in the project, measured by the number of rejected submissions for prior examination and post-review audit findings (technical and financial);
- Delivery of tendered supplies and services.

G. Work Station

The position will be full-time based at the Project Management Unit office with frequent travel to the project Districts.

H. Duration

Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables.

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PROCUREMENT OFFICER

The Procurement Officer will directly assist the Procurement Specialist in the overall coordination of the Procurement activities of VCN.

A. Key responsibilities / specific duties:

- i. Examine requests for procurement actions to ensure that they are technically complete and in conformity with approved Procurement guidelines and procedures.
- ii. Assist in reviewing specifications and drafting of Tender documents.
- iii. Assist in initial review of offers received, reviewing evaluations and submissions.
- iv. Assist in preparation of technical and commercial correspondences to contractors and suppliers.
- v. Investigate and identify potential sources of supplies of services required.
- vi. Undertake follow-up to ensure contractors meet lead time.
- vii. In charge of quotations and verification of the same.
- viii. Participate in the preparation of annual Work Plan and Budget for the Procurement Unit
- ix. Serve as a regular link between the Procurement Unit and other components.
- x. Participate in bid opening and management of bids.
- xi. Facilitate correspondences with contractors and suppliers.
- xii. Perform any other duties as may be assigned by the Procurement Specialist and Programme Coordinator.

B. Qualifications and Work Experience:

The requisite qualifications of the Procurement Officer shall include the following:

- i. A minimum of first degree in Engineering, Law or Business Management (e.g. Procurement, Supply Chain, Economics, Finance, etc).
- ii. A minimum of five (5) years post-qualification work experience in the Procurement activities.
- iii. Ability and proven experience in multitasking and working effectively under pressure.
- iv. Technically competent in website and social media platforms management
- v. Experience in working with donor-assisted projects – an advantage.
- vi. Good communication and team building

C. Reporting and Location:

The position will be based in the PMU Office and report directly to the Procurement Specialist and Project Coordinator.

D. Details of the contract appointment:

The Procurement Officer position is a contract appointment for a period of two years in the first instance, renewable subject to satisfactory on-the-job performance acceptable to the FGN and IFAD.

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PROCUREMENT ASSISTANT

The Procurement Assistant will directly assist the Procurement Specialist in the overall coordination of the Procurement activities of VCN.

A. Key responsibilities / specific duties:

Under the direct supervision of the Procurement Officer and the overall guidance of Procurement Specialist, the Procurement Assistant will support in smooth completion of various activities on procurement of the programme.

The position will have following responsibilities:

- Ensures the management of the data file and the appropriate filing of the electronic and hard copies of the procurement documents and reports.
- Assist in preparing the monthly procurement reports
- Marge of quotations and verification of same.
- Participate in the preparation of annual Work Plan and Budget for the Procurement Unit
- Serve as a regular link between the Procurement Unit and other components.
- Participate in bid opening and management of bids.
- Facilitate correspondences with contractors and suppliers
- Assist in preparing the Procurement Plan.
- Assist in updating Contracts Register.
- Assist with Internal & External audit exercises.
- Filing and retrieval of all procurement documents.
- Any other task that may be assigned as and when deemed necessary.

B. Qualifications and Work Experience:

- vii. A minimum of HND in Engineering, Law or Business Management (e.g. Procurement, Supply Chain, Economics, Finance, etc).
- viii. A minimum of five (5) years post-qualification work experience in the Procurement activities.
- ix. Ability and proven experience in multitasking and working effectively under pressure.
- x. Technically competent in website and social media platforms management
- xi. Experience in working with donor-assisted projects – an advantage.
- xii. Good communication and team building

C. Reporting and Location:

The position will be based in the PMU Office and report directly to the Procurement Specialist and Project Coordinator.

D. Details of the contract appointment:

The Procurement Officer position is a contract appointment for a period of two years in the first instance, renewable subject to satisfactory on-the-job performance acceptable to the FGN and IFAD.

Annex 9C: Guidelines for M&E and KMC

M&E SYSTEM

The VCN M&E System will outline the concepts, tools, and process that will be used by the project M&E function. The overall System will define what needs to be measured (IFAD COIs and project level indicators) and what will need to be produced (relevant data to be processed as information for key decision-making. Additionally, the VCN M&E System will provide data and feedback and answer the following: (i) effectiveness – is the project being implemented according to the PDR and are the indicator objectives being met? (ii) efficiency - how are the inputs (activities) being converted to results? (iii) relevance - is the project consistent with beneficiaries’ needs and priorities? and (iv) fragility - Provide a detailed report in the targeted Zones, States, LGAs, on the conflict situation to readily address the Theory of Change to ensure effectiveness and targeting.

M&E plan

Ultimately, this system will be operationalized with the development of a thorough M&E plan that will define these operational details throughout the project document and will serve as a living document to guide the core M&E functionality of planning, tracking and assessing results. The M&E plan will include, but not limited to the following; (i) a description of the M&E approach; (ii) thorough details of the processes and activities to be implemented; (iii) the tools to be used for data collection and processing (iii) indicate the deliverables to be produced and; (iv) define the responsibilities. Moreover, it will provide the necessary data collection forms, report templates, the progress report outline, survey terms of reference (ToRs) and questionnaires; and (v) produce a report, through community based monitoring tools to inform on situations of conflict in informing planning and decision making processes. The National Programme Coordination Office (NPCO) will leverage the current implementation experiences of past and current portfolio projects to develop the M&E plan and ensure that it is validated at start-up. This will ensure a smoother process to transitioning to VCN implementation in the early stages. A guideline of development of an M&E Plan has been provided in the annexes.

Management information system (MIS)

Another key component that will feed in the VCN M&E System and will be the core basis for planning, data collection and reporting at the field level will be the Project Management Information System (MIS). VCN will develop standardized data collection and reporting templates that will allow data collection through digital mobile data collection applications (through tablets) to improve the efficiency and timeliness of data collection and reporting. The MIS will have a digitized logframe and also a project results framework that will capture additional indicators important at Project Level and to other stakeholders. It will also have a digitized beneficiaries database that will link each beneficiary to all support provided to them. Furthermore, specific standardized output data collection templates from FOs and other implementing partners will need to be developed and digitized into the MIS. It will be important for the NPMU to develop these data collection templates in the early stages (within 6 months) for them to be available for migration in the MIS, when it is developed. In addition, the MIS will have the capabilities of having an innovative GIS application where a geodatabase with spatial data on beneficiaries and interventions will be collected and allow the creation of different layered maps. These maps will be giving visual spatial presentations of analysis of interventions to stakeholders.

An example of the proposed MIS approach and reporting is in the **Figure below**.

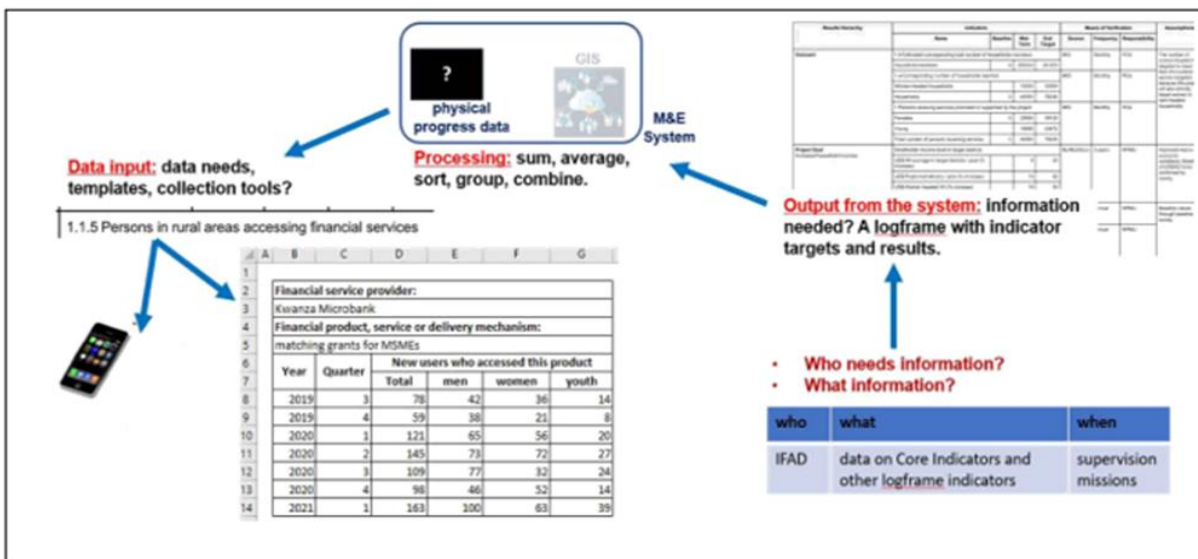


Figure 1: MIS Design

To achieve this, VCN will recruit an MIS Developer to conduct the following: (i) develop an MIS for M&E with GIS integration; (ii) create an MIS and GIS operations manual; (iii) train VCN teams on its use; and (iv) conduct routine maintenance on the MIS and GIS software as allocated in the cost tabs.

Planning and Reporting

Planning. VCN planning will be a participatory process guided by the project’s strategy, Theory of Change and logframe, which will inform the development of annual work plans oriented towards planned outputs. The AWPB will follow the fiscal year, as per planning systems in Nigeria. AWPBs will be cleared by the Project Steering Committee and sent to IFAD 60 days prior to the end of each project year for No Objection. The AWPB will be prepared in the format described in the IFAD guidelines for AWPBs by the States and National Project Management Unit with substantial participation of other implementing partners. Each AWPB shall include a detailed description of planned Project activities by component, sub-component and activity, and a procurement plan for eighteen months. The NPMU will establish the funds available for the AWPB for a particular year as per cost tables. Figures below are samples of the annotated AWPB Outline and Activity Workplan and Budget that the Project will follow.

1. Introduction 1 1 Project outline 1 2 The annual planning process	<i>A brief summary of the project, as a reminder for people who do not deal with it on a day-to-day basis; and a brief description of the planning process (steps, stakeholders, sources of information).</i>
2. Implementation progress and performance 2 1 Overall performance 2 2 Progress by component	<i>A brief summary of where the project is in terms of its targets.</i>
3. Project strategy and focus for the coming year 3 1 Constraints, lessons learned and strategic focus	<i>Description of any shift in focus or strategy, based on past experience or external changes. Also, a narrative</i>

3	Summary of planned activities by component	<i>description of the main activities under each component.</i>
4.	Consolidated annual budget	<i>The total budget for the year, with budget summary tables (by component, category, source of funds, etc.)</i>
Annex 1.	Updated logical framework	<i>The logical framework with indicators, targets and up-to-date results information</i>
Annex 2.	Activity and budget details by component	<i>Tabulated activity details (what, when, by whom, quantities, cost)</i>
Annex 3.	Procurement plan	<i>Details on procurement items and methods</i>

Figure 13: Annotated Sample AWPB

Activity			Unit	Qty.	Resp.	Schedule				Cost	Expenditure category				Financier		
Code	Description	Indicator				Q1	Q2	Q3	Q4		I	I	I	I	V	IFAD	Gov.
Component 1																	
Subcomponent 1.1																	
Output 1.1.1																	
Activity																	
Activity																	
Activity																	
...																	

Figure 14 Sample Activity Workplan and Budget

Reporting

The reporting structure of VCN will similarly, but emphasize a community based approach to follow the reporting arrangements for IFAD-funded projects in the portfolio. In terms of M&E, standardized progress reporting templates will be developed for the following: (i) FOs, Groups, Implementing Partners (tailored to each), States and LGAs. All reporting templates will be digitized in the MIS to allow digital data collection at field level. As per the Project Annual Report, the NPMU will develop a template that will consolidate planned activities and results to report to the National Coordinator, the Government of Nigeria, IFAD and AFD to provide evidence-based strategic guidance in the decision-making process. In addition, the Annual report will also provide the following, but not limited to, annexes: (i) updated logframe and project-level results framework; (ii) detailed financial report; (iii) physical progress measured against AWPB; (iv) actions on previous supervision mission; (v) GIS Maps showing spatial locations of interventions. To provide more guidance, the figure below provides a sample Annual Report outline.

Annual Report	
<ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> 1.1 Project outline 2. Summary of implementation progress to date <ol style="list-style-type: none"> 2.1 Physical/technical progress summary 2.2 Financial progress summary 3. Implementation progress by component <ol style="list-style-type: none"> 3.1 Component 1. 3.2 Component 2. 3.3 Component 3. 4. Performance assessment <ol style="list-style-type: none"> 4.1 The project environment 4.2 Implementation performance and constraints 4.3 Stakeholder feedback and lessons learned 4.4 Project outcomes and impact 5. The way forward 	Updated logframe Annex 1. Detailed financial report Annex 2. Physical progress based on the AWPB Annex 3. Procurement and contracts Annex 4. Action on supervision mission recommendations Annex 5. Detailed AWPB-based progress review Annex 6. Maps showing project interventions

Data Flow Design. The flow of information with the several different stakeholders will be important as it will allow the NPMU and its M&E function to understand the flow of information and what is the expectation from each stakeholder. The development of a flowchart will also be important to all other stakeholders for them to know what is required from them in Project implementation.

Core outcome indicator (COI) surveys and assessments

As per the IFAD requirements, VCN will be required to conduct surveys at baseline, midline and endline for all outcome indicators. In particular, the Project will contract an external Evaluation Consulting Firm to conduct the surveys in line with the mandatory IFAD COI guidelines and methodologies. The COI guidelines and online video trainings can be found on the following links:

- COI guidelines:https://www.ifad.org/documents/38714170/42870514/coim_guidelines_e.pdf/bed6993e-1a1a-6683-bd3c-6fc9bb0e5aac?t=1619708052741
- COI appendices of Questionnaires and Survey ToRs:https://www.ifad.org/documents/38714170/42870514/coim_guidelines_appendix_e.pdf/9982a2d3-e38f-5b88-e0f7-81baf5e509a0?t=1619708054014
- COI training video modules:https://www.ifad.org/en/web/knowledge/-/core-outcome-indicators-measurement-guidelines-coi-online-training?p_l_back_url=%2Fen%2Fweb%2Fknowledge%2Flearning

Survey methodology

It is essential for the whole VCN team to learn and thoroughly understand the COI guidelines and the provided tools are key for this learning process. For the survey questionnaire design, the COI appendices are the most important resource as these are where all questions of each indicator must be derived from and should be contextualized appropriately to the Project Interventions. It will be important and more effective for the Project to conduct the surveys on the same sample throughout baseline, midline and endline; if feasible. Furthermore, the sample will contain the treatment and control groups where the treatment are those beneficiaries who are accessing support and the control group are those that have not received any VCN intervention, either directly or indirectly. This will be important data when conducting a comparative analysis to ascertain attribution of VCN interventions in the survey reports at midline and endline.

VCN logframe COIs

Regarding Core Outcome Indicators, the VCN team and the chosen Evaluation Consulting Firm will review COIs in the logical framework to document the indicator definitions and means measure as per the guidelines, before the survey. This will ensure that the indicators are being captured correctly in the VCN M&E MIS and also in the Survey's. Along with the project-level outcome Indicators, the following IFAD Core Outcome Indicators will be measured to ensure proper reporting for IFAD in at the Global level:

- 1.2.8** Women reporting minimum dietary diversity (MDDW)
- SF.2.1** Households satisfied with project-supported services
- SF.2.2** Households reporting they can influence decision-making of local authorities and project-supported service providers
- IE. 2.1:** Individuals demonstrating an improvement in empowerment
- 2.2.1** Persons with new jobs/employment opportunities
- 3.2.2** Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices
- CI 1.2.2:** Households reporting adoption of new/improved inputs, technologies or practices

- **CI 2.2.3:** Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities
- **2.2.6** Households reporting improved physical access to markets, processing and storage facilities
- **1.2.5** Households reporting using rural financial services
- **2.2.3:** Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities

The quantitative survey will be taken for these core indicators strictly following the guiding questions in the appendices. In addition, Policy Core Outcome Indicator - **Policy 3** Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment, will be through a stakeholder qualitative survey within the evaluation as outlined in the COI guidelines.

Project M&E Plan

As outlined in an earlier section, the VCN team will develop an operational/procedural Project specific M&E Plan for Project use. This will be a 'living' document that will guide how M&E will be conducted throughout the Project implementation period. This development will be led by the VCN National M&E Officer with close collaboration from the entire National and State Project Management Units and inputs from CPAT and the PSC. Development of the M&E plan will not be contracted out as it defeats the purpose of M&E ownership of the Project team. The VCN National M&E Officer and the NPMU Coordinator and component technical leads must first analyze and interpret the PDR and the ToC. This will allow them to check whether the necessary M&E activities are included and resources are adequately budgeted; and also, will allow them to solidify exactly how Participatory M&E will work under VCN. The draft M&E Plan is to be developed at Start-Up and final within 6 months of implementation. This will allow smoother implementation of M&E, in the early stages. IFAD OPR have recently developed a guideline with an outline of an M&E Plan which VCN will use as they develop the Project Specific M&E Plan. This is attached as an Appendix 1 of this Annex.

Glossary of VCN IFAD Core Indicators' definitions

Lessons from previous and current project data reporting has shown evidence that the M&E and Implementation teams require further capacity in fully understanding the definitions of IFAD Core Indicators that are in the logframe. Indeed, the IFAD Core Indicators guidelines provide the general indicator definitions of what can and cannot be captured pertaining to the indicator. However, it is important to contextualize the definitions to align with the project development objectives, the ToC and interventions. With this, VCN will ensure that all Project Staff and Implementing partners understand what they need to capture when conducting routine monitoring of activities. This will be done through providing continuous capacity to implementation teams on contextual definitions of the Project Core Indicators.

A guideline to the Project indicator definitions can be found in Appendix 2 of this Annex. As the PIM is a 'living document', the VCN team will be required to review these definitions and add further details at project start-up. This session will be important because it will ensure that all component teams understand what they will need to capture. Moreover, these definitions will have to be digitized and linked to each indicator in the Management Information System. This linkage will also allow the Officers and implementing partners capturing data at the field level to validate the outputs being captured are aligned with the VCN indicator definitions.

This glossary of core indicator definitions will also be important for Service Providers who will be contracted to conduct the baseline, midline and endline COI surveys. A glossary of elaborated project core indicator definitions can support the understanding of what needs

to be captured and what questions need to be contextualized in the IFAD COI questionnaires.

KNOWLEDGE MANAGEMENT, COMMUNICATION (KMC) AND LEARNING

VCN knowledge products and learning processes

A digitized KM System will be an integral part of VCN to ensure that Project implementation is a continuous learning process in which evidence-based data will continuously be collected on innovations, technologies and will be analyzed, disseminated as KM Products that will mainly target beneficiary adoption of improved practices and policy influence. The VCN KM function will be complemented by: (i) M&E Management Information System (MIS, routine field M&E visits and thematic studies) on policy-level KM products (policy, briefs, strategies, working papers); (ii) beneficiary success stories; (iii) training manuals on technologies; and (iv) lessons learned. The foundation of VCN KM will depend on the development of an Integrated Knowledge Management, Communication, and Visibility Strategy that will guide the VCN team in improving project performance and results through the following: (a) enhanced learning; (b) sharing and communication; (c) using communication strategically and systematically to reach and engage different stakeholders, key implementing partners and LGA Facilitation Teams, to fulfill the Project goals and development objectives through established feedback mechanisms.

Communication will be a key part of the digitized integrated KM Strategy that will outline specific activities on how information is to be obtained, analyzed, and disseminated. The plans to support each aspect of the Integrated Knowledge Management, Communication, and Visibility Strategy will be integrated in the Project's AWPB. Due to budget challenges in KM in the previous mission, it was important to ensure that KM is adequately allocated. Specifically, the following key activities will be part of VCN KM, Communication, and Visibility implementation: (i) Developing an integrated and KM and Communications portal that will ; (ii) recruitment of consults to support in producing and publishing high level KM products; and (iii) development of visibility products of the IFAD-funded interventions. Moreover; The KM strategy shall include an outline of how knowledge will be disseminated using, but not limited to, the communication channels. Effective communication at all stakeholder levels (especially direct beneficiaries and policy-makers) will be critical to beneficiary learning and adoption of innovative practices, and policy influence at the National level.

Regional knowledge networks

VCN will leverage the expansion of the IFAD South-South and Triangular Cooperation (SSTC) initiatives in Nigeria through the support of the IFAD Country Office. SSTC initiatives help IFAD 'double and deepen its impact by identifying and disseminating knowledge and innovations, and supporting policy engagement to enhance poor rural people's productive capacities, market access and resilience.' This will mainly be done through close project collaboration with SSTC grants within the portfolio and fostering exchange visits and lessons learned.

Appendix 1 of Annex 9C - M&E plan outline

Introduction

-Explain what an M&E plan is and describe its purpose:

The M&E plan operationalizes the M&E system and spells out all the necessary operational details, ensuring smooth and proper functioning of the M&E system. Its purpose is to define how M&E will be conducted throughout the project period. It includes a description of the M&E approach, details the processes and activities to be carried out, describes the tools to be used for data collection and processing, indicates the deliverables to be produced and defines responsibilities. It provides all the necessary data collection forms, report templates, the progress report outline, survey TORs and questionnaire, etc.

1. PROJECT BACKGROUND

1.1. Project summary

- Briefly describe the project's main characteristics (ideally not more than two pages).
- This part may not be needed if the M&E plan is included in the PIM and these elements are already described there.

1.1.1. Project goal, objectives and expected outcomes

1.1.2. Project components and main activities

1.1.3. Implementation period/duration

1.1.4. Project financing

1.2. Targeting strategy

The targeting strategy is determined at the project design stage and should be validated at start-up. However, it may evolve during implementation (for instance, because of a reduction in geographical scope, abandoning of selected value chains, etc.). If this is the case, this paragraph, as well as the M&E system and plan, should be revised accordingly. The subsequent sections dealing with project area, target groups and outreach should indicate their link with and involvement in M&E activities and processes.

1.2.1. Project area

- Indicate the different areas or regions covered by the project and describe their particular social and agroecological characteristics.
- Identify the selection criteria and implementation approach (phasing, for example) for selected project areas.

Both aspects are important for M&E purposes: For instance, key project area characteristics and selection criteria are required for development of the sampling strategy (outcome and other surveys requiring sampling) to ensure the representativeness of the sample. Distances/access and overall size of the project area may also be problematic for field monitoring and require decentralized M&E staff.

1.2.2. Target group(s)

- Clearly define the different subgroups targeted for each project activity and whether the beneficiaries of various activities overlap.
- Identify and describe the selection criteria. This is important, as this aspect is at the core of the surveys' sampling methodology.
- Detail each subgroup of beneficiaries (a chart can be prepared to visualize the overlaps; see example below).

1.2.3. Outreach

- Based on the description of the project area, target group(s) and the chart below, explain who the people corresponding to the three outreach core indicators (CIs) are and how their targets were set.
- Explain how the calculations for CI 1a and 1b will be made and describe how overlap/double-counting will be handled (estimation or MIS data form).

1.3. ToC and logframe

The ToC and logframe are prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members. They may evolve during implementation, however, in which case the related sections should be revised accordingly.

1.3.1. ToC

The ToC section explains how and why the project is expected to effect change. It is a visual, structured way of outlining the steps needed to achieve project outcomes.

- Include the ToC diagram and related explanatory narrative (see ToC and logframe guidance for details)

1.3.2. Logframe

The latest version of the logframe matrix and the original logframe from the PDR are included in appendix 2 of the M&E plan. This section discusses the following aspects:

- **Preparation and validation process**
 - Explain how the logframe was prepared and validated based on the theory of change and how it reflects the ToC. The logframe (as well as the ToC) is prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members.
- **Modifications**
 - Present and justify modifications to the original logframe, if any. Some aspects of the project may change during implementation (the indicators and targets originally set in the logframe may be revised and adjusted to ensure that they remain relevant and useful), and the M&E plan should be adjusted accordingly. Note that justification for logframe modifications must be provided and IFAD clearance obtained.
- **Alignment with IFAD requirements and systems**

- Explain the link with and functioning in the Operational Results Management System (ORMS) (IFAD system) and briefly describe the IFAD CI framework and corporate requirements (gender- or nutrition-sensitive, etc.), if any.
- **Integration in the MIS**
 - Explain how the logframe is integrated in the project MIS: measurement of logframe indicators, automatic reporting, logframe reports generated, etc.
- **Logframe results reporting**
 - Explain how and when the logframe is updated:

An assessment of progress toward achievement of the intended results as described in the logframe should take place during every supervision mission for the preparation of the annual report. Outcomes associated with project output indicators and the related targets should be included for all indicators and all project years. With regard to outcome indicators, the outcomes and target levels should be provided at midterm and completion. After the midterm review (MTR) and until new data are available (at completion), results from the years following the MTR should use the MTR value for each outcome indicator.

1.3.3. Use of ToC and logframe

The logframe and ToC are the key references for developing the project M&E system, processes and tools. This section describes how the ToC and logframe are used in the preparation and execution of the M&E plan.

- **Project's visualization and communication**

The ToC diagram is a visual representation of the project. It can be used as a communication tool and shared with project implementers and other stakeholders to explicitly show how the project works and create a shared understanding of it.

- **Planning**

The ToC and logframe serve as the basis for the preparation of the AWPB. In fact, as schematized in the ToC, activities (planned for in the AWPB) are converted to results (outputs and outcomes). This link should be made clear, and targets, in terms of activities, outputs and outcomes, must be consistent.

- **Progress monitoring and presentation**

The logframe represents a roadmap for project implementation, determining what to monitor and how and enabling progress of the indicators toward set targets at all levels to be monitored by visualizing them on an annual basis and throughout the course of the project.

- **Data collection tools and templates**

The logframe serves as the basis for the development of data collection tools and templates, which should include all the information required for measuring the logframe indicators.

- **Effectiveness and achievement of the objectives**

The ToC and logframe are the basis for evaluation. They show the progress toward achievement of the results and indicate whether changes have occurred as expected, making it possible to assess the project's effectiveness.

2. PURPOSE AND SCOPE OF THE M&E SYSTEM

2.1. Guiding principles

This section presents the main conceptual underpinnings of the project M&E system (the list below is neither mandatory nor exhaustive and can be modified).

2.1.1. Results-based management (RBM)

Explain briefly how RBM is applied in the project, for instance:

- How the management strategy and implementation of activities are guided by the commitment toward achieving results.
- How it ensures interconnection of the planning, M&E and decision-making processes (more details are provided in a specific section of the M&E plan).
- How it relies on clear accountability and effective communication for timely resolution of any issue encountered.
- How performance/feedback reporting is used to improve implementation and extract lessons for future operations.

2.1.2. Participatory approach

Explain how the project incentivizes and implements a participatory approach, for example:

- How it ensures the different stakeholders' participation during the design, planning, implementation, monitoring and evaluation of the project.
- How it ensures that the needs of the different stakeholders are taken into account and how they are addressed in decision-making.
- How information and knowledge are regularly and openly shared with different stakeholders.

2.1.3. Geographic information system

- Describe GIS, if used, and which data are collected and how. Explain how GIS data are used, as well as their value added and implications – for example for data management.

2.1.4. M&E for decision-making

- Describe how the project M&E system informs decision-making at different levels:
- How relevant information is generated and shared;
- How it is used to support project management in decision-making and improve services delivered by the project.

2.1.5. Alignment with the national system

Explain whether/how the project M&E system:

- Is designed in close collaboration with government;
- Is aligned and compliant with national and local systems, if any;

- Integrates government milestones and data needs;
- Facilitates logframe reporting;
- Assists project management.

2.2. M&E steps

2.2.1. Planning Process

- Describe the (annual) planning process, which culminates with government clearance and IFAD approval of the AWPB, by describing participants, indicating the main implementing partners, describing the steps in the consultative process and noting deadlines.
- In particular, provide a detailed description of the planning workshop and its purpose, since it is the key step in the planning process. In fact, the planning workshop is intended to determine the expected outputs (physical targets) for the coming year for each project component. The AWPB then describes the activities to be implemented to deliver these outputs and the financial resources (financial targets) required to do so.

Structure of the AWPB

Present the overall structure of the AWPB and main aspects addressed by the AWPB, for example:

- Explain the AWPB's link and consistency with logframe indicators and targets and the procurement plan.
- Indicate how the annual budget has been prepared based on current costs, and note budget constraints/limited absorption capacity, if relevant.
- The AWPB template is provided in appendix 4 of the M&E plan and includes an indicative table of contents, workplan and budget template table.

2.2.2. Monitoring

- This section provides a general description of the monitoring process and its characteristics. Details are provided in the following sections: 3. Roles and responsibilities; 5. Tools; and 6. Project reports and deliverables.
- Describe the main tasks: assess rates of physical execution of yearly planned activities against targets; verify compliance with agreed calendar and deadlines; and assess rate of financial execution against planned targets.
- Present what is measured: activities, inputs and outputs, and to some extent outcomes, in the AWPB and logframe against physical targets.
- Briefly explain how and when the data collection is carried out: monitoring sheet and/or annual surveys, COI surveys for outcomes.
- Explain how the data collected is analyzed and presented (logframe as key reference).

2.2.3. Evaluation

- Describe the evaluation's scope, strategy and objectives. Provide information on the evaluation criteria or performance standards (relevance, effectiveness, efficiency,

sustainability, impact) used and the rationale behind it. Specify the questions that the evaluation would address and the indicators against which it would be assessed.

- Describe the evaluation method: quantitative surveys and compliance with IFAD requirements (COI baseline, midterm and completion surveys, if applicable) and use of a comparison group.
- Describe qualitative study/survey for aspects/performance questions that may require investigation.
- Explain who conducts and analyzes the evaluation: internal and/or external evaluators, use of procurement processes, etc. When feasible, mention whether RIA (IFAD's Research and Impact Assessment Division) is expected to conduct an impact assessment. Explain how the data collected is analyzed: comparison with baseline situation.
- State when the evaluation is conducted (according to IFAD's rules, the process can begin any time after 85 per cent of the project funds have been disbursed).
- Describe project completion report requirements: make reference to IFAD's project completion report (PCR) guidelines; indicate who prepares the PCR and other reports required by the government.

2.2.4. Knowledge management

This section explains the importance of the information gathered by the M&E system for knowledge management (KM) purposes, the planned methods that will be employed to process it and the tools that will be used for its dissemination, provided that a separate KM plan/manual is created.

- Specify the link with M&E activities and how evidence-based information generated by M&E system is used for KM purposes.
- Explain which and how data/knowledge/lessons are gathered and shared with different stakeholders: methods, type of product (website, print, video, platform, etc.).
- Describe how KM supports capacity building among beneficiaries and within government and IFAD.
- Explain how KM contributes to greater effectiveness and efficiency and promotes scaling up.
- Describe the main KM activities (especially those to be implemented during the initial years of project execution).

3. ROLES AND RESPONSIBILITIES

3.1. Roles of stakeholders involved in M&E

- List the main M&E actors and other stakeholders involved in planning and M&E activities.
- Describe the roles and responsibilities of the main M&E actors and other stakeholders involved in planning and M&E activities.

3.2. Flow of information

3.2.1. Flow of information approach

- Explain how the monitoring data flows from the place where it is collected to the management team and on to other stakeholders, including the government and donor(s) (bottom-up approach).
- Describe how the information is entered in the M&E system.

4.M&E budget and activities

4.1.Budget and resources

- Provide the overall budget for PM&E activities.
- Describe how M&E activities are integrated into the AWPB and procurement plan.
- Present M&E line items and budget amounts. The line items and budget amounts can be taken from the PDR (cost tables) but must be adapted, if needed. Include additional resource requirements that were not anticipated or planned for. The description of the M&E budget items should be clear and brief, since all those items are detailed in other sections of the M&E plan.

4.2. M&E activities and workplan

- Present main planning, monitoring and evaluation activities, distinguishing between annual and recurrent activities and ad hoc ones occurring at specific points during the life of the project.
- Include M&E work plan including ad hoc activities from start-up to completion and recurrent activities with deadlines.

5.Tools

5.1. Management information system (MIS)

This section presents the main characteristics of the project MIS (the data collection tools are presented in the next section). Note that the MIS may be set up after preparation of the M&E plan; in that case, this section will need to be updated once the MIS is effectively defined and set up.If the MIS comes with a separate manual, this section could be shortened and should refer to the manual.

- Explain how the M&E officer has designed and set up the MIS and whether it is aligned with the national M&E system.
- Describe how information is inputted in MIS (web-enabled) and who is responsible for data entry and quality check.
- Describe how the collected M&E data is stored (spreadsheet/database, etc.) and backed up and explain how it can be accessed.
- Present the link and integration with the project's financial system to facilitate the comparison of physical and financial progress.
- Indicate whether a GIS is used to provide geographic location data for project interventions (infrastructure, beneficiary groups, land under conservation, etc.)
- Indicate which software/tools are used to analyze the data and transform large quantities of data into usable information (SPSS, Stata, Excel, Tableau Public, etc.). Note that the complexity of the MIS should depend on the resources available (human and budgetary), and that a complex MIS is not necessarily the best option if capacities are limited.

- Explain how the MIS incorporates project reporting requirements, such as logframe and AWPB.
- Describe tables/reports/dashboards automatically generated by the MIS, such as the AWPB monitoring table, logframe, etc.
- Explain how the MIS provides the project coordinator and other PMU members with timely, accurate information on implementation progress and results so that they can make informed decisions.

5.2. Data collection formats

This section describes the formats and tools used for collecting and recording data. It provides an overview with consolidated basic information. It is supplemented with the templates of the main data collection formats in Appendices.

- For each data collection tool, describe:
 - The approach and methodology used for data collection;
 - The person/group/organization responsible for data collection;
 - The form used to collect and record the data (paper forms, electronic templates, mobile apps on phones or tablets);
 - The people/group interviewed and the composition of the sample (if any); Data entry in the MIS (if any) and data verification mechanism;
 - The periodicity/timing of data collection;
 - The type of information collected.

Project reports and deliverables

This section describes the formats of project reports and deliverables. It provides an overview with consolidated basic information and is supplemented with the templates of the main reports and deliverables.

- Describe the contents, format, and frequency of internal and external reports. Indicate who the reports are intended for (the users of information produced by the PM&E function) and who is responsible for preparing each type of report.

Appendix 2 of Annex 9C –VCN IFAD Core Indicator Definitions Guideline

Indicator	Project Context Definition
1 Persons receiving services promoted or supported by the project	Refers to the number of new individuals who have received services or participated in activities promoted or supported by the project during the considered period (annual reporting). In the case of VCN, these will be categorized as: (i) Members in Farmer Groups, CAF members supported. Please note: When rural enterprises receive services promoted or supported by the project: only owners and co-owners of the enterprises are counted as persons receiving services.
1.2.8 Women reporting minimum dietary diversity (MDDW)	Women surveyed claiming that they are consuming a diversified diet, which means that they are consuming at least 5 out of 10 prescribed food groups common in Nigeria. It is a proxy indicator to judge adequacy of micronutrient (e.g., vitamins, minerals) consumption by women. It is also a proxy to gauge the adequacy of nutrition intake of the household members. MDDW is expected to provide a broader picture of a household's nutrient intake, taking into consideration that in most societies women are more likely to be nutritionally vulnerable because of their disadvantaged position in relation to intra-household distribution of nutritious foods in resource-poor settings, which are the primary targets for IFAD operations. Additionally, women, and in particular women of reproductive age (15-49 years), are more vulnerable due to their higher physiological demand for nutrients compared to adult men.
SF.2.1 Households satisfied with project-supported services	Households reporting that they: (a) easily accessed or used the services provided by the public/private entities (CAFs and Rural Enterprise organizations, etc) supported by the project, and (b) were satisfied with the quality of the services provided by the public/private entities supported by the project. The indicator aims at determining whether the main services delivered by the public/private entities supported by the project adequately meet target groups' productive/business/employment/livelihood needs. The indicator indirectly assesses (1) the responsiveness of the project in reflecting target groups' views and needs during the design, delivery and adaptation of services, and (2) the impact of the project's capacity building support to the service providers towards improving their service delivery capacities.
SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers	Households that participate in project-supported groups/organizations (Farmer Organizations, Community Groups, CAFs, etc) reporting that: (a) they have influence over decisions taken in the project-supported group/organization in which they participate; and (b) the project-supported group/organization they participate in can influence decision-making of local authorities and project-supported service providers.
2.2.1 Persons with new jobs/employment opportunities	Number of new full-time or recurrent seasonal on-farm and off-farm jobs created thanks to project activities since project start-up, either as independent individuals (self-employed) or as employees of micro, small and medium-sized enterprises. Jobs created within farmers' organizations that received project support are also included, but temporary jobs created for a limited period (e.g., for road construction) shall be excluded. For VCN, full time employment as per this IFAD

	definitions especially for youth and women will be required to be measured across all components.
3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices	Refers to the percentage of surveyed project beneficiaries who were trained in environmentally sustainable practices and/or the management of climate-related risks, and who claim that: (a) they have fully mastered these practices; and (b) they are now routinely using these technologies and practices.
1.2.2 Households reporting adoption of new/improved inputs, technologies or practices	Beneficiary households interviewed who claim that: (a) they are fully satisfied with the inputs, practices or techniques promoted; and (b) they are now using those inputs, practices and technologies instead of previous ones.
1.1.3 Rural producers accessing production inputs and/or technological packages	Refers to dairy farmers who received support to access production inputs (e.g. improved seeds, etc.) or technological packages (e.g. processing and water-harvesting equipment from VCN support etc.) thanks to project interventions.
2.2.6 Households reporting improved physical access to markets, processing and storage facilities	Beneficiary households interviewed who claim that, as compared to the pre-project situation: (a) they can now more easily access the required market, processing or storage facilities; and that (b) these facilities are fully functional.
1.2.5 Households reporting using rural financial services	Beneficiary households interviewed who state that they are fully satisfied with and are using the financial products and services facilitated by the project, in order to invest in a productive or income-generating activity (i.e., as opposed to being used for consumption or other non-productive purposes).
2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities	Surveyed producers' organizations that have established contractual or other types of arrangements with other value chain stakeholders and/or public entities, with project support. Includes upstream and downstream arrangements (e.g. input provision or selling arrangements) and partnerships with public and/or private entities.
2.1.2 Persons trained in income-generating activities or business management	Persons who during the considered period, have received training in topics related to income-generating activities , including post-production handling, processing and marketing. Such activities include small-scale processing, conservation of agricultural products, agro-processing techniques, handling in compliance with safety (use of chemicals, pesticides) and other quality requirements, packaging, market information and procedures. Vocational training is also included. Business management training includes organizational management, accounting and bookkeeping, cash flow management and marketing.

<p>IE.2.1 Individuals demonstrating an improvement in empowerment</p>	<p>IFAD’s empowerment indicator is an index that IFAD has developed building on the project-level Women’s Empowerment in Agriculture Index (pro-WEAI) developed by IFPRI, OPHI and USAID. Similarly, to the pro-WEAI, IE2.1 reflects a framework of empowerment²³ in which empowerment is a process of change on the interrelated dimensions of resources, agency, and achievements. This indicator focuses on measuring agency, i.e., the ability of individuals, who were unable to do so previously, to make strategic choices.</p>
<p>2.1.1 Rural enterprises accessing business development services</p>	<p>Rural enterprises that have accessed business development services promoted by the project during the considered period. Rural enterprises are structured businesses that have a well-defined physical location, normally with legal status, a bank account and some employees. They include pre-entrepreneurial activities such as self-employment initiatives and microenterprises with semi-structured activities. Both formal and informal enterprises can be considered, only upstream and downstream activities processing and marketing are to be included but production activities are excluded.</p>
<p>2.1.3 Rural producers’ organizations supported</p>	<p>First-level groups of farmers or other rural producers, whether formally registered or not, that have been newly formed or created, or strengthened with project support during the considered period, in order to enhance agricultural, processing or marketing, and provide services to their members. These rural producers’ organizations should be distinguished from groups formed to manage natural resources (natural resource management groups are reported only under SO3).</p>
<p>2.1.6 Market, processing or storage facilities constructed or rehabilitated</p>	<p>Market facilities are the structures used to sell produce, such as marketplaces and shading structures. Processing facilities include equipment and machinery that are used for the transformation of dairy where value is added. Storage facilities include structures used for mid- to long-term storage or preservation of dairy produced.</p>
<p>1.1.5 Persons in rural areas accessing financial services</p>	<p>This refers to the number of individuals who have accessed a financial product or service specifically promoted/supported by the project and its partner financial service provider (FSP), at least once during the considered period (annual reporting). Such services include loans and microloans, saving funds, micro-insurance/insurance, remittances, and membership of a community-based financial organization (e.g., savings and loan group).</p> <p>Note: When rural enterprises access financial services promoted/supported by the project, only owners and co-owners of enterprises receiving financial services are counted as persons accessing services.</p>

1.1.8 Households provided with targeted support to improve their nutrition	<p>It refers to the number of people that have directly participated in project-supported activities designed to help improve nutrition during the considered period. Note that the nutrition-sensitive activities are not generic but that they are tailored to address context-based nutrition problems. Activities may include people participating in nutrition related training, exchange visits, behaviours change communication campaigns, integrated dairy production, technical assistance on the use of inputs and technologies intended to improve nutrition outcomes (e.g., bio-fortified seeds, livestock, etc). Also note that based on the typology of the nutrition-activity, they may target household members and not individuals e.g., vegetable gardens. It is important to note that not all nutrition-sensitive activities will be reported under this indicator. For example, mass media campaigns (e.g., radio) and/or other open sessions where it is difficult to quantify the number of people reached should be excluded. While counting beneficiaries, care should be taken not to double count individuals or households benefiting in more than one activity or the same activity more than once in the same year.</p>
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Annex 9D: ICT4D Implementation

Establish a centralized integrated farmer registry

Expected Results:

1. Establishment of a Centralized Integrated Farmer Registry.
2. Standardized, governed, and shared farmer data, fostering a cohesive approach throughout VCN's life cycle.
3. Facilitation of seamless connections for public and private sector players through an open Application Programming Interface (API).
4. Granting farmers, a digital identity and laying the foundation for a robust performance monitoring and decision support system.
5. Inclusion of geo-referencing and geo-coordinates in the registry for efficient organization of farmers into clusters.

Activity 1: Establishment of the Centralized Integrated Farmer Registry

- Collaborate with IFAD and NITDA to strategically plan and execute the establishment of the registry.
- Utilize NAITS for comprehensive data collection and integration into the registry.
- Implement standardized protocols for data governance, sharing, and incentivization.

Activity 2: Data Standardization and Governance

- Develop and implement standardized protocols for governing and sharing farmer data.
- Design and institute incentive mechanisms to encourage farmer data participation.
- Collaborate with IFAD and NITDA to ensure strategic alignment with project objectives.

Activity 3: Database Utilization and Connectivity

- Leverage the registry as a comprehensive database for public and private sector players.
- Establish an open API for seamless connectivity with agritech, fintech, and climate tech entities.
- Foster collaborations to maximize the utility of the integrated registry.

Activity 4: Performance Monitoring and Decision Support

- Develop frameworks for performance monitoring and decision support systems.
- Provide farmers with digital identities to enhance individualized support.
- Implement mechanisms for continuous improvement and adaptation based on performance data.

Phasing of Subcomponent Activities:

- Phase 1: Planning and Collaboration
- Phase 2: Registry Establishment and Data Collection
- Phase 3: Governance and Standardization
- Phase 4: Database Utilization and Connectivity
- Phase 5: Performance Monitoring and Decision Support

Implementing Mechanism and Partners for the Subcomponent:

- Implementation led by VCN in collaboration with IFAD and NITDA.
- Partnership with relevant stakeholders in the public and private sectors.
- Engagement with agritech, fintech, and climate tech players to ensure effective connectivity.

Exit Strategy/Sustainability:

- Institutionalize registry maintenance protocols within VCN and relevant agencies.

- Facilitate knowledge transfer and capacity building for sustainable management.
- Promote self-sufficiency in data governance and utilization.

Main Risks and Mitigation:

Risk	Mitigation
Resistance to data sharing.	Conduct extensive stakeholder sensitization and advocacy.
Technological challenges in API development.	Engage experienced technology partners and conduct thorough testing.
Inadequate governance structures	Establish clear governance protocols and incentivize compliance
Data security concerns.	Implement robust cybersecurity measures and ensure regulatory compliance.

Establish an integrated digital agricultural advisory service

Expected Results:

1. Establishment of Integrated Digital Agricultural Advisory Services.
2. Implementation of e-advisory platforms covering GAP, post-harvest management, nutrition, and various value chain (VC) aspects.
3. Increased attraction of women and youth to agriculture through new entrepreneurial opportunities.
4. Provision of personalized advice for farmers, leading to better crop yields, reduced input costs, and improved overall farm management.
5. Enhanced inclusivity by addressing high illiteracy levels among women through local language and diverse digital avenues.

Activity 1: Establishment of Integrated Digital Agricultural Advisory Services

- Develop a framework for integrated digital advisory services covering various VC aspects.
- Identify key areas such as GAP, post-harvest management, and nutrition for targeted advisory.

Activity 2: E-Advisory Platforms Implementation

- Collaborate with service providers (AfricaRice, IITA) for access to digital extension advisory tools.
- Deploy tools like RiceAdvice Lite, WeedManager/AKILIMO, Land Area Calculator, and drones for pest control.

Activity 3: Inclusivity and Entrepreneurship

- Design initiatives to attract women and youth to agriculture as service providers or entrepreneurs.
- Utilize Agribots, SMS, Integrated Voice Recording, and mobile-based applications for inclusive advisory.

Activity 4: Weather Forecasting and Early Warning Systems

- Partner with NiMET for climate-smart weather readers and early warning services.
- Collaborate with DSPs for the development and capacity-building of a weather and crop calendar App.

Phasing of Subcomponent Activities:

- Phase 1: Framework Development and Identification of Advisory Areas.
- Phase 2: Collaboration with Service Providers for E-Advisory Tools.

- Phase 3: Initiatives for Inclusivity and Entrepreneurship.
- Phase 4: Weather Forecasting and Early Warning Systems.

Implementing Mechanism and Partners for the Subcomponent:

- VCN will lead the implementation, collaborating with AfricaRice, IITA, NiMET, DSPs, and other relevant stakeholders.
- Establish partnerships with service providers for seamless integration of advisory tools.

Exit Strategy/Sustainability:

- Institutionalize the integrated advisory services within VCN and relevant agricultural agencies.
- Transfer knowledge and build capacities for sustainable management.
- Encourage self-sufficiency in digital advisory services through local partnerships.

Main Risks and Mitigation:

Risk	Mitigation
Low adoption of digital advisory tools	Conduct thorough awareness campaigns and training programs.
Technical challenges in implementing e-advisory platforms	Engage experienced technology partners and provide necessary support
Resistance to change from traditional advisory methods	Implement gradual transitions and highlight the benefits of digital tools
Limited access to smartphones and internet connectivity	Explore partnerships to enhance digital infrastructure and access.

Improve farmers' access to quality inputs

Expected Results:

1. Improved farmers' access to quality inputs through optimized distribution mechanisms.
2. Successful implementation of a digital e-voucher system for efficient input distribution.
3. Enhanced traceability and authentication of quality inputs within rural communities.
4. Utilization of ICT4D tools for input demand forecasting and planning.

Activity 1: Optimization of Input Distribution Mechanisms

- Conduct a comprehensive review of existing input distribution systems.
- Identify key areas for improvement in the distribution process.

Activity 2: Implementation of Digital E-Voucher System

- Develop and deploy a digital e-voucher system leveraging ICT4D.
- Ensure seamless integration for efficient input distribution.

Activity 3: Traceability and Authentication of Quality Inputs

- Employ ICT4D tools to establish traceability and authentication protocols.
- Implement measures to track the quality of distributed inputs.

Activity 4: Utilization of ICT4D Tools for Planning

- Leverage ICT4D tools for input demand forecasting and planning.
- Analyze data trends and demand patterns to inform decision-making.

Phasing of Subcomponent Activities:

- Phase 1: Review and Optimization of Existing Input Distribution.
- Phase 2: Development and Deployment of Digital E-Voucher System.
- Phase 3: Implementation of Traceability and Authentication Protocols.
- Phase 4: Utilization of ICT4D Tools for Planning.

Implementing Mechanism and Partners for the Subcomponent:

- VCN will lead the implementation, collaborating with IFDC, Cellulant, and other reputable service providers.
- Engage partners like Mastercard Foundation, Agro Pocket, AgromallTelagri, and NAGS Agropocket for their expertise in input distribution.

Exit Strategy/Sustainability:

- Institutionalize the optimized input distribution mechanisms within VCN and relevant agricultural agencies.
- Establish partnerships for ongoing support and capacity building.
- Encourage stakeholder participation to ensure sustained success.

Main Risks and Mitigation:

Risk	Mitigation
Resistance to digitalization in input distribution	Conduct extensive training and awareness programs
Technical challenges in implementing the e-voucher system	Engage experienced technology partners and provide necessary support
Inaccurate input demand forecasting	Regularly update data and conduct thorough analysis for accurate forecasting.
Limited acceptance by farmers	Implement robust communication strategies to highlight the benefits of the system

Improve farmers' access to output markets and fair prices

Expected Results:

1. Improved farmers' access to output markets with fair prices.
2. Enhanced market linkages and collaborations for equitable transactions.
3. Successful integration of agritech e-marketplace applications and mobile-based solutions.
4. Exploration and implementation of innovative market linkage models.

Activity 1: Comprehensive Review of Agritech E-Marketplace Applications

- Conduct an in-depth review of existing agritech e-marketplace applications.
- Identify strengths, weaknesses, and areas for improvement.

Activity 2: Collaboration with FMAFS and Scaling Up AMIS

- Collaborate with the Federal Ministry of Agriculture and Food Security (FMAFS).
- Scale up the Agricultural Marketing Information System (AMIS) for broader impact.

Activity 3: Integration of Mobile-Based Solutions

- Incorporate mobile-based solutions for accessing market information.
- Ensure seamless integration with existing platforms for user-friendly access.

Activity 4: Exploration of Innovative Market Linkage Models

- Research and explore innovative market linkage models.

- Design and pilot models that cater to diverse needs across the entire value chain.

Phasing of Subcomponent Activities:

- Phase 1: Review of Agritech E-Marketplace Applications.
- Phase 2: Collaboration and Scaling Up of AMIS.
- Phase 3: Integration of Mobile-Based Solutions.
- Phase 4: Exploration and Implementation of Innovative Market Linkage Models.

Implementing Mechanism and Partners for the Subcomponent:

- VCN will lead the implementation in collaboration with FMAFS.
- Engage partners in the agritech sector for the review and integration of e-marketplace applications.
- Collaborate with technology providers for the development of mobile-based solutions.

Exit Strategy/Sustainability:

- Institutionalize effective market linkages within VCN and relevant agricultural agencies.
- Establish partnerships with agritech firms and market stakeholders for ongoing support.
- Encourage stakeholder participation to ensure sustained success.

Main Risks and Mitigation:

Risk	Mitigation
Resistance from existing market players to embrace transparency	Conduct awareness programs highlighting the benefits of transparent market transactions
Technical challenges in integrating mobile-based solutions	Engage experienced technology partners and provide necessary support
Limited adoption by farmers	Implement robust communication strategies to educate farmers on the advantages of improved market access.

Annex 9E: PROJECT IMPLEMENTATION MANUAL - PROJECT PROCUREMENT ANNEX

PROJECT PROCUREMENT STRATEGY

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Acronyms and Abbreviations

1.	BPO	Blanket Purchase Order
2.	CQS	Selection of Consultants' Qualifications
3.	GPN	General Procurement Notice
4.	ICB	International Competitive Bidding
5.	ICS	Individual Consultants Selection
6.	LCS	Least Cost Selection
7.	LERB	Lowest Evaluated Responsive Bidder
8.	NCB	National Competitive Bidding
9.	NCS	Non-Consulting Services
10	QCBS	Quality and Cost-Based Selection
11	TORs	Term(s) of Reference
12	UNCITRAL	United Nations Commission on International Trade Law
13	UNOPS	United Nations Office for Project Services
14	VCN	Value Chain Programme Northern Nigeria

Project Overview

The Value Chain Development Programme in Northern Nigeria (VCN) aims to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in nine out of the 13 states in the northeast and northwest geopolitical regions of Nigeria. It is basically a scaling up and sustainability measure for the Climate Change Adaptation and Agribusiness Support Programme (CASP) which was implemented in seven out of the eight states of VCN. The eighth state (Kano), is included to strengthen the linkage of the VCN value chains with a robust market, as Kano is a major regional market for agricultural produce. Bauchi is the ninth state considered to be included as RAAMP state financed by AFD. VCN targets 456,000 rural households in the nine states and will be implemented over an eight-year period at a total cost of USD 145.5 million, with IFAD providing a Performance Based Allocation System (PBAS) loan of USD 56.7 million and Borrowed Resource Access Mechanism (BRAM) resources of USD 30 million. The Agence Francaise de Developpement (AFD) is a major co-financier of VCN. The Federal Ministry of Finance (FMF) and the Federal Ministry of Agriculture and Food Security (FMAFS) provide oversight at national level to VCN. The FMAFS is the Lead Programme Implementing Agency.

Overview of Country, Borrower and Marketplace

PESTLE Analysis

1. Political

Nigeria is a multi-ethnic and culturally diverse federation of 36 autonomous states and the Federal Capital Territory. Nigeria continues to face many social and economic challenges that include insecurity such as banditry and kidnappings especially in the northwest region, continued insurgency by terrorist groups in the north-east, and separatist agitations in the south-east. Civil society, the media and other civil groups have committed to sustain advocacy for reforms and actions towards better economic and social outcomes for citizens.

There are roadblocks to a strong democracy in Nigeria at all levels of government. Conflict—triggered by political competition and communal, ethnic, religious or resource allocation rivalries—poses a major threat to democracy. Corruption pervades the daily lives of Nigerians. Many government institutions do not adequately engage with citizens or the private sector and lack the capacity to carry out their mandates. Further, civil society lacks both the capacity and the resources to effectively engage with government and advocate for change.

2. Economic Aspects

Between 2000 and 2014, Nigeria's economy experienced broad-based and sustained growth of over 7% annually on average, benefitting from favorable global conditions, and macroeconomic and first-stage structural reforms. From 2015-2022, however, growth rates decreased and GDP per capita flattened, driven by monetary and exchange rate policy distortions, increasing fiscal deficits due to lower oil production and a costly fuel subsidy program, increased trade protectionism, and external shocks such as the COVID-19 pandemic. Weakened economic fundamentals led the country's inflation to reach a 24-

year high of 31.7% in February 2024, which, in combination with sluggish growth, has pushed millions of Nigerians into poverty.

Following a change in administration in May 2023, the country has been pursuing bold reforms to reestablish macroeconomic conditions for stability and growth. The petrol fiscal subsidy was partially eliminated, and FX reforms have led to the unification of FX markets and to a market-reflective exchange rate. To alleviate the inflationary effects of these reforms on the most vulnerable, the government has been implementing temporary cash transfers to reach 15 million households. Efforts are also being made to tighten monetary policy and refocus the Central Bank of Nigeria (CBN) on its core mandate of maintaining price stability.

3. Social Aspects

Nigeria has a population of about 224 million people as of 2023. It is the most populous country in Africa and 6th most populous globally. 43% of the population is between the ages of 0–14, 54% is between 15–64, and 3% is 65 and older. The most populated ethnic groups are Hausa-Fulani (29%), Yoruba (21%), Igbo (18%), Ijaw (10%), Kanuri (4%), Ibibio (3.5%), and Tiv (2.5%). English is the official language, but Nigeria has over 500 languages in total. Life expectancy is 54 years for both males and females in 2023, with the fertility rate being 5.1 children per woman in 2023.

One in every five of the world's out-of-school children is in Nigeria. Even though primary education is officially free and compulsory, about 10.5 million of the country's children aged 5-14 years are not in school. Only 61 percent of 6 to 11 year-olds regularly attend primary school and only 35.6 percent of children aged 36-59 months receive early childhood education.

In the north of the country, the picture is even bleaker, with a net attendance rate of 53 percent. Getting out-of-school children back into education poses a massive challenge.

Gender, like geography and poverty, is an important factor in the pattern of educational marginalization. States in the north-east and north-west have female primary net attendance rates of 47.7 percent and 47.3 percent, respectively, meaning that more than half of the girls are not in school. The education deprivation in northern Nigeria is driven by various factors, including economic barriers and socio-cultural norms and practices that discourage attendance in formal education, especially for girls.

4. Technological Aspects

In 2024, Nigeria's technology landscape is anticipated to be shaped by several transformative trends, with Artificial Intelligence (AI) being at the fore. As connectivity hopefully expands and data becomes more abundant, AI is expected to seep into every corner of Nigerian life. One of the notable regulatory changes for tech in Nigeria is the implementation of the Nigeria Data Protection Regulation (NDPR). Enacted in 2019 but gaining more prominence, the NDPR aims to protect the privacy rights of individuals by regulating the processing of personal data. The regulation places obligations on data controllers and processors, emphasizing the need for transparency, consent, and data security.

Recent developments include stricter enforcement mechanisms and penalties for non-compliance. Organizations operating in Nigeria are now required to undergo rigorous data protection assessments and ensure the implementation of robust security measures.

The Public Procurement Act of 2007 established the Nigerian Bureau of Public Procurement (BPP) charged with the responsibility to provide legal and institutional framework and professional capacity development for public procurement. BPP manages a website which provides the Act, Regulations, Manuals and standard bidding documents online to public procuring entities in Nigeria. The Nigeria Open Contracting Portal (NOCOPO) is a web portal responsible to provide procurement opportunities to bidders in Nigeria and overseas.

5. Legal

Public procurement in Nigeria is governed by the Public Procurement Act 2007, revised 2018 (PPA), except where exemptions are enforced, such as when an international financial institution (like IFAD or AFD) requires that its own procurement framework be used. There is the Public Procurement Regulations (PPR) for Goods and Works and a separate one for Consulting Services, both 2007. There is also a Public Procurement Manual. There are 6 open and non-open methods for Procurement for Goods & Works, and 5 selection methods for consulting services, prescribed by law. The BPP has a full cache of bidding documents: 4 for Goods and Works, and 5 for Consulting Services. None of these documents have self-certification forms and SECAP requirements.

Nigerian labour law looks into the rights, working conditions, minimum wage, termination clauses, and many other rules set by the government of Nigeria. The current version of the act was put into place in 2004, five years after their current constitution was established.

6. Environment

Nigeria is vulnerable to climate change. The effects of climate change in Nigeria include (among others) rising temperatures, increased rainfall variability, rising sea levels, drought, land degradation, erosion, desertification and pollution. Its multiple ecological zones have given rise to a wide range of livelihoods, agricultural practices, and commodities, all of which are affected by climate change and shocks. Rising sea levels threaten southern cities such as Lagos and coastal areas, increasing vulnerability to flooding and waterborne diseases.

The produces an estimation of 32 million tons of solid waste per year, with only about 20-30 percent of it being collected and managed correctly. The remainder of the waste is either dumped in unauthorized places or burned, contributing to pollution and health risks.

Based on this, environmental impact assessments are proposed for procurement processes under VCN. Since Nigeria's Environmental Impact Assessment Act became law in 1992 and may be outmoded, all environmental provisions in bidding documents shall be based on IFAD's Social, Environmental and Climate Assessment Procedures (SECAP).

Client Capability and PIU Assessment

1. Experience

i. Lead Agency

The Lead Agency should have considerable experience in the implementation of donor projects. It should possess the capacity, bandwidth and experience to support VCN from every standpoint and is the agency responsible for making available the government's contribution to the project.

ii. The Procurement Offices

The NPCO shall have a National Procurement Manager/Specialist (NPS) and at a minimum a National Procurement Assistant. The NPS, since s/he will be driving the entire procurement portfolio and supervising all state procurement officers, should have extensive experience in government procurement – particularly of the donor-funded variety – and knowledge of the procurement processes of at least one multi-lateral development bank and IFAD.

The NPS will act as a pass-through reviewer for documents and processes carried out by the states even for items that require IFAD No Objection.

2. Need for hands-on support

The procurement staff of the NPCOs may require hand-holding support from IFAD. In addition, all these staff should be sent for IFAD-specific procurement training programmes and refreshers as applicable.

3. Contract Management Capability and Capacity

There are two parts to contract management: contract administration which deals with procurement, fiscal and other types of support to contract implementation and contract management, which deals with technical supervision.

For technical supervision, the NPCO/SPCO (or persons hired for this purpose) shall ensure that the technical performance and implementation follow the letter and spirit of the contract. In cases where the NPCO/SPCO does not have the personnel and/or required expertise, an individual consultant (or a firm) could be hired for this purpose.

For contract administration, the procurement staff of NPCO/SPCO support every contract across all categories for contract amendments and approvals, administration of advance payment and performance securities, administration of retentions or retention money securities for works, payments to vendors and continual eligibility checks.

4. Complaints management and dispute resolution systems

a. Complaints

Bidders shall have a right to request debriefs for particular processes. Based on the information provided in the debrief, or the notification of the evaluation results, or related information, bidders can lodge complaints. Complaints shall be lodged during one or more standstill periods in the procurement process. The complaints should be addressed to NPCO or SPCO, depending on where the procurement process originated from.

Should the bidder be dissatisfied with the response or the response does not reach the bidder at the end of the 7 calendar days, the bidder is free to write to the Bureau of Public Procurement (BPP).

b. Dispute Resolution

Dispute resolution should be viewed across the Dispute Adjudication and Arbitration, the former simply meaning solving disputes without going through legal arbitration and the latter meaning legal arbitration where the decision is binding on both contracting parties. To resolve disputes with a vendor during contract implementation, best practice recommends that the parties first explore mutual solutions to resolve the issue. These mutual solutions may be in the form of negotiations (where the 2 parties meet to resolve the issues with the distinct possibility of amending the contract at the end of the negotiations), conciliation (which is having the 2 parties with/without the addition of other parties to placate the situation), and mediation (which is using a mediator to advise, with his/her advice not being legally binding).

Arbitration should be considered if any or all the mutual solutions have failed. For arbitration to be viable, NPCO/SPCO should have elected one of the arbitration clauses in the bidding document and should have elected one arbitration procedure among the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules of 1976, the Rules of Conciliation and Arbitration of the International Chamber of Commerce (ICC), the Rules of the London Court of International Arbitration or the Rules of Arbitration Institute of the Stockholm Chamber of Commerce. In tandem, the contract must state where arbitration will take place if the contracted vendor is not registered in Nigeria, and as a rule this should not be either in Nigeria (where VCN is situated) or the contracted vendor’s country of registration.

In the case of Works, a Dispute Board is required for dispute adjudication. The Dispute Board (DB) shall have a membership of 3 persons each of whom will enter into a tripartite agreement with the Employer and the Contractor. Each member of the DB shall have experience related to the Works being procured and experience in contracts and interpretation of contractual documentation. The DB membership (either individually or collectively) shall never become an arbitrator or arbitration unit and shall never be called upon as a witness during arbitration.

SWOT Analysis

Strengths	Weaknesses
Great procurement supervision structure: donor-led by IFAD and AFD, country led by Lead Agency, with NPCO supervising states	Not enough human resources for contract management. NPCO has only 2 procurement staff whose time will be required for procurement processes and supervising the States

Access to training resources with IFAD – BuildProc, etc.	Procurement process being bogged down by too many levels of government approvals. Should be a single checkpoint for review and approval of procurement documents and processes
Use of OPEN – IFAD’s portal that helps streamline procurement work	
Opportunities	Threats
Using technology for procurement. Full adoption of eProcurement initiatives without even acquiring a full Procurement MIS.	Security situation in Northern part of the country that can affect delivery of goods and bring about supply chain disruption.
Access to reaching international bidders for certain procurements by means of direct invitation and/or use of advertisements on UNDB	Contractors and consultants lacking the basic technical requirements for procurements Works and Services
Good fiscal structures proposed for VCN, and distinction between fiscal and procurement responsibilities under VCN	Suppliers, contractors and consultants lacking financial capacity and being unable to submit procurement securities (bid and performance securities for e.g.) and being overly reliant on advance payments
Good number of construction firms in Nigeria to meet construction needs in procurement	Late payments to Suppliers, contractors and consultants by VCN which affects their cash flow and VCN’s programme goals.

5. Financial

a. Getting Value for Money

One important factor of procurement is the achievement of (best) value for money. Obviously obtaining value for money is not just about the lower prices but ensuring that the best market price is obtained for goods, works and services that meet the required quality and performance is key. One of the ways to ensure this is to have extensive competition. For Shopping procurements, VCN should invite as many bidders as possible, up to 10 or more bidders (if possible) to ensure that the best prices are submitted. For procurements that are advertised via newspapers and the web VCN should directly invite firms with the expertise to obtain the bidding documents.

For these strategies to work, VCN should develop a vendor database in Excel where bidders are registered for different categories and commodities. This database will be fuelled principally by GPN responses and participation in bidding processes.

b. Financial Capacity

For Works (construction and rehabilitation), the procurement process to be enacted by VCN including its evaluation framework should include the assessment of each firm’s financial capacity. The firms may submit audited financial statements and other viable instruments to demonstrate relevant financial capacity.

Financial capacity may not be required for Goods and Services as the risk of poor implementation is significantly lower, especially for lower-value procurements.

6. Procurement Trends

VCN can adopt some minor technological advances that allow for pre-bid/proposal conferences to be held online using Zoom, Teams or Webex, and electronic submission and opening of bids (using Sync or Dropbox).

In addition, VCN may elect to use a Procurement MIS to automate its processes. The Programme may consider TomMarche (which some IFAD-funded outfits in West Africa have used with success), or Bonfire or Procure Port.

7. Supplier Positioning and Preferencing

Supplier positioning in the context of VCN provides information on what procurement projects suppliers are likely to be interested in from the point of view of profit and risk. Supplier Preferencing however groups procurement items into segments of strategic influence. Using both Positioning and Referencing, the analysis serves to inform VCN on what procurement strategies will be optimal for which procurement activities, and what suppliers are likely to participate.

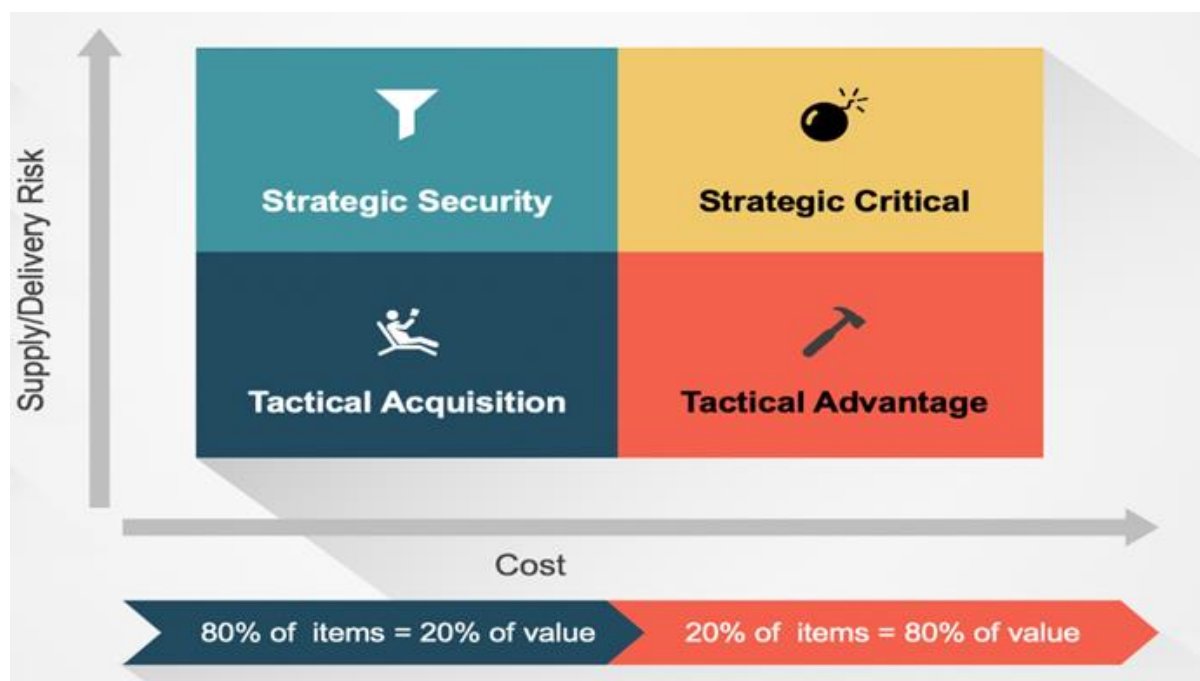
The Kraljic Matrix/Model answers 2 questions:

- What is the strategic significance of the items we procure?
- How vulnerable is VCN if a Supplier fails to deliver/perform?

For the model being used, all procurements will be measured using these four pillars: Strategic Security, Strategic Critical, Tactical Advantage and Tactical Acquisition. These are defined in layman terms in the table below:

Strategic Security	These are procurement items that are low in cost but where finding suppliers may be relatively difficult
Strategic Critical	These are procurement items that are high in cost but where finding suppliers may be relatively difficult

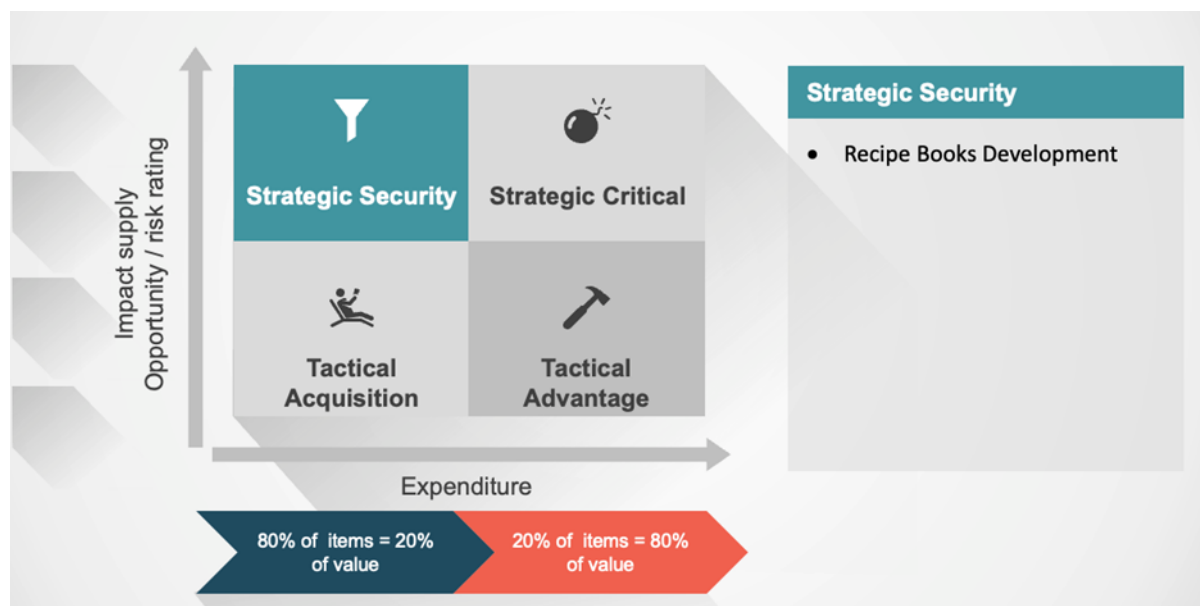
Tactical Advantage	These are procurement items that are high in cost but where finding suppliers may be relatively easy
Tactical Acquisition	These are procurement items that are low in cost but where finding suppliers may be relatively easy



Using these pillars, each identified procurement of VCN is placed in their respective categories as below:

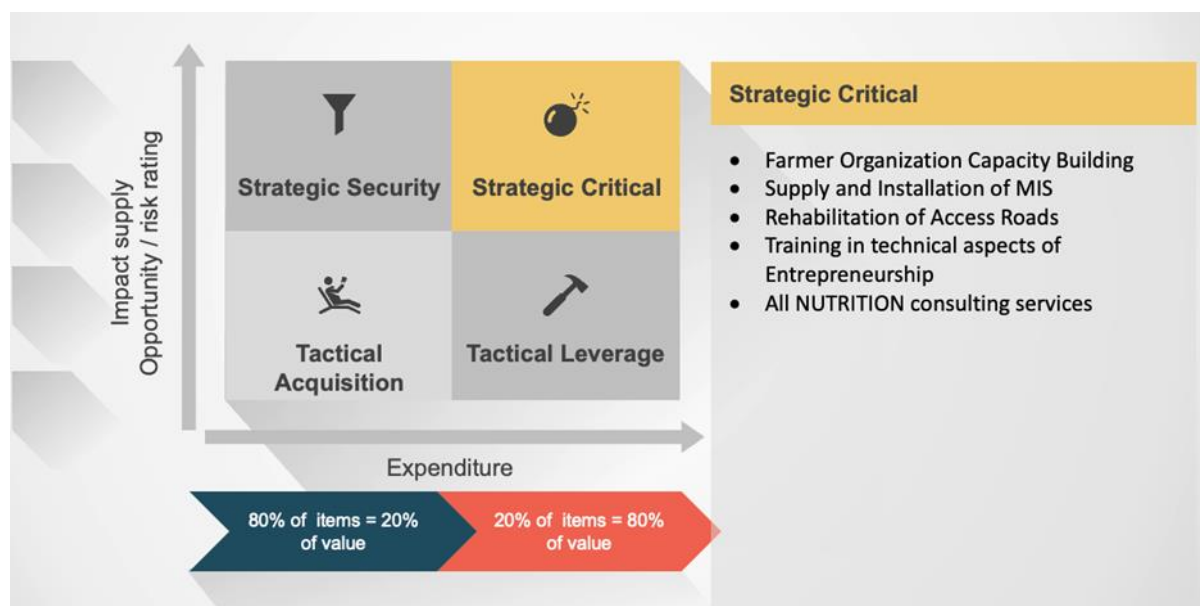
Strategic Security (High level of supply risk, low cost)

- Recipe Books Development



Strategic Critical (High level of supply risk, high cost)

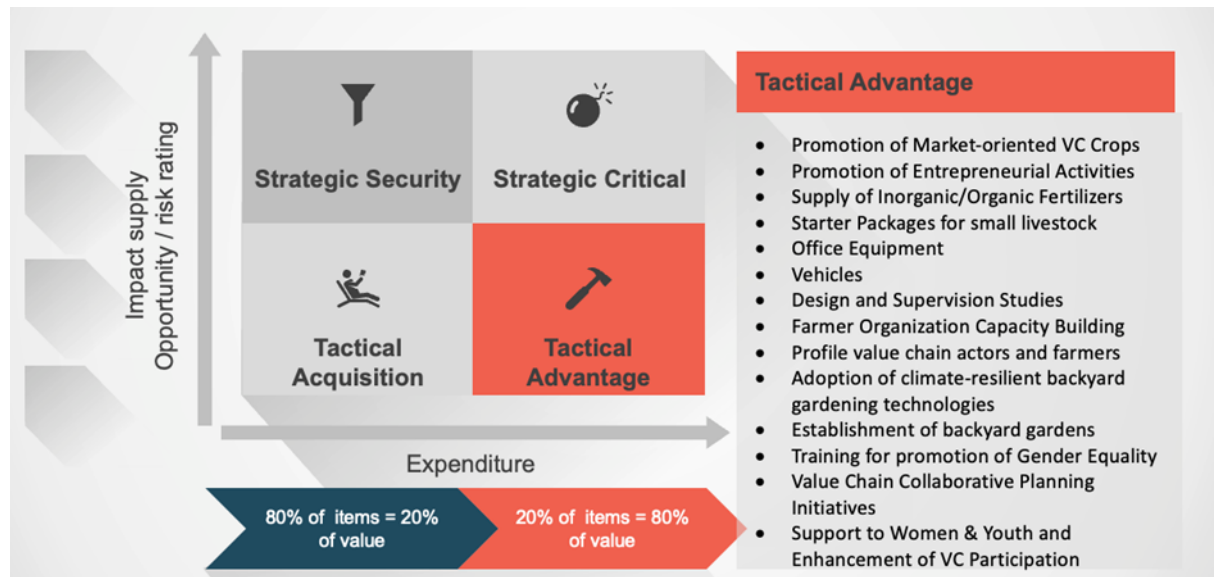
- Farmer Organization Capacity Building
- Supply and Installation of MIS
- Rehabilitation of Access Roads
- Training in technical aspects of Entrepreneurship
- All NUTRITION consulting services



Tactical Advantage (Low level of supply risk, high cost)

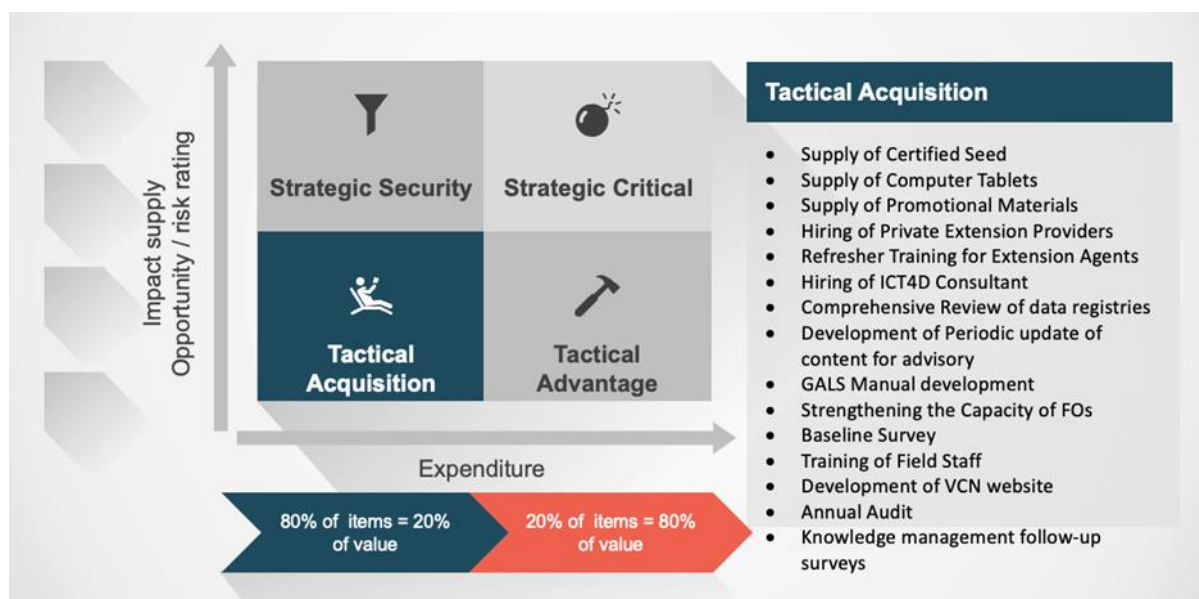
- Promotion of Market-oriented VC Crops
- Promotion of Entrepreneurial Activities
- Supply of Inorganic/Organic Fertilizers
- Starter Packages for small livestock
- Office Equipment
- Vehicles
- Design and Supervision Studies

- Farmer Organization Capacity Building
- Profile value chain actors and farmers
- Adoption of climate-resilient backyard gardening technologies
- Establishment of backyard gardens
- Training for promotion of Gender Equality
- Value Chain Collaborative Planning Initiatives
- Support to Women & Youth and Enhancement of VC Participation



Tactical Acquisition (Low level of supply risk, low cost)

- Supply of Certified Seed
- Supply of Computer Tablets
- Supply of Promotional Materials
- Hiring of Private Extension Providers
- Refresher Training for Extension Agents
- Hiring of ICT4D Consultant
- Comprehensive Review of data registries
- Development of Periodic update of content for advisory
- GALS Manual development
- Strengthening the Capacity of FOs
- Baseline Survey
- Training of Field Staff
- Development of VCN website
- Annual Audit
- Knowledge management follow-up surveys



Procurement Risk Analysis

There are risks in every part of the process, procedure and activity in procurement: Planning, Sourcing, Evaluation and Award/Contract.

The Risk Matrix below goes beyond mere statement of risk and mitigation measures. The matrix analyses risk factors, the probability and severity in relation to the procurement environment and recommends mitigation measures across all spectra of procurement processes and procedures. All risks below apply to VCN and all procurement activities across all categories.

Low Risk Factor: 0 – 10

Medium Risk factor: 11 – 20

High Risk Factor: above 20

GOODS						
#	Risk Description	Probability Likelihood of Occurring (a) 0-5	Severity Impact if risk occurs (b) 0-10	Total Risk Factor (a) x (b)	Description of Mitigation	Risk Owner
A	Planning					

1	Inadequate scoping and determination of needs	1	5	5	N/A	NPCO/SPC O
2	Disconnect between initial planning and preparation of the technical documentation	2	2	4	N/A	NPCO/SPC O
3	Budget leak	2	7	14	N/A	NPCO/SPC O
4	Lack of strategic outlook (no cross-category planning for e.g)	1	3	3	N/A	NPCO/SPC O
B	Sourcing					
1	Insufficient reach in the advertisement process	1	6	6	N/A	NPCO/SPC O
2	Lack of competition	1	8	8	N/A	NPCO/SPC O
3	Length of sourcing time (short)	2	5	10	N/A	NPCO/SPC O
4	Inadequacy of bidding documents	1	4	4	N/A	NPCO/SPC O
5	<u>Understatement/Overstatement of qualification criteria for consulting services</u>					NPCO/SPC O
a	<i>errors such that procurement has to be cancelled</i>	1	5	5	N/A	
b	<i>a number of clarifications need to be issued</i>	2	2	4	N/A	
c	<i>only one bid/quotation/proposal received</i>	1	3	3	N/A	
6	<u>Specifications</u>					NPCO/SPC O

a	<i>errors such that procurement has to be canceled</i>	1	7	7	N/A	
b	<i>a number of clarifications need to be issued</i>	2	3	6	N/A	
c	<i>only one bid/quotation/proposal received</i>	1	3	3	N/A	
7	Lack of market (technical) ability	1	7	7	N/A	NPCO/SPCO
8	Lack of market (financial) capacity	1	5	5	N/A	NPCO/SPCO
9	Barriers to entry	1	4	4	N/A	NPCO/SPCO
C	Evaluation					
1	Identity of Panel members	3	6	18	Panel members to sign declaration of confidentiality.	NPCO/SPCO
2	Ability of Panel members	1	6	6	N/A	NPCO/SPCO
3	Availability of Panel members	1	5	5	N/A	NPCO/SPCO
4	Conflict of interest (panel members)	1	4	4	N/A	NPCO/SPCO
5	Vagueness of (or technically insufficient) evaluation criteria	3	6	18	Ensure qualification and evaluation criteria is lucid and	NPCO/SPCO

					measurable in bidding docs.	
6	Viability of consensus evaluation	1	5	5	N/A	NPCO/SPC O
7	Lack of confidentiality of evaluation proceedings	1	7	7	N/A	NPCO/SPC O
D	Award					
1	Absence of opportunity of protests	2	6	12	Ensure that Bidding Documents carry clear language on bidders' right to protest with clear process provided	NPCO/SPC O
2	Faulty award	1	7	7	N/A	
3	Over-negotiations (to the extent procurement item is different)	0	6	0	N/A	
4	Unprovided securities	1	5	5	N/A	

Works

WORKS						
#	Risk Description	Probability Likelihood of Occurring (a) 0-5	Severity Impact if risk occurs (b) 0-10	Total Risk Factor (a) x (b)	Description of Mitigation	Risk Owner
A	Planning					
1	Inadequate scoping and determination of needs	2	5	10	N/A	NPCO/SPCO
2	Disconnect between initial planning and preparation of the technical documentation	2	2	4	N/A	NPCO/SPCO
3	Budget leak	2	7	14	N/A	NPCO/SPCO
4	Lack of strategic outlook (no cross-category planning for e.g)	2	3	6	N/A	NPCO/SPCO
B	Sourcing					
1	Insufficient reach in the advertisement process	1	6	6	N/A	NPCO/SPCO
2	Lack of competition	1	8	8	N/A	NPCO/SPCO
3	Length of sourcing time (short)	2	5	10	N/A	NPCO/SPCO
4	Inadequacy of bidding documents	1	4	4	N/A	NPCO/SPCO
5	<u>Understatement/Overstatement of qualification criteria for consulting services</u>				N/A	NPCO/SPCO

a	<i>errors such that procurement has to be canceled</i>	1	5	5	N/A	
b	<i>a number of clarifications need to be issued</i>	2	2	4	N/A	
c	<i>only one bid/quotation/proposal received</i>	1	3	3	N/A	
6	<u>Specifications</u>				N/A	NPCO/SPC O
a	<i>errors such that procurement has to be canceled</i>	1	7	7	N/A	
b	<i>a number of clarifications need to be issued</i>	2	3	6	N/A	
c	<i>only one bid/quotation/proposal received</i>	1	3	3	N/A	
7	Lack of market (technical) ability	1	7	7	N/A	NPCO/SPC O
8	Lack of market (financial) capacity	1	5	5	N/A	NPCO/SPC O
9	Barriers to entry	1	4	4	N/A	NPCO/SPC O
C	Evaluation				N/A	
1	Identity of Panel members	3	6	18	Panel members to sign declaration of confidentiality.	NPCO/SPC O
2	Ability of Panel members	1	6	6	N/A	NPCO/SPC O

3	Availability of Panel members	1	5	5	N/A	NPCO/SPC O
4	Conflict of interest (panel members)	1	4	4	N/A	NPCO/SPC O
5	Vagueness of (or technically insufficient) evaluation criteria	3	6	18	Ensure qualification and evaluation criteria is lucid and measurable in bidding docs.	NPCO/SPC O
6	Viability of consensus evaluation	1	5	5	N/A	NPCO/SPC O
7	Lack of confidentiality of evaluation proceedings	1	7	7	N/A	NPCO/SPC O
	D Award					
1	Absence of opportunity of protests	2	6	12	Ensure that Bidding Documents carry clear language on bidders' right to protest with clear process provided	
2	Faulty award	3	7	21	Award should never be made based on the Works budget if budget wasn't advised to bidders in bidding docs	

3	Over-negotiations (to the extent procurement item is different)	0	6	0	N/A	
4	Unprovided securities	1	5	5	N/A	

SERVICES						
#	Risk Description	Probability Likelihood of Occurring (a) 0-5	Severity Impact if risk occurs (b) 0-10	Total Risk Factor (a) x (b)	Description of Mitigation	Risk Owner
A	Planning					
1	Inadequate scoping and determination of needs	3	5	15	Initial TOR should be written during Planning. Actual TOR needs to be written by someone versed or Consultant hired	NPCO/SPCO
2	Disconnect between initial planning and preparation of the technical documentation	3	3	9	Initial TOR should be written during Planning. Actual TOR needs to be written by someone versed or Consultant hired	NPCO/SPCO
3	Budget leak	2	7	14	N/A	NPCO/SPCO

4	Lack of strategic outlook (no cross-category planning for e.g)	2	3	6	N/A	NPCO/SPCO
						NPCO/SPCO
B	Sourcing					NPCO/SPCO
1	Insufficient reach in the advertisement process	1	6	6	N/A	NPCO/SPCO
2	Lack of competition	1	8	8	N/A	NPCO/SPCO
3	Length of sourcing time (short)	2	5	10	N/A	NPCO/SPCO
4	Inadequacy of bidding documents	2	4	8	N/A	NPCO/SPCO
5	<u>Understatement/Overstatement of qualification criteria for consulting services</u>				N/A	NPCO/SPCO
	<i>a errors such that procurement has to be canceled</i>	1	5	5	N/A	
	<i>ba number of clarifications need to be issued</i>	3	2	6	N/A	
	<i>c only one bid/quotation/proposal received</i>	2	3	6	N/A	
6	<u>Specifications</u>				N/A	NPCO/SPCO
	<i>a errors such that procurement has to be canceled</i>	1	7	7	N/A	
	<i>ba number of clarifications need to be issued</i>	2	3	6	N/A	
	<i>c only one bid/quotation/proposal received</i>	1	3	3	N/A	
7	Lack of market (technical) ability	1	7	7	N/A	NPCO/SPCO
8	Lack of market (financial) capacity	1	5	5	N/A	NPCO/SPCO

9	Barriers to entry	1	4	4	N/A	NPCO/SPCO
C Evaluation						
1	Identity of Panel members	3	6	18	Panel members to sign declaration of confidentiality.	NPCO/SPCO
2	Ability of Panel members	1	6	6	N/A	NPCO/SPCO
3	Availability of Panel members	1	5	5	N/A	NPCO/SPCO
4	Conflict of interest (panel members)	1	4	4	N/A	NPCO/SPCO
5	Vagueness of (or technically insufficient) evaluation criteria	3	6	18	Ensure qualification and evaluation criteria is lucid and measurable in bidding docs.	NPCO/SPCO
6	Viability of consensus evaluation	1	5	5	N/A	NPCO/SPCO
7	Lack of confidentiality of evaluation proceedings	1	7	7	N/A	NPCO/SPCO
D Award						
	Absence of opportunity of protests	2	6	12	Ensure that Bidding Documents carry clear language on bidders' right to protest with clear process provided	
1	Faulty award	1	7	7	N/A	

2	Over-negotiations (to the extent procurement item is different)	3	6	18	Terms of Reference should be written responsibly
3	Unprovided securities	1	5	5	N/A

Procurement Objective

1. Recommended Procurement and Contract Approach Matrix

GOODS and EQUIPMENT		
Attribute	Selected Arrangement	Justification Summary/Logic
Specifications	Developed by user unit in concert with Procurement	N/A
Sustainability Requirements	Quality statement in specifications suffice. VFM qualifications could be written in for vehicles	Lifecycle costs evaluation necessary for vehicles and heavy equipment, using VFM principles
Contract Type	Unit-price Fixed-price	N/A
Pricing and costing mechanism	Simple unit-pricing mechanism	N/A
Supplier relationship	Transactional, not adversarial or close	Close relationships may give appearance of impropriety, may work better in private sector procurements. Adversarial relationships not necessary
Price Adjustments	None	N/A
Form of Contract	Standard fixed-price contract in appropriate section in RFB. Standard Purchase Order format used for Shopping	N/A

Procurement Method	Standard methods for Goods, vis-à-vis Thresholds	N/A
Procurement Arrangement	See Procurement Approach above	N/A
Market approach	Using Pre-Procurement and Pre-Bid conferences. Also, Market Outreach at the start of the Project makes sense	N/A
Pre Qualification	Not envisaged	N/A
Post Qualification	Done for all procurements. Post Qualification should check that successful bidder still maintains financial capacity.	N/A
Evaluation or Selection Method	Compliance Evaluation method (using Comply/Not Comply). Merit Point Evaluation method (where scores are used) to be used for VFM evaluations	Merit Point evaluation method for VFM procurements
Evaluation of Costs	Lowest Evaluated Responsive Bid (LERB) methodology, except for VFM procurements where price/cost will be weighted. Lifecycle costs evaluated for vehicles and heavy machinery	N/A
Domestic Preference	Legally applicable under ICB, but practically unnecessary because of dearth of manufacturing in Nigeria	N/A
Rated Criteria	All criteria weights and sub-weights should be shown in RFB. More information in the Approach	N/A

WORKS		
Attribute	Selected Arrangement	Justification Summary/Logic
Specifications	Specifications, BOQ and Drawings to be developed by hired Consultant. If developed by government ministry; to be reviewed by Consultant	This is to ensure that the SOR is of good quality
Sustainability Requirements	Based on quality statements stated in Specifications	N/A
Contract Type	Unit-price Fixed-price or seldom Lump-sum	N/A
Pricing and costing mechanism	Ad measurement (unit price or rate) or Activity Schedules for Lump-sum contracts	N/A
Supplier relationship	Transactional, not adversarial or close	Close relationships may give appearance of impropriety, may work better in private sector procurements. Adversarial relationships not necessary
Price Adjustments	None expected for works with duration of less than 18 months	N/A
Form of Contract	Standard fixed-price contract in appropriate section in RFB. Less-detailed version to be used micro-works.	N/A
Selection Method	Standard methods for Works, vis-à-vis Thresholds	N/A
Selection Arrangement	See Procurement Approach above	N/A

Market approach	Using Pre-Procurement and Pre-Proposal conferences. Also, Market Outreach at the start of the Project makes sense	N/A
Pre-Qualification	For Works procurement valued at a minimum of US\$10m	N/A
Post Qualification	Done for all procurements. Post Qualification should check that successful bidder still maintains financial capacity.	N/A
Evaluation or Selection Method	Compliance Evaluation method (using Comply/Not Comply).	N/A
Evaluation of Costs	Lowest Evaluated Responsive Bid (LERB) methodology.	N/A
Domestic Preference	Applicable	N/A
Rated Criteria	All criteria weights and sub-weights should be shown in RFB. More information in the Approach	N/A

SERVICES		
Attribute	Selected Arrangement	Justification Summary/Logic
Terms of Reference	For QCBS or more complex procurements, consider hiring a Consultant	Ensures that the document has the required quality to motivate serious consultants

Sustainability Requirements	As per TOR	N/A
Contract Type	Lump-sum Fixed-price. Time-based and performance based for select services	N/A
Pricing and costing mechanism	Deliverable-based. Performance-based to be used for particular contracts	Performance-based contracts generally offer better quality as payment is based on performance and results, not deliverables
Supplier relationship	Transactional, not adversarial or close	Close relationships may give appearance of impropriety, may work better in private sector procurements. Adversarial relationships not necessary
Price Adjustments	None	N/A
Form of Contract	Standard fixed-price contract in appropriate section in RFP. Less-detailed version to be used to smaller contracts under CQS and IC	N/A
Selection Method	Standard methods for Services, vis-à-vis Thresholds. Shortlists used only when necessary	N/A
Selection Arrangement	See Procurement Approach above	N/A
Market approach	Using Pre-Procurement and Pre-Proposal conferences. Also, Market Outreach at the start of the Project makes sense	N/A
Pre-Qualification	Shortlists to be used only when it has been assessed that there are at least 10 consultants in the market for that consulting service	N/A

Post Qualification	Done for all procurements. Post Qualification should check that successful bidder still maintains financial capacity.	N/A
Evaluation or Selection Method	Compliance Evaluation method (using Comply/Not Comply) for Preliminary Examination. Merit Point Evaluation method (where scores are used) to be used technical evaluation	N/A
Evaluation of Costs	Based on selection methodology for QCBS, LCS, FBS. No evaluation of costs for CQS and IC where costs are negotiated	N/A
Domestic Preference	Applicable.	Where mandatory criteria is used, the applicability of Domestic Preference should be controlled
Rated Criteria	All criteria weights and sub-weights should be shown in RFP. More information in the Approach	N/A

Summary of PPSD

1. Arrangement for major procurements

Description	Category	Estimated Cost (US\$)	Rating	Bank Oversight	Procurement Approach	Procurement Method	Disbursement Method
Supply of Fertilizers	Goods	756,000	Medium	Prior Review	Open International	ICB	LERB
Quarter Packages for Livestock	Goods	256,000	Medium	Prior Review	Open International	ICB	LERB
Supply and Installation of MIS	Goods	229,000	Medium	Prior Review	Open International	ICB	LERB

Office Equipment	Goods	651,000	Medium	Prior Review	Open International	ICB	LERB
Vehicles	Goods	478,000	Medium	Prior Review	Restricted	UN Webbuy	LERB
Rehabilitation of Access Roads	Works	1,003,000	Medium	Prior Review	Open International	ICB	LERB
Training for Sustainable Land Management	Services	366,000	Medium	Prior Review	Open International 2: 1 procurement, 2 packages	QCBS	LERB
Capacity Building for Waste ation and land management services		211,000					
Design and Supervision Studies	Services	832,000	Medium	Prior Review	Open International	QCBS	LERB
Farmer Organization Capacity Building	Services	998,000	Medium	Prior Review	Open International	QCBS	LERB
Promotion of Market Oriented VC Crops	Services	706,000	Medium	Prior Review	Open International	QCBS	LERB
Promotion of Entrepreneurial Activities	Services	271,000	Medium	Prior Review	Open International Option 2: 1 procurement, 2 packages	QCBS	LERB
Training on Technical Aspects of Entrepreneurship		434,000					
Conduct of Nutrition Formative Study	Services	54,000	Medium	Prior Review	Open International Option 2: 1 procurement, 3 packages	QCBS	LERB
Nutrition Education for various groups		516,000					
Nutrition- sensitive GALS Training		109,000					
Establishment of backyard gardens	Services	109,000	Medium	Prior Review	Open International Option 2: 1 procurement, 2 packages	QCBS	LERB
Adoption of climate- resilient backyard gardening technologies		203,000					

For Consulting Services under QCBS, LERB connotes best evaluated proposal.

2. Preferred Arrangement for low-value-low risk activities

Contract	Category	Estimated Cost	Procurement Arrangement
Supply of Certified Seeds	Goods	\$2,000	Shopping – Purchased from registered suppliers for the Commodity.
Supply of Computer Tablets	Goods	\$10,000	International Shopping
Supply of Promotional Materials	Goods/Non-consulting	\$19,000	Shopping. Ask for samples when receiving quotations
Supply of Stationery (not yet in Procurement Plan)	Goods	N/A	Shopping – using BPO Framework. Recycled is the type of Paper to buy (SECAP)
Private Extension Service Providers	Consulting Services	\$12,000	Individual Consultants Selection (ICS). Lump-Sum contract
Refresher Training for Extension Agents	Consulting Services	\$11,000	Consultants Qualification Selection (CQS). Lump-Sum contract
ICT4D Consultant	Consulting Services	\$38,000	Individual Consultants Selection (ICS). Lump-Sum contract
Development of Periodic update of Content for Advisory	Consulting Services	\$26,000	Individual Consultants Selection (ICS). Lump-Sum contract
Comprehensive review of data registries	Consulting Services	\$32,000	Consultants Qualification Selection (CQS). Lump-Sum contract

Recipe Books Development	Consulting Services	\$27,000	Consultants Qualification Selection (CQS). Lump-Sum contract
GALS Manual Development	Consulting Services	\$22,000	Individual Consultants Selection (ICS). Lump-Sum contract
Capacity Building for Farmers Policy Dialogue	Consulting Services	\$13,000	Individual Consultants Selection (ICS). Lump-Sum contract
Profiling of Project Beneficiaries	Consulting Services	\$16,000	Individual Consultants Selection (ICS). Lump-Sum contract
Development of VCN Website	Consulting Services	\$27,000	Individual Consultants Selection (ICS). Lump-Sum contract
Annual Audit	Consulting Services	\$11,000	QCBS Lump-Sum contract. Could be in the form of a Framework
Knowledge Management Follow up Surveys	Consulting Services	\$2,000	Individual Consultants Selection (ICS). Lump-Sum contract

Project Procurement Annex for UNGC

Preference for bidders participating in the United Nations Global Compact (UNGC)

I. Background

IFAD's aim and mandate is to bring about sustainable development outcomes which is in line with the ambition of the United Nations Global Compact (UNGC). UNGC is a multi-stakeholder leadership initiative that seeks to align business operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. Recently, IFAD has been using procurement strategically to expand the impact of its projects. In this context, the commitment to the UNGC offers a policy framework for organizing and developing corporate sustainability strategies while offering a platform to encourage innovative initiatives and partnerships with civil society, Governments and other stakeholders.¹ The inclusion of the UNGC participation into the IFAD project procurement as a margin of preference in the selection in the bidding process enhances the sustainability of the IFAD- funded projects, in line with the commitment to underpin the challenges in achieving the Sustainable Development Goals (SDGs). Also, the bidder benefits from the membership participation as the UNGC provides with networking access with UNGC participants – representing nearly every industry sector and size throughout the globe and it gives access to partnerships with a range of stakeholders – to share best practices and emerging solutions. Moreover, it furnishes guidance, tools, resources and trainings supported by local networks and the United Nations.

II. What is the United Nations Global Compact (UNGC)

With more than 16,000 corporate signatories in over 145 countries, the UNGC² is the world's largest voluntary corporate responsibility initiative. It does not police or enforce the behaviour or actions of companies. Rather, the UNGC aims to accelerate and scale the global collective impact of business by upholding the Ten Principles³ and delivering the SDGs⁴ through accountable companies and ecosystems that enable change. To make this happen, the UNGC supports companies to:

1. Do business responsibly by aligning their strategies and operations with the Ten Principles⁵ on human rights, labour, environment and anti-corruption; and

¹ For further information, consult the UNGC official website: <https://unglobalcompact.org/about/faq>

² For further information, consult the UNGC official website: <https://unglobalcompact.org/>

³ The Ten Principles of the United Nations Global Compact are derived from: the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption. More information is available on the UNGC official website at the following link: <https://unglobalcompact.org/what-is-gc/mission/principles>

⁴ For further information, consult the official UNGC website: <https://unglobalcompact.org/sdgs/about>

⁵ The Ten Principles of the UN Global Compact embrace human rights, labour, environment and anti- corruption. For further information, consult the UNGC official website: <https://unglobalcompact.org/what-is-gc/mission/principles>

2. Take strategic actions to advance broader societal goals⁶, such as the UN SDGs, with an emphasis on collaboration and innovation.

As a voluntary initiative, the United Nations Global Compact seeks wide participation from a diverse group of businesses. As a participant at the UNGC, a business entity:

- Sets in motion changes to business operations so that the UNGC and its Ten Principles become part of strategy, culture and day-to-day operations;
- Is expected to publicly advocate the UN Global Compact and its ten principles via communications vehicles such as press releases, speeches, etc; and
- Is required to communicate with their stakeholders on an annual basis about progress in:
 - a) Implementing the Ten Principles, and
 - b) Efforts to support societal priorities.

III. Preference for the participation in the UNGC

The borrower/recipient may apply a margin of preference based on the bidder's UNGC participation when conducting national and international competitive bidding procurement for goods, works and consulting services. Such conditions of preference may be applied in the evaluation of bids as follows:

- For Goods and Works procured under National and International Competitive Bidding, the preference is 5 per cent, added to the price offered by the bidder who is not a UNGC member, for evaluation purposes only.
- For Consulting Services procured under Quality and Cost Based Selection: Participation at the UNGC can be included as a technical criterion of no more than 5/100 points.

The bidder should demonstrate the Entity's Participation in the United Nations Global Compact (UNGC) using the Bid / Proposal Form provided at the end of this document. This form must include the bidders the Letter of Commitment to the UNGC signed by the company's Chief Executive Officer and the latest Communication on Progress (CoP) in case it is available. The evaluation committee can identify the bidder as a participant at the UNGC by verifying the list of UNGC participants, which is publicly available on the official website⁷. In case the bidder applied shortly before the bidding period and the name of the entity does not appear in the list on the official website of the UNGC, the Letter of Commitment to the UNGC signed by the company's Chief Executive Office will be regarded as sufficient proof of participation.⁸

During the evaluation process, the evaluation committee will request the UNGC to confirm the effective participation to the UNGC of each bidder eligible to benefit from the margin of preference and will apply said margin only upon receiving written confirmation from the UNGC itself. The evaluation committee will reflect the application of the margin of preference to each bidder in the signed evaluation report.

⁶ For further information, consult the UNGC official website: <https://unglobalcompact.org/what-is-gc/our-work/sustainable-development>

⁷ For further information, consult the UNGC official website: <https://unglobalcompact.org/what-is-gc/participants>

⁸ The website contains also the Online Application Guidelines - Business Applicants -, which provides with more details about the application procedure. For further information, consult the UNGC official website: <https://unglobalcompact.org/participation/join/application/business>

IV. Inserting the preference for UNGC participation in bidding documents

For Goods and Works procured under National and International Competitive Bidding, the Request for Bids should include a specific preference clause for the participation to the UNGC as follows:

- If the bidding document does not already allow the inclusion of merit-point scores, the following clause must be included in the Instructions to Bidders:

x. Preference for the participation of the UNGC	x. The borrower/recipient may apply a margin of preference based on the bidder's participation in the UN Global Compact (UNGC) as specified in the BidData Sheet.
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- If the bidding document allows the application of merit-point scoring, the following should be specified in the Bid Data Sheet:

A preference of xx%⁹ will be granted to participants in the UNGC. This will be implemented via a xx% increase on the evaluated price of all non-participants to the UNGC. The bidder will need to submit evidence of active UNGC participation as per the instructions on the bid form for UNGC participation. An individual firm is considered for purposes of the margin of UNGC participation preference if it is an active participant to the UN Global Compact (UNGC) or it has applied before the bidding period.

- If required in the bidding document, the application methodology of this preference shall be defined in the section on the evaluation and examination of bids. All the criteria that the purchaser shall use to examine and evaluate bids and select the winning bid should include clear clauses on the preference for participation in the UNGC.

For **Consulting Services** procured under Quality and Cost Based Selection (QCBS), the clause for preference for the participation in the United Nations Global Compact (UNGC) should be included among the rated criteria of the technical score, as shown below. No more than 5/100 points can be assigned for such criterion.

X. Participation in the United Nations Global Compact (UNGC)	
Total points for this criterion	<i>[insert points]</i>

V. Application procedure to the UNGC for bidders who are not participants

Business Applicants who are eligible to join the UN Global Compact fall under the following definitions:

⁹ Maximum 5%

- Company — any legal entity engaging in business, such as a corporation or partnership, with at least 250 full-time direct employees and/or any state-owned companies
- SME (Small and Medium Enterprise) — same as a Company but with less than 250. companies are required to have at least one direct employee and active operations.

The Business Application is presented on the official website of the UNGC.¹⁰ The procedure follows the steps as presented below:

Step 1

Review the Application Guidelines¹¹ for a detailed step-by-step guide to the Business Application joining process. In addition to these guidelines, please refer to the UN Global Compact Joining Policy linked to the guidelines, which contains the eligibility admissions To apply as a subsidiary or country-office of an existing UN Global Compact Participant, please also review Annex I of the Application guidelines.

Step 2

Prepare a Letter of Commitment addressed to the UN Secretary-General and signed by your company's highest-level executive (or equivalent) committing to implement the Ten Principles of the UN Global Compact, take action in support of the Sustainable Development Goals and submit an annual Communication on Progress (COP)¹².

Step 3

Complete the Online Application Form¹³ and upload a digital copy of the Letter of Commitment signed by the highest-level executive. The name of the highest-level executive who signed the Letter of Commitment must correspond with the entry name in the online registration form.

VI. Commitment to the UNGC for bidders who are established UNGC participants

The commitment through the Letter of Commitment to the UNGC shall be undertaken by the chief executive for business entities (or equivalent, for non-business entities) – with support from the Board. This commits the organization to meet fundamental responsibilities in four areas: human rights, labour, environment and anti-corruption. A company's commitment applies not only to the headquarters, but also to all subsidiaries, local branches and country offices.¹⁴

The UNGC requires all participants to produce an annual Communication on Progress that outlines the company's efforts to operate responsibly and support society. This could be part of the sustainability or annual report of the entity, or another public document. The UNGC

¹⁰ The procedure for business entities is available online and the UNGC offers support to provide information and support. For further information, consult the UNGC official website: <https://unglobalcompact.org/participation/join/application/business>

¹¹ For further information, consult the UNGC official website:

https://www.unglobalcompact.org/docs/how_to_participate_doc/Online_Application_Guideline_Business.pdf

¹² The UNGC official website includes all the instructions, the forms in multiple languages and the support in case of need to carry out the Communication on Progress. For more details on the COP, <https://unglobalcompact.org/participation/report/cop>

¹³ For further information, consult the UNGC official website:

<https://unglobalcompact.org/participation/join/application/step1/business>

¹⁴ For further information, consult the UNGC official website and the Subsidiary Engagement Policy in the UNGC website. <https://unglobalcompact.org/about/finances>

posts the communications on the UNGC's website.¹⁵ The commitment to report on progress start the calendar year after joining the UN Global Compact, and annually thereafter according to the UN Global Compact CoP policy.

The Communication on Progress include:

- A statement signed by the chief executive expressing continued support for the UN Global Compact and renewing their ongoing commitment to the initiative and its principles. This is separated from the initial letter of commitment of the entity to join the UN Global Compact.¹⁶
- The completion of the online questionnaire of the Communication on Progress through which the company will disclose their company's continuous efforts to integrate the Ten Principles into their business strategy, culture and daily operations, and contribute to United Nations goals, particularly the Sustainable Development Goals.¹⁷

The instructions to prepare the Communication on Progress are described in detail on the official website of the UNGC.¹⁸

Upon submission of the CoP, all companies will be able to view their completed CoP report on their participant profile on the UNGC website, where it will be accessible by any stakeholder and the public as an html web page and downloadable as a PDF. Companies will also be able to visualize their CoP answers, track and understand performance and benchmark against peers through their data visualization dashboard on the CoP digital platform. The UNGC will not score or rank of participating companies associated with the CoP questionnaire.

The participation requires also an annual financial contribution to the Foundation for the Global Compact,¹⁹ which can be calculated through the Annual Contribution Calculator, which is available on the UNGC website.²⁰ Below is the required annual contribution (USD) according to the company revenue by annual gross sales/revenue (USD):²¹

Company revenue by annual gross sales/revenue (USD)	Required annual contribution (USD)
> 30 billion	30,000
10 - 30 billion	25,000
5 - 10 billion	20,000

¹⁵ For further information, consult the UNGC official website: <https://unglobalcompact.org/participation/join/commitment>

¹⁶ Forms of the CEO Statement of Continued Support in multiple languages can be found on the official website of the UNGC. For further information, consult the UNGC official website: <https://unglobalcompact.org/library/6142>

¹⁷ Forms of the questionnaire in multiple languages can be found on the official website of the UNGC: <https://unglobalcompact.org/library/6106>

¹⁸ For further information, consult the UNGC official website: <https://unglobalcompact.org/participation/report/cop>

¹⁹ For further information, consult the Global Compact Foundation official website: <http://www.globalcompactfoundation.org/>. The Foundation publishes regular financial disclosures. Established in 2006, the Foundation for the Global Compact is incorporated under the laws of New York State, U.S.A., as a not-for-profit corporation. The Foundation provides vital financial, operational and programmatic

support to the UNGC Office and other UN Global Compact activities around the world. Whether contributions to the Foundation are tax deductible will depend on the tax laws of the entity's country. In many countries, contributions to charities, like the Foundation, are tax deductible as a business expense for companies.

²⁰ For further information, consult the UNGC official website: <https://unglobalcompact.org/participation/join/commitment>

²¹ The following table (as of August 2023) is publicly available on the UNGC website: <https://unglobalcompact.org/about/finances>

1 - 5 billion	15,000
500 million - 1 billion	7,500
50 - 250 million	2,500
25 - 50 million	Local fee will apply
< 25 million	Local fee will apply
Subsidiaries	Local fee will apply (please, review the UNGC's Subsidiary Engagement Policy) ²²

Annual financial contributions from business participants of the UN Global Compact are made to the Foundation for the Global Compact and used to deliver programmes and participant services in collaboration with Global Compact Local Networks. A small percentage is set aside for the Local Network Development Fund — a mechanism created to support new and developing Networks. All Global Compact operations, programmes and activities are made possible by contributions from Governments to the UN Global Compact Trust Fund and from business to the Foundation²³.

²² For further information, consult the UNGC official website: <https://unglobalcompact.org/about/finances>

²³ For further information about the UNGC's finances, For further information, consult the UNGC official website: <https://unglobalcompact.org/about/finances>

x. Entity's Participation in the United Nations Global Compact (UNGC) Form

To: *[name of the purchaser / employer / client]*

We, *[name of the entity]* who are established and reputable providers of *[name and/or description of the goods, work, service provided]* do hereby demonstrate our participation in the United Nations Global Compact in the following way *[choose one option below]*:

- We are an established participant of the United Nations Global Compact (UNGC) and our participation can be confirmed by the publicly available online list of the UNGC participants. We are attaching the Letter of Commitment signed by the company's Chief Executive Officer and our latest annual Communication of Progress to this form.
- We have recently applied to become participants in the United Nations Global Compact (UNGC) and we attach the Letter of Commitment to the UNGC signed by the company's Chief Executive Officer to this form.

We confirm the correctness of the information presented in this form and acknowledge that providing incorrect information might lead to the disqualification of the submitted bid or proposal. We also acknowledge that the form is only complete with the required

attachments and that participation in the UNGC cannot be taken into account if the required documentation is missing.

[signature for and on behalf of entity]

SECAP Review Note Outlines



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF LABOUR ASSESSMENT AND MANAGEMENT PLAN

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OUTLINE OF LABOUR ASSESSMENT AND MANAGEMENT PLAN

1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of fragile semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. The risk of pest and disease outbreak on farms are moderate. However, the risk of unsustainable use of pesticides and agrochemicals are substantial.

1.2 Project description and objectives

The overall goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The programme development objective (PDO) is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
- Improved policy and institutional framework

1.3 Project Components

Component 1: Component 1: Foster climate resilient and nutrition sensitive production. This component aims at (i) improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs; (ii) improve diet quality and nutrition awareness of the target rural HHs; and (iii) improve social cohesion and policy/institutional framework. ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; and (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model. VCN will support header and farmers with infrastructure, water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aim to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.

The outcome indicators for Component 1 are: 1.2.4 HHs reporting an increase in production, 3.2.2 HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices, and Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment

Component 1 is supported by 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices*

Subcomponent 1.3: *Promoting social cohesion and an enabling policy, and institutional framework*

Component 2: Enhance inclusive and profitable integration of target groups in the VCs aims to: (i) improve post-harvest handling, value addition, and access to markets in supported VCs; (ii) increase entrepreneurial opportunities for youth and women along the target VCs; and (iii) enhancing beneficiaries' access to financial services. **Nutrition will be enhanced by promoting nutrition sensitive VCs, food safety, packaging, and labeling.** ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model; and (ii) promoting access to finance through development of digital products.

The outcome indicators for Component 2 are: 2.2.2 Supported rural enterprises reporting an increase in profit, 2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities, 2.2.6 HHs reporting improved physical access to markets, processing and storage facilities; 2.2.1 Persons with new jobs/employment opportunities;

The component comprises three subcomponents.

Subcomponent 2.1: *Improving post-harvest, value addition, market linkages and partnerships with VC actors*

Subcomponent 2.2: *Promoting entrepreneurship for women and youth*

Subcomponent 2.3: *Improving access to financial services*

Component 3: Programme Coordination & Management. *Programme coordination and management* aims to ensure programme compliance with relevant policies and guidelines, effective and efficient implementation, and M&E and KM. It will leverage the best practices and lessons learned in fragile situations under CASP and capitalise on community participatory approach and digital solutions to ensure transparency, effectiveness, efficiency, accountability and sustainability of the Programme. This component includes a Response to emergency and disaster (RED) mechanism, a disaster response contingency to minimize disruption of activities in the programme areas. RED will be activated by triggers identified in the design report and approval by IFAD.

Project implementation and institutional arrangements

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Honourable Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Honourable Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict,

insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.3 Labour Assessment and Management Procedures

Preliminary assessment of the labour working conditions in VCN shows that more smallholder farmers rely on their children and wives labour which is more likely provided without compensation. Due to insurgency and fragility, many women lost their land and now work as paid farm labourers. Paid children's labourers (10-15 years of age) are high. The risk of gender-based violence, sexual harassment and sexual abuse and exploitation can increase in situations of hunger and desperation for access to any form of work. Thus, a Labour Assessment and Management Plan is required to safeguard against exploitation, forced labour and to ensure that the labour relations are consistent with the Nigeria Labour Law, the Child Rights Act, and other national legislations and policies and international conventions and protocols related to labour and working conditions. The Labour Assessment and Management Plan will ensure that VCN implementation adheres to the requirements of Standard 5: on Labour and working conditions.

1.4 Objectives of The Labour Assessment and Management Plan

The LMP seeks to achieve the following specific objectives:

- Ensure that employees understand their rights in relation to labour and working conditions.
- Allow employees to exercise their right to freedom of association and collective bargaining.
- Provide employees and contractors with a grievance mechanism for them to raise concerns, complaints, and grievances and to receive feedback on the response and any associated corrective action.
- Prevent discrimination in hiring, remuneration, access to training, on the grounds of race, national or social origin, birth, religion, disability, gender, sexual

orientation, union membership, political opinions and age and promote equal opportunities.

- Manage disciplinary practices and grievances in a manner that treats affected individuals with respect and dignity and without threat, abuse, or ill-treatment.
- safeguard against exploitation and forced labour.
- ensure that the labour relations are consistent with the Nigeria Labour Law, the Child Rights Act, and other national legislations and policies and international conventions and protocols related to labour and working conditions.

1.5 Scope of Labour Assessment and Management Plan

This LAMP describes the requirements and expectations in terms of compliance, reporting, roles, supervision, and training with respect to labour and working conditions. The LMP covers all categories of workers – project staff, contractors, service providers, etc.

2. OVERVIEW OF LABOUR LEGISLATION INCLUDING KEY ASPECTS OF NATIONAL LABOUR LEGISLATIONS AND POLICIES

2.1 Legislation and Policies for Labour Assessment and Management in Nigeria

Nigeria Labour Law (1990)

- The Act covers:
- Protection of Wages:
- Contracts of Employment, Terms and Conditions of Employment
- Hours of work and overtime:
- Benefits
- Employment of women
- Employment of children
- Fair treatment and equal opportunities of project workers.
- Employment of women
- Labour health matters
- Prohibition of forced labour
- Labour complaints

With regards to employment of children, the use of child labourers on farms by smallholder farmers is permitted by the Nigeria Labour Act 1990⁴⁰. Section 59(1a) of the Nigerian Labour Law 1990 states that: *No child shall be employed or work in any capacity except where he is employed by a member of his family on **light work of an agricultural, horticultural, or domestic** character.* Section 59 (3) further states: **A young person under the age of fourteen years may be employed only- (a) on a daily wage;(b) on a day-to-day basis; and (c) so long as he returns each night to the place of residence of his parents or guardian, or a person approved by his parents or guardian.**

Nigerian Child Rights Act 2003

Section 28(1b) of the Child Rights Act 2003⁴¹ is in concurrence with the Nigerian Labour Act 1990 on use of child labourers on farms by smallholder farmers.

⁴⁰ Labour Act. Chapter 198, Laws of the Federation of Nigeria 1990

⁴¹ Child Rights Act 2003. Act No. 26

Trade Unions (Amended) Act, 2005

Relevant provisions include:

- Membership of a trade union by employees shall be voluntary and no employee shall be forced to join any trade union or be victimized for refusing to join or remain a member.
- For the purposes of collective bargaining all registered Unions in the employment of an employer shall constitute an electoral college to elect members who will represent them in negotiations with the employer
- The right to strike is an integral part of the freedom of every citizen to associate with others particularly to form or join a trade union of his choice for the protection of his interests, which is entrenched in section 40 of the Constitution of the Federal Republic of Nigeria 1999.
- No person shall subject any other person to any kind of constraint or restriction of this personal freedom during persuasion.

The Occupational Safety and Health Act 2005

This act states that every employer shall, so far as is reasonably practicable, ensure the Safety, Health, and Welfare at work of all his employees. Other special provisions relevant to this LAMP include:

- Prohibitions regarding young persons
- Duties of employer regarding Safety and Health Officers
- Risk assessment by employer and Record of risk assessments.
- Exposure to serious and imminent danger
- Duties of Safety and Health officers, Establishment of Safety and Health Committees
- Health and welfare: Structure of building, Overcrowding, Ventilation and temperature, Lighting, Sanitary conveniences, Supply of drinking water, Washing facilities, Provisions for first aid.
- Safety (Machinery): Training and supervision, use of equipment and machinery
- Safety (general provision): Safe means of access and safe place of employment, Substances hazardous to health, Prevention of fire, Safety provisions in case of fi

National Gender Policy

The National Gender Policy (approved in 2022) aims to advance gender equality and reduce poverty levels, economically empowering women through income earnings and ownership of production assets. A national gender strategic framework (NGSF) was developed for effective implementation of this policy.

National Youth Policy

National Youth Policy (2009) was designed to advocate for youth development and promote the enjoyment of fundamental human rights and protect the health, social, economic, and political well-being of all young men and women to enhance their participation in the overall development process and improve their quality of life.

2.2 Institutional framework for labour and employment in Nigeria

Federal Ministry of Labour & Employment

The Nigeria Ministry of Labor and Employment is the country 's designated authority for Labor-related matters. The ministry has the authority and capacity to ensure appropriate labor management in the country; as such, its institutional framework is adequate to accommodate and oversee the implementation of requirements under the IFAD ESS-5 – Labor and Working Conditions. The ministry has departments including:

- The Inspectorate Department
- Social Security Department
- Employment and Wages Department
- Occupational Safety and Health Department
- The Office of the Registrar of Trade Unions

Federal Ministry of Women Affairs and Social Development

The national machinery for the promotion of gender issues in Nigeria is the Department of Women Affairs of Federal Ministry of Women Affairs and Social Development (FMWA). Each State in Nigeria has the State Ministry of the Women Affairs and Social Development. The role of the Ministry is to serve as the national vehicle to bring about speedy and healthy development of Nigerian women, children, the socially disadvantaged and person with disabilities, and the mainstreaming of their rights and privileges in national development process.

2.3 IFAD Guidelines

IFAD Strategic Framework 2016-2025: Enabling inclusive and sustainable rural transformation (2016)⁴² :

It situates IFAD in the evolving global context and articulates its contribution to the 2030 Agenda for Sustainable Development especially with regards to reducing poverty and food insecurity in rural areas through agriculture and rural development. It has three closely interlinked and mutually reinforcing strategic objectives (SOs) which are: SO1: Increase poor rural people's productive capacities, SO2: Increase poor rural people's benefits from market participation; and SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities. In particular, the SO3 recognizes that rural livelihoods are affected by a variety of risks and shocks, resulting from environmental factors and climate change (as well as market and policy failures, and conflict). Making sustainable progress in building the asset base, capabilities, and market opportunities for poor rural people requires that risks and shocks are addressed in a comprehensive manner, thereby building resilience in rural people's livelihoods. In this context special attention needs to be paid to environmental sustainability and climate resilience in agriculture while also promoting a reduction of GHG emissions from agriculture and agri-food value chains and harnessing underutilized synergies that exist between adaptation and mitigation.

⁴² IFAD Strategic Framework 2016-2025: Enabling inclusive and sustainable rural transformation (2016):<https://webapps.ifad.org/members/eb/116/docs/EB-2015-116-R-4-C-R-P-1.pdf>

IFAD Social, Environmental and Climate Assessment Procedure (SECAP Procedure 2021)⁴³:

IFAD is committed to promoting the conservation, rehabilitation and sustainable use of natural resources and ecosystems in an integrated manner, recognizing the importance of addressing both the causes and the consequences of climate change in countries of operation, minimizing adverse social and environmental impacts, and mainstreaming social, environmental and climate sustainability into IFAD's project cycle.

The SECAP helps IFAD to identify social, environmental and climate risks and impacts, and their significance, and determine the level of risk management required to address the risks and impacts associated with IFAD-supported investments and global and regional grant-funded programmes, identify opportunities to mainstream climate resilience, environmental sustainability, nutrition, gender equality and the empowerment of women, youth and other vulnerable groups into IFAD strategies and programming, support borrowers/recipients/partners and IFAD in improving decision-making and promoting the sustainability of project and programme outcomes through ongoing stakeholder engagement, assist borrowers/recipients/partners in fulfilling their own international and national social, environmental and climate commitments, ensure that IFAD's practices are aligned with its own policies and the procedures of other multilateral financial institutions, and enable IFAD to continue accessing environmental and climate financing. In addition to climate, environmental and social risk identification, SECAP helps to identify opportunities for maximizing development gains by mainstreaming environmental, social and climate issues throughout the project cycle.

3. ASSESSMENT OF LABOUR IN VCN

3.1 Types of Workers in VCN

The VCN project activities will include different categories of workers, who will be engaged in different activities. The workers required for the projects can be classified into the following groups:

Direct workers -comprise a mix of civil servants from various relevant line ministries who have been deployed or have a legal transfer of their employment or their engagement to the project as technical consultants by the FPMU and SPMU under the project. They also include project staff hired as consultants.

Contracted workers – include service providers who will provide implementation support services and staff of contractors, suppliers, and subcontractors (including those for civil works and market infrastructure development). They include contractors' permanent workers, contract workers and casual workers.

Community workers – include labourers sourced from project communities. Projects may include the use of community workers in a few different circumstances, including where labour is provided by the community as a contribution to the project and in fragile and conflict affected situations. This may give room for child labour.

⁴³ IFAD Social, Environmental and Climate Assessment Procedures (2021). <https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures>

Primary supply workers - are employed or engaged by a primary supplier or service provider to the VCN, over whom a primary supplier exercises control for the work, working conditions, and treatment of the person.

The full LAMP will provide details about the categories and expectation and terms and conditions of employment of different workers categories in terms of compliance with ESS standard 5.

4. ASSESSMENT OF POTENTIAL LABOUR RISKS AND MANAGEMENT PLAN

4.1 Potential Risks and Impacts

Some of the potential labour risks and impacts associated with the VCN project include:

- Conduct of hazardous work
- Llikely incidents of child labour or forced labour,
- Discriminatory policies or practices that deny equal opportunity,
- Restrictions on freedom of association and collective bargaining,
- Likely presence of migrants or seasonal workers,
- Risks of labour influx,
- Risk of sexual harassment and other forms of gender-based violence,
- Possible accidents or emergencies, etc.

Ris category	Risk level	Impacts	Mitigation
Hazardous work	Moderate	While the project affected parties are less likely to be exposed to hazardous work, contractors and service providers could have some risk of exposure especially during roads and other market infrastructure construction which could lead to physical injury with impact of health including poisoning, pollution of the environment and Loss of lives, Permanent disability, and Loss Time Injuries.	Contractors and service providers and will be mandated to adhere to the safeguard's guidelines provided in the SECAP, ESCMF and subproject ECSMPs. Ensure provision of adequate PPEs, first aid tools and work tools. Conduct HSE training for all category of workers periodically including office staff, field staff, contractors.
Forced and child labour	Moderate	Due to high level of poverty and insecurity/fragility in some of the VCN states, there is risk of child labour (outside the scope allowed in the Nigeria Labour Law 1990 and Nigeria Child Right Act) as well as forced labour through harassment and intimidation which could lead	VCN will ensure that every stakeholder is provided with a code of conduct and mandated to sign no forced labour and child labour declarations. VCN will provide continuous sensitizations to project beneficiaries, including service providers and contractors on the

		to physical, social, and psychological pain.	consequence of suing forced and children labour. Contractors will be required to also provide information on age and status of their workers
Discriminatory work practices	Low	Although the population around the area are significantly homogenous, the risk of discriminatory work practices based on gender, religion, and other social categorisations can lead to psychological injury	Stakeholders will be sensitized on the provision of the Nigerian Labour law with regards to discriminatory work practices.
Restriction on freedom of association and collective bargaining	Moderate	Restriction of collective bargaining and association could lead to work slavery and inability of workers to give their best due to fear of intimidation and harassment. This can also lead to Abuse of human rights and poor working conditions and VCN reputational damage.	VCN will ensure that both programme implementation staff and staff employed by project beneficiaries including consultants and contractors and service providers have the freedom to freely associate and pursue collective bargaining without fear of harassment or intimidation. Every worker will be made aware of the channels available for grievance reporting
Migrant or seasonal worker and Labour influx	Moderate	Influx into the project area by seasonal workers and other about influx can alter the existing social and cultural fabric of the community and increase the risk of STD (including HIV/AIDs) disease spread, GBV and SEA	VCN will encourage hiring of Labor from the host communities and maintain Labor relations with local communities through a code of conduct to be signed by all workers categories. Contactors and service providers will be required to conduct continuous sensitization and advocacy and training for their workers on the risk of STDs and risky behaviours.

Sexual Harassment (SH), Sexual Exploitation and Abuse (SEA), Gender-Based Violence (GBV)	Substantial	Workplace sexual harassment /sexual exploitation and abuse/Gender-Based Violence can lead to abuse of human rights, Injury and associated physical and mental health conditions, Unwanted pregnancies, and institutional reputation damage to VCN through legal action against sub projects.	VCN shall maintain zero tolerance to GBV policy. Contractors and service providers to sign code of conduct forms. All stakeholders to be made aware of the channel for grievance reporting and encouraged to use it. All service providers and consultants and PMU/SPMU to maintain sustained sensitization and advocacy on GBV, SH, SEA
Occupational Health and Safety	Moderate	Increased risk of road accident form movement of workers and materials	Only skilled and licensed drivers will be used under VCN with continual training. Implement proper procedures for transportation of hazardous materials and agrochemicals. Every sub-project will have project specific risk assessment and develop emergency preparedness and response plans for various work types
Grievance Mechanism (GRM)	Moderate	Workers may be aggrieved due to unfair treatment, poor working conditions, conflicts, poor pay, overstretched working hours amongst other things. They may refuse to work	Every category of staff and stakeholders will be made aware of the procedures for the GRM established for the project to ventilate grievances

5. MONITORING CONTRACTORS AND SERVICE PROVIDERS

5.1 Contractor Monitoring

Construction activities as well as supply and installation within the VCN will include provisions related to labor and occupational health and safety. VCN will manage and monitor the performance of contractors in relation to contracted workers, focusing on compliance by contractors with their contractual agreements and labor management procedures. This may include periodic audits, inspections, and/or spot checks of project locations and work sites as well as of labor management records and reports compiled by contractors. Contractors' labor management records and reports that may be reviewed would include: representative samples of employment contracts or arrangements between third parties and contracted workers, records relating to grievances received and their

resolution, reports relating to safety inspections, including fatalities and incidents and implementation of corrective actions, records relating to incidents of noncompliance with national law, and records of training provided for contracted workers to explain occupational health and safety risks and preventive measures.

5.2 Verification, Monitoring Mechanism and Reporting

In realization of the project objectives for VCN, several layers of monitoring systems will be instituted as part of Labour Assessment and Management Plan. These will include the following:

- Employee `s grievance register (where applicable)
- Nominal roll and class of employment
- Workers benefits in relation to contract between contractors and workers.

5.3 Human Resources Employee Database

SPMUs of participating states shall keep a database of all workers employed under the VCN project, the database will record information on:

- the personal details of employees,
- their job description,
- role and responsibilities,
- training records and training needs,

5.4 Contractor Database

There shall also be comprehensive database of all primary and secondary contractors for VCN. The database will record a summary of their scope of work, business origins, and a brief profile about history of compliance to environmental and social standards.

5.5 Supply Chain Database

This will contain information of the key suppliers which will be used to monitor the primary supply chain and record results of risk assessments for incidents of child and / or forced labour and significant environmental safety issues.



Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF WASTE MANAGEMENT PLAN

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OUTLINE OF WASTE MANAGEMENT PLAN FOR THE VCN

1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of fragile semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. The risk of pest and disease outbreak on farms are moderate. However, the risk of unsustainable use of pesticides and agrochemicals are substantial.

1.2 Project description and objectives

The overall goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The programme development objective (PDO) is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
- Improved policy and institutional framework

1.3 Project Components

Component 1: Component 1: Foster climate resilient and nutrition sensitive production. This component aims at (i) improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs; (ii) improve diet quality and nutrition awareness of the target rural HHs; and (iii) improve social cohesion and policy/institutional framework. ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; and (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model. VCN will support header and farmers with infrastructure, water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aim to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.

The outcome indicators for Component 1 are: 1.2.4 HHs reporting an increase in production, 3.2.2 HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices, and Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment

Component 1 is supported by 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices*

Subcomponent 1.3: *Promoting social cohesion and an enabling policy, and institutional framework*

Component 2: Enhance inclusive and profitable integration of target groups in the VCs aims to: (i) improve post-harvest handling, value addition, and access to markets in supported VCs; (ii) increase entrepreneurial opportunities for youth and women along the target VCs; and (iii) enhancing beneficiaries' access to financial services. **Nutrition will be enhanced by promoting nutrition sensitive VCs, food safety, packaging, and labeling.** ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model; and (ii) promoting access to finance through development of digital products.

The outcome indicators for Component 2 are: 2.2.2 Supported rural enterprises reporting an increase in profit, 2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities, 2.2.6 HHs reporting improved physical access to markets, processing and storage facilities; 2.2.1 Persons with new jobs/employment opportunities;

The component comprises three subcomponents.

Subcomponent 2.1: *Improving post-harvest, value addition, market linkages and partnerships with VC actors*

Subcomponent 2.2: *Promoting entrepreneurship for women and youth*

Subcomponent 2.3: *Improving access to financial services*

Component 3: Programme Coordination & Management. *Programme coordination and management* aims to ensure programme compliance with relevant policies and guidelines, effective and efficient implementation, and M&E and KM. It will leverage the best practices and lessons learned in fragile situations under CASP and capitalise on community participatory approach and digital solutions to ensure transparency, effectiveness, efficiency, accountability and sustainability of the Programme. This component includes a Response to emergency and disaster (RED) mechanism, a disaster response contingency to minimize disruption of activities in the programme areas. RED will be activated by triggers identified in the design report and approval by IFAD.

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The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

1.4 Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict,

insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.5 Waste and Pollution Management in VCN

Waste Management is critical for a sustainable VCN. Waste proliferation can occur in activities across the different stages of the VCN value chain including production, processing, and marketing (including transportation). Waste and pollution can include solid waste, liquid waste, and gaseous wastes. Waste and pollution can come from use of agrochemicals in production (which has been tackled in the IPMP), farm waste (which are mainly organic and biodegradables), processing wastes, and domestic waste generated during transportation and marketing of Agric products from the VCN.

The Waste Management Plan (WMP) will provide the guidance to **minimize Production rate of waste, reduce pollution effects, protect surface and groundwater sources from waste and ensure sustainability (including through waste valorisation and resource efficiency).**

1.6 Objectives of the waste management Plan

The objective of the Waste Management Plan is to provide generic guidance on the management of solid, liquid, and gaseous waste anticipated to be generated from the VCN project and provide mitigation measures. The specific management plans for each sub projects shall be prepared based on the sites to be selected at the latter stage just prior to implementation.

The objectives of the waste management plan include:

- i. Minimizing waste generation in the VCN
- ii. Promote the use of appropriate waste management measures.
- iii. Promote waste valorisation across the value chain.
- iv. Monitor the mitigation measures put in place to prevent waste and pollution.

2. OVERVIEW OF WASTE MANAGEMENT LEGISLATION INCLUDING KEY ASPECTS OF NATIONAL WASTE LEGISLATIONS AND POLICIES

2.1 National Policy on the Environment (Revised 2016)⁴⁴

The goal of the National Policy on the Environment is to “*ensure environmental protection and the conservation of natural resources for sustainable development*”. Its strategic objective is to coordinate environmental protection and natural resources conservation for sustainable development. This goal will be achieved by the following strategic objectives:

- a. securing a quality of environment adequate for good health and well-being.
- b. promoting sustainable use of natural resources and the restoration and maintenance of the biological diversity of ecosystems.
- c. promoting an understanding of the essential linkages between the environment, social and economic development issues.
- d. encouraging individual and community participation in environmental improvement initiatives.
- e. raising public awareness and engendering a national culture of environmental preservation; and building partnership among all stakeholders, including government at all levels, international institutions and governments, non-governmental agencies, and communities on environmental matters.

2.2 National Guidelines and Standards for Environmental Pollution (March 2001)

The National Guidelines and Standards for environmental pollution control in Nigeria (March 2001) is the basic instrument for monitoring and controlling industrial and urban pollution.

2.3 National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations (1991)

Regulates the legal framework for the effective control of the disposal of toxic and hazardous waste into any environment within the confines of Nigeria.

2.4 NESREA Establishment Act, 2007

The National Environmental Standards and Regulations Enforcement Agency (NESREA) has responsibility for the enforcement of the environment regulations and biodiversity conservation, including coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies, and guidelines. The following NESREA National Environmental Regulations are considered relevant. The National Effluents Limitations Regulation instrument of NESREA makes it mandatory that industrial facilities install anti-pollution equipment, make provision for further effluent treatment, prescribe maximum limit of effluent parameters allowed for discharge, and spell out penalties for contravention. It also provides that all industries in Nigeria should be operated based on Best Available Technology (BAT).

2.5 The Management of Solid and Hazardous Wastes Regulations

These regulate the collection, treatment, and disposal of solid and hazardous waste for municipal and industrial sources and give the comprehensive list of chemicals and chemical waste by toxicity categories.

⁴⁴ <http://www.environment.gov.ng/publications/REVISED-NATIONAL-POLICY-ON-THE-ENVIRONMENT-FINAL-DRAFT.pdf>

2.6 National Guidelines for Environmental Audit

These are designed to serve as a reference for compliance with the Environmental Audit requirements of the Federal Ministry of Environment. It states that it is mandatory for a company to carry out an audit every 3 years or at the discretion of the Minister of the Environment.

2.7 National Air Quality Standard Decree No. 59 of 1991

The Federal Ministry of Environment is the regulatory agency charged with enforcing ambient air quality standards in Nigeria. The World Health Organization (WHO) air quality standards were adopted in 1991 as the national standards. These standards define the levels of air pollutants that should not be exceeded to protect public health.

2.8 IFAD ESS 2 on Resource Efficiency and Pollution Prevention and Management

It recognizes that economic activity often generate pollution to air, water, and land, it sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with international best practice.

2.9 IFAD ESS6 on Community Health and Safety

It recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to impacts from climate change may also experience an acceleration or intensification of impacts due to project activities. It addresses the health, safety, and security risks and impacts on project affected communities and the need to avoid or minimize such risks and impacts.

2.10 The Basel Convention on the Control of Transboundary Movement of Hazardous Waste and Disposal, 1989

It focuses attention on the hazards of the generation and disposal of hazardous wastes. The convention defines the wastes to be regulated and controls their trans-boundary movement to protect human and environmental health against their adverse effects.

3. ASSESSMENT OF SOURCES OF WASTE AND POLLUTION IN VCN AND MITIGATION MEASURES

3.1 Value Chains and Activities Leading to Waste and Pollution

Production

The key sources of waste proliferation during production include:

- Use of agrochemicals and pesticides (which has been covered by the IPMP)
- Cereal harvesting – which leaves organic crop residue.
- Land preparation – with farm machines dropping spent oil and emitting smoke with hazardous gaseous pollutions and causing dusts during ploughing.

Processing

- Use of processing machine - with farm machines dropping spent oils and emitting smoke with hazardous gaseous pollutions
- Grain milling (especially rice) – leaves enormous amount of rice husks which constitute nuisance in the environment.

Marketing

Construction of market infrastructure - Dust, smoke, noise, and ground movement / vibration due to movement of heavy machines

Transportation - Use of motorized and heavy transportation machines - Dust, smoke, noise and spent oil discharge into the environment.

3.2 Waste and Pollution Management Plan

Value Chain	Activity	Waste type	Risk categorization	Impact	Mitigation measures	Monitoring indicator	Frequency	Implementation responsibility
Production	Land preparation	Spent oil, noise, smoke	Moderate	Inconvenience to people. Pollution of water sources	Enforce contractors ESCMP for subprojects to avoid or minimize dust, reduce noise, and prevent improper disposal of spent oil	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Production	Cereal harvesting	Organic crop residue	Moderate	Nuisance to the environment	Train people in livelihood opportunities in crop residue conversion into animal feeds, biochar, etc	Number of people trained in crop residue conversion to into useful products such as biochar and for animal feed	Annual	NPMU SPMU

Value Chain	Activity	Waste type	Risk categorization	Impact	Mitigation measures	Monitoring indicator	Frequency	Implementation responsibility
Production	Use of agrochemicals and pesticides	Improper disposal of fertilizer bags and agrochemical containers	Moderate	Pollution of surface water resources due to inappropriate agrochemicals containers disposal	Advocacy and training on appropriate disposal of agrochemical containers Train farmers on production and use of on-farm organic manure.	Number of trained in on agrochemical waste management. Number advocacy Number of sensitizations conducted on safe disposal of agrochemicals disposal.	Annual	NPMU SPMU
Processing	Grain milling (especially rice)	enormous amount of grain husks	Moderate	Nuisance to the environment created by grain husks around processing centers	Train project beneficiaries on conversion of grain husks to briquettes, biochar, etc. Conduct periodic monitoring of the processing sites to ensure for hygiene	Number of people trained in livelihoods opportunities in grain husk conversions to useful products. Number of periodic monitoring conducted.	Annual	NPMU SPMU

Value Chain	Activity	Waste type	Risk categorization	Impact	Mitigation measures	Monitoring indicator	Frequency	Implementation responsibility
Processing	Use of processing machine	spent oils, smoke	Moderate	Inconvenience to people from noise and water pollution from improper disposal of spent oil	Enforce subproject specific ESCMP to avoid or minimize noise and prevent improper disposal of spent oil	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Processing	Waste disposal around processing sites	Nylon, biodegradable materials	Substantial	Environmental nuisance and unhealthy workplace	Provide processing centers with waste bins	Number of centers with waste bins	Annual	NPMU SPMU
Marketing	<i>Construction of market infrastructure</i>	Dust, smoke, noise, ground movement, vibration	Moderate	Inconvenience and health hazard to people from noise, smoke, and vibration	Enforce contractors ESCMP for subprojects to avoid or minimize dust, reduce noise and vibrations	Number of subproject specific ESCMP produced	Annual	NPMU SPMU

Value Chain	Activity	Waste type	Risk categorization	Impact	Mitigation measures	Monitoring indicator	Frequency	Implementation responsibility
Marketing	Transportation	Dust, smoke, noise and spent oil	Moderate	Inconvenience and health risk to people from noise, smoke, and water pollution from improper disposal of spent oil	Enforce subproject specific ESCMP to avoid or minimize noise and prevent improper disposal of spent oil	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Marketing	Waste disposal around market sites	Nylon, biodegradable materials	Substantial	Environmental nuisance and unhealthy workplace	Provide processing centers with waste bins	Number of centers with waste bins	Annual	NPMU SPMU

4. CONCLUSION

A full Waste Management Plan will be developed during the project implementation. The WMP should be implemented with the Integrated Pest Management Plan (IPMP) and the Water Management Plan (WMP) as well as the SECAP and the ESCMF to provide a holistic picture of the VCN environment and social contexts and activities that influence waste management.

[1] <http://www.environment.gov.ng/publications/REVISED-NATIONAL-POLICY-ON-THE-ENVIRONMENT-FINAL-DRAFT.pdf>



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF INTEGRATED PEST MANAGEMENT PLAN

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OUTLINE OF INTEGRATED PESTICIDES MANAGEMENT PLAN FOR THE VCN PROJECT

1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

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The programme development objective (PDO) is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
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1.3 Project Components

Component 1: Component 1: Foster climate resilient and nutrition sensitive production. This component aims at (i) improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs; (ii) improve diet quality and nutrition awareness of the target rural HHs; and (iii) improve social cohesion and policy/institutional framework. ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; and (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model. VCN will support header and farmers with infrastructure, water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aim to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.

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Subcomponent 1.1: *Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices*

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Subcomponent 1.3: *Promoting social cohesion and an enabling policy, and institutional framework*

Component 2: Enhance inclusive and profitable integration of target groups in the VCs aims to: (i) improve post-harvest handling, value addition, and access to markets in supported VCs; (ii) increase entrepreneurial opportunities for youth and women along the target VCs; and (iii) enhancing beneficiaries' access to financial services. **Nutrition will be enhanced by promoting nutrition sensitive VCs, food safety, packaging, and labeling.** ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model; and (ii) promoting access to finance through development of digital products.

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Component 3: Programme Coordination & Management. *Programme coordination and management* aims to ensure programme compliance with relevant policies and guidelines, effective and efficient implementation, and M&E and KM. It will leverage the best practices and lessons learned in fragile situations under CASP and capitalise on community participatory approach and digital solutions to ensure transparency, effectiveness, efficiency, accountability and sustainability of the Programme. This component includes a Response to emergency and disaster (RED) mechanism, a disaster response contingency to minimize disruption of activities in the programme areas. RED will be activated by triggers identified in the design report and approval by IFAD.

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Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

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poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

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- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.3 Rationale for IPMP

Crop pests and diseases which significantly affect grains are issues for VCN. In addition, misapplication, wrong usage, and adulteration of agrochemicals for diseases and pest control by smallholder farmers also present risks of environmental and human health. Tests carried out on different food items revealed the presence some pesticides that are frequently used (such as, DDT, Aldrin and Dieldrin) in elevated values. Grains and other food items from Nigeria have found it difficult to gain entry to the markets of the developed world (especially EU and USA) due to non-compliance with acceptable standards in terms of pesticide and agrochemicals presence in the food items.

However, agrochemicals applications also present opportunity to create enterprises for youth by providing them with adequate training and equipment. With proper training, project beneficiaries can be empowered to produce and use environment-friendly organic agrochemicals and soil additives.

1.4 Purpose of the IPMP

An Integrated Pesticides Management Plan is required to provide proper and implementable guidance and guidelines for pesticides and agrochemical handling and usage in VCN. The purpose of the IPMP is to ensure that VCN implementation adheres to the requirements of the ESS Standard 2 on Resource Efficiency and Pollution Prevention.

So, the full IPMP should help to:

- Promote the use of IPM options (hygienic, cultural, biological, or natural control mechanisms and the use of agro chemicals as a last resort) in pest control.
- Effectively manage and strengthen capacity amongst participating farmers in safe handling and use of pesticides.
- Provide for implementation of an IPM action plan if serious pest management issues are encountered.
- Effectively monitor pesticide use and pest issues amongst participating small holder farmers.

1.5 Scope of the IPMP

The IPMP shall complement other SECAP documents including the ESCMF, ESCMP, TAA). The scope of the full IPMP will cover the existing national and international legislations on the use of chemicals for pest management. It also assesses the Nigerian experience in pest management, including experience from existing and closed IFAD projects. Other areas to be addressed include training and awareness raising for project beneficiaries on pesticides safety measures, description of pesticides banned for use in Nigeria as well as those approved for use.

2. REVIEW THE PEST MANAGEMENT APPROACHES IN NIGERIA

This section of the full IPMP will provide a thorough review of pest and pest management approaches in Nigeria drawing experiences from different sectors and projects. The review will include:

2.1 Pest and Diseases Problems of Agriculture in Nigeria:

Crop pests in Nigeria include INSECTS (grasshoppers, locust, aphids, weevils etc) BIRDS (Quelea) and WORMS (Insect's larvae) affect Cereals (Sorghum, Millet, Maize, Wheat, Rice etc), legumes and vegetables resulting in reduction in quality (for processing and market) and quantity (yield and total production) of produce. For animals, contagious Bovine Pleuro-Pneumonia, Foot and Mouth Disease and Worms affect cattle. Peste des Petits Ruminants (PPR) affect Small Ruminants (Sheep & Goats) while Flies, Avian influenza (AI) and Exotic Newcastle Disease affect poultry at various stages of their lives causing economic damage. farmers often respond to pest and diseases infestations by heavy applications of pesticides which threaten environmental quality and pose risks to human and livestock health.

2.2 General Control Methods of Pests and Diseases in Nigeria

Pest management methods in Nigeria vary with the type of pests and livestock.

Cultural control include:

- Use of botanicals such as marigold, lantana camara, neem leaves, pyrethrum, pepper, pawpaw leaves, Tephrosia and peas leaves on pests and diseases,
- Mixed cropping that includes nitrification plants.
- Use of soot and cow dung grannies in storing grain for households.
- use of tobacco to preserve grains.
- Cow's urine sprayed to tomato plants to protect from diseases.
- Crop rotation.
- Intercropping
- Fallow
- Cover crops.
- Trap crops.
- Mulching
- Hand pulling and hoes weeding.

- Burning
- Fertilizer/manure application
- Use of disease-free planting material, e.g. cassava cuttings, sweet potato vines, etc.
- Pruning
- Thinning
- Hygiene: keeping the environment clean,
- Herbs and local concoction: cutting herbs and boiling them for their animals to drink.
- Change of location: This method involves leaving an area for another when it is noticed that there is the presence or outbreak of pests or diseases.
- Bush burning: Burning surrounding bush.
- Timing on grazing - usually during afternoon to allow sun heat to chase the pests.
- Nutrition: Balanced animal diets provided at consistent intervals and in appropriate portions
- Herd sharing - This involves the distribution of cattle among relatives and grown-up children in other location.

Mechanical Tools:

- Use of Grooming combs, brushes, and flea combs with closely spaced teeth to monitor for insects and ticks.
- Use of electronic devices such as bird scares
- Use of traps for rodents that may be carriers of pests.

Physical control:

- providing adequate ventilation to prevent heat, stress, or the spread of diseases.
- avoid over crowdedness of animals to avoid pest outbreaks.
- use of sticky flypaper to reduce nuisance flying insects in confined areas.
- use of cages that separate animals from contact with one another which reduces the spread of insects from infested animals to non-infested ones.
- use of pest resistant breeds and breeds adapted to the climatic conditions of the surrounding environment where they are raised can avoid or reduce the effect of the pests.

Biological Control:

- This involves either encouraging or introducing natural enemies of the pest or interfering with the life cycle of the pest. This area has not been fully harnessed in Nigeria due to inadequate research equipment and facilities.

Chemical control:

- This employs the use of pesticides to kill pests. The use of spray for control of pesticides and herbicides has been in long use in Nigeria.

The growing concerns about the use of pesticides including:

Potency reduction from cold chain

- Increasing rate of pest resistance
- Limited information on usage and side effects
- Growing environmental concerns
- High costs of purchase due to unavailability of Government subsidized pesticides.
- Adulteration
- Misapplication
- Lack of strong regulation and oversight

2.3 Assessment of the Capacity of Nigeria on Integrated Pest Management

Conventional chemical control methods have been the widespread means generally used to control plant and livestock infestation by pests in Nigeria.

The issues around this include:

Emerging cases of numerous intoxications each year.

Resistance of numerous pests to many chemicals.

Destruction of useful species.

Perturbation of the ecological balance.

Dependence on synthetic chemical pesticides; and

Growing debt for farmers compelled to use increasingly expensive products etc.

The full IPM Plan will explore several project-based interventions that have involve IPM in Nigeria including:

- Control of root knot nematodes in tomato and okra
- Control of the *tuta absoluta* tomato disease
- Downy mildew control in maize
- control of the African Rice Gall Midge

3. REVIEW THE POLICY, REGULATORY FRAMEWORK, AND INSTITUTIONAL CAPACITY FOR IPM

3.1 Extant Laws of Nigeria on Pesticides –

This reviews the extant laws on pesticide management in Nigeria including:

- Federal Ministry of Agriculture and food security –
- Federal Ministry of Environment
- State Ministries of Agriculture and Environment
- Environmental Impact Assessment (EIA) Act (1992)
- the National Environmental Standards and Regulation Enforcement Agency (NESREA) Act of 2007
- National Agricultural Technology and Innovation Plan (NATIP) 2022-2027
- National Policy on the Environment (Revised 2016)
- National Action Plan to Reduce Short-lived Climate Pollutants
- Nigerian National Environmental Action Plan
- Pest Management and Pesticide Use Policy (1988)
- Pesticides Registration Regulations (2006)
- NAFDAC Decree 15 of 1993, as amended by Decree 19 of 1999

3.2 International Conventions & Treaties Relevant to Pest Management in Nigeria

Nigeria is a signatory to many conventions on the protection of the environment and this include use of pesticides and agrochemicals. Some of these conventions pertinent to this study include:

- Stockholm Convention on persistent organic pollutants - aims at protecting human health and the environment from persistent organic pollutants such as aldrin, dieldrin, chlordane, endrin, heptacholic, hexachlorobenzene, mirex, toxaphene, DDT, and PCBs
- Rotterdam Convention - on Prior Informed Consent (PIC) aims to help participating countries make informed decisions about the potentially hazardous chemicals.
- Basel Convention- oblige Parties (national governments which have acceded to the Convention) to take appropriate measures to implement and enforce its

provisions, on transboundary movement of hazardous wastes which include pesticides.

- ECOWAS - document on harmonization of rules governing the pesticide and animal drugs agreement in the ECOWAS zone adopted at the 60th ordinary session of the ECOWAS Council of Ministers held at Abuja on 17 and 18 May 2008

3.3 IFAD Guidelines

This includes:

- IFAD Environment and Natural Resource Management Policy (2011)
- IFAD Social, Environmental and Climate Assessment Procedure (SECAP Procedure 2021)
- Country strategic opportunities programme (COSOP), Nigeria- 2023

4. REVIEW OF VALUE CHAIN CROPS AND IDENTIFICATION OF ADVERSE IMPACTS OF PESTICIDES

4.1 The Value Chain crops, their pests and pesticide impacts.

This reviews the major value chain crops of VCN and their pests, pesticides usage, including by men, women, and youth and their and their impacts. The following VC are reviewed:

- Rice
- Maize
- Sorghum
- Millet
- Cowpea
- Vegetables

4.2 Adverse Environmental and Health Risk Associated with Pesticide Application

Effects of Pesticides on Human Health –

A wide range of human health hazards linked to pesticides include:

- headaches and nausea
- chronic impacts like cancer,
- reproductive abnormalities,
- endocrine disruption
- cancer

Chronic health effects may occur years after even minimal exposure to pesticides in the environment, or result from the pesticide residues, which we ingest through food and water.

The smallholder farmers that use and spray the pesticides are directly and primarily affected, while the secondary and wider impacts are suffered by the general population that consumes pesticides residues in the crops.

Effects of Pesticides on Animal Health

- Pesticides used could end up in drinking water, hay/ fodder consumed by the animals.
- Some pesticides have devastating effects on honeybees and other pollinating insects, causing in insects memory loss, navigation disruption, paralysis, and death.
- Pesticides are not biodegradable, accumulate in animal systems, and cause contamination of animal products including milk, meat, egg. Etc

- Pesticides decrease the reproductive rate of birds, eggshell thinning, and embryo deaths. Pesticides are highly toxic to aquatic animals, affecting various systems in aquatic animals including the heart and brain, and thus cause mass mortality of fishes.

4.3 Identification of Potential Environmental and Health Risks Associated with Pesticides

Potential adverse environmental and health risks of pesticides application that are of concern to the VCN project include: soil contamination, air pollution, water pollution, harms to non-target species, and social and health concern of diseases outbreak.

- Soil Contamination - Pesticides could also enter soil during spraying causing wash-off or run-off into soil. Long-term excessive use of pesticides will cause higher pesticide residues in the soil, which will further cause soil contamination within the area.
- Air Pollution Vapour - from sprayed pesticides will be released into the air, and if the chemical compound is very stable, vapour may travel beyond the application location.
- Surface and Ground water pollution - Pesticides may pollute surface water through runoff which transports pesticides to streams, rivers, and other surface-water bodies. Groundwater contamination may occur from pesticide residue in surface water, such as drainages, streams, and municipal wastewater.
- Harms to Non-target Species - sprayed insecticides reach a destination other than their target species because they are mainly aerosol. Runoff can carry pesticides into aquatic environments while wind can carry them to other fields, grazing areas, human settlements, and undeveloped areas, potentially affecting other species.
- Social and Health Concern of Diseases outbreak - consumption of crops and plants grown under chemical pest control could cause health hazards.

4.4 Assessment of risk for Men, Women and Youth

This section provides some gender lens on the vulnerability of men, women and youth to pesticide usage and impact risks. The full IPMP will populate this section from data collected from stakeholders' engagement on the field to determine the differential vulnerability of people to pesticides risks and impacts across the value chain crops and the different value chain segments. It will also highlight the training needs to handle pesticides efficiently and safely, as well as exploring the enterprise opportunity around IPM.

5. ASSESS INTEGRATED PEST MANAGEMENT IN THE CONTEXT OF CURRENT PEST CONTROL PRACTICES

Integrated Pest Management (IPM) is an important aspect of sustainable agriculture. It is based on the planned and strategic use of pest control methods. It is an effective and environmentally friendly approach that relies on a combination of multiple practices with a view to reduce reliance or use of pesticides. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. The disposal of the pesticide's containers is also key to sustainable agriculture.

The full IPMP will document the range of activities across the value chain that involve pesticides and pesticides application including production, processing, and storage. Through fieldwork and stakeholder engagements, information will be documented on the:

- Pest histories and occurrence
- Activities that involve pesticides use
- Who performs the activities?
- What type of pesticides is used?
- Issues around pesticides adulteration
- Issues around legislation and enforcement
- Issues around pesticides impacts
- How to create enterprise around pesticides and agrochemical management
- Training needs and requirements

6. INTEGRATED PEST MANAGEMENT PLAN FOR VCN

6.1 Introduction

The integrated Pest Management Plan for the VCN Project consists of:

- Pest management activities
- Classes of Insecticide for crops - Chlorinated Hydrocarbons, Organophosphates, organohalogens, etc
- Institutional / implementation arrangements
- Activities to strengthen project capacity.
- Phasing of the plan including recommended activities to be considered for women, men, and youth,
- Mitigation measures for pesticides application and impacts
- Opportunities for value chain enterprise
- Training
- Monitoring and evaluation, and
- Cost estimates for implementing the plan.

6.2 IPM Objectives

The specific objectives of the VCN IPM plan include:

- Acquisition of baseline information on common crop pests and diseases in the VCN project area generated with a view to plan and design location specific IPMP.
- Promotion of participatory approaches in IPM to learn, test, select and implement IPM option.
- Promotion of biodiversity monitoring to serve as early warning systems on pest status, alien invasive species, beneficial species, and migratory birds.
- Determination/appraisal of existing pest management methods and practices in the selected communities with a view to proffering environmentally friendly options.
- Identification of site -specific potential Environmental and Health Risks associated with pesticides.
- Development of relevant tools for effective monitoring and evaluation of IPM plan including its impact on the environment and health
- The plans also complement the Environmental, Social and Climate Management Framework (ESCMF) and other safeguard instruments of the VCN.

6.3 Steps for Establishing the IPM

Establishing an IPM for crop pests involve the following steps:

- Detection - Pest detection requires thorough and regular monitoring of crops for pest invasions and/or other signs and symptoms that indicate a pest is present.
- Identification - to determine the nature of the pest or disease.
- Economical significance – to determine impacts on the economic viability of crops and the value chain. This also include duration of pest infestation and its destructive tendencies.

- Method Selection - selecting a method or methods for managing the observed pests such as are contained in this IPM.
- Evaluation - to evaluate the effectiveness of the applied pest management procedures.

6.4 Steps for the IPMP

Pesticides may be used in the VCN project in combination with other methods of prevention and control or used when other methods have failed or considered in applicable. For example, cultural or other management strategies outlined may not be applicable to control or prevent some pest. In such cases, the use of repellents or chemicals at appropriate application quantities and methods for the environment are conceivable options. Nonetheless, banned, and obsolete pesticides shall not be procured nor be used in any case under VCN.

Botanical and organic pesticides using plant extract and dried powders such as neem, dry chill pepper ginger, cocoa pot husks, eucalyptus leaf powder are not a replacement for pesticides but rather an important input of the IPM to reduce dependence on synthetic chemicals. A combination of all the control methods will form the basis for the development of the IPM.

The chemical methods should follow the following principles:

- Use of Cost –effective non-pesticides chemicals
- Use of high efficiency, low toxicity, and low residue pesticides
- Extension of the application technologies that have low toxicity to humans, animals, and plant and with reduced pollution on the environment.
- Use of safe spraying devices to enhance the efficiency and effectiveness of the pesticides.
- Strengthen the awareness and education on safe and proper use of pesticides, extend safe application of pesticides through training, follow strictly the regulation on pesticides application and pay attention to safety.
- Safe storage of chemicals (e.g. keeping pesticides away from food and children)
- At planting the IPM practices will focus on appropriate site selection, sanitation, proper tillage, soil improvement practices, selection of resistant and early maturing varieties.
- After planting, the use of highly persistent and highly toxic chemicals must be avoided in pest management.
- Natural pest control methods can be employed to effectively reduce or eliminate pest or disease infestation without harming humans, animals.
- Adoption of sustainable land management practices to reduce pest disease and pest infestation.

The full IPMP will capture the Crop Value Chain Pest and Control Methods for VCN including:

- Goal
- Crop
- Pest
- Control methods – cultural, chemical, biological.
- Implementation Responsibility
- Timeline
- Expected results.
- Performance indicators
- Assumptions/risks

6.5 Capacity building and Monitoring and Evaluation

The plan will also include the training/capacity building requirement plan with cost estimates.

The plan will also include tracking M&E indicators including:

- Reduction in the use and application of pesticides
- performance ratings in pest management using proffered IPM controls.
- Number of farmers and stakeholders aware of the pollution, contamination and toxicity associated with pesticides and pesticides.
- decline or increase in crop pests/diseases within the VCN projects states.
- Number of farmers or farmers association using biological methods of pest control
- Number of persons trained in the method of spraying and handling of chemical pesticides.
- The reported incidences of pest and herbicides concerns among farmers.
- The level of use of resistant and improved species of crops and improvement in crop and livestock production from use of IPM vis-à-vis the pre-IPM baseline.
- Level of understanding of IPM processes.
- Level of involvement of youth and women in crop and livestock production activities.



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF WATER MANAGEMENT PLAN

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OUTLINE OF WATER MANAGEMENT PLAN FOR THE VCN

1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of fragile semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. The risk of pest and disease outbreak on farms are moderate. However, the risk of unsustainable use of pesticides and agrochemicals are substantial.

1.2 Project description and objectives

The overall goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The programme development objective (PDO) is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
- Improved policy and institutional framework

1.3 Project Components

Component 1: Component 1: Foster climate resilient and nutrition sensitive production. This component aims at (i) improve productivity, climate adaptive capacity and resilience of the smallholder farming systems in the target VCs; (ii) improve diet quality and nutrition awareness of the target rural HHs; and (iii) improve social cohesion and policy/institutional framework. ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; and (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model. VCN will support header and farmers with infrastructure, water points and with participatory approach to reduce conflict over use of water resources and grazing routes. VCN will promote modern farming techniques through training and resources for adopting modern agricultural methods that can improve productivity and reduce conflict over resources including with herders. In addition, VCN will establish synergies with LPRES which is a national program, to which all 36 states are technically eligible and which aim to improve productivity, resilience and commercialization of selected livestock value chains by supporting livestock farmers in adopting improved agricultural technology, and by helping reduce incidence of resource-based farmer-herder conflicts.

The outcome indicators for Component 1 are: 1.2.4 HHs reporting an increase in production, 3.2.2 HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices, and Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment

Component 1 is supported by 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technology and climate-resilient agricultural practices*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices*

Subcomponent 1.3: *Promoting social cohesion and an enabling policy, and institutional framework*

Component 2: Enhance inclusive and profitable integration of target groups in the VCs aims to: (i) improve post-harvest handling, value addition, and access to markets in supported VCs; (ii) increase entrepreneurial opportunities for youth and women along the target VCs; and (iii) enhancing beneficiaries' access to financial services. **Nutrition will be enhanced by promoting nutrition sensitive VCs, food safety, packaging, and labeling.** ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model; and (ii) promoting access to finance through development of digital products.

The outcome indicators for Component 2 are: 2.2.2 Supported rural enterprises reporting an increase in profit, 2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities, 2.2.6 HHs reporting

improved physical access to markets, processing and storage facilities; 2.2.1 Persons with new jobs/employment opportunities;

The component comprises three subcomponents.

Subcomponent 2.1: *Improving post-harvest, value addition, market linkages and partnerships with VC actors*

Subcomponent 2.2: *Promoting entrepreneurship for women and youth*

Subcomponent 2.3: *Improving access to financial services*

Component 3: Programme Coordination & Management. *Programme coordination and management* aims to ensure programme compliance with relevant policies and guidelines, effective and efficient implementation, and M&E and KM. It will leverage the best practices and lessons learned in fragile situations under CASP and capitalise on community participatory approach and digital solutions to ensure transparency, effectiveness, efficiency, accountability and sustainability of the Programme. This component includes a Response to emergency and disaster (RED) mechanism, a disaster response contingency to minimize disruption of activities in the programme areas. RED will be activated by triggers identified in the design report and approval by IFAD.

1.3 Project implementation and institutional arrangements

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

1.4 Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the

poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.5 Rationale for the Water Management Plan

Smallholder agriculture is substantially rainfed in Nigeria, especially in semi-arid northern Nigeria where the VCN project is located. Like the closed Climate Change Adaptation and Agribusiness Support programme (CASP) project, one of the major interventions to strengthen the resilience of the population is investment in small scale water and irrigation infrastructure including small earth dams, boreholes, tubewells and wash bores to make more water available for both cropping and human consumption. In addition, sustainable land management interventions including soil and water conservation and landscape rehabilitation measures will also be promoted to manage erosion, flooding, and improve on the utilization and management of scarce water resources.

The VCN project area spans four hydrological areas/regions (HAs) in northern Nigeria - HA 1 (Sokoto-Rima basin), HA 2 (Upper Niger – Kaduna River basin), HA 3 (Upper Benue – Gongola and Taraba River basins) and HA 8 (Chad basin – Kano-Hadejia River basins). With several river basins in the HAs, the project area has abundant surface and groundwater resources. However, future changes in the average water flows of the sub-basins within the semi-arid northern Nigeria are substantially uncertain⁴⁵. This may be complicated by rising temperatures and unsustainable water extraction. Thus, this necessitates the need to determine the amount of water the VCN project foresees to extract and formulate a water management plan.

⁴⁵ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions; Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

1.6 The purpose of the Water Management Plan

A Water Management Plan is required to provide proper and implementable guidance and guidelines for Water use and management in VCN to ensure that VCN implementation adheres to the requirements of the ESS Standard 2 on Resource Efficiency and Pollution Prevention.

The full Water Management Plan would help to:

- Provide a holistic overview of water availability in the project area, including seasonal and multi-year variations in water tables and precipitation, as well as water resource demand.
- Analyze the environmental flows preferably at the river-basin level.
- Conduct a participatory water needs audit to determine, in consultation with relevant stakeholders, who depends on surface and groundwater resources for various needs.
- Determine the existence of major water-related socio-environmental conflicts and the prime social group affected.
- Determine the hydrologic balances of the watersheds and the availability of water in the project area for VCN.
- Determine access to water for targeted users and competing consumptive and non-consumptive water uses and interests.
- Assess major existing threats to water quality and project's potential impacts.
- Assess the impacts of climate change and climate-related hazards on water availability in the region.
- Formulate measures to avoid potentially adverse impacts or minimize, mitigate, or compensate for unavoidable impacts on water in project area.

1.7 Scope of the IPMP

The Water Management Plan shall complement other SECAP documents including the ESCMF, ESCMP, and TAA). The scope of the full Water Management Plan will cover the existing national and international legislations on water use, and experiences from projects in the project area. It will also address integrated water resources management including technical and human capacity strengthening for agencies with water resource management mandates including the Nigerian Hydrological Agency (NIHSA) and Nigerian Meteorological Agency (NIMET) to promote climate and hydrological information for early warning.

2. POLICY, REGULATORY FRAMEWORK, AND INSTITUTIONAL CAPACITY FOR WATER MANAGEMENT PLAN

2.1 Water Resources Act (2004)

The Water Resources Act is targeted at developing and improving the quantity and quality of water resources. **Sections 5 and 6** provides authority to make pollution prevention plans and regulations for the protection of fisheries, flora, and fauna⁴⁶.

2.2 National Environmental (Wetlands, Riverbanks and Lake Shores Protection) Regulations (2009)

The regulations state that the following principles shall be observed in regulating all wetlands⁴⁷

- wetland resources shall be utilized in a sustainable manner compatible with the continued presence of wetlands and their hydrological functions and services.
- the Environmental Impact Assessment (EIA), shall be conducted in accordance with the relevant laws on all activities in wetlands likely to have adverse effects on the wetlands.
- best practices shall be applied for the conservation of wetlands of international, national, and local importance as ecological systems and habitats for fauna and flora species, cultural and aesthetic purposes, as well as their hydrological functions, etc.
- wise use of wetlands shall be incorporated into the national and local approaches for the regulation of their resources through awareness campaigns and dissemination of information.

2.3 National Environmental (Protection of Watershed, Mountainous, Hilly and Catchment Areas) Regulations (2009)

The regulations states that⁴⁸

- 1) Every landowner or occupier, while utilizing land in a watershed, mountainous, hilly or catchment area shall:
 - ✓ observe and respect the carrying capacity of the land.
 - ✓ carry out soil conservation measures.
 - ✓ carry out measures for the protection of water catchment areas.
 - ✓ use the best available environmentally friendly technologies to minimize significant risks and damage to ecological and landscape aspects; and
 - ✓ maintain adequate vegetation cover.
- 2) The Agency shall, with respect to watersheds, mountainous, hilly and catchment areas in a particular environment, control activities which are inconsistent with good land management practices especially in areas prone to landslides, floods, drought, desertification, siltation, heavy sediment loads, falling rocks, fires, and damage by wind.

2.4 National Erosion and Flood Control Policy 2005

The general soil erosion & flood control guidelines provide necessary instructions for soil and water resources users to develop, implement and monitor plans that are to assure erosion and flood hazard mitigation. The maintenance of levees and other protective structures are also to be developed at areas with potential impacts. In addition to this, all requests for project plan approvals must include soil type and drainage

⁴⁶ **Water Resources Act, CAP W2, LFN 2004.**

⁴⁷ National Environmental (Wetlands, River Banks and Lake Shores Protection) Regulations (2009).

⁴⁸ National Environmental (Protection of Watershed, Mountainous, Hilly and Catchment Areas) Regulations (2009).

pattern/structures in and around project area and the likely impact of the project on these duly certified.

2.5 Inland Waterways Authority (NIWA), 1997

Nigeria Inland Water Authority (NIWA) Act 13 of 1997 established NIWA whose functions are among others are to:

- ✓ Provide regulations for inland navigation.
- ✓ Ensure the development of infrastructural facilities for a national inland waterways network connecting the creeks and the rivers with the economic centres using the river-ports as nodal points for inter model exchange.
- ✓ Ensure the development of indigenous technical and managerial skill to meet the challenges of modern inland waterways transportation.
- ✓ Carry out environmental impact assessment of navigation and other dredging activities within the inland water and its rights-of-way.

2.6 IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025⁴⁹:

IFAD's Strategic Framework (2016-2025) consolidates and updates IFAD's strategy and policy frameworks on environment and climate change considering internal and global policy changes over the last several years.

The main objective of the strategy is enhanced resilience of smallholder farmers and rural communities to environmental degradation and climate change impacts. The expected outcomes of the environment and climate change strategy and action plan include:

- Governments are increasingly effective in integrating environment and climate change objectives and considerations into smallholder agriculture and other rural development policies and programmes.
- IFAD has the skills, capacity, partnerships, systems, and resources needed to fully support governments in integrating environment and climate change into rural development policies and programmes.
- IFAD investments contribute to the generation of environmental assets and services, and global public goods that make the livelihoods of poor rural people more prosperous and resilient, and IFAD's own operations more environmentally sustainable.
- IFAD becomes a global leader in generating knowledge on managing sustainable rural livelihoods – enabling IFAD to play a greater advocacy role in supporting global efforts to build a healthy planet.

The full Water Management Plan will review the scope of Integrated Water Resources Management in the VCN Project Area and the institutional and policy coordination for Water Resources Management Plan

3. SCOPE OF ACTIVITIES FOR INTEGRATED WATER RESOURCES MANAGEMENT PLAN IN THE VCN

3.1 Activities recommended in the PDR

In the PDR, the VCN has the following water resources management recommendations to strengthen the adaptive capacity of the beneficiaries for Integrated:

1. Promote climate and hydrological information for early warning

⁴⁹IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025. <https://www.ifad.org/en/-/ifad-strategy-and-action-plan-on-environment-and-climate-change-2019-2025>

Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves, and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on water and climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

(i) Climate information production and seasonal rainfall prediction (SRP) downscaling and dissemination with NIMET to the communities

VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmer to aid preparedness and resilience.

(ii) Hydrological information production and downscaling with NIHSA

VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modelling of river flow data on the major river catchments across the project area as well as projected rainfall data to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

(iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

(i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that these measures, which include planting pits (Zai), half moon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds, and vegetative bunds. Bunds will

reduce run off speed and carrying away of soil particles, improve soil moisture and reduces surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

(ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera species*), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

(iii) Integrated soil fertility management technologies

VCN will promote the production and usage of farmyard manure by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility, water management, and climate and environmental benefits.

3. Investment in rehabilitation of market infrastructure that strengthens resilience

(i) Small irrigation structures

Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

(ii) Water infrastructure for human and animal watering

VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

4. Supporting farmers with climate-resilient planting materials

(i) Support farmers with climate-resilient seeds: through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

(ii) Support women farmers with Nutrition crops: through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

5. Awareness and capacity building through extension services

Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between climate change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support

services including the Farmer Field Schools (FFS) and Training of Trainers (TOT) to ensure that the targets are reached. The specific activities include:

(i) Awareness and capacity building in sustainable land and water management and GAP: VCN will carry out training in good agricultural and agronomic practices to deliver activities sustainable land and water management. The technical and human capacity activities will be driven through extension support and FFS.

3.2 Integrated Water Management Plan for VCN

Activity	Risk category	impacts	Mitigation	Monitoring indicator	Monitoring frequency	Implementation Responsibility
VCN water resource demand	Substantial	VCN smallholder farmers substantially depend on rainfed agriculture. Demand on both surface and groundwater for cropping is substantial and can lead to excessive and unsustainable groundwater abstraction	Conduct a water resource demand assessment at early stage of project implementation. Construct monitoring wells across the VCN project area to monitor groundwater abstraction	Number of monitoring wells constructed in the VCN project area	Annual	NPMU, SPMU
Hydrologic balances and seasonal and multi-year variations of the watersheds	Substantial	The VCN project area has high annual temporal rainfall variability with only 3 to 4 months of rainfall in a year. Multi-year variations in rainfall (and by implication, river flow) is also high	Conduct a study to generate quantitative data on water balance across the VCN project area. Strengthen collaboration and support NIHSA and NIMET to generate water flow and weather data for river monitoring	Hydrological information produced and disseminated by NIHSA on the VCN area. Weather information produced and disseminated by NIMET on the VCN project area.	Annual	NPMU, SPMU NPMU, SPMU

Activity	Risk category	impacts	Mitigation	Monitoring indicator	Monitoring frequency	Implementation Responsibility
					Annual	
Environmental flow at the river-basin level	Substantial	Apart from the very large river systems including Sokoto-Rima, Hadejia-Jamaare, Komadugu-Yobe, and Zamfara rivers that have large catchments, many rivers and streams are ephemeral and depend on local concentrated runoff during the wet season	<p>Conduct environmental flow studies in the VCN project area.</p> <p>Construction of small dams to store runoff.</p> <p>Training farmers and sustainable land and water management techniques (halfmoon, planting pits, bunds, etc) to reduce runoff and soil erosion.</p>	<p>Number of small earthen dams constructed.</p> <p>Number of farmers trained in sustainable land and water management techniques</p>	<p>Annual</p> <p>Annual</p>	<p>NPMU, SPMU</p> <p>NPMU, SPMU</p>
Climate change impact on water availability	Substantial	Both present and future climate impact on water availability is substantial in the VCN project area and this has significant impact on smallholder agriculture	<p>Training farmers and sustainable land and water management techniques (halfmoon, planting pits, bunds, etc) to reduce runoff and soil erosion.</p>	<p>Number of farmers trained in sustainable land and water management techniques.</p>	Annual	NPMU, SPMU

Activity	Risk category	impacts	Mitigation	Monitoring indicator	Monitoring frequency	Implementation Responsibility
			<p>Strengthen collaboration and support for NIHSA and NIMET to generate water and climate information for on-farm decision making by farmers.</p> <p>Support extension services to disseminate climate information to farmers.</p>	Number of beneficiaries receiving water and climate related information	Annual	NPMU, SPMU
Water related socio-environmental conflicts	Substantial	Increasing human insecurity including deadly farmers-pastoralists clashes on water	<p>Conduct water conflicts assessment.</p> <p>Provide water infrastructure with water points for both human and animal watering</p>	Number of water infrastructure and water point for human and animal watering constructed	Annual	NPMU, SPMU
Access to water for targeted users and competing consumptive and non-consumptive water uses and interests	Substantial	Water access competition among various social groups for both consumptive and non-consumptive uses is exacerbating conflicts	<p>Conduct water access assessment.</p> <p>Set-up community water users' association or community water users committee in the</p>	Number of operational water users association or community water users committee set up	Annual	NPMU, SPMU, Community

Activity	Risk category	impacts	Mitigation	Monitoring indicator	Monitoring frequency	Implementation Responsibility
			beneficiary communities to manage access to water issues			
Water quality threats	Substantial	Surface and ground water pollution can result from unsustainable agrochemical and pesticides uses	<p>Implement the integrated pest management plan to ensure sustainable agrochemicals management and less risk of pollution to water sources.</p> <p>Regularly monitor groundwater from the monitoring wells for pollution</p>	Analysis of water from the monitoring wells for pollution	Annual	NPMU, SPMU

4. CONCLUSION

A full Water Management Plan will be developed during the project implementation. The Water Management Plan should be implemented with the Integrated Pest Management Plan (IPMP) and the Waste Management Plan as well as the SECAP, ESCMF and TAA to provide a holistic picture of the VCN environment and social contexts and activities that drive integrated water resource management.

Annex 13: Technical Notes

Annex 13.1: Technical Note: AGRICULTURAL PRODUCTION AND PRODUCTIVITY

(a) Leverage gender and fragility study

- Fragility and conflict disproportionately affect women, children, and IDPs and exacerbate gender inequalities because of a variety of factors, including poverty, limited resources, and low adaptive capacity. Studies have shown that women are disproportionately vulnerable to the effects of natural disasters, natural resource degradation, and climate change (including extreme weather events). For instance, in Northern Nigeria, women, children, and IDPs tend to bear the brunt of crop production risks from excess rainfall (flooding), dry spells (drought), and rising farmers/herdsmen conflict for land resources than men – primarily as they are more dependent for their livelihood on natural resources that are threatened by climate change. The Gender gap exists where women’s rights and socioeconomic status are lower than men’s, and where women have less voice and influence in shaping policies (World Bank 2020). VCN needs to build the capacity of farmers for effective conflict resolution at the community level. The VCN project also supports mechanisms to compensate farmers for conflict related damages. It will explore the option of supporting NAIC to develop insurance products (with state subsidies) or for states to allocate a specific budget to offset losses arising from conflict that were not foreseen by smallholder farmers. VCN will link farmers with NAIC for crop insurance cover against flooding and other extreme weather events. CAF will be supported to provide dedicated services to members in conflict mitigation measures, especially as it affects farmers/herders.
- VCN needs to work closely with the World Food Programme (WFP) that support vulnerable households in the fragile areas of Northern Nigeria with in-kind food distribution, cash-based transfers, nutrition interventions, food for assets to support livelihood, resilience building with income generating activities, and supporting food systems with employment creation along different nodes of the value chains.

(b) Alignment with national policies, including the Renewed Hope Agenda and the UN strategic cooperation framework

- The VCN project is well aligned with the Renewed Hope Agenda of the Federal Government of Nigeria (2023-2027), which focuses on food security, ending poverty, inclusive economic growth, access to capital, security, fairness, and anti-corruption efforts. VCN also aligns with the Nigeria Country Strategic Opportunities Programme Paper (COSOP 2024 - 2029), which aims at addressing key priority areas of the agri-food systems and supporting a rural economy in which the targeted population can derive prosperity from economic growth, especially the women and youth. It also aligns with the IFAD Strategic Framework 2016-2025 which emphasizes the increase of productive capacities, market participation, and climate resilience for the rural poor. VCN contributes to the achievement of SDG1 (no poverty) and SDG 2 (zero hunger). It also contributes to the empowerment of women of different ages and gender equality (SDG 5); to the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all (SDG 8), as well as supporting the adaptation to climate change (SDG 13). It is designed to leverage partnerships with the private sector to enhance access to productivity services by smallholder farmers (SDG 17).

(c) Complementarity and synergy with IFAD projects, government and development partner projects or initiatives in the State and along the nexus of humanitarian, development, and peace

- The VCN project will establish close collaboration with ongoing IFAD projects and other programmes that have adopted a value chain approach in their operations such as the FGN/IFAD Value Chain Development Programme; FGN/IFAD assisted Livelihood Improvement Family Enterprises development in the Niger Delta (LIFE-ND) project; AfDB funded Agricultural Transformation Agenda Support Programme Phase 1; World Bank funded TRIMING and APPEALS projects in Northern Nigeria; (iii) World Bank Nigeria for Women Project (NfWP); World Bank funded FADAMA Development Project; and (iv) World Bank Rural Access Mobility Project (RAMP).
- VCN will also maintain partnerships with national and international research and development institutions (AfricaRice, IITA, ICRISAT, ILRI, National Cereals Research Institute), National Agricultural Seed Council, NiMET, development partners, and the private sector. It will also pursue collaboration with the All Farmers Association of Nigeria, private off-takers (i.e., Olam, Onyx, Popular Rice Ltd, etc.), the International Fertilizer Development Centre, National Agency for Food and Drug Administration and Control (NAFDAC), the Standards Organization of Nigeria (SON), NAIC, CBN (through Anchor Borrower and other schemes), NIRSAL, and the Agricultural Development Projects (ADPs). For financial inclusion for project beneficiaries, new partnerships will be considered with financial service providers to receive interest-bearing financing.

(d) Partnerships with local, national actors while specifying the purpose and justification of the partnership and the proposal of partner institutions

- Climate and Environment: VCN will partner with the crop index insurance companies and national meteorological agency (NiMET) for access to weather information to guide against crop failure arising from weather uncertainty/climate change, including flooding, dry spells, etc.
- Research institutions: VCN will partner with international agricultural research centers (IARCs) in Nigeria, such as IITA, AfricaRice, and ICRISAT, to source and promote the use of certified seed of climate resilient varieties. VCN will also collaborate with the IARCs on proven ICT4D, especially on digital extension advisory tools for productivity enhancement such as RiceAdvice Lite for optimal nutrient (fertilizer) management, an herbicide calculator for optimal herbicide application, a land area calculator for measurement of farm size for input targeting, etc.
- Agricultural Development Projects (ADPs)/existing CASP extension agents/lead farmers: VCN will partner with State government extension agents (ADPs), existing CASP extension agents and lead farmers to train large number of farmers on good agricultural practices.
- Agro-input dealers: VCN will also maintain partnerships with agro-input dealers operating close to the farming communities to reduce the cost of transportation and the distance that farmers travel to buy inputs.

(e) Leverage farmer organizations for support to delivery and policy support

- VCN to engage consultants in collaboration with local partners and SPCO to create a digitalized mapping of farmers organized in clusters (i.e., 20–25 farmers per FO) and land/production areas (ha) for technology targeting. The digital registration of farmers, digital record keeping, proof-of-sale records, and payment from off-takers, are all important requirements for FOs to access financial support. VCN will also build the capacity of FOs in the areas of group dynamics, good governance, farming skills (including field days and demonstration plots), bulk procurement of agricultural inputs, and business plan development skills to allow them to connect effectively with private off-takers and financial institutions.
- VCN will also support timely access to quality agricultural inputs using three sustainable models. (i) Matching grant model: This is a kind of support where the project pays a higher percentage of the input costs compared to the amount paid by the farmers (in this case, farmers receive inputs only after payment of their matching contributions); (ii) Off-taker-driven model: This is a cashless in-kind value chain financing where off-takers provide credit for inputs (i.e. buy inputs from agro-dealers), pass the inputs to farmers, and buy back farm produce after harvest at prevailing market price; and (iii) Producer-driven model: FOs to access seed and fertilizers through bulk buying by their cooperatives and proceed to pay for the inputs upon harvest. The cooperatives generate a profit by selling the products and paying the debt to the suppliers. In the off-taker-driven model, the motivation is access to land, supplies, increased volumes, supply niche markets whereas in the producer-driven model, the motivation is access to new markets, increased bargaining power, access to inputs, technical assistance, secure market position, and farmer empowerment.

(f) Institutional capacity needs and support for policy development, implementation, and coordination in line with their respective thematic area if and when relevant, indicate the link with other areas.

- VCN project conducts participatory needs assessment, through service providers, on the strengths/weaknesses/opportunities/threats (SWOT) and performance reviews of subcomponent actors to address areas that require urgent attention. Based on the results of the capacity assessment, the subcomponent can use a variety of approaches, such as coaching, mentoring, training, peer learning, networking, or online learning, to strengthen subcomponent actors with the knowledge, skills, and resources they need. For example, NPC/NPCO/CPAT can evaluate how subcomponent actors react to the training, what they learn from the training, how they apply it in their work, and how it contributes to the overall subcomponent results. Before the commencement of production and productivity activities, the service providers should be engaged to strengthen the capacities of subcomponent actors (Agricultural Production Specialist at NPCO NPMU, Agricultural Officers at SPCO, Extension Agents, and Lead Farmers at LGAs) to enhance their performance.
- VCN also needs to engage with the regulatory authorities (i.e., State and local government departments and agencies with statutory roles), private sector actors, and FOs through policy dialogue to influence the establishment of quality control of produce, grading, and standardization systems.

(g) Potential in-kind contribution by community, LGA, State, Federal levels in each area considering tightening fiscal space

- Irrigated land development for women and youth farmers: land is controlled by the government and traditional institutions (including Community Heads). VCN needs firm commitments from Community Heads, Local and State governments to provide access to irrigated land for landless women and youth in farming communities. The FOs are to negotiate with Community Heads to provide access to land through land rent on a lease basis (2-3 years) from Community Heads at proximity to high production areas and pay an annual lease fee to the concerned communities. VCN may also consider cost-sharing arrangements with the Local & State governments (at 30% VCN & 70% Government) to support the development of irrigated land for landless project beneficiaries.
- Support the development of new and rehabilitation of old irrigation facilities: VCN will enter into cost-sharing arrangements with State governments to support the development of new and rehabilitation of old irrigation facilities to guarantee all-year-round crop production. The VCN project will also support the construction of boreholes equipped with solar pumping systems. For short-term measures, VCN will introduce farmers to dry season agriculture by providing small-scale irrigation facilities (water pumps, tube wells, and wash bores) in the farming communities.

Reference(s)

World Bank Group. 2020. World Bank Group Strategy for Fragility, Conflict, and Violence 2020–2025. Washington, DC: World Bank.

Annex 13.2: Technical Note: SECAP AND ENVIRONMENT AND CLIMATE CHANGE MAINSTREAMING IN VCN

Environment and Climate Situation in VCN Project Area

The VCN project is to be implemented in 9 States (of the 13 states) of the semi-arid Sudano-Sahelian northern Nigeria. These proposed states spread from northeast to northwest Nigeria, consisting of Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe, and Zamfara States. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation. This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain, and semi-arid plain⁵⁰. The Sudan savanna is extensive from the Sokoto basin to the lower part of the Chad basin and covers much of semi-arid northern Nigeria. The ecology consists of a greater frequency of *Acacia albida*, *Tamarindus indica*, and *Schelocaryabirrea* and forest cover of up to 20% of the land area. The Sahel savanna is found mainly around the Chad basin and along Nigeria's northern fringes with Niger Republic. In addition to grasses, shrub species (*Combretum* spp.) and acacias predominate. Forest cover rarely exceeds 10% except along seasonal watercourses.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of a difficult semi-arid ecology with widespread degradation conditions, including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. Poor environmental conditions pose the risk of poor yields, crop losses and land conflicts.

The VCN project areas face the risk of climate uncertainty, especially with regards to rainfall and temperature. Unpredictability of rainfall in terms of onset and cessation dates as well as the length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the extended dry season. Flooding has also become a problem, wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

Smallholder agriculture in semi-arid northern Nigeria is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity, coupled with low adaptive capacity, result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity. Agriculture is exposed and sensitive to key climate and environmental risks including low rainfall and high temperature, uncertainty in rainfall onset, cessation, dry spell, and length of the growing season, drought, flood, heat stress/ waves, soil erosion, desertification, and windstorms. Unsustainable land-use practices, poor adaptive capacity, and a lack of knowledge on climate-smart agriculture perpetually drive land degradation and soil infertility, and constraint small-holder agricultural productivity. Water shortages for both human and animal watering, rangeland degradation, resource conflict, overdependence on fuelwood for domestic heating, poor market-connected farm roads, poor access to funding and inputs, and lack of modern farming production and processing skills, and lack of understanding of sustainable land management techniques undermine the resilience of the poor smallholder farmers and households. Household income is generally low among the rural poor especially among women. Lack of skills and access to funds and lack of alternative income sources widen inequality and increase poverty and social vulnerability among women, malnutrition among children, and the number of out of school children.

⁵⁰Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions; Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

Mean annual rainfall in the Sudan Savanna zone ranges between about 600-1000 mm and less than 600mm in the Sahel zone⁵¹. Dry season in the Sudan savanna is about 4-6 months and exceeds 8 months in the Sahel. The inter-annual rainfall variability is high resulting in climatic hazards, especially flood and drought and relative humidity experiences considerable seasonal and diurnal variations⁵². Analysis of rainfall data from 1981 to 2020 shows a positive trend increasing at about 8.7% in the semi-arid northern Nigeria⁵³. The Sahel savanna is projected to experience an increase in future rainfall by as much as 30%, and Sudan savanna by about 10% under both RCPs 4.5 and 8.5 for the 2050-time step⁵⁴. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400mm annual maximum historically over this zone (Fig 7)⁵⁵. However, the warming trend is very clear with temperatures rising faster over the semi-arid northern Nigeria. The linear warming for a 30-year average on a decadal slice reveals changes in temperature by an average of 0.20°C with the last decade (2011-2020) emerging as the warmest since 1981. The maximum temperature increases since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig. 6)⁵⁶. Under the RCP4.5 for 2050 and 2070, temperature increases could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline for Nigeria, with the semi-arid northern Nigeria on the high end⁵⁷.

Field Stakeholders Consultation on Environmental and Climate Change

Challenges: Field consultation and stakeholder discussions for SECAP were carried out during the Project Concept Note (PCN) and Project Design Report (PDR) in Sokoto (north-west), Borno, and Yobe States (north-east). The discussions across these represent a wide spectrum of opinions and knowledge on the climate and environmental issues of the semi-arid northern Nigeria.

The key climate, environmental and social issues raised during the stakeholders' consultations and discussions across the States are the same set of climate and environmental challenges pervasive in semi-arid northern Nigeria, which constrains the agricultural value chain in the north. Incidentally, these are the set of issues which CASP tried to address.

These include:

- Erratic rainfall – duration, intensity, late onset, and early cessation
- Heat wave and heat stress - from rising temperature
- Desertification and encroachment
- Deforestation
- Land degradation – especially soil erosion

⁵¹ Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months. The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.

⁵² State of the Nigerian Environment Report, 2008, SEDEC Associates for Federal Ministry of Environment and UNDP

⁵³ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

⁵⁴ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

⁵⁵ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

⁵⁶ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

⁵⁷ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

- Pests and diseases – including locusts and quelea birds which significantly affect grains
- Wrong application and adulteration of agrochemicals
- Lack of improved seeds
- High cost of fertilizer,
- Access to land for women
- Fragility – insecurity and banditry
- Limited women participation in VCs
- Limited PWD participation in VCs
- Limited Land access for women
- Limited access to finance and insurance
- Insurgency
- Poverty
- Low productivity
- Climate Change
- Low capacity for good agricultural practices
- Lack of labour-saving technologies - High production cost due to labour shortages
- More peasants' farmers rely on their children and wives labour which is provided without compensation
- Unfavourable cross border trade -smuggling makes imported rice cheaper
- Challenges of storage facilities
- lack of support for value additions
- Innovation especially in storage, processing and value additions, packaging, seed improvement, etc

Proposed Intervention Suggested: Obviously, many of the stakeholders spoke against the backdrop of their experience in past projects (including CASP) around the region.

The interventions suggested including:

- Improved seed varieties- early maturing, drought resistant, flood tolerant
- Dams and small irrigation structures and equipment – borehole, tube well, wash bores, water pumps
- Nature based solutions – agroforestry, soil and water conservation, landscape rehabilitation,
- Climate and weather information dissemination for early warning
- Training in agrochemicals applications
- Promote home/backyard gardens – especially for women
- Timely provision and distribution of input - fertilizer and soil additives
- Training and advocacy
- Livelihood support for IDPs and Victims of insurgency
- Support for victims of GBV
- Support for PWDs
- Support for land access for women
- Promoting access to alternative finance (such as 'no interest' Islamic banking)
- Training and capacity building for youth
- Enlightenment through the community leader
- Diversify crop selection to improve nutrition
- Introduction of simple mechanization tools to encourage youth
- Promote animal traction
- Creation of fully led women group for more empowerment
- PWDs to be involved in marketing and processing
- Encourage Agroforestry to combat Climate Change
- Promote local food production and consumption
- Training in agrochemical applications
- Promote use of Personal Protective Equipment (PPE)
- Farm inputs including seed for vegetables are key to promote nutrition

- Training in food fortification, food value additions and proper handling of food including agrochemicals applications is critical
- More considerations to be given to PWDs as beneficiaries in the VCN

Other Environment, Climate and Social Safeguard Issues: Other environmental, climate and social safeguard issues raised during field discussions include:

Labour and working conditions –

- More peasant farmers rely on their children and wives labour which is more likely provided without compensation
- Many women lost their land to insurgency and now constitute about 60% of paid farm labourers (worked 8-12 noon for N1,200) in Borno
- Paid children labourers (10-15 years of age) are high
- GBV/SH/SEA common in different spaces
- Outline of Labour Assessment and Management Plan required – to safeguard exploitation

Grievance Redress Mechanism

- There appears to be no formalized channel for GR
- The community leader plays significant roles – even grievances that cannot be resolved at FO and CDA levels are escalated to the community leader – as the Patron of all associations
- Grievance Redress Mechanism (GRM) Plan required

Resource Efficiency and Pollution Prevention

- ❑ Waste generation - is significantly limited to biodegradable farm waste and Agric products processing waste
- Significant potentials for resource valorization – e.g. farmyard manure/compost, animal feeding, biochar, briquettes
- ❑ Some inorganic fertilizers and agrochemicals are not permitted for use due to insurgency
- Requires promoting the use of organic fertilizers including FYM
- ❑ Adulteration and wrong use of agrochemicals – is considered high – requires
 - Training youth and empower them as in agrochemical application as an enterprise
 - Promote use of Ppersonal Pprotective Eequipment (PPE)
 - Enforcement of existing regulations on agrochemicals is also needed
 - Outline of Iintegrated Ppesticides Mmanagement Pplan (IPMP) is required

Climate and environmental mainstreaming

Mainstreaming alignment

The mainstreaming of climate and environmental considerations into CASP was consistent with Nigeria's national priorities and aspirations to deliver on the 47% GHG emission reduction targets of the Nationally Determined Contributions (NDC) and the targets of the Sustainable Development Goals (SDGs), most especially as it relates to Ggoals 1 (no poverty), 2 (zero hunger) 5(gender equality), 13 (climate action) and 15 (life on land). On the IFAD side, it is consistent with the core objectives and priorities of the IFAD 2016-2025 Strategic Framework⁵⁸, IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025⁵⁹, and IFAD11 Replenishment Consultation agenda for mainstreaming gender, youth, nutrition and climate finance tracking using the Mmultilateral Ddevelopment Bbank (MDB) methodologies to secure improved and more resilient

⁵⁸ IFAD 2016-2025 Strategic Framework. <https://www.ifad.org/documents/38714170/39132730/IFAD+Strategic+Framework+2016-2025/d43eed79-c827-4ae8-b043-09e65977e22d>

⁵⁹ IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025 <https://webapps.ifad.org/members/eb/125/docs/EB-2018-125-R-12.pdf>

livelihoods for all rural people, and strengthening national capacity to deliver on the Paris Agreement and SDGs.

Strategic orientations - VCN Design Recommendations to Minimize Climate and Environmental Risks and strengthen climate resilience

- ❑ The E&CC risks and mitigation plans would be documented in the SECAP, IPRM, ESCMF and ESCMP
- ❑ The design recommendations to mainstream E&CC and strengthen resilience include:
 - Deepening access to weather and hydrological information - leveraging existing partnerships for early warning to safeguard their investments.
 - Deeping no regrets options – e.g. micro insurance.
 - Investment in resilience-enhancing market infrastructure including small irrigation structures (borehole, tube-well, water pumps, etc.), water for human (and animal watering), and market-connected farm roads.
 - Upscaling NBS- sustainable land management training and activities from CASP including soil and water conservation and landscape rehabilitation techniques.
 - Strengthen rural institutions established by CASP including CDAs for conflict resolutions and sustainability.
 - Capacity building – FFS and extension (including e-extension)

The design recommendations are aligned to Component 1.1: Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.

Output 1: Promote climate and hydrological information for early warning

1. Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves, and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

(i) Climate information production and Seasonal Rainfall Prediction (SRP) downscaling and dissemination with NIMET to the communities

VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmers to aid preparedness and resilience.

(ii) Hydrological information production and downscaling with NIHSA

VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modeling/modelling of river flow data on the major river catchments across the project area as well as projected rainfall data to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

(iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

Output 2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

2. Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

(i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that these measures, which include planting pits (Zai), halfmoon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds and vegetative bunds. Bunds will reduce run off speed and carrying away of soil particles, improve soil moisture and reduce surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

(ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera* species), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

(iii) Integrated soil fertility management technologies

Since the Russia-Ukraine war, the price of inorganic fertilizers and other farm additives have increased dramatically. This price increase was also compounded by Nigeria's rising price inflation. Access to fertilizers has also become problematic due to the fragility and insecurity of the situation across the project area. Inorganic fertilizers are being hijacked from farmers by bandits and insurgents to produce improved explosive devices (IED). This has made access to inorganic fertilizers more difficult. Feedback from stakeholders during the fieldwork for VCN design suggests that farmers are increasingly shifting to the use of organic fertilizers and farmyard manure. VCN will promote the production and usage of organic fertilizers by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility while improving climate and environmental benefits.

Output 3. Investment in rehabilitation of market infrastructure that strengthens resilience

3. Lessons learned from IFAD projects have shown that construction/rehabilitation of basic market infrastructure improves resilience. This includes rehabilitation of

climate-vulnerable market connected farm roads, provision of small earthen dams for crops and animals, tube-wells and water pumps for smallholder irrigation and motorized and solar power boreholes and water infrastructure for human and animal watering. The specific activities include:

(i) Rehabilitation of climate-vulnerable market connected farm roads

VCN will invest in rehabilitation and climate proofing of market-connected farm roads to enhance access to market. This will improve communication between the rural producer communities and the outside world and ensure prompt evacuation of farm products to market, processing and offtaking centers. This worked well on CASP and will be upscaled in the VCN project.

(ii) Small irrigation structures

Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

(iii) Water infrastructure for human and animal watering

VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

Output 4. Supporting farmers with climate-resilient planting materials

4. Flood, drought, and heatwaves are serious climate risks in the VCN project areas. They significantly impact agricultural productivity. In the last couple of years, these risks have become common, leading to loss of investments. The activities here are designed to support farmers with improved (early maturing, high yield, drought, and flood tolerant and disease-resistant) varieties seeds. The specific activities are:

(i) Support farmers with climate-resilient seeds: through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

(ii) Support women farmers with Nutrition crops: through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

Output 5. Awareness and capacity building through extension services

5. Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between Climate Change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support services including the Farmer Field Schools (FFS) and Training of Trainers (ToOT) to ensure that the targets are reached. The specific activities include:

(i) Awareness and capacity building in sustainable land management and GAP: VCN will carry out training in good agricultural and agronomic practices to deliver activities listed

in 1,3 and 4. The technical and human capacity activities will be driven through extension support and FFS. E-extension will be strongly promoted to enable wider and timely reach of beneficiaries.

(ii) Capacity building in waste valorization and sustainable agrochemical applications: VCN will provide capacity building in waste valorization including briquettes and biochar production from rice, maize, sorghum, and millet husks, animal feeds production from the hauls husks/straw, rice bran conversion to poultry feed, rice husk conversion for litter, handicrafts, etc. These training will strengthen the capacity of the women and women groups especially to improve their income and thus become more resilient. VCN will also train youth to create enterprises in correct agrochemicals applications.

Fragility and conflicts

Situation: The fragility and conflict situation in the VCN project area has been described as a “complex crisis” with a “very high” risk index (at 6.5) by the INFORM Risk Index Report for 2021⁶⁰. This is significantly due to Insurgency in the north-east and growing banditry in the north-west.

Insurgency and banditry pose high risk to project investments and infrastructure. Yet, the people who live under insurgency and banditry conditions are the most vulnerable to poverty. Large population in those areas have been downgraded from poor to poorest of the poor, living under internal displacements in refugee camps, away from their land and assets. These people lost virtually everything and indeed need the project’s assistance perhaps more than any other target people. In Borno State, discussions during the stakeholder engagement suggestsuggests that prime agricultural lands more than 10km outside the garrison towns (also called super camps) are considered unsafe areas. As in any conflict situation, women (and children) have been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps.

VCN should consider:

- How do we support people under fragility – is it possible to provide support that does not involve ‘infrastructure’?
- Supporting women in IDPs is critical especially in Borno State
- Give some considerations to supporting women IDPs home gardens (crops may not align with the mainstream recommendations)
- Land acquisition for women for farming
- Monitoring project under fragility – we need to evolve how this can be done – ICT can help here, resource pooling with third party too

Interaction with the Commissioner for Agriculture in Borno State design mission reveal the following:

- The VCN design must consider fragility in Borno
- IDPs and New Returnees to their settlements are very important.
- Farmers lost everything to insurgency, and many are trying to get back to their feet.
- It will be great to talk to IDPs, and the Borno State Emergency Management Agency (BOSEMA)
- The Federal Ministry of Agric and Food Security has instituted a Multisectoral Farm Recovery Project in Borno – they provide free interventions to farmers in Borno State
- VCN should explore the full VC - explore opportunity for Value Additions and storage facilities to reduce post-harvest losses
- ADP should be engaged in project implementation.

⁶⁰ Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

Fragility Stressors: Field scoping suggests that resource conflicts linked to climate, environment and natural resource management is a strong stressor of fragility with significant impact on the smallholder farmers. Substantial fragility stressors have been identified to include flood, drought, land degradation, conflicts over land, soil, water, and biodiversity losses. Social-economic stressors including politics, state of the economy, migration, security, and safety also pose considerable stress on fragility.

Fragility Drivers: Poverty, unemployment, lack of youth empowerment, and failed policies are significant fragility drivers across the nation. Others include climate change, resource decline, grazing lands and routes, population, family value, poor infrastructure, ungoverned spaces, political activities, activities of non-state actors, development imbalance, inequality, and corruption. These have significant impacts on the smallholder farmers in multiple ways with resultant low productivity, loss of investments, lack of access to funds and heightened insecurity.

Addressing the issues: Addressing fragility in the country requires multisectoral and cross-cutting policy implementation and across government levels. It is generally believed that policy and institutions to address State fragility are present in Nigeria. These include policies on national security, youth employment and empowerment, agriculture, social development, etc. However, implementation of policies and activation of institutions to address fragility have not been effective. In addition to continuing with mainstreaming environment, natural resource management, Climate Change, and social inclusion (including community participatory actions) into projects and programs delivery, VCN can contribute to addressing the drivers and causes of fragility through deepened policy dialogue and engagements aimed to strengthen policy implementation and institutional service delivery across sectors.

Climate and Nutrition

The Nigeria's National Agricultural Technology and Innovation Plan (2022-2027)⁶¹ has designed programs (and projects) to promote nutrition in the Nigeria agricultural sector. The programs which aim to directly improve and strengthen adaptation and increase production, productivity and diet diversity of the smallholder farmers include: National food and nutritional security program (promote bio - fortification of food crops and promote homestead/backyard gardening and urban agriculture), national action on reduction of pre- and post-harvest food losses (promotion of adoption of certified seeds and Good Agronomic Practices, provision of community-based shared storage facilities and establishment of food processing clusters farming communities), National food production and consumption sensitization and awareness campaign (enlighten households on food quality), and Livestock Productivity and Resilience Support (promote domestic production of meat, milk, eggs and honey, and establish livestock centres and provision of community-based shared livestock production and processing facilities).

The projects or activities for the programs under the NATIP are consistent with the Nutritional activities that have been mainstreamed in IFAD projects in Nigeria. The VCN project is also expected to deepen and upscale nutrition mainstreaming with activities including home stead/backyard gardening, food fortification and training in food recipes and value additions, advocacy and awareness campaigns of clean production and processing systems, as well as use of certified seeds and promotion of good agronomic practices. This will contribute to fulfilling the objectives of strengthening adaptation of the smallholder farmers and improving their nutrition and dietary diversity.

ICT4D and Innovation

⁶¹ Federal Ministry of Agriculture and Rural Development (2022): National Agricultural Technology and Innovation Policy 2022-2017.

The VCN will have a lot to learn from the achievements and limitations of the CASP project. Involvement of ICT in CASP was limited and did not come on-time. VCN will need to leverage ICT and innovations to deepen digital climate solutions (including e-extensions, e-insurance, climate information delivery, solar pumps, digital finance, digital input delivery systems, etc.) and digital tools for project monitoring and evaluations. VCN will need to quickly adapt an integrated database (driven by a GIS) to integrate spatial and other datasets for project management. This is critical to tracking of project activities across spaces, data management and reporting and data integration and harmonization to get the complete picture on project impact and outputs. To ensure effective usage of the technologies in fragile areas tools that integrate SMS, USSD, QRcodes for E-voucher as well as Near Field Communication will need to be explored. For M&E systems, offline data collection will be used and data synced back to the M&E system when connectivity is restored. These strategies will ensure that access to internet connectivity is not a barrier towards access to ICT4D services

Innovations and deployment of digital agricultural tools is also critical to ensuring that farmers have access to latest tools and information in improved and certified seeds, storage and post-harvest losses reduction, processing, and value additions, etc. Innovation in storage and value additions (e.g. drying technology, grinding technology, packaging technology, etc.), is especially critical for the profitability and resilience of smallholder farmers to make them less vulnerable to postharvest losses and volatile prices regimes driven by weather.

Climate Risk Adaptation Options

The Table below shows the climate risk adaptation options evaluated in the Targeted Adaptation Assessment (TAA) and their suitability.

Scoring Adaptation Options

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
1	Capacitate extension staff with knowledge on cClimate cChange in order to support SHF deal with climate risks	3	3	3	3	3	3	3	3	Suitable	24
2	Reduction of soil erosion, nutrient leaching from soil and minimized wind damage. (Soil erosion control and water holding structures)	3	3	3	3	3	3	3	3	Suitable	24
3	Develop knowledge and decision-support systems including improved monitoring and early warning systems (Climate and weather	3	3	3	3	3	3	3	3	Suitable	24

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	information advisories)										
4	Climate and weather information dissemination to SHF for early warning	3	3	3	3	3	3	3	2	Suitable	23
5	Implement Agroforestry techniques	3	3	3	2	3	3	3	3	Suitable	23
6	Promote soil and water conservation techniques	3	3	3	2	3	3	3	3	Suitable	23
7	Promote landscape rehabilitation techniques	3	3	3	2	3	3	3	3	Suitable	23
8	Support land access for women	3	3	2	3	3	3	3	3	Suitable	23

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
9	Improved drainage, improved soil organic matter content and farm design to avoid soil loss and gullyng.	3	3	3	3	3	2	3	3	Suitable	23
10	Use intercropping.	3	3	2	3	3	3	3	3	Suitable	23
11	Use of shade trees and plantation of leguminous varieties for nitrogen fixation	3	3	2	3	3	3	2	3	Suitable	22
12	Promote home/backyard gardens	2	3	2	3	3	3	3	3	Suitable	22
13	Livelihood support for IDPs and Vulnerable groups	2	3	2	3	3	3	3	3	Suitable	22
14	Promote use of bio-fertilizer or organic fertilizers	3	3	2	3	3	3	3	2	Suitable	22

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
15	Consider increasing crop insurance cover against extreme events.	3	3	3	2	3	2	3	3	Suitable	22
16	Reduced tillage to lessen water loss, similarly the incorporation of manures and compost, and other land use techniques such as cover cropping increase soil organic matter and hence improve water retention	3	3	2	3	3	3	3	2	Suitable	22
17	Provide dams and small irrigation structures in areas that are facing severe climate impacts - tube wells, boreholes, wash bores,	3	3	3	3	3	2	2	2	Suitable	21

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	water pump, etc										
18	Training in sustainable agrochemical applications	3	3	2	2	3	3	2	3	Suitable	21
19	Promoting access to alternative finance (such as 'no interest' Islamic banking)	2	3	2	3	3	2	3	3	Suitable	21
20	Creation of fully women-led group for more empowerment	3	3	2	3	3	2	2	3	Suitable	21
21	Diversify crop selection to improve nutrition	3	3	2	3	3	2	2	3	Suitable	21
22	Agricultural disaster risk reduction and	2	3	3	3	2	2	3	3	Suitable	21

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	management (DRR/M)										
23	Water conservation measures are particularly valuable at times of drought (larger storage/dams and water harvesting infrastructure)	3	3	2	2	3	3	2	3	Suitable	21
24	Promotion of Off-farm enterprise	3	3	3	3	3	2	2	2	Suitable	21
25	Improve existing irrigation systems to reduce water losses (e.g. drip irrigation)	3	3	2	3	3	2	2	2	Suitable	20
26	Develop and implement Integrated Pest Management Plan	2	3	2	3	3	2	2	3	Suitable	20

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
27	Training in food fortification, food value additions and proper handling of food	3	3	2	3	3	2	2	2	Suitable	20
28	Strengthen capacity to generate new forms of empirical knowledge, technologies and agricultural support services that meet emerging Cclimate Cchange and variability challenges	2	3	3	2	2	2	3	3	Suitable	20
29	Drilling boreholes to supplement surface irrigation water	3	3	2	3	3	1	3	2	Suitable	20
30	Promote Innovative risk transfer programs such as agricul-tural	3	3	2	3	3	2	2	2	Suitable	20

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	insurance at the farmer level										
31	Timely provision and distribution of input to help farmers adjust planting season to stave off flood	3	3	2	3	3	1	2	2	Suitable	19
32	Introduction of simple mechanization tools to encourage youth	3	3	2	3	3	1	2	2	Suitable	19
33	Research into seasonal viable production systems for different farmers	2	3	3	2	2	2	3	2	Suitable	19

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
34	Increased diversification of varieties or crops to hedge against risk of individual crop failure (Use flood, drought and/or saline resistant varieties)	3	2	2	3	2	2	2	3	Suitable	19
35	Make use of integrated systems involving livestock and/or aquaculture to improve resilience.	2	3	2	3	2	1	3	2	Suitable	18
36	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	3	3	2	2	1	2	3	Suitable	18
37	Promote animal traction	3	3	2	3	2	1	1	2	Suitable	17

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
38	Search for integrated solutions to disease and pest control that are cost effective	2	3	3	2	2	1	2	2	Suitable	17
39	Shifting cropping calendars; when to plant, which varieties to plant and which inputs to use	2	2	3	3	2	2	2	1	Suitable	17
40	Use expertise in coping with existing pests and diseases, including post-harvest management	3	2	2	2	2	1	2	2	Suitable	16
41	Promote balanced fertilizer application	2	2	2	2	2	2	2	2	Suitable	16
42	Reappraise economic viability of proposed infrastructure	2	2	2	2	2	1	2	2	Suitable	15

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	designs based on climate projections over lifetime of assets										
43	Farmers Field School for GAP and climate-resilience information sharing	3	3	3	3	3	3	3	3	Suitable	24
44	Promote enlightenment on Climate Change through the community leader	3	3	3	3	3	3	3	3	Suitable	24
45	Implementation of climate smart agriculture practices and environmentally sustainable practice (e.g. Greenhouses, shadenets)	2	3	3	1	2	2	2	3	Unsuitable	18

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
46	Develop standards to enable flood proof infrastructure development	2	3	2	1	2	2	2	2	Unsuitable	16
47	Change post-harvest practices, for example the extent to which grain may require drying and how products are stored after harvest.	3	2	2	1	2	1	2	2	Unsuitable	15
48	Provide cooling systems for mid/post-harvest horticulture produce management	1	3	2	1	2	1	2	2	Unsuitable	14
49	Expand Agricultural areas to regions with lower climate risk	1	3	3	1	1	1	1	2	Unsuitable	13

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Annex 13.3a: Technical Note: Matching Grant



**Federal Government of
Nigeria**



FEDERAL REPUBLIC OF NIGERIA

Value Chain Programme in Northern Nigeria (VCN)

ANNEX 13 Matching Grant Technical Note

1.0 Introduction

The Value Chain Programme in Northern Nigeria (VCN) aims to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in nine out of the 13 states in the northeast and northwest geopolitical regions of Nigeria⁶². It is basically a scaling up and sustainability measure for the Climate Change Adaptation and Agribusiness Support Programme (CASP), which was implemented in seven out of the nine States of VCN. The State (Kano) is included to strengthen the linkage of the VCN value chains with a robust market, as Kano is a major regional market for agricultural produce. VCN targets 456,000 direct beneficiaries, equivalent to 3,109,920 rural households members in the nine States and will be implemented over an eight-year period at a total cost of USD 158.15.5 million. IFAD is providing a Performance Based Allocation System (PBAS) loan of USD 56.7 million and Borrowed Resource Access Mechanism (BRAM) resources of USD 30 million. The Agence Francaise de Developpement (AFD) is co-financing VCN with USD 50.8 million, FGN and States providing USD 20.656 million. The Federal Ministry of Finance (FMF) and the Federal Ministry of Agriculture and Food Security (FMAFS) provide oversight at the national level to VCN. The FMAFS is the Lead Programme Implementing Agency.

Goal. The goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northern states of Nigeria.

Programme Development Objective (PDO). The PDO is to improve food and nutrition security and income of households (HHs) in northern Nigeria through inclusive and sustainable value chain (VC) development as an enabler for rural transformation. The PDO is aligned with:

- (i) the IFAD COSOP (2024-29) strategic objectives of *Sustainably increase rural people's productive capacities, and strengthen the organizational and policy frameworks, for inclusive and resilient agricultural VCs*;
- (ii) the three 2016-2025 IFAD Strategic Objectives (SOs): SO1: Increase poor rural people's productive capacities, SO2: Increase poor rural people's benefits from market participation, and SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities;
- (iii) the four mainstreaming priorities of gender, youth, nutrition and climate change; and
- (iv) the AFD Country Intervention Strategy⁶³ of financing solutions that contribute not only to the development of a competitive economy that creates jobs and wealth, but also to shared, inclusive, and resilient development, seeking complementarity with other donor investments.

The core indicators for assessing the PDO of the VCN are: (i) HHs reporting increased income; (ii) Women reporting minimum dietary diversity (MDDW); (iii) HHs satisfied with project-supported services; (iv) HHs reporting they can influence decision-making of local authorities and project-supported service providers; and (v) Individuals demonstrating an improvement in empowerment.

2.0 The Concept of a Matching Grant

A matching grant is a one-off, non-reimbursable transfer to project beneficiaries. It is based on a specific project rationale for particular purposes and on the condition that the recipient makes a specified contribution for the same purpose or subproject. Grants and matching contributions can

⁶² The targeted States are all States already covered by CASP (Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara) plus Kano and Bauchi. This last one was identified as targeted State by AFD and its coverage will be confirmed or not at start up.

⁶³ AFD (2021). AFD and Nigeria. <https://www.afd.fr/en/ressources/afd-and-nigeria>. Globally, for the agriculture and rural development sector, AFD works to strengthen the autonomy, sustainability and resilience of the sector through an integrated strategy that combines the objectives of preserving natural resources and biodiversity, agricultural economic development, territorial development in rural areas, and gender equality. <https://fundit.fr/en/institutions/french-development-agency-afd>

be either in cash or in kind, or a combination of both. They may or may not be provided together with other financial services, such as loans, or linked to them⁶⁴.

Within community-driven development projects, matching grants are typically used to finance social and economic infrastructure, productive assets, income generating and livelihood-diversification activities by groups, and sometimes by individuals. Within rural and agricultural business development projects, they are used to develop agricultural value chains, promote innovation and technology, enhance access to extension and support services, and support farm diversification.

2.1 Use of MG.

Provided on demand, the MG will be used to supplement the finances of the beneficiary for a particular purpose. The MG engenders ownership and sustainability of the subproject/enterprise by the beneficiary. It helps draw private investments and investors into growing or underserved markets by addressing specific barriers to market entry for certain target groups, technologies, or service providers. It can thus stimulate market development and be part of public policies for making markets work for poor people.

In line with IFAD inclusive rural finance policy, the matching grant will also promote linkages with financial service providers, funds for youth, women and other vulnerable target groups, through: capacity building of the demand for rural financial services through training on financial literacy; linkage of SHFs with financial institutions (FIs); capacity building of the supply of rural financial services, by strengthening the FSAs and linking to financial institutions, developing through training of FIs on the development of new financial products including for; de-risking lending to farmers.; and linking FSAs to commercial financial service suppliers to scale up financial inclusion of the target groups. Fragility of access to financial services will be mitigated through promotion of weather-based index insurance, FSA and CDA capacity building of stakeholders, and access to the RED subcomponent in case of disaster.

This should not distort markets and private investments or compete with alternative uses of public funds.

2.2 Purpose of the Co-financing Rules

The general purpose of this technical note is to provide rules and controls that will guide the implementation of the MG facility in the Programme. It is to be used by all stakeholders – the beneficiaries, the implementers of the fund, and the service providers at the local and national levels.

3.0 The Grant Strategy

3.1 Rationale

The MG is aimed at cushioning the programme target group - farmer organizations (FOs), PwDs and small-scale processor groups – against the constraints they face in access to financial services. The MG modality will be a transitional mechanism for financing assets and services for the participating farmer groups. The strategy will be to use short-term financing instruments to promote adoption of technologies and enable target groups to carry out productivity-enhancing investments and ultimately get included in the financial sector. The level of indicative grant financing is based on:

- (i) the guidelines provided in the draft IFAD publication on Matching Grants,
- (ii) the parameters being used in Government and donor projects providing similar assets and services in Nigeria, such as the World Bank-financed National Fadama Development Project, the IFAD funded Value Chain Development Programme (VCDP), and the closed CASP project.
- (iii) Draw from the lessons learned from IFAD inclusive rural and agricultural finance experiments in West and Central Africa.

⁶⁴ IFAD's Matching Grant Technical Note, 2012

3.2 Targeting

As confirmed during the consultation process in the field, the target beneficiaries under the VCN will need additional support to access future, expanded opportunities to access agricultural finance services. With little or no credit history, absence of securable collateral, high poverty rate and multiple fragility issues, most of the targeted beneficiaries do not represent attractive, potential clients to banks or MFIs from the start. The MG is aimed at the programme's target group, the rural poor, especially women, youth, and vulnerable groups.

4.0 VCN Financing categories and co-financing rules

Table 1 presents the contribution ratios applicable to different items under the VCN MG scheme.

Expenditure category / Activity	Project matching grant funding %	Target people counterpart funding⁶⁵
Production inputs		
Pro-poor kick-start package for target VCN farmers: provided <u>only for 2 seasons</u>	60% male adult +IDP Returnee	40% male adult+IDP Returnee
	80% women/ youth+IDP Returnee	20% women/ youth+IDP Returnee
	90% PWDs	10% PWDs
Production equipment		
On-farm individual investments (e.g. tillers, sprayers, harvesting)	70% male adult +IDP Returnee	30% male adult +IDP Returnee
	80% women/ youth+IDP Returnee	20% women/ youth+IDP Returnee
	90% PWDs	10% PWDs
Collective productive assets	60% Mixed Organization or SMEs	40% Mixed producers Org or SME
	80% women/youth groups or micro-enterprises	20% women/youth groups or micro-enterprises
Post-production equipment		
Investments on post production equipment (e.g., processing machinery)	90% Mixed Producers Organization or SMEs/Women/Youth Groups or Micro-Enterprises	10% Mixed producers Org or SMEs/Women/Youth Groups or Micro-Enterprises/Host
	80% women/youth groups or micro-enterprises	20% women/youth groups or micro-enterprises

⁶⁵ Either with their own funds or by borrowing from an FI

Expenditure category / Activity	Project matching grant funding %	Target people counterpart funding⁶⁵
Production and Post-production infrastructure Investments on production infrastructure (e.g. small irrigations farms) and Post-production infrastructure (e.g storage facilities, processing centres)	90% Mixed producers Org or SME/ women/youth groups or micro-enterprises	10% Mixed producers Org or SME/ women/youth groups or micro-enterprises /Host Community ⁶⁶ to be contributed in-cash or in-kind (in-kind could include: land, labour,material,etc.)

4.1 Implementation of Matching Grants

4.1.1 Implementation modalities for Production Inputs

- (i) **Project-driven**- where VCN provides a matching grant by paying a percentage of the input costs for up to two seasons, with the rest of the amount to be paid by the farmers. Farmers receive inputs only after payment of their matching contributions (see Table 1 above for details);
- (ii) **Off-taker-driven** - In the off-taker-driven model, the motivation is access to land, increased volume of supplies, and supply niche markets. Very poor farmers who are unable to pay their matching contribution upfront, can benefit from the VCN MG. The off-takers pre-finance the farmers’ matching contribution and recover their investment at harvest time; and
- (iii) **Producer-driven** - where FOs can access their matching contribution through the FSAs/FIs and pay back at harvest time. The motivation here is that the farmer begins to build trust and credit worthiness within the community and FIs, and is determined to succeed in order to pay back the borrowed funds from the FSA/FI.

Positive and Negative lists for production inputs

The following activities are on the **positive list** for MG under the Programme:

- a) farm inputs based on technical recommendations (fertilizer, chemicals, seeds, etc.).
- b) Land preparation by tractor/tiller or animal traction service providers

The inputs would be assessed to be early maturing, flood/drought resistant, insect/disease tolerant varieties, and fertilizers (inorganic/organic).

The following activities on the **negative list** are not eligible for inputs MG under the Programme:

- a) use of prohibited agro-chemicals that would affect human health and encroach upon critical ecosystems, including riverbanks and residential and public houses;
- b) inputs supporting farming activities that would have a high risk of disturbing fragile ecosystems, including agricultural expansion into or the pollution of fragile ecosystems; and
- c) inputs for farm activities that would violate traditional and cultural norms and beliefs.

⁶⁶ MoU is usually signed between the project and host communities, Local government and State government for the in-kind contribution

Grant Limits – Thresholds for Production Input

Each beneficiary will receive a grant for production input as kickstart package (to be provided only for 2 seasons), equivalent to 60% for male adult, 80% for women and youth, and 90% for PwDs, of the cost of inputs for a maximum of 1ha in a production season, with the remaining balance due as the beneficiary counterpart contribution.

4.1.2 Implementation of Matching Grant for Production Equipment

Positive and Negative Lists for Equipment

The following activities are **eligible for equipment MG** under the Programme:

- a) power tillers;
- b) sprayers;
- c) weeders
- d) smart weather devices
- e) Urea Deep Placement (UDP)/Urea Super Granule (USG) Applicator for rice producers
- f) seed cleaning unit for certified rice seed producers;
- g) threshers
- h) reapers
- i) water pumps (especially solar powered)
- j) harvesters
- k) other simple hand-held farm mechanization equipment relevant to selected VC crops

The equipment would be assessed and approved by the relevant staff of the programme management, including Agricultural Production Specialist.

The negative list for equipment includes large size equipment and equipment NOT relevant for production of selected value chain crops.

Grant Limits – Thresholds for production equipment

For on-farm individual investments, each beneficiary will receive a grant for production equipment (to be provided only for a season), equivalent to 70% for adult men, 80% for women and youth, and 90% for PwDs, of the cost of equipment, with the remaining balance due as the beneficiary counterpart contribution.

However, for collective productive assets, Mixed Producer Organizations or SMEs will receive a grant from the programme for production equipment equivalent to 60%, and 80% for women/youth groups or micro-enterprises with the remaining balance due as the beneficiary counterpart contribution. The Programme contribution will be a **one-off contribution** for the purchase of the equipment.

4.1.3 Implementation of Matching Grant for Post-production Equipment

Positive and Negative lists for Equipment

The following activities are eligible for equipment Matching Grant under the Programme:

- a) Value addition technology equipment – grater, miller, hydraulic presser, dryer, pelleting machine, flash drier, rice parboiling plant, rubber roller, destoner and other context appropriate processing equipment relevant to the selected value chain crops.

The equipment would be assessed and approved by the relevant staff of the programme management.

The negative list for equipment includes large size equipment and equipment NOT relevant for post-production activities of selected value chain crops.

Grant Limits – Thresholds for post-production equipment

Mixed FOs or SMEs will receive a grant from the programme for production equipment equivalent to 70% for men, and 80% for women/youth groups or micro-enterprises, with the remaining balance due as the beneficiary counterpart contribution. The Programme contribution will be a **one-off contribution** for the purchase of the equipment.

4.1.4 Implementation of Matching Grant for infrastructure

Positive and Negative Lists for Production Infrastructure

The following *production infrastructure are eligible* for Matching Grant under the programme:

- a) Rainwater harvesting ponds for supplemental irrigation or off-season planting
- b) Small irrigation facilities (boreholes, tube wells, wash bores, and small earth dams)
- c) Land Development

The choice of irrigation facility to be developed largely depends on the potential water sources and will be made under the expertise and guidance of relevant programme staff.

The *negative list for production infrastructure* includes large irrigation facilities such as dams, and range land improvement

Positive and Negative lists for Post-production Infrastructure

The following *infrastructures are eligible* for Matching Grant under the programme:

- a) Post harvest storage & value addition
 - Market stalls with storage space and solar powered borehole water supply for human consumption and sanitation services
 - Aggregation/bulking facilities with solar powered borehole water supply for human consumption and sanitation services
 - Agro Processing facilities constructed or rehabilitated with solar powered borehole water supply for human consumption and sanitation services
- b) Rehabilitation of last-mile rural roads and drainage infrastructure including culverts, bridges, etc.

The choice of infrastructure to be developed, the design will be made under strict guidance of relevant programme staff, especially the Rural Infrastructure Specialist.

The *negative list for infrastructure* includes very large infrastructures

Grant Limits – Thresholds for infrastructure

The financing of agro-infrastructure subprojects would be in form of grants with the Programme contributing a maximum of 90% (disbursed in tranches, depending on the project cost, implementation period and capacity of the Cluster/FO) of the total cost of the subproject and the beneficiaries contributing a minimum of 10% of the total cost through up-front cash or in kind (provision of labour, materials, or both).

5.0 Group Equity Development

- a) To ensure sustainability of the production process, the Individual/FO is required to save 10 - 20% of sales from its production at the end of the first year. Such savings shall be deposited in an escrow account in a Financial Institution (FI)/FSA through which the Group or individual can access credit in future for expansion or diversification. The FI/FSA must be approved by the Programme Management to guarantee its authenticity. Private service providers, NGOs and other rural stakeholders will be encouraged to facilitate the link between the FIs and the Farmer/FOs to graduate after a maximum of 2 seasons, under the supervision of the relevant staff of the programme management, who will carry out periodic checks. Through this savings instrument, the farmers' groups would increase their

bargaining power and credit worthiness for securing credits, negotiating for inputs and services as well as stimulate market development.

- b) To ensure the sustainability of the supported enterprises, before the purchase of the equipment, the beneficiaries will be assisted to link with financial institutions through capacity building support, in order to open escrow savings accounts wherein not less than 20% of the replacement value of the equipment will be deposited annually throughout the lifespan of the equipment. Such savings shall be derived from the user fee charged to members and non-members of the beneficiary group. The money shall be used for maintenance and operation, and serve as collateral or equity contribution in accessing loans from FIs/FSAs for replacement of the equipment. Private service providers, NGOs, and other rural stakeholders will be encouraged to facilitate the link between FIs and the FOs/Enterprise Groups, under the supervision of the programme management. In addition, by linking the grant to a savings instrument, the FO/Enterprise Group would increase their bargaining power vis-à-vis equipment suppliers and stimulate market development.

6.0 Disbursement of Matching Grant

Matching Grants to recipients under the VCN shall be disbursed strictly according to the provisions in this section. Before disbursement to any Individual/Group/SME, the Programme Management must ensure that members have received training on the following: (i) appropriate procurement methods and rules; (ii) simple bookkeeping; (iii) opening and operating a bank account; (iv) safe maintenance and storage of materials; (v) procedures for environmental impact screening, and (vi) valuation of benefit-in-kind.

Annex 13.3b: Technical Note: FINANCIAL INCLUSION

INTRODUCTION

Financial inclusion can be described as the delivery and effective use of a full range of (formal) financial services at affordable costs to all (bankable) households and targeted small- and medium-scale companies, including the disadvantaged and low-income segments of society.

It is necessary for high productivity and gives rise to economic development of any nation. Financial Inclusion helps in assisting small holder farmers in raising funds for purchase of high -quality farm inputs, adoption of best practices in crop production as well as achieving an increase in their operational scale using modern farming techniques. It is against this backdrop that the VCN project considers this one of the thematic areas to be addressed with the demand for the following requirements to be met: a review of the existing financial inclusion strategies and relevant government policy documents relevant to financial inclusion in Nigeria; assessment of the existing financial inclusion infrastructure in Nigeria and identification of the gaps and areas of improvement with specific reference to the north of the country; assessment of the financial inclusion status of the project area beneficiaries and identification of how best they can benefit from the programme; assessment of the beneficiary financial literacy capacity needs/gaps and proposition of interventions that will address the same; assessment of other key players in the same space and lessons on how VCN could leverage and build synergies with them; identification of barriers and constraints that have been limiting the uptake of women, youth and marginalized groups to financial/digital financial products and services. Others are to: identify constraints and barriers in accessing formal financial services by MSMEs, propose sustainability approaches to be inbuilt into the programme interventions for continuity, and develop a roadmap and strategic interventions/instruments that will address the beneficiary's felt financial need.

METHODOLOGY

In meeting the requirements of this thematic area, the study used mostly secondary data obtained from past studies and documents published on the net. However, to complement the secondary data, primary information was also obtained from the target beneficiaries in the selected States in the north during the field trip with IFAD teams. Structured questionnaires were used to obtain the information. Descriptive statistics were used to analyze the responses obtained.

RESULTS AND DISCUSSION

These are presented along the line of the major activities pursued in this thematic area thus:

The existing financial inclusion strategies and relevant government policy documents on financial inclusion in Nigeria.

Financial Inclusion Strategies in Nigeria is developed into a document called National Financial Inclusion Strategy (NFIS 3.0). This document sets a target of 95% financial Inclusion for Nigeria by 2024. It aims to increase adoption and usage of financial services in priority demographics, ensure robust enabling financial services infrastructure, expand digital financial services and platforms and improve financial inclusion coordination, capacity, and governance. Under the National Financial Inclusion Strategy, it was agreed that focus will be on the vulnerable groups, which include smallholder farmers, women, rural dwellers, youths, Northern Nigeria and Micro, Small and Medium Enterprises

(MSMEs). The VCN project aligned properly with this in focusing on women, youths and the vulnerable in northern Nigeria.

The existing financial inclusion infrastructure in Nigeria and the gaps and areas of improvement with specific reference to the north of the country.

Both hard and soft infrastructure exist in Nigeria and the northern part to support financial inclusion. Hard infrastructures are tangible facilities used to support financial inclusion. The existing ones and their descriptions are presented in the table below:

S/N	EXISTING HARD INFRASTRUCTURE	DESCRIPTION/PURPOSE	IDENTIFIED GAPS/AREAS OF IMPROVEMENT WITH REFERENCE TO THE NORTH
1	Deposit Money Bank Branches	These are Branch offices of Commercial Banks from where financial services are delivered to customers. They play a crucial role in financial inclusion in Nigeria. Banks are intermediaries between depositors (who lend money to the bank) and borrowers (to whom the bank lends money).	Gap still exists in the development of diversified products that meet the needs of the various categories of the population in the North. The location gap is higher. The gaps between urban town and rural areas are high and the north has lower transaction intensity compared to the other parts of the nation.
2	Automated Teller Machine (ATM)	These are electronic banking outlets that allow customers to complete basic transactions without the aid of a branch representative or teller. The ATMs (some solar-powered) serve as a tool to drive financial inclusion: it offers efficiency and affordability for the financial institution, while helping consumers to improve their understanding and control of their financial matters.	Despite the growth, their locations are still concentrated in the urban centres creating a wide gap between urban and rural areas. The distance from their locations is still far for the vulnerable groups. Access by the vulnerable groups still very limited in the north
3	Microfinance banks/	Microfinance banks are private financial companies providing financial services on micro levels within the economy. They have emerged as a vital component of Nigeria's financial landscape, driving financial inclusion, promoting small business growth, and empowering rural communities.	In the north, their locations are still limited to the urban areas. They need to be extended into the rural areas as well. Gaps also exist in the development of diversified products.
4	Financial Service Association (FSA)	FSA is a form of Rural Finance which tends to combine the attributes of Investment Company, Microfinance and Community based financial outfit. The attribute in relation to Investment Company is its emphasis on capital and a high return on same. Being microfinance arrangement, its operations rest equally on its financing of small-ticket transactions on which interests' receivable are not capped. It is community based.	In the north, CASP has helped set up several FSAs in rural areas. They have filled the gaps due to the limited presence of classic financial institutions (i.e. banks) and microfinance banks in rural areas. VCN will strengthen the FSAs and enhance the link with larger financial institutions.
5	Nigeria National Information and Communication Technology Infrastructure Backbone (NICTIB) Project.	This is a connectivity facility. In a bid to bridge the connectivity gap across the country, the Nigerian government, through its public enterprise Galaxy Backbone Limited signed a commercial contract worth \$117 million with Huawei Technologies to commence the first phase of the Nigeria National Information and Communication Technology Infrastructure Backbone (NICTIB) Project	Gaps still exist in widespread access to rural areas in the North, thus excluding the vulnerable. The declaration of the Executive Director of Nigerian Communication Commission that the network gap has been reduced by 53.2% at the end of 2020 attests to this.
6	The Nigerian Inter-Bank Settlement System NIBSS	The Nigerian Inter-Bank Settlement System NIBSS is a private agency that provides real-time payment platform for facilitating inter-bank transactions. It ensures that all terminals used in the e-payment industry and all devices deployed in Nigeria would accept all	While Internet penetration is driving financial inclusion and development in rural communities, delays with interbank transfers have affected the trust of people in Internet banking. Due to poor or inadequate infrastructure, a high influx of transactions affects the performance of

S/N	EXISTING HARD INFRASTRUCTURE	DESCRIPTION/PURPOSE	IDENTIFIED GAPS/AREAS OF IMPROVEMENT WITH REFERENCE TO THE NORTH
		cards issued by banks and other licensed card schemes without discrimination. NIBSS ensures technical and operational standardization of all devices deployed in the financial system.	inter-bank transfers. This needs to be improved upon. The Nigerian House of Representatives had asked, last year, the Central Bank of Nigeria (CBN) to address delays arising from instant (inter-bank) electronic funds transfer services in Nigeria, especially in the north with a view to finding a lasting solution to the problem.
7	National Broadband Plan 2020 - 2025	This is a project in support of the refreshed NFIS, the National Broadband Plan 2020 - 2025 aims to improve telecommunication and data network coverage to at least 90% of the population, while the National Identity Management Commission (NIMC) and its global coalition led by World Bank 1D4D aimed to increase the number of persons with a National Identification Number (NIN) to 150 million by 2022.	Gap still exists in widespread access to the rural areas in the North, thus excluding the vulnerable. The declaration of the Executive Director of Nigerian Communication Commission that the gap in network has been reduced by 53.2% at the end of 2020 attested to this (Isaac, 2023).
8	Digital banks like Opay, Palmpay and Moniepoint.	These are platforms used to offer digital financial services. Platforms of organizations under the FinTech Association of Nigeria including mobile money and digital banks are greatly in use. To avoid inter-bank transfer challenges with traditional banks, many people opted for digital banks like Opay, Palmpay and Moniepoint.	Gap still exist in limited services and non-preferred services offered by digital banks, mostly payments, but no credit facilities
9	Mobile Money Operators	A Mobile Money Operator is a licensed mobile money service provider that develops and deploys financial services through mobile phones and mobile telephone networks. Mobile money is an electronic wallet service. This is available in many countries and allows users to store, send, and receive money using their mobile phone. The safe and easy electronic payments make Mobile money a popular alternative to bank accounts. It can be used on both smartphones and basic feature phones	In the north, gap still exists in usage as transaction intensity of mobile money accounts is still very low and needs to be scaled up.
10	Agent banking	Agent banking refers to the use of third parties for the provision of banking and other financial services to the public. It enables banks and other financial institutions extend their services to locations where they may not have physical presence. These agents can be individuals or businesses that are authorized to conduct transactions such as deposits, withdrawals, transfers, bill payments etc.	Gap still exists in the locations and there is need to address gaps in the agency network, as well as in the coverage of mobile and data networks which is currently estimated at 92.3% (Adepetun, 2023)
11	The Shared Agent Network Facilities (SANEF) Limited	The Shared Agent Network Facilities (SANEF) Limited (an initiative of the CBN, supported by the Deposit Money Banks (DMBs), NIBSS and Licensed Supe-Agents, serves as an enabler in the Financial Inclusion ecosystem in Nigeria, collaborating with various Stakeholders to expand the frontiers of Financial Inclusion which includes Agent Expansion, Financial Literacy, Public Enlightenment, Policy Advocacy and Technological Solutions for Products and Services to increase Agent Business viability and Agent	Access to the infrastructure is still very low at rural level and among the vulnerable, contrary to the expectation.

S/N	EXISTING HARD INFRASTRUCTURE	DESCRIPTION/PURPOSE	IDENTIFIED GAPS/AREAS OF IMPROVEMENT WITH REFERENCE TO THE NORTH
		Network sustainability. SANEF collaborates with partners to ensure Agents are present in all the 774 Local Government Areas to provide financial services to Nigerians by deepening financial inclusion	
12	Telecommunication Companies	These are companies that provide connectivity for communication. Most of them are now delving into mobile banking. Last year, the Central Bank of Nigeria (CBN) granted MTN the final approval to operate as Momo Payment Service Bank Limited (Momo PSB), allowing its Nigerian customers to create accounts, pay bills, send and receive money. Aside from MTN, other top telcos, including 9mobile and Glo, have launched mobile banks to bring financial services to their subscribers, especially in rural communities.	Network availability and access remains a gap in most of the rural communities in the north limiting operations that require network availability
13	Payment Service Banks	These are Digital Financial Services Banks that provide services through digital platforms. Payment Service Banks remain a high potential opportunity to directly deliver as well as to enable other players in the sector to deliver financial services.	A relatively progressive payment system infrastructure is in place; however, challenges remain in how far this payment system has been able to reach low-income and excluded communities and address concerns about the cost of digital transactions in the north. Further interventions will be made to expand availability of KYC services for low income and rural customers, ensure adequate consumer protection and responsible digital finance practices, and conduct financial education campaigns.
14	Capital Market	Capital markets are financial markets that bring buyers and sellers together to trade stocks, bonds, currencies, and other financial assets. Capital markets include the stock market and the bond market. The Capital Market mobilizes savings from surplus economic units for channeling into deficit units for the purpose of industrial and economic development. By carrying out these functions, the capital market plays an important role in promoting a nation's socio-economic development	Gap exists in the location of these infrastructures. They are mostly located in urban areas. Thus, the location gap is higher. The gap between urban towns and rural areas is high

The soft infrastructures are intangible programmes/schemes used in promoting financial inclusion. These are presented below:

S/N	SOFT INFRASTRUCTURE	REMARKS
1	<ul style="list-style-type: none"> ➤ Commercial Agricultural Credit Scheme (CACS) ➤ Refinancing and Rediscounting Facilities for SMES ➤ Small, and Medium Enterprises Credit Guarantee Scheme ➤ Micro, Small and Medium Enterprises Development Scheme Fund (MSMEDF) ➤ Anchor Borrowers Programme (ABP) 	These are all credit schemes targeted at providing credit facilities for various sectors of the economy
2	<ul style="list-style-type: none"> ➤ Agricultural Credit Guarantee Scheme (ACGS) ➤ Nigerian Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) 	These are insurance schemes designed to minimize risks associated with providing credits for agricultural projects thereby encouraging financial institutions to lend to agriculture.

The financial inclusion status of the project area beneficiaries and the best way they can benefit from the programme.

The project area beneficiaries are considered as marginalized people. This is because they are not privileged like other members of society in terms of income level, standard of living, access to modern facilities etc. Majority of them are far removed from access to appropriate financial services that can help improve their resilience and reduce their vulnerability to financial shocks. They are normally reported as being financially excluded. Our findings, however, is contrary to the positions reported in literature from past studies, probably because our respondents were mostly chosen from the State capital, and most of them are already members of Financial Service.

Financial Services Associations are types of Village Savings and Loans Associations (VSLAs): These are local bodies that organize and run savings and loan activities in rural areas or villages. They are easily accessible to vulnerable/marginalized groups and their services are within the reach and understanding of these categories of people. Integration of digital channels into their service delivery will be a veritable means of improving the financial inclusion of rural dwellers.

VCN will partner with FSA/other rural community FIs to enhance access to financial services (i.e. savings, working capital and asset loans, guarantees and risk-sharing facilities, insurance) in combination with the project’s capital grant for FSAs loan revolving funds for youth, women and other vulnerable target groups. FSA will be strengthened to increase their support to existing CDAs and to enhance the capacity of newly formed CDAs and FSAs. This will help increase the outreach of the project among poor SHF, advance the uptake of financial services, and scale up agribusiness among youth and women.

The Beneficiary Financial Literacy Capacity Needs/Gaps and the Interventions that will address the same

Financial literacy is the possession of the basic skills needed to manage income, keep debts under control, spend wisely, and invest for the future. The target beneficiaries lack this and need to be assisted to build capacity in these areas.

Provision of financial literacy education/training in both English and local languages and delivered through both physical and digital channels will be a good initiative to build their capacity. This initiative should have content that is tailored and specific to the identified needs and delivered through digital platforms. For example, the education content should be developed and sent to the mobile phones of the beneficiaries, who will be encouraged to listen to it at home and while on their project locations.

Other key players in the same space and lessons on how VCN could leverage and build synergies with them.

There are some key players working in the northern States that VCN project can leverage on. These are presented in the table below:

S/n	Key Player	Projects Implemented in same space	Activities carried out	Leverage by VCN Project
1	USAID	Advancing Nutrition Nigeria. The project is aimed at improving nutrition for a healthy, productive, and resilient Nigeria. It entails strengthening technical assistance and strategic nutrition integration to improve links between nutrition; health; water, sanitation, and hygiene; agriculture; family planning; and gender interventions. Also to support a cohesive and sustainable plan to facilitate increased coordination and collaboration and to generate evidence and test innovative approaches to improve nutrition programming and inform future program designs.	Promotion of the adoption of the community-based management of acute malnutrition (CMAM) in the country. CMAM is an approach where the majority of children diagnosed with severe or moderate wasting without medical complications can be treated in the home using ready-to-use foods in paste form, such as the RUTF (ready-to-use therapeutic food), and RUSF	One of the major focuses of the VCN project is on nutrition. Thus, IFAD can leverage and synergize with this project by adopting this method of addressing malnutrition to successfully implement the proposed project.

			(ready-to-use supplementary food).	
	GIZ	<p>1. Digital Transformation Centre Nigeria: Fostering innovative and economic growth is a project implemented by GIZ to digitize the nation's economy in order to achieve growth</p> <p>2. AgFIN: Islamic Finance for Smallholders and Agri-based Enterprises in northern Nigeria is a partnership project between Jaiz Bank and GIZ AgFin project to build a bridge linking the agricultural and financial sector by providing demand driven advisory and facilitating access to suitable financial services.</p>	<p>Public and private service providers and consultants were empowered by the project to support MSMEs with their digitalization efforts.</p> <p>2 To ensure proper implementation and risk management, staff of the partner bank was trained in agricultural financial product design. For example, financing farmers and processors needs to be aligned with their cash flows. While input financing for farmers follows a balloon structure, processors repay per quarter. The bank decided to adjust the cost-plus financing scheme for agricultural clients, both farmers and processors. This method reduced the approval process and time for agricultural facilities. The bank staff now successfully negotiates with input suppliers, which greatly reduces the cost of production. E.g. rice farmers under this save between 10 and 14% - compared to buying seeds on the open market."</p>	<p>1. VCN project has a digitalization component and can leverage this project by encouraging the beneficiaries of VCN project to adopt the digitalization packages promoted by GIZ.</p> <p>2. Since access to financial services is part of VCN project, VCN project can train the partner financial institutions and the farmers in financial product design and literacy, as done in this project by GIZ and JAIZ Bank.</p>
	The Propcom+ program	<p>The Propcom+ program was announced last August by the UK's Foreign Secretary, James Cleverly, as part of the UK International Climate Finance program aimed at supporting climate-resilient and sustainable agriculture and forestry that benefits people, climate, and nature.</p> <p>The eight-year programme, which kicked off in May 2023 is implemented by The Palladium Group and is currently in its inception phase till January 2024. The programme has initial focal states in Kano, Jigawa, and Kaduna in the North West, and some states in the North East to address critical issues around animal health vaccination, bio-fortified and climate-smart crop variety, innovative and digital financial services, ICT-based tools for extension and climate-smart agricultural technologies/innovations.</p>	<p>The project adopted the Making Markets Work for the Poor (M4P) strategic framework, among others and provided access to: 1) agricultural machinery, (2) access to fertilizer for smallholders, (3) mobile banking to increase access to financial services, (4) rice parboilers to increase quality of rice in order to facilitate growth and alleviate poverty in Nigeria by improving performance of agricultural market systems.</p>	<p>This is one project that VCN can leverage on and synergize with. Some aspects of the project align with VCN project and it will be beneficial and supportive for the success of VCN project if farmers are provided access to: 1) agricultural machinery, (2) access to fertilizer for smallholders, (3) mobile banking to increase access to financial services, (4) rice parboilers to increase quality of rice under the VCN project</p>
	OLAM GROUP	<p>The seed for the Future Foundation which focuses on supporting farms and farmers, strengthening local wheat production, ensuring wider education and skills development for young people, empowering women in farming communities and promoting health and nutrition across the country.</p>	<p>As part of initiatives for women empowerment OLAM launched a baking academy in Kano state to train and deepen women's participation in the country's economy. The academy is an empowerment initiative that is meant to equip women</p>	<p>Women under the VCN can receive training in baking at this academy as part of the food processing package. Successful implementation by women and young people in agricultural</p>

			with baking skills and enhance their earnings while enabling them to contribute meaningfully to their communities and the national economy.	activities was achieved in this project and it provides valuable lessons that VCN can leverage on and synergy can also be built with this organization because of similarities in some aspects of the project with the VCN.
	DFID UKAID / FCDO	DFID FCDO-funded LINKS – Powering Economic Growth in Northern Nigeria programme. This project supported the development of a vibrant and diversified economy in the three key northern Nigerian states of Kano, Kaduna and Jigawa. The front-line components of LINKS activity are (1) investment promotion and facilitation and (2) private sector innovations that increase competitiveness, productivity and transformational economic inclusivity. Two further supporting components address (3) business environment challenges impacting investment and innovation, and (4) Monitoring and Evaluation (M&E). Ultimately, the programme focused on increasing incomes and creating jobs for the poor in Northern Nigeria. LINKS work across high potential pro-poor value chains, supporting them to become productive, competitive and attractive for investment, and then encouraging actual investment into them.	The project designed and delivered online training on disability inclusion and a disability inclusion guide tailored to LINKS areas of activities and to the context of North Nigeria. Also, the project provided technical assistance to domestic large and small and medium enterprises in accessing finance to grow their businesses, establish new operations in northern Nigeria or reach export markets. This has included the facilitation of access to finance for over 340 micro, small and medium enterprises between 2021 and 2022. So far, this has facilitated over £14m in investment and working capital finance. <ul style="list-style-type: none"> • Also supported the strengthening of local actors such as investment promotion agencies to create an enabling environment in which to promote investment into LINKS priority states. 	VCN project can leverage this by sourcing beneficiaries or value actors from among the enterprises assisted by this project. The practice of assisting beneficiaries to assess finances etc can also be adopted as done in this project. Investment promotion and facilitation and private sector innovations that increase competitiveness, productivity and transformational economic inclusivity are components of this project that align with VCN project and beneficial synergy and leverage can be achieved with this project.
	NOTORE Fertilizer Distribution project	Notore initiated this project to assist impoverished farmers in remote areas with limited access to quality fertilizers. The project aimed to educate small-scale farmers on appropriate fertilizer application methods and provide them with affordable pack sizes.	They recruited and trained 180 unemployed youths as Village Promoters in the target communities to implement this project. Their responsibilities included training farmers through practical demonstration plots and promoting the sales of affordable 1kg pack fertilizers. They recruited and trained 180 unemployed youths as Village Promoters in the target communities to implement this project. Their responsibilities included training farmers through practical demonstration plots and promoting the sales of affordable 1kg pack fertilizers.	VCN project can leverage this in the supply and provision of fertilizers for beneficiaries under the new project.

Lessons Learnt are presented below:

S/n	Lessons Learnt	Note
1	The right use of the matching grant should be promoted	In line with the IFAD's Inclusive Rural Finance Policy, matching grants should be used in combination with asset subsidies, matching grants, technical assistance on production and market access, value chain development, public and private infrastructure development, and other interventions to develop sustainable climate IRF markets in developing Member States ⁶⁷ . Matching grant should be used properly to ensure that it supports the business plan, and that the user is trained to use it, to enhance their productivity production and profitability. There must be monitoring of the use of the matching grant. The matching grant should serve as a steppingstone to connect farmers to the financial sector through opening of accounts, savings, and receiving payments in the accounts to establish a track record or revenue. Also to build a relationship between them and the Fis. Prior and post review and control as well as participatory approach help minimize the risk of elite capture. The MG should provide also an opportunity for FI's to improve the knowledge of farmers needs in order to design and deliver services that are more tailored
2	The right set of participants should be used	It is important that the right participants be chosen for projects to ensure commitment that will lead to success
3	Neutrality of project sponsor to all the stakeholders	This is necessary to have more open participation and discussion from all stakeholders

Barriers and constraints that have been limiting the uptake of women, youth and marginalized groups to financial/digital financial products and services.

The following are the barriers and constraints that limit the uptake of financial /digital financial products and services by women, youth and marginalized groups

S/N	BARRIERS	NOTE
1	Socio-economic status of the women, youth and the marginalized people	These relate to issues like income level, literacy level etc as they concern this category of people. They normally have a lower income, education level, which limit their participation in financial inclusion
2	Cultural, social or religious norms.	These are factors relating to people's ways of life and belief systems. Some of them are adverse and discriminatory to women, youth and marginalized people, affecting their participation in financial inclusion
3	Technological factors	These are factors that touch on issues like the use of modern gadgets, networks. Etc

Developed Roadmap and strategic interventions/instruments that will address the beneficiary's financial needs.

The roadmap is based on these two pillars: Capacity building and Financial Empowerment.

Proposed Strategic Instruments to achieve the first pillar-Capacity Building

- Skill Training Programme:

A need based customized capacity-building programs that caters for the unique needs of women and challenges faced by different groups across the northern areas should be part

⁶⁷ IFAD Inclusive Rural Finance Policy 2021. Page 7, paragraph 19

of the project. These programs should be culturally sensitive and designed to empower women both economically and socially to improve their means of livelihood. The focus is vulnerable women, youths, and marginalized people in the northern States.

- **Mentorship Programme:**

This should be established as part of the project at the grassroots level to connect experienced women/youth leaders with emerging project beneficiaries. This peer-to-peer support system will provide guidance, motivation, and a platform for sharing experiences and knowledge.

- **Digital Messaging Platform**

A customized digital financial education message for the beneficiaries in their native languages should be incorporated into the project and this is to be delivered through the beneficiaries' mobile phone. The content should be tailored and specific to the identified needs and delivered through a digital platform. Example, the education content should be developed and sent to the mobile phones of the beneficiaries, who will be encouraged to listen to it at home and while on their project locations.

- **Partnership and Collaboration Programme.**

This is another instrument to be employed to build the capacity of the beneficiaries. VCN will need to collaborate with national and international organizations to integrate gender-sensitive curriculum and training modules that empower women and youths with skills for their personal growth. The project should partner with key stakeholders and adopt the Train the Trainer model to further cascade information to beneficiaries across the affected states.

Implementation Plan for pillar 1-Capacity Building

The implementation plan for pillar 1 is presented below:

Plan	Activity	Action	Responsibility
Beneficiaries' training need assessment	Conduct a thorough need assessment to identify the specific skills, knowledge, and empowerment gaps among beneficiaries in different communities	This will be done by gathering a baseline data on current levels of education, skills, and awareness among target groups	IFAD and Consultants
Stakeholder Engagement	Engage with women's organizations, NGOs, community leaders, educational and institutions	The objective is to establish partnerships that will leverage expertise, resources, and support.	IFAD and Consultants
Skills Training Programs	Implement targeted skills training programs that align with the needs of beneficiaries' skills in financial literacy	This will be achieved by offering workshops, training sessions, and practical hands-on experiences.	IFAD and Consultants
Mentorship and Coaching Programs	Establish mentorship and coaching initiatives to provide guidance, support, and role models for beneficiaries	Select stakeholders and successful beneficiaries to form a round table discussion on related issues.	IFAD and Stakeholders
Digital Messages Platform	Create digital financial messages and record them	This will be achieved by engaging media practitioners to develop the messages	IFAD
Networking and Peer Support	Create networking opportunities for beneficiaries to connect, share experiences, and support each other's growth.	Establish beneficiaries' forums, groups, and mobile phone platforms for ongoing interaction	IFAD
Evaluation and Impact Assessment	Develop a mechanism to assess the impact of empowerment programs on beneficiaries lives, economic status, and overall well-being.	Use feedback to continuously improve program effectiveness.	IFAD
Resource Allocation	Allocate budget and resources for the design, implementation, and evaluation of these initiatives	Provide funding	IFAD

Documentation and Knowledge Sharing	Document success stories, best practices, and lessons learned	Share this knowledge with stakeholders, partners, and the wider community	IFAD and Beneficiaries
Scaling Up and Sustainability	Explore strategies to scale up to reach larger population.	Develop plans for sustaining initiatives beyond initial implementation.	IFAD and Beneficiaries

PILLAR 2. Financial EMPOWERMENT

Financial support for farmers organizations and producers' groups, and other beneficiaries of the project is necessary to help them maintain solvency and liquidity needed for the project. Two components are contained in this pillar. These are:

- ✓ Loans
- ✓ Grant

Loans: This component focuses on providing the beneficiaries with soft and starter pack loans that will enable them to meet the requirements for the implementation of the VCN project package.

Grant: The grant component will serve to address the limitations of the marginalized and less privileged beneficiaries ability to take up the project and advance to the stage of loan utilization.

Proposed Strategic Instruments to achieve the second pillar

- Credit Scheme:

A beneficiary-friendly credit scheme that caters for the financial needs of women and youths with respect to the VCN project will be part of the project. The scheme will disburse the credit both in kind and cash depending on the peculiarities of the purpose. At the village level, in the absence of commercial banks or MFIs, community-based Financial Institutions will be the strategy to reach out to rural farmers.

- Grant Scheme

This component will provide funds for the marginalized and less privileged beneficiaries who may not be able to raise anything reasonable on their own to participate in the project. They are expected to graduate from the use of grants to access the credit component.

Since majority of the rural dwellers, most especially women, have been financially excluded hitherto, there is a need to adopt a graduation approach in which members of savings and credit groups are trained through financial education programmes to increase their financial literacy and management capacities. Members who receive financial education become financially literate and can open a savings account with a formal FI and use it to leverage their savings to get access to larger loans.

At this stage, the local groups may be used by formal MFIs to increase their outreach to rural people and broaden their savings base.

These relatively less mature farmer organizations (FOs) are to be further supported with Grants in the credit arrangement.

For more mature FOs, the use of Grant is not recommended, so as to prepare them for sustainability after the intervention programme, as dependence on grants limits the knock-on effect on access to and use of credit.

VCN will provide Matching grants for Climate Smart and environmentally friendly production, processing, value addition inputs, equipment and infrastructure for the beneficiaries. This will help mitigate climate and environmental risks, strengthen resilience and reduce impacts while simultaneously improving the adaptive capacity of the beneficiaries for improved productivity, production, income and food security.

The financing instrument to be adopted will be the Producer-Public-Private Partnerships (4P) using banks and MFBs for a wider reach.

In addition, two other de-risking instruments that could help to reduce the financing cost for farmers will be mobilized in the project design. One is the use of partial credit guarantee funds to cover some of the possible losses for FSPs. A partial credit guarantee fund is a de-risking incentive to encourage participating FSPs to lend more of their own resources to agriculture, especially smallholder agriculture. The second is the range of insurance products (weather index, area index and multi-peril crop and/or livestock insurance, etc.) that are perceived as financial risk management solutions.

Producer-Public-Private Partnerships (4P)

Facilitating access to finance, for example value chain finance, through the 4P approach, securing market access.

Producer-Public-Private Partnerships, also known as Producer-Driven Public-Private Partnerships, are collaborative arrangements between public and private sector entities with the goal of promoting economic development and addressing social issues.

A matching grant as an incentivizing tool is used to facilitate partnerships between players along the value chain and to support the inclusion of smallholders. The private sector off-takers that source directly from farmer organizations are interested in expanding their supply base and strengthening their supply chain. The focus is very much on connecting farmers to potential buyers, but also to the market. This approach, which seeks to engage the downstream private sector (processors, agribusinesses and buyers), is geared towards securing a sustainable access to the market for farmers through incentivizing buyers to commit in the long term.

From a simple short-term contract between producer and buyer, smallholders have access to finance through matching grants that can contribute to the costs of investment subprojects to support a one-off arrangement with agribusiness firms and off-takers. There is no particular focus on sustainability; it is expected only that the contract will be subsequently renewed if it goes well.

But in the case of the 4P, the partnership is not based only on a simple contract; partners share a co-investment (usually referred to as a public-private-producer partnership [4Ps]) in which each party has a stake and an interest in positive outcomes. It is thus supposed to be built to last beyond the initial contract. Under such a scheme, private companies also benefit from grants from the project along with the FOs to support the implementation of the partnership.

Implementation Plan for Pillar 2-Financial Empowerment

The implementation plan for pillar 2 is presented below:

Plan	Activity	Action	Responsibility
Beneficiaries' financial needs assessment	Conduct a thorough need assessment to identify the financial needs of the beneficiaries in different communities	This will be done by meeting the beneficiaries to identify their specific financial needs among target groups	Project
Stakeholder Engagement	Engage with financial institutions and financial service providers.	The objective is to establish partnerships that will leverage on expertise, resources, and support.	Project
Credit Scheme	Implement the targeted friendly credit scheme that meets the beneficiaries' financial needs	This will be achieved by engaging financial institutions and service providers with experience in credit delivery at the rural level.	Project
Grant Scheme	Implement a grant package to provide financial support for beneficiaries	Set aside certain percentage of the project fund to serve this purpose	Project
Access to Financial Resources	Collaborate with financial institutions to facilitate beneficiaries' access to credit, loans, and financial resources.	Provide loans and grants for disbursement to beneficiaries	Project

Evaluation and Impact Assessment	Assess the performance of the credit scheme	Use feedback to continuously improve the scheme's effectiveness.	Project
Resource Allocation	Allocate budget and resources for the design, implementation, and evaluation of these initiatives	Provide funding	Project
Documentation and Knowledge Sharing	Document success stories, best practices, and lessons learned	Share this knowledge with stakeholders, partners, and the wider community	Project
Scaling Up and Sustainability	Explore strategies to scale up to reach larger population.	Develop plans for sustaining initiatives beyond initial implementation.	Project

A Value Chain Financing Model through 4Ps Strategy is proposed for the financing of the beneficiaries under the project. This will include both credit and grant components. A graduation process will be employed to serve the different categories of beneficiaries involved.

Partnerships will be established with financial institutions, which will be selected based on criterissuch as network of branches in the north, level of NPL ratio in relation to the industry benchmark etc.

Based on the characteristics of the beneficiaries, different approaches will be adopted for financing them. Additional study will be done to develop guidelines for facilitating a strong linkage between FSA and Fis and for promoting the financing of marginalized and disabled beneficiaries.

Annex 13.4: Technical Note: MONITORING AND EVALUATION AND KNOWLEDGE MANAGEMENT

Strategic Planning

M&E System. The VCN M&E System will outline the concepts, tools, and process that will be used by the project M&E function. The overall System will define what needs to be measured (IFAD COIs and project level indicators) and what will need to be produced (relevant data to be processed as information for key decision-making. Additionally, the VCN M&E System will provide data and feedback and answer the following: (i) effectiveness – is the project being implemented according to the PDR and are the indicator objectives being met? (ii) efficiency - how are the inputs (activities) being converted to results? (iii) relevance - is the project consistent with beneficiaries' needs and priorities?

M&E Plan. Ultimately, this system will be operationalized with the development of a thorough M&E plan that will define these operational details throughout the project document and will serve as a living document to guide the core M&E functionality of planning, tracking and assessing results. The M&E plan will include, but not limited to the following; (i) a description of the M&E approach; (ii) thorough details of the processes and activities to be implemented; (iii) the tools to be used for data collection and processing (iii) indicate the deliverables to be produced and; (iv) define the responsibilities. Moreover, it will provide the necessary data collection forms, report templates, the progress report outline, survey terms of reference (ToRs) and questionnaires. The National Project Management Unit (NPMU) will leverage the current implementation experiences of past and current portfolio projects to develop the M&E plan and ensure that it is validated at start-up. This will ensure a smoother process to transitioning to VCN implementation in the early stages. A guideline of development of an M&E Plan has been provided in the annexes.

MIS. Another key component that will feed in the VCN M&E System and will be the core basis for planning, data collection and reporting at the field level will be the Project Management Information System (MIS). VCN will develop standardized data collection and reporting templates that will allow data collection through digital mobile data collection applications (through tablets) to improve the efficiency and timeliness of data collection and reporting. The MIS will have a digitized logframe and also a project results framework that will capture additional indicators important at Project Level and to other stakeholders. It will also have a digitized beneficiaries database that will link each beneficiary to the all support provided to them. Furthermore, specific standardized output data collection templates from FOs and other implementing partners will need to be developed and digitized into the MIS. It will be important for the NPMU to develop these data collection templates in the early stages (within 6 months) for them to be available for migration in the MIS, when it is developed. In addition, the MIS will have the capabilities of having innovative GIS application where a geodatabase with spatial data on beneficiaries and interventions will be collected and allow the creation of different layered maps. These maps will be giving visual spatial presentations of analysis of interventions to stakeholders.

An example of the proposed MIS approach and reporting can be seen in the Figure below.

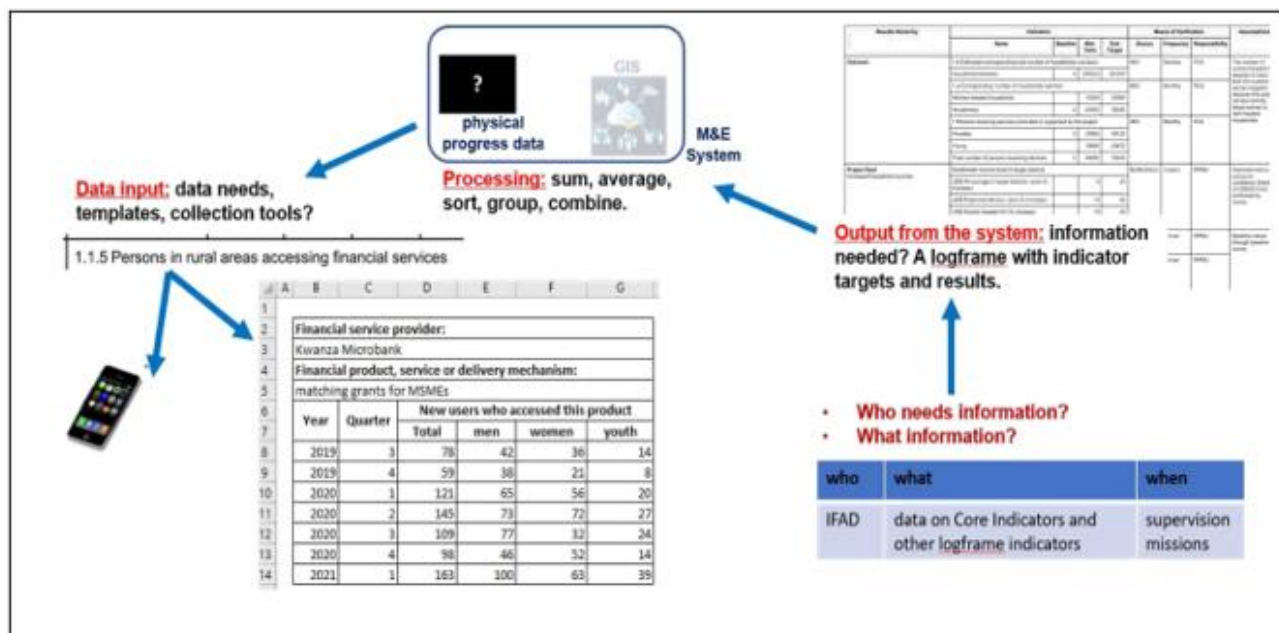


Figure 12: MIS Design

To achieve this, VCN will recruit an MIS Developer to conduct the following: (i) develop an MIS for M&E with GIS integration; (ii) create an MIS and GIS operations manual; (iii) train VCN teams on its use; and (iv) conduct routine maintenance on the MIS and GIS software as allocated in the cost tabs.

Planning and Reporting.

Planning. VCN planning will be a participatory process guided by the project's strategy, Theory of Change and logframe, which will inform the development of annual work plans oriented towards planned outputs. The AWPB will follow the fiscal year, as per planning systems in Nigeria. AWPBs will be cleared by the Project Steering Committee and sent to IFAD 60 days prior to the end of each project year for No Objection. The AWPB will be prepared in the format described in the IFAD guidelines for AWPBs by the States and National Project Management Unit with substantial participation of other implementing partners. Each AWPB shall include a detailed description of planned Project activities by component, sub-component and activity, and a procurement plan for eighteen months. The NPMU will establish the funds available for the AWPB for a particular year as per cost tables. Below are samples of the annotated AWPB Outline and Activity Workplan and Budget that the VCN will follow.

<p>1. Introduction 1 . 1 Project outline 1 . 2 The annual planning process</p>	<p>A brief summary of the project, as a reminder for people who do not deal with it on a day-to-day basis; and a brief description of the planning process (steps, stakeholders, sources of information).</p>
<p>2. Implementation progress and performance 2 . 1 Overall performance 2 . 2 Progress by component</p>	<p>A brief summary of where the project is in terms of its targets.</p>
<p>3. Project strategy and focus for the coming year 3 . Constraints, lessons learned and strategic focus 3 . Summary of planned activities 2 by component</p>	<p>Description of any shift in focus or strategy, based on past experience or external changes. Also, a narrative description of the main activities under each component.</p>
<p>4. Consolidated annual budget</p>	<p>The total budget for the year, with budget summary tables (by component, category, source of funds, etc.)</p>
<p>Annex 1. Updated logical framework</p>	<p>The logical framework with indicators, targets and up-to-date results information</p>
<p>Annex 2. Activity and budget details by component</p>	<p>Tabulated activity details (what, when, by whom, quantities, cost)</p>
<p>Annex 3. Procurement plan</p>	<p>Details on procurement items and methods</p>

Figure 13: Annotated Sample AWP

Activity	Code	Description	Indicator	Unit	Qty.	Resp.	Schedule				Cost	Expenditure				Financier		
							Q 1	Q 2	Q 3	Q 4		category	I	II	III	IV	IFAD	Gov.
Component 1																		
Subcomponent 1.1																		
Output 1.1.1																		
Activity																		
Activity																		
Activity																		
...																		

Figure 14 Sample Activity Workplan and Budget

Reporting. The reporting structure of VCN will similarly follow the reporting arrangements for IFAD-funded projects in the portfolio. In terms of M&E, standardized progress reporting templates will be developed for the following: (i) FOs, Groups, Implementing Partners (tailored to each), States and LGAs. All reporting templates will be digitized in the MIS to allow digital data collection at field level. As per the Project Annual Report, the NPMU will develop a template that will consolidate planned activities and results to report to the National Coordinator, the Government of Nigeria, IFAD and AFD to provide evidence-based strategic guidance in the decision-making process. In addition, the Annual report will also provide the following, but not limited to, annexes: (i) updated logframe and project-level results framework; (ii) detailed financial report; (iii) physical progress measured against AWPB; (iv) actions on previous supervision mission; (v) GIS Maps showing spatial locations of interventions. To provide more guidance, the figure below provides a sample Annual Report outline.

Annual Report	
<ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> 1.1 Project outline 2. Summary of implementation progress to date <ol style="list-style-type: none"> 2.1 Physical/technical progress summary 2.2 Financial progress summary 3. Implementation progress by component <ol style="list-style-type: none"> 3.1 Component 1. 3.2 Component 2. 3.3 Component 3. 4. Performance assessment <ol style="list-style-type: none"> 4.1 The project environment 4.2 Implementation performance and constraints 4.3 Stakeholder feedback and lessons learned 4.4 Project outcomes and impact 5. The way forward 	<ol style="list-style-type: none"> Updated logframe Annex 1. Detailed financial report Annex 2. Physical progress based on the AWPB Annex 3. Procurement and contracts Annex 4. Action on supervision mission recommendations Annex 5. Detailed AWPB-based progress review Annex 6. Maps showing project interventions

Data Flow Design. The flow of information with the several different stakeholders will be important as it will allow the NPMU and its M&E function to understand the flow of information and what is the expectation from each stakeholder. The development of a flowchart will also be important to all other stakeholders for them to know what is required from them in Project implementation.

Core Outcome Indicator Surveys and Assessments

As per the IFAD requirements, VCN will be required to conduct surveys at baseline, mid-line and endline for all outcome indicators. In particular, the Project will contract an external Evaluation Consulting Firm to conduct the surveys in line with the mandatory IFAD COI guidelines and methodologies. The COI guidelines and online video trainings can be found on the following links:

- COI guidelines: https://www.ifad.org/documents/38714170/42870514/coim_guidelines_e.pdf/bed6993e-1a1a-6683-bd3c-6fc9bb0e5aac?t=1619708052741
- COI appendices of Questionnaires and Survey ToRs: https://www.ifad.org/documents/38714170/42870514/coim_guidelines_appendix_e.pdf/9982a2d3-e38f-5b88-e0f7-81baf5e509a0?t=1619708054014
- COI training video modules: https://www.ifad.org/en/web/knowledge/-/core-outcome-indicators-measurement-guidelines-coi-online-training?p_l_back_url=%2Fen%2Fweb%2Fknowledge%2Fe-learning

Survey Methodology. It essential for the whole VCN team to learn and thoroughly understand the COI guidelines and the provided tools are key for this learning process. For the survey questionnaire design, the COI appendices are the most important resource as these is where all questions of each indicator must be derived from and should be contextualized appropriately to the Project Interventions. It will be important and more effective for the Project to conduct the surveys on the same sample throughout baseline, mid-line and endline; if feasible. Furthermore, the sample will contain the treatment and control groups where the treatment are those beneficiaries who are accessing support and the control group are those that have not received any VCN intervention, either directly or indirectly. This will be important data when conducting a comparative analysis to ascertain attribution of VCN interventions in the survey reports at mid-line and endline.

VCN Logframe COIs. Regarding Core Outcome Indicators, the VCN team and the chosen Evaluation Consulting Firm will review COIs in the logical framework to document the indicator definitions and means measure as per the guidelines, before the survey. This will ensure that the indicators are being captured correctly in the VCN M&E MIS and also in the Survey's. Along with the project-level outcome Indicators, the following IFAD Core Outcome Indicators will be measured to ensure proper reporting for IFAD in at the Global level:

- 1.2.8 Women reporting minimum dietary diversity (MDDW)
- SF.2.1 Households satisfied with project-supported services
- SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers
- IE. 2.1: Individuals demonstrating an improvement in empowerment
- 2.2.1 Persons with new jobs/employment opportunities
- 3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices
- CI 1.2.2: Households reporting adoption of new/improved inputs, technologies or practices
- CI 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities
- 2.2.6 Households reporting improved physical access to markets, processing and storage facilities
- 1.2.5 Households reporting using rural financial services
- 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities

The quantitative survey will be taken for these core indicators strictly following the guiding questions in the appendices. In addition, Policy Core Outcome Indicator - Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment, will be through a stakeholder qualitative survey within the evaluation as outlined in the COI guidelines.

Project M&E Plan. As outlined in an earlier section, VCN team will develop an operational/procedural Project specific M&E Plan for Project use. This will be a 'living' document that will guide how M&E will be conducted throughout the Project implementation period. This development will be led by the VCN National M&E Officer with close collaboration from the entire National and State Project Management Units and inputs from CPAT and the PSC. Development of the M&E plan will not be contracted out as it defeats the purpose of M&E ownership of the Project team. The VCN National M&E Officer and the NPMU Coordinator and component technical leads must first analyse and interpret the PDR and the ToC. This will allow them to check whether the necessary M&E activities are included and resources are adequately budgeted; and also, will allow them to solidify exactly how Participatory M&E will work under VCN. The draft M&E Plan is to be developed at Start-Up and final within 6 months of implementation. This will allow smoother implementation of M&E, in the early stages. IFAD OPR have recently developed a guideline

with an outline of an M&E Plan of which the VCN will use as they develop the Project Specific M&E Plan. This is attached as Appendix 1.

Development of a Project Outputs Results Management Framework

In addition to the logframe, VCN is recommended to develop a broader project level outputs results management framework to measure output indicator that will also be digitized in the MIS. The rationale to develop such a results management framework stems from lessons in previous projects where there have been challenges in reporting specific requested output indicators that are not in the logframe but are part of the overall stakeholder's interest. This additional framework will support to capture the following: (i) improve the standardization and reporting of the broader project output indicators; (ii) allow additional important country-specific and project level output indicators to be captured in the M&E-MIS; and (iii) provide VCN the opportunity to add project level disaggregation's to IFAD COIs that may not be captured in the IFAD ORMS. This responsibility will be for the VCN National M&E Officer. At start-up, the NPMU will coordinate and work with the entire VCN teams at all levels to add relevant project and country level output indicators in the results management framework. In addition, they will decide on the yearly targets of all the identified indicators in the results management framework. The following are very few of some of the of the additional output indicators that were identified at design that can be incorporated in the project level results framework:

- 1.1.7: Persons in rural areas trained in financial literacy and/or use of financial products and services
- Number of persons accessing digital extension services to increase production and productivity
- 3.1.1: Number of groups supported to sustainably manage natural resources and climate-related risks
- CI 2.1.3: Rural producers' organizations supported
- Policy 1: Policy-relevant knowledge products completed

It should be highlighted that this list is not exhaustive and the Project should add important Country level output indicators that are relevant to VCN interventions contributing to the achievement of the Country level outcome indicators. Furthermore, the outputs results management framework will be, firstly designed in excel and then migrated to the MIS after finalization.

Glossary of VCN IFAD Core Indicators' definitions

Lessons from previous and current project data reporting has shown evidence that the M&E and Implementation teams require further capacity in fully understanding the definitions of IFAD Core Indicators that are in the logframe. Indeed, the IFAD Core Indicators guidelines provide the general indicator definitions of what can and cannot be captured pertaining to the indicator. However, it is important to contextualize the definitions to align with the project development objectives, the ToC and interventions. With this, VCN will ensure that all Project Staff and Implementing partners understand what they need to capture when conducting routine monitoring of activities. This will be done through providing continuous capacity to implementation teams on contextual definitions of the Project Core Indicators.

A guideline to the Project indicator definitions can be found in Appendix 2. As the PIM is a 'living document', the VCN team will require to review these definitions and add further details at project start-up. This session will be important because it will ensure that all component teams understand what they will need to capture. Moreover, these definitions will have to be digitized and linked to each indicator in the Management Information System. This linkage will also allow the Officers and implementing partners capturing data

at the field level to validate the outputs being captured are aligned with the VCN indicator definitions.

This glossary of core indicator definitions will also be important for Service Providers who will be contracted to conduct the baseline, midline and endline COI surveys. A glossary of elaborated project core indicator definitions can support in the understanding of what needs to be captured and what questions need to be contextualized in the IFAD COI questionnaires.

KNOWLEDGE MANAGEMENT, COMMUNICATION AND LEARNING

Knowledge Management (KM) will be an integral part VCN to ensure that Project implementation is a continuous learning process in which evidence-based data will continuously be collected on innovations, technologies and will be analysed, disseminated as KM Products that will mainly target beneficiary adoption of improved practices and policy influence. The VCN KM function will be complemented by, (i) M&E Management Information System (MIS, routine field M&E visits and thematic studies) on policy-level KM Products (policy, briefs, strategies, working papers), (ii) beneficiary success stories; (iii) training manuals on technologies; and (iv) lessons learned. The foundation of VCN Knowledge Management will depend on the development of an Integrated Knowledge Management, Communication, and Visibility Strategy that will guide the VCN team in improving Project performance and results through the following: (i) enhanced learning; (ii) sharing and communication; (iii) using communication strategically and systematically to reach and engage different stakeholders, key implementing partners and District Facilitation Teams, to fulfil the Project goals and development objectives through established feedback mechanisms.

Communication will be a key part of the integrated KM Strategy that will outline specific activities on how information is to be obtained, analysed, and disseminated. The plans to support each aspect of the Integrated Knowledge Management, Communication, and Visibility Strategy will be integrated in the Project's AWPB. Due to budget challenges in KM in previous mission, it was important to ensure that KM is adequately allocated. Specifically, the following key activities will be part of VCN KM, Communication, and Visibility implementation: (i) upgrading the SPIU website to develop an integrated and KM and Communications portal; (ii) recruitment of consultants to support in producing and publishing high level KM products; and (iii) development of visibility products of the IFAD-funded interventions. Moreover; The KM strategy shall include an outline how knowledge will be disseminated using, but not limited to, the communication channels. Effective communication at all stakeholder levels (especially direct beneficiaries and policy-makers) will be critical to beneficiary learning and adoption of innovative practices, and policy influence at the National level. Moreover, VCN will leverage the expansion of the IFAD South-South and Triangular Cooperation (SSTC) initiatives in Nigeria through the support of the IFAD Country Office. SSTC initiatives help IFAD 'double and deepen its impact by identifying and disseminating knowledge and innovations, and supporting policy engagement to enhance poor rural people's productive capacities, market access and resilience.' This will mainly be done through close project collaboration with SSTC grants within the portfolio and fostering exchange visits and lessons learned.

Appendix 1: M&E PLAN OUTLINE

Introduction

- Explain what an M&E plan is and describe its purpose:

The M&E plan operationalizes the M&E system and spells out all the necessary operational details, ensuring smooth and proper functioning of the M&E system. Its purpose is to define how M&E will be conducted throughout the project period. It includes a description of the M&E approach, details the processes and activities to be carried out, describes the tools to be used for data collection and processing, indicates the deliverables to be produced and defines responsibilities. It provides all the necessary data collection forms, report templates, the progress report outline, survey TORs and questionnaire, etc.

1. PROJECT BACKGROUND

1.1. Project summary

- Briefly describe the project's main characteristics (ideally not more than two pages).
- This part may not be needed if the M&E plan is included in the PIM and these elements are already described there.

1.1.1. Project goal, objectives and expected outcomes

1.1.2. Project components and main activities

1.1.3. Implementation period/duration

1.1.4. Project financing

1.2. Targeting strategy

The targeting strategy is determined at the project design stage and should be validated at start-up. However, it may evolve during implementation (for instance, because of a reduction in geographical scope, abandoning of selected value chains, etc.). If this is the case, this paragraph, as well as the M&E system and plan, should be revised accordingly. The subsequent sections dealing with project area, target groups and outreach should indicate their link with and involvement in M&E activities and processes.

1.2.1. Project area

- Indicate the different areas or regions covered by the project and describe their particular social and agroecological characteristics.
- Identify the selection criteria and implementation approach (phasing, for example) for selected project areas.

Both aspects are important for M&E purposes: For instance, key project area characteristics and selection criteria are required for development of the sampling strategy (outcome and other surveys requiring sampling) to ensure the representativeness of the sample. Distances/access and overall size of the project area may also be problematic for field monitoring and require decentralized M&E staff.

1.2.2. Target group(s)

- Clearly define the different subgroups targeted for each project activity and whether the beneficiaries of various activities overlap.
- Identify and describe the selection criteria. This is important, as this aspect is at the core of the surveys' sampling methodology.
- Detail each subgroup of beneficiaries (a chart can be prepared to visualize the overlaps; see example below).

1.2.3. Outreach

- Based on the description of the project area, target group(s) and the chart below, explain who the people corresponding to the three outreach core indicators (CIs) are and how their targets were set. This information is also presented in the M&E matrix (see appendix 1: M&E matrix).
- Explain how the calculations for CI 1a and 1b will be made and describe how overlap/double-counting will be handled (estimation or MIS data form).

1.3. ToC and logframe

The ToC and logframe are prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members. They may evolve during implementation, however, in which case the related sections should be revised accordingly.

1.3.1. ToC

The ToC section explains how and why the project is expected to effect change. It is a visual, structured way of outlining the steps needed to achieve project outcomes.

- Include the ToC diagram and related explanatory narrative (see ToC and logframe guidance for details)

1.3.2. Logframe

The latest version of the logframe matrix and the original logframe from the PDR are included in appendix 2 of the M&E plan. This section discusses the following aspects:

- Preparation and validation process
 - Explain how the logframe was prepared and validated based on the theory of change and how it reflects the ToC. The logframe (as well as the ToC) is prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members.
- Modifications
 - Present and justify modifications to the original logframe, if any. Some aspects of the project may change during implementation (the indicators and targets originally set in the logframe may be revised and adjusted to ensure that they remain relevant and useful), and the M&E plan should be adjusted accordingly. Note that justification for logframe modifications must be provided and IFAD clearance obtained.
- Alignment with IFAD requirements and systems
 - Explain the link with and functioning in the Operational Results Management System (ORMS) (IFAD system) and briefly describe the IFAD CI framework and corporate requirements (gender- or nutrition-sensitive, etc.), if any.
- Integration in the MIS
 - Explain how the logframe is integrated in the project MIS: measurement of logframe indicators, automatic reporting, logframe reports generated, etc.
- Logframe results reporting
 - Explain how and when the logframe is updated:
An assessment of progress toward achievement of the intended results as described in the logframe should take place during every supervision mission for the preparation of the annual report. Outcomes associated with project output indicators and the related targets should be included for all indicators and all project years. With regard to outcome indicators, the outcomes and target levels should be provided at midterm and completion. After the midterm review (MTR) and until new

data are available (at completion), results from the years following the MTR should use the MTR value for each outcome indicator.

1.3.3. Use of ToC and logframe

The logframe and ToC are the key references for developing the project M&E system, processes and tools. This section describes how the ToC and logframe are used in the preparation and execution of the M&E plan.

● Project's visualization and communication

The ToC diagram is a visual representation of the project. It can be used as a communication tool and shared with project implementers and other stakeholders to explicitly show how the project works and create a shared understanding of it.

● Planning

The ToC and logframe serve as the basis for the preparation of the AWPB. In fact, as schematized in the ToC, activities (planned for in the AWPB) are converted to results (outputs and outcomes). This link should be made clear, and targets, in terms of activities, outputs and outcomes, must be consistent.

● Progress monitoring and presentation

The logframe represents a roadmap for project implementation, determining what to monitor and how and enabling progress of the indicators toward set targets at all levels to be monitored by visualizing them on an annual basis and throughout the course of the project.

● Data collection tools and templates

The logframe serves as the basis for the development of data collection tools and templates, which should include all the information required for measuring the logframe indicators.

● Effectiveness and achievement of the objectives

The ToC and logframe are the basis for evaluation. They show the progress toward achievement of the results and indicate whether changes have occurred as expected, making it possible to assess the project's effectiveness.

2. PURPOSE AND SCOPE OF THE M&E SYSTEM

2.1. Guiding principles

This section presents the main conceptual underpinnings of the project M&E system (the list below is neither mandatory nor exhaustive and can be modified).

2.1.1. Results-based management (RBM)

Explain briefly how RBM is applied in the project, for instance:

- How the management strategy and implementation of activities are guided by the commitment toward achieving results.
- How it ensures interconnection of the planning, M&E and decision-making processes (more details are provided in a specific section of the M&E plan).
- How it relies on clear accountability and effective communication for timely resolution of any issue encountered.
 - How performance/feedback reporting is used to improve implementation and extract lessons for future operations.

-

2.1.2. Participatory approach

Explain how the project incentivizes and implements a participatory approach, for example:

- How it ensures the different stakeholders' participation during the design, planning, implementation, monitoring and evaluation of the project.
- How it ensures that the needs of the different stakeholders are taken into account and how they are addressed in decision-making.
- How information and knowledge are regularly and openly shared with different stakeholders.

2.1.3. Geographic information system

- Describe GIS, if used, and which data are collected and how. Explain how GIS data are used, as well as their value added and implications – for example for data management.

-

2.1.4. M&E for decision-making

- Describe how the project M&E system informs decision-making at different levels:
 - How relevant information is generated and shared;
 - How it is used to support project management in decision-making and improve services delivered by the project.

2.1.5. Alignment with the national system

Explain whether/how the project M&E system:

- Is designed in close collaboration with government;
- Is aligned and compliant with national and local systems, if any;
- Integrates government milestones and data needs;
- Facilitates logframereporting;
- Assists project management.

2.2. M&E steps

2.2.1. Planning

Process

- describe the (annual) planning process, which culminates with government clearance and IFAD approval of the AWPB, by describing participants, indicating the main implementing partners, describing the steps in the consultative process and noting deadlines.
- In particular, provide a detailed description of the planning workshop and its purpose, since it is the key step in the planning process. In fact, the planning workshop is intended to determine the expected outputs (physical targets) for the coming year for each project component. The AWPB then describes the activities to be implemented to deliver these outputs and the financial resources (financial targets) required to do so.

Structure of the AWPB

Present the overall structure of the AWPB and main aspects addressed by the AWPB, for example:

- Explain the AWPB's link and consistency with logframe indicators and targets and the procurement plan.
 - Indicate how the annual budget has been prepared based on current costs, and note budget constraints/limited absorption capacity, if relevant.
 - The AWPB template is provided in appendix 4 of the M&E plan and includes an indicative table of contents, workplan and budget template table.

2.2.2. Monitoring

- This section provides a general description of the monitoring process and its characteristics. Details are provided in the following sections: 3. Roles and responsibilities; 5. Tools; and 6. Project reports and deliverables.
- Describe the main tasks: assess rates of physical execution of yearly planned activities against targets; verify compliance with agreed calendar and deadlines; and assess rate of financial execution against planned targets.
- Present what is measured: activities, inputs and outputs, and to some extent outcomes, in the AWPB and logframe against physical targets
- Briefly explain how and when the data collection is carried out: monitoring sheet and/or annual surveys, COI surveys for outcomes.
- Explain how the data collected is analysed and presented (logframe as key reference).

2.2.3. Evaluation

- Describe the evaluation's scope, strategy and objectives. Provide information on the evaluation criteria or performance standards (relevance, effectiveness, efficiency, sustainability, impact) used and the rationale behind it. Specify the questions that the evaluation would address and the indicators against which it would be assessed.
- Describe the evaluation method: quantitative surveys and compliance with IFAD requirements (COI baseline, midterm and completion surveys, if applicable) and use of a comparison group.
- Describe qualitative study/survey for aspects/performance questions that may require investigation.
- Explain who conducts and analyses the evaluation: internal and/or external evaluators, use of procurement processes, etc. When feasible, mention whether RIA(IFAD's Research and Impact Assessment Division) is expected to conduct an impact assessment. Explain how the data collected is analyzed: comparison with baseline situation.
- State when the evaluation is conducted (according to IFAD's rules, the process can begin any time after 85 per cent of the project funds have been disbursed).
 - Describe project completion report requirements: make reference to IFAD's project completion report (PCR) guidelines; indicate who prepares the PCR and other reports required by the government.

2.2.4. Knowledge management

This section explains the importance of the information gathered by the M&E system for knowledge management (KM) purposes, the planned methods that will be employed to process it and the tools that will be used for its dissemination, provided that a separate KM plan/manual is created.

- Specify the link with M&E activities and how evidence-based information generated by M&E system is used for KM purposes.

- Explain which and how data/knowledge/lessons are gathered and shared with different stakeholders: methods, type of product (website, print, video, platform, etc.).
- Describe how KM supports capacity building among beneficiaries and within government and IFAD.
- Explain how KM contributes to greater effectiveness and efficiency and promotes scaling up.
- Describe the main KM activities (especially those to be implemented during the initial years of project execution).

3. ROLES AND RESPONSIBILITIES

3.1. Roles of stakeholders involved in M&E

- List the main M&E actors and other stakeholders involved in planning and M&E activities.
 - Describe the roles and responsibilities of the main M&E actors and other stakeholders involved in planning and M&E activities.

3.2. Flow of information

3.2.1. Flow of information approach

- Explain how the monitoring data flows from the place where it is collected to the management team and on to other stakeholders, including the government and donor(s) (bottom-up approach).
 - Describe how the information is entered in the M&E system.

4. M&E budget and activities

4.1. Budget and resources

- Provide the overall budget for PM&E activities.
- Describe how M&E activities are integrated into the AWPB and procurement plan.
- Present M&E line items and budget amounts. The line items and budget amounts can be taken from the PDR (cost tables) but must be adapted, if needed. Include additional resource requirements that were not anticipated or planned for. The description of the M&E budget items should be clear and brief, since all those items are detailed in other sections of the M&E plan.

4.2. M&E activities and workplan

- Present main planning, monitoring and evaluation activities, distinguishing between annual and recurrent activities and ad hoc ones occurring at specific point during the life of the project.
 - Include M&E workplan including ad hoc activities from start-up to completion and recurrent activities with deadlines.

5. Tools

5.1. Management information system (MIS)

This section presents the main characteristics of the project MIS (the data collection tools are presented in the next section). Note that the MIS may be set up after preparation of the M&E plan; in that case, this section will need to be updated once the MIS is effectively defined and set up. If the MIS comes with a separate manual, this section could be shortened and should refer to the manual.

- Explain how the M&E officer has designed and set up the MIS and whether it is aligned with the national M&E system.
- Describe how information is inputted in MIS (web-enabled) and who is responsible for data entry and quality check.
- Describe how the collected M&E data is stored (spreadsheet/database, etc.) and backed up and explain how it can be accessed.
- Present the link and integration with the project's financial system to facilitate the comparison of physical and financial progress.
- Indicate whether a GIS is used to provide geographic location data for project interventions (infrastructure, beneficiary groups, land under conservation, etc.)
- Indicate which software/tools are used to analyse the data and transform large quantities of data into usable information (SPSS, Stata, Excel, Tableau Public, etc.). Note that the complexity of the MIS should depend on the resources available (human and budgetary), and that a complex MIS is not necessarily the best option if capacities are limited.
- Explain how the MIS incorporates project reporting requirements, such as logframe and AWPB.
- Describe tables/reports/dashboards automatically generated by the MIS, such as the AWPB monitoring table, logframe, etc.
 - Explain how the MIS provides the project coordinator and other PMU members with timely, accurate information on implementation progress and results so that they can make informed decisions.
-

5.2. Data collection formats

This section describes the formats and tools used for collecting and recording data. It provides an overview with consolidated basic information. It is supplemented with the templates of the main data collection formats in Appendices.

- For each data collection tool, describe:
 - The approach and methodology used for data collection;
 - The person/group/organization responsible for data collection;
 - The form used to collect and record the data (paper forms, electronic templates, mobile apps on phones or tablets);
 - The people/group interviewed and the composition of the sample (if any); Data entry in the MIS (if any) and data verification mechanism;
 - The periodicity/timing of data collection;
 - The type of information collected.

Project reports and deliverables

This section describes the formats of project reports and deliverables. It provides an overview with consolidated basic information and is supplemented with the templates of the main reports and deliverables

- Describe the contents, format, and frequency of internal and external reports. Indicate who the reports are intended for (the users of information produced by the PM&E function) and who is responsible for preparing each type of report.

Appendix 2: VCN IFAD CORE INDICATOR DEFINITIONS GUIDELINE

Indicator	Project Context Definition
1 Persons receiving services promoted or supported by the project	Refers to the number of new individuals who have received services or participated to activities promoted or supported by the project during the considered period (annual reporting). In the case of VCN, these will be categorized as: (i) Members in Farmer Groups, CAF members supported. Please note: When rural enterprises receive services promoted or supported by the project: only owners and co-owners of the enterprises are counted as persons receiving services.
1.2.8 Women reporting minimum dietary diversity (MDDW)	Women surveyed claiming that they are consuming a diversified diet, which means that they are consuming at least 5 out of 10 prescribed food groups common in Nigeria. It is a proxy indicator to judge adequacy of micronutrient (e.g., vitamins, minerals) consumption by women. It is also a proxy to gauge the adequacy of nutrition intake of the household members. MDDW is expected to provide a broader picture of a household's nutrient intake, taking into consideration that in most societies women are more likely to be nutritionally vulnerable because of their disadvantaged position in relation to intra-household distribution of nutritious foods in resource-poor settings, which are the primary targets for IFAD operations. Additionally, women, and in particular women of reproductive age (15-49 years), are more vulnerable due to their higher physiological demand for nutrients compared to adult men.
SF.2.1 Households satisfied with project-supported services	Households reporting that they: (a) easily accessed or used the services provided by the public/private entities (CAFs and Rural Enterprise organizations, etc) supported by the project, and (b) were satisfied with the quality of the services provided by the public/private entities supported by the project. The indicator aims at determining whether the main services delivered by the public/private entities supported by the project adequately meet target groups' productive/business/employment/livelihood needs. The indicator indirectly assesses (1) the responsiveness of the project in reflecting target groups' views and needs during the design, delivery and adaptation of services, and (2) the impact of the project's capacity building support to the service providers towards improving their service delivery capacities.
SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers	Households that participate in project-supported groups/organizations (Farmer Organizations, Community Groups, CAFs, etc) reporting that: (a) they have influence over decisions taken in the project-supported group/organization in which they participate; and (b) the project-supported group/organization they participate in can influence decision-making of local authorities and project-supported service providers
2.2.1 Persons with new jobs/employment opportunities	Number of new full-time or recurrent seasonal on-farm and off-farm jobs created thanks to project activities since project start-up, either as independent individuals (self-employed) or as employees of micro, small and medium-sized enterprises. Jobs created within farmers' organizations that received project support are also included, but temporary jobs created for a limited period (e.g., for road construction) shall be excluded. For VCN, full time employment as per this IFAD definitions especially for youth and women will be required to be measured across all components will be measured.
3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient	Refers to the percentage of surveyed project beneficiaries who were trained in environmentally sustainable practices and/or the management of climate-related risks, and who claim that: (a) they have fully mastered these practices; and (b) they are now routinely using these technologies and practices.

Indicator	Project Context Definition
technologies and practices	
1.2.2 Households reporting adoption of new/improved inputs, technologies or practices	Beneficiary households interviewed who claim that: (a) they are fully satisfied with the inputs, practices or techniques promoted; and (b) they are now using those inputs, practices and technologies instead of previous ones.
1.1.3 Rural producers accessing production inputs and/or technological packages	Refers to dairy farmers who received support to access production inputs (e.g. improved seeds, etc.) or technological packages (e.g. processing and water-harvesting equipment from VCN support etc.) thanks to project interventions.
2.2.6 Households reporting improved physical access to markets, processing and storage facilities	Beneficiary households interviewed who claim that, as compared to the pre-project situation: (a) they can now more easily access the required market, processing or storage facilities; and that (b) these facilities are fully functional.
1.2.5 Households reporting using rural financial services	Beneficiary households interviewed who state that they are fully satisfied with and are using the financial products and services facilitated by the project, in order to invest in a productive or income-generating activity (i.e., as opposed to being used for consumption or other non-productive purposes).
2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities	Surveyed producers' organizations that have established contractual or other types of arrangements with other value chain stakeholders and/or public entities, with project support. Includes upstream and downstream arrangements (e.g. input provision or selling arrangements) and partnerships with public and/or private entities.
2.1.2 Persons trained in income-generating activities or business management	Persons who during the considered period, have received training in topics related to income-generating activities, including post-production handling, processing and marketing. Such activities include small-scale processing conservation of agricultural products, agro-processing techniques, handling in compliance with safety (use of chemicals, pesticides) and other quality requirements, packaging, market information and procedures. Training is also included. Business management training includes organizational management, accounting and bookkeeping, cash flow management and marketing.
IE.2.1 Individuals demonstrating an improvement in empowerment	IFAD's empowerment indicator is an index that IFAD has developed building on the project-level Women's Empowerment in Agriculture Index (pro-WEAI) developed by IFPRI, OPHI and USAID. Similarly, to the pro-WEAI, IE2.1 reflects a framework of empowerment ²³ in which empowerment is a process of change on the interrelated dimensions of resources, agency, and achievements. This indicator focuses on measuring agency, i.e., the ability of individuals, who were unable to do so previously, to make strategic choices.
2.1.1 Rural enterprises accessing business development services	Rural enterprises that have accessed business development services promoted by the project during the considered period. Rural enterprises are structured businesses that have a well-defined physical location, normally with legal status, a bank account and some employees. They include pre-entrepreneurial activities such as self-employment initiatives and microenterprises with semi-structured activities. Both formal and informal enterprises can be considered, only upstream and downstream

Indicator	Project Context Definition
	activities processing and marketing are to be included but production activities are excluded.
2.1.3 Rural producers' organizations supported	First-level groups of farmers or other rural producers, whether formally registered or not, that have been newly formed or created, or strengthened with project support during the considered period, in order to enhance agricultural, processing or marketing, and provide services to their members. These rural producers' organizations should be distinguished from groups formed to manage natural resources (natural resource management groups are reported only under SO3).
2.1.6 Market, processing or storage facilities constructed or rehabilitated	Market facilities are the structures used to sell produce, such as market places and shading structures. Processing facilities include equipment and machinery that are used for the transformation of dairy where value is added. Storage facilities include structures used for mid- to long-term storage or preservation of dairy produced.
1.1.5 Persons in rural areas accessing financial services	This refers to the number of individuals who have accessed a financial product or service specifically promoted/supported by the project and its partner financial service provider (FSP), at least once during the considered period (annual reporting). Such services include loans and micro-loans, saving funds, micro-insurance/insurance, remittances, and membership of a community-based financial organization (e.g., savings and loan group). Note: When rural enterprises access financial services promoted/supported by the project, only owners and co-owners of enterprises receiving financial services are counted as persons accessing services.
1.1.8 Households provided with targeted support to improve their nutrition	It refers to the number of people that have directly participated in project-supported activities designed to help improve nutrition during the considered period. Note that the nutrition-sensitive activities are not generic but that they are tailored to address context-based nutrition problems. Activities may include people participating in nutrition related trainings, exchange visits, behaviours change communication campaigns, integrated dairy production, technical assistance on the use of inputs and technologies intended to improve nutrition outcomes (e.g., bio-fortified seeds, livestock, etc). Also note that based on the typology of the nutrition-activity, they may target household members and not individuals e.g., vegetable gardens. It is important to note that not all nutrition-sensitive activities will be reported under this indicator. For example, mass media campaigns (e.g., radio) and/or other open sessions where it is difficult to quantify the number of people reached should be excluded. While counting beneficiaries, care should be taken not to double count individuals or households benefiting in more than one activity or the same activity more than once in the same year.

Appendix 3: Terms of Reference for the VCN M&E OFFICER

Position: VCN M&E OFFICER

Place of assignment: Abuja, Nigeria

Duties and reporting lines: Under the direct supervision and authority of the NPC, the VCN M&E Officer will be in charge of all VCN M&E activities carried out under VCN overseeing States and LGA levels. The M&E Officer will also be responsible compiling, validating and reporting M&E results and progress through collaboration with Government District Teams and Project Implementing Partners and providing a timely submission in reporting.

Tasks and responsibilities:

- Develop a Project-Specific M&E Plan that will clearly detail: (i) description of the VCN M&E approach; (ii) VCN processes and activities to be implemented; (iii) the tools to be used for data collection and processing (iii) the deliverables to be produced and; and(iv) M&E responsibilities of all project teams to ensure smooth collaboration;
- Support MIS Developer in the development of the VCN M&E Management Information to ensure that data collection, beneficiaries database and reporting templates are consistent with the project M&E plan;
- Coordinate with State teams and implementation partners to collect and report data of project activities using the MIS as per the appropriate project data collection and tools that are outlined in the M&E Plan;
- Provide technical support to project, State staff and partners on M&E and MIS related issues, including data collection, analysis and reporting;
- Submit a timely updated Project Logframe and Physical progress performance and submit to IFAD before annual supervision missions;
- Ensure the quality of data collected and reported by conducting quality assurance checks and providing feedback to project staff and partners;
- Guide the service providers contracted to conduct COI survey by ensuring survey methodology and questionnaire adheres to the IFAD COIs;
- Ensure compliance with IFAD and Project requirements and ethical considerations related to data collection and use;
- Provide capacity to project, LGA and State staff and partners on M&E and MIS related issues including data collection, analysis and reporting;
- Manage project information; particularly the beneficiary database, documentation and other project related information;
- Collaborate with the VCN KM Officer by providing evidence-based data of the impact of project interventions to guide the development of KM products;
- Carry out any other assignment or relevant duties in the field of his/her competences as may be assigned by the Project Coordinator and/or other Authorities.

Outputs:

- Elaborated VCN contextual Project Specific M&E Plan by project start up (Q1 2025);
- Fully operational M&E Management Information System by project year 1,
- Fully Developed data collection tools by project start up (Q1 2025);
- Quarterly data analysis reports to inform implementation;
- Quarterly monitoring reports to support decision-making;
- Technical assistance to project and implementation partners;
- Capacity building materials (training material, guidelines, toolkits) to build capacity of project and implementation partners on M&E related issues;
- Management of the beneficiaries' database to ensure outreach is up to date reporting avoids double counting;

Competencies:

- **Technical expertise:** Possess a strong understanding of M&E concepts, methods, and tools. This includes ability to design and implement M&E plans, develop data collection tools and analysedata;
- **Communication Skills:** Excellent communication skills to effectively communicate project progress, results and recommendations to stakeholders such as donors, partners and project staff;
- **Analytical Skills:** Strong analytical skills to analyse data and identify trends, patterns, and areas of improvement. This includes the ability to use statistical software and other analytical tools to analysedata;
- **Project Management skills:** Strong project management skills to effectively manage M&E activities, including developing plans, coordinating data collection, and ensuring timely reporting;
- **Teamwork and collaboration:** Ability to work closely with project staff, implementing partners and stakeholders to ensure that M&E activities are integrated into VCN implementation;
- **Problem solving skills:** Proven ability to identify issues and challenges related to M&E and to develop solutions to address them;
- **Ethical and professional conduct:** Demonstrate ethical and professional standards in all aspects of work, including data collection, analysis and reporting. This includes maintaining confidentiality and respecting the rights of beneficiaries;

Qualifications and experience:

Education: First level university degree in statistics, demographics, public policy, international development, economics, or related field. Advanced certificate in M&E, statistics or economics preferred.

Experience

- Minimum of three (3) years of professional experience in an M&E position responsible for implementing M&E activities of international development projects and performing M&E in conflict and fragility zones;
- Experience in designing, implementing, and operating project M&E systems and plans from project initiation to closeout stages;
- Experience in designing and managing beneficiary monitoring and database systems;
- Experience in manage project level M&E Management Information Systems (MIS);
- Knowledge of the major evaluation methodologies (e.g. qualitative, quantitative, mixed-method, and impact) and data collection and analysis methodologies;
- Experience in developing and refining data collection tools;
- Experience with data quality assessments and oversight;
- Extensive knowledge of IFAD COI guidelines and policies is an advantage;

Language Requirements

- Fluency in written and spoken English and Northern Nigeria local languages;

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

Annex 13.5: Technical Note: NUTRITION AND FOOD SECURITY

Background: Nigeria has the highest population in Africa with an estimated 223.8 million people by the year 2023 according to UN data (UNFPA,2023)⁶⁸. The country has one of the highest fertility rates, currently estimated at 5.1 children per woman resulting in a rapid population surge with an annual growth rate of 2.6 percent⁶⁹. The population is projected to reach approximately 440 million by the year 2050 but the human development index (HDI) remains low at 0.534 ranking it 158th out of 189 countries and territories⁷⁰. As of 2022, approximately 47.7% of the Nigerian population lives in rural areas, while 52.3% live in urban areas⁷¹. This means that the majority of Nigerians are now urban dwellers, although the gap is still relatively close⁷². Nigeria faces a complex and multifaceted food insecurity situation, with significant regional variations in severity, particularly affecting rural populations in the Northern States⁷³. Furthermore, limited food access, nutrition deficiencies, poverty and inequalities remains major challenges due to protracted insecurity, soaring food prices and climate shocks among other factors⁷⁴. The food and nutrition security situation in Nigeria remains fragile and dynamic. While ongoing interventions provide crucial support, continued multi-sectoral efforts are needed to address the underlying causes of food and nutrition insecurity and build long-term resilience.

Policy Framework and Strategies for Food and Nutrition Security: There is recent evidence to show that malnutrition and nutrition related issues remain a major public health concern in Nigeria⁷⁵. The country recognizes that reducing malnutrition is an important goal of development as spelt out in the National Development Plan (NDP,2021-2025) which aims at improving food and nutrition security, achieving dietary diversity and access to quality food with an emphasis on food safety practices. Among key efforts of the Federal Government of Nigeria to fight against malnutrition in all its forms, is the provision of the National Policy on Food and Nutrition which guides all investments by government and partners on nutrition. Moreover, the National Multi-Sectoral Plan of Action for Food and Nutrition (NMPFAN) 2021-2025⁷⁶, sets out strategies and interventions for improving the nutritional status of all Nigerians with specific emphasis on the most vulnerable groups. By 2022, 21 states had adopted the food and nutrition plans and contextualized to local level with the establishment of Local Government Area Committees on Food and Nutrition. These committees are expected to trickle down to Ward and Community levels. Further, Nigeria is in a quest to accelerate the achievement of the Sustainable Development Goals (SDGs) on nutrition by the year 2030 as demonstrated by the government's commitment to the implementation of priority actions spelt out in the National Action and Communication plan for the implementation of the Food Systems Transformation Pathways⁷⁷ and Priority Actions (2021-2030)⁷⁸. The overarching goals of this plan is reduction of poverty, hunger, food insecurity, malnutrition, unemployment among the youth and to increase Women's Empowerment in Agriculture Index as well as increase Environmental Performance Index score.

⁶⁸ United Nations Population Fund, World population dashboard. <https://www.unfpa.org/data/world-population/NG>

⁶⁹ National Population Commission. <https://www.nationalpopulation.gov.ng/>

⁷⁰ National Multi-sectoral plan of action for food and nutrition (2021-2025)

⁷¹ World Bank Nigeria population data set, 2022. <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=NG>

⁷² Nigeria urbanization from 2021-2022, Statista data set; <https://www.statista.com/statistics/455904/urbanization-in-nigeria/>

⁷³ Cadre Harmonize for Identification of Food and Nutrition Insecurity Risk Areas and Vulnerable Populations in 26 States of Nigeria and Federal Capital Territory (FCT), November 2023.

⁷⁴ Ibid

⁷⁵ Preliminary report (September 2022) of the National Food Consumption and Micronutrient Survey, 2021

⁷⁶ The NMPFAN aims to reduce stunting among children under five to 18% by 2025 by scaling up high impact nutrition-sensitive interventions

⁷⁷ National Action and Communication Plan for Implementation of the Food Systems Transformation Pathways in Nigeria, 2023.

⁷⁸ National Food Systems Transformation Pathways for Nigeria- Priority Actions (2021-2030)

Moreover, the agriculture sector in Nigeria recognizes nutrition as a multisectoral issue as evidenced by the Agriculture Sector Food Security and Nutrition Strategy (ASFSNS) (2016 - 2025) which responds to the national, regional and global call to ensure that agriculture actions systematically address nutrition. The ASFSNS therefore responds to The Comprehensive African Agriculture Development Programme (CAADP), the Malabo Declaration and the Sustainable Development Goals among other frameworks relevant to nutrition and food security. ASFSNS specifies eight priority areas, four of which incorporate nutrition into hard investments in the agricultural sector and food system. These include: enhanced food value chains; diversified food production targeting women; improved food safety along the value chains; and resilience and social protection nets for vulnerable groups. The other four priority areas focus on creating an enabling environment for planning and implementing nutrition-sensitive actions, and they include nutrition research and information systems; improved institutional capacity and human resources; nutrition education, behaviour change communication and advocacy; and monitoring and evaluation. In addition, the ASFSNS operationalizes the National Agricultural Promotion Policy spelt out in the Green Alternative pillar; the agriculture and food security component of the National Policy for Food and Nutrition; and the Economic Growth and Recovery Plan of the Federal Government of Nigeria⁷⁹.

The Zero Hunger Initiative, launched in 2016 aims to eliminate undernutrition by 2025 ahead of the UN SDGs deadline of 2030. It is chaired by the former President, Chief Olusegun Obasanjo⁸⁰. In 2022, Nigeria reviewed and launched the National Strategic Plan of Action for Nutrition (NSPAN), the National Guidelines for Micronutrient Deficiency and Control, the National Policy on Maternal Infant and Young Child Nutrition (MIYCN), and the National Guidelines on Integrated Management of Acute Malnutrition⁸¹.

Nutrition Governance: The responsibility of coordinating nutrition in Nigeria rest with the multi-sectoral National Committee on Food and Nutrition (NCFN) which is chaired and facilitated by the National Planning Commission. At the State level, the NCFN is replicated as the State Committee on Food and Nutrition. There exists a Nutrition Division in the Department of Family Health in the Federal Ministry of Health which is mandated with the responsibility of Scaling Up Nutrition and acts as the convener for line government ministries and departments including the Ministries of Agriculture, Health, Education, Women Affairs, Finance, Information, Science and Technology Water Resources, and the National Planning Commission. Besides, the Nutrition Partners Forum (NPF) acts as a platform where all relevant ministries engage with development partners on matters nutrition and meets four times a year. The NPF comprises partners external to the government and includes UN agencies, national and international non-governmental organizations, donors, the private sector and media⁸².

Nigeria is a signatory to the Scaling Up Nutrition (SUN) Movement since 2011 and partners the government to host the National Multi-Stakeholder Platform (MSP) for Nutrition. The SUN Movement Secretariat is positioned in the Federal Ministry of Health, with the Head of the Nutrition Division as the SUN Government Focal Point. The SUN Government Network is led by the Federal Ministry of Finance, Budget and National Planning, which is the coordinating ministry for all nutrition activities in the country, as well as the secretariat for the National Council on Nutrition (NCN) and the National Committee for Food and Nutrition (NCFN). Both work in alignment with the SUN Networks (Business, Academia, Donor, Civil Society) and nutrition stakeholders across relevant sectors, providing the leadership required for robust collaboration. Recently (2022), the Federal Ministry of Finance, Budget and National Planning established nutrition departments in all MDAs

⁷⁹ Federal Ministry of Agriculture and Rural Development, Agriculture Sector Food Security and Nutrition Strategy (ASFSNS) (2016 - 2025).

⁸⁰ IITA Press Release, 2017. Accessed at: <https://reliefweb.int/report/nigeria/nigeria-launches-plan-end-hunger-2030>

⁸¹ Nigeria SUN Country Profile, 2022

⁸² Nigeria Federal Ministry of Health, Family Health Department. 2014. Health Sector Component of National Food and Nutrition Policy: National Strategic Plan of Action for Nutrition. Abuja, Nigeria: Nigeria Federal Ministry of Health.

(Ministries, Departments, Agencies) relevant to nutrition, an initiative that is aimed at enhancing financing for nutrition activities⁸³.

Nutrition Situation Analysis: In spite of the robust policy environment for nutrition improvement in Nigeria, the country still grapples with the triple burden of malnutrition⁸⁴. According to NDHS (2018)⁸⁵, 37% of all children under five years are stunted which is higher than the Africa average of 30.7%⁸⁶. Additionally, 7% of children under five years are wasted while 22% are underweight. Children are mostly affected by undernutrition during the first 1000 days of life as evidenced by increase in prevalence of stunting from 19% by 6 months of age to 47% by 24 months of age. High prevalence of malnutrition is more predominant in the Northern states where stunting rates are higher than country average (figure 1). Generally, the prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively)⁸⁷.

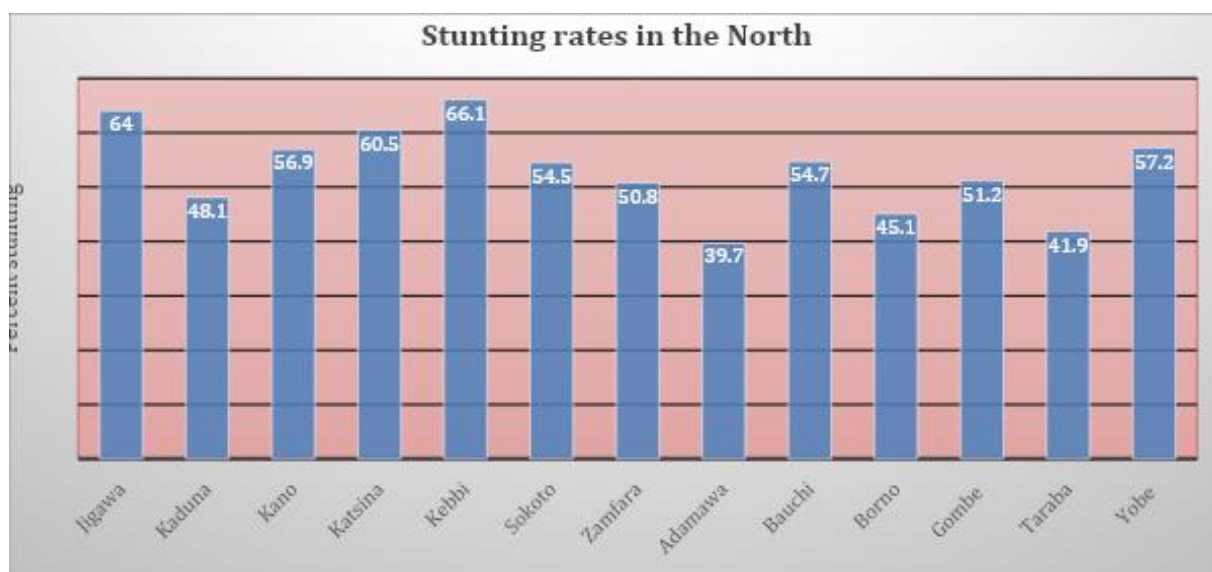


Figure 1: Prevalence of stunting among children under five years in the Northern states (source: NDHS, 2018)

Anaemia affects children and women in the rural areas more than in urban areas. The NDHS shows that 68% of children below five years and 58% of women of reproductive age (15-49) are anaemic⁸⁸. The report confirms that children in rural areas (73%) are more likely to be anaemic than those in urban areas (62%). The north western states (Zamfara, Kebbi and Sokoto) are the most affected by anaemia in the country with very high prevalence rates (78%-84%). Dietary diversity is poor among women and children while feeding practices are sub-optimal. Only 11% of all children under five years were fed a minimum acceptable diet. The proportion of women who consumed five or more food groups is lower in the northern zones⁸⁹ than in the southern zones⁹⁰ with the lowest

⁸³Nigeria SUN Country Profile, 2022

⁸⁴ Triple burden of malnutrition comprises under-nutrition, over-nutrition and micronutrient deficiencies.

⁸⁵Nigeria Demographic Health Survey, 2018

⁸⁶ Global Nutrition Report for Nigeria, accessed online in December 2023 at <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

⁸⁷Nigeria Demographic Health Survey, 2018

⁸⁸Ibid

⁸⁹ Northern zones include North Central, North East, and North West

⁹⁰ Southern zones include South East, South South, and South West

proportion reported in the North Central zone (47%). Children in the northern zones consume fewer foods rich in vitamin A and iron than those in the southern zones.

Women in urban areas are substantially more likely than those in rural areas to consume meat, fish, and poultry (84% versus 59%); eggs (22% versus 11%); sugary foods (19% versus 13%); and sugar-sweetened (32% versus 13%). Consumption of biofortified crops (yellow cassava, orange fleshed sweet potatoes and orange maize) by women of reproductive age is generally low⁹¹. Nigerian rural households consume much less than 20% of fortified foods compared to urban households⁹². The proportion of women who consumed five or more food groups generally increases with increasing education and wealth. For example, 48% of women with no education consumed five or more food groups, as compared with 70% of women with more than a secondary education. Complementary feeding is mainly characterized by consumption of foods made from grains (78% and 90% among breastfeeding and non-breastfeeding children age 6 to 23 months respectively). There is low consumption (27%) of meat, fish, and poultry among breastfeeding children as well as fruits and vegetables rich in vitamin A (37%) and eggs (13%). (source: NDHS 2018). Diet related non-communicable diseases (NCDs) have been on the rise in Nigeria with limited progress towards achieving the NCD global targets. About 16% adult women and 6% adult men are living with obesity. At the same time, about 7% adult women and 8% adult men are affected by diabetes⁹³. There is a dearth of data on obesity in Nigeria that is sensitive to sociodemographic factors particularly those assessing prevalence in rural areas. However, recent studies show a rising trend in obesity, although the rise is higher among urban than rural women⁹⁴.

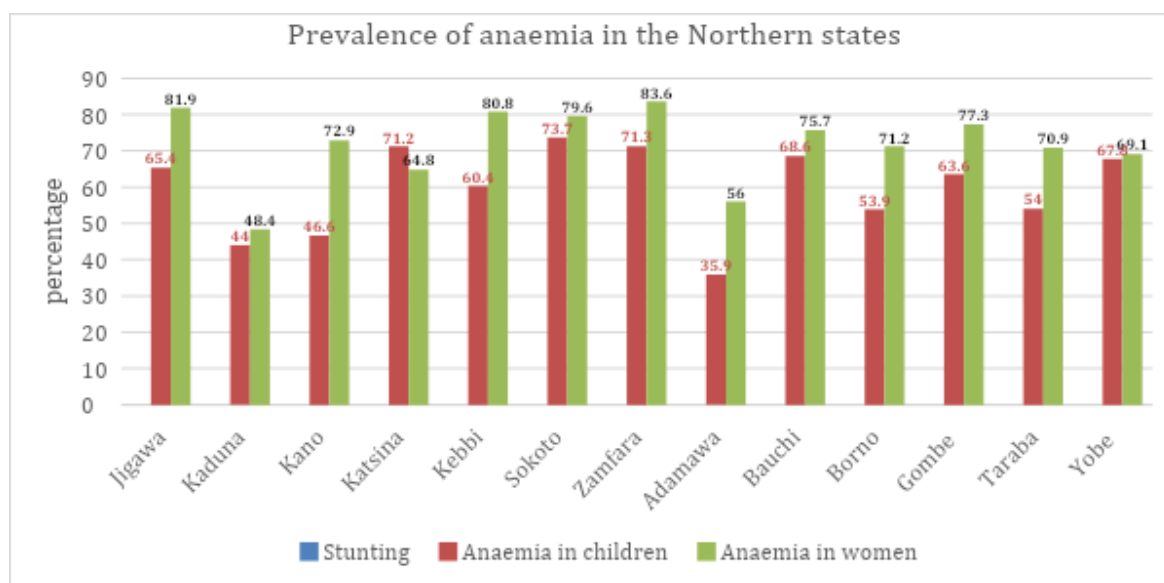


Figure 2: Prevalence of anaemia in Children under five years and women 15-49 years in the Northern states (source: NDHS, 2018)

The 2023 Global Hunger Index ranks Nigeria 109th out of 125 countries with sufficient data to calculate GHI scores⁹⁵. The ranking is informed by a score of 28.3 which places

⁹¹ According to the NFCMS 2021, only three percent of women consumed yellow cassava, five percent consumed orange-fleshed sweet potato and 13 percent consumed orange maize

⁹² Rural versus urban consumption of: vegetable oil (20 percent vs. 48 percent), wheat flour (8 percent vs. 27 percent), semolina flour (7 percent vs. 40 percent), sugar (15 percent vs. 31 percent), NFCMS 2021

⁹³ Global Nutrition Report, 2022. Accessed at: <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

⁹⁴ Prevalence and Trends of Adult Overweight and Obesity in Nigeria — A Systematic Review and Meta-Analysis. Authors: Ramalan, MA; Gezawa, ID; Musa, BM1; Uloko, AE1; Fakhraddeen, YM2. Nigerian Journal of Clinical Practice 26(1):p 1-15, January 2023. | DOI: 10.4103/njcp.njcp_1903_21

⁹⁵ Global Hunger Index report, 2023. Accessed at: <https://www.globalhungerindex.org/pdf/en/2023/Nigeria.pdf>

Nigeria in a level of hunger that is serious. At the national level, 79% of households in Nigeria are food insecure. More than half of households in the North East (57.3%) and North West (51.5%) zones experience stressed food consumption whereas a significant proportion of households in the North are considered to be in a crisis food consumption state⁹⁶. A detailed food security situation analysis for Nigeria with a focus on Northern states is included in subsequent sections in this technical paper.

A complex web of factors contributes to food insecurity and malnutrition in Nigeria. Inadequate care for infants and young children leaves them vulnerable to illness and poor nutrition, especially before their second birthday. Access to healthcare, clean water, and proper sanitation remains limited, further hindering basic health and wellbeing. For instance, sanitation and hygiene practices are poor with less than standard toilets and open defecation still common. Usage of unimproved toilets is more prevalent in the Northern zones⁹⁷ with 21.5 per cent of households practicing open defecation system. The practice is more prominent in the rural areas (34.5 percent) than in the urban areas (7.4 percent)⁹⁸. Anecdotal evidence from field visits in the North revealed frequent occurrence of water borne diseases as a result of water contamination.

Armed conflict, primarily in the north, disrupts food production and access, while erratic rainfall patterns wreak havoc on harvests. Widespread unemployment and poverty trap many in a cycle of food insecurity. While chronic and seasonal food shortages plague the entire country, volatile food prices exacerbate the situation. In the northeastern zone, frequent conflicts further worsen these pre-existing vulnerabilities, pushing food insecurity to acute levels. In most instances, food insecurity is inversely related to the level of education of women at household level⁹⁹. There is generally poor implementation of nutrition and food security related policies at State and Local Government levels¹⁰⁰. The rise of diet-related non-communicable diseases (NCDs) in Nigeria can be attributed to several factors associated with globalization and increased urbanization, including lifestyle changes, socio-cultural influences, the growing availability of obesogenic diets, and inadequate maternal, fetal, and infant nutrition practices¹⁰¹.

Food Security Situation analysis: According to the Food security early warning report¹⁰², Nigeria is facing acute food insecurity crisis with the Northern states mostly affected with severe outcomes (figure 1a). The prolonged dry spells in July and August 2023 affected surplus producing regions of the north leading to lower cereal production (particularly maize, sorghum and millet) than the five-year average. National cereal production is lower than previous year by between 6 to 25%. Dry spells coupled with high cost of agricultural inputs, ongoing conflict and localized flooding have negatively impacted 2023/2024 main season crop. Low cereal production has led to a reduction in labour opportunities associated with harvesting activities. As of November 2023, the macro economy continued to deteriorate due to multiple factors including poor national revenue generation, increasing headline inflation¹⁰³, decreasing value of the Nigerian Naira (NGN)¹⁰⁴, diminishing national reserves, limited crude oil production and increasing domestic oil prices owing to removal of oil subsidy. This macroeconomic crisis has severely impacted

⁹⁶ Households in crisis food consumption in North West (42.3%) and North East (36.7%) zones (NFCMS, 2021)

⁹⁷ 40 per cent in North West zone and 20 per cent in North East zone.

⁹⁸ National Food Consumption and Micronutrient Survey (NFCMS), 2021

⁹⁹ Ibid

¹⁰⁰ National Policy on Food and Nutrition in Nigeria, 2016

¹⁰¹ Nigeria Nutrition Profile, 2018. United States Agency for International Development

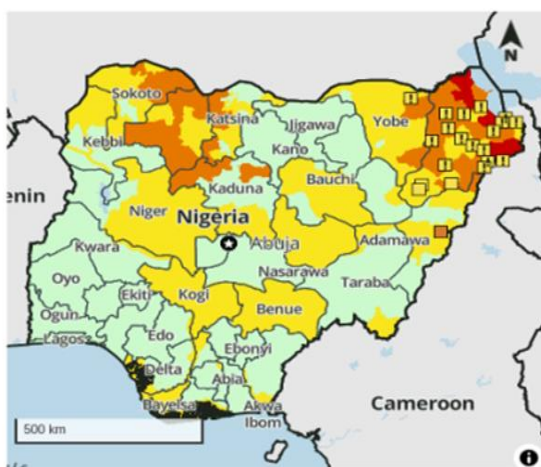
¹⁰² FEWS NET. Nigeria Key Message Update November 2023: Below-average harvest and poor macroeconomy sustain Crisis (IPC Phase 3) or worse outcomes in north, 2023.

¹⁰³ Annual headline inflation reached 27.33 percent in October 2023 up from 26.73 percent in September.

¹⁰⁴ The value of NGN against foreign currencies has continued to free fall at 810NGN per USD official rate and 1,155 NGN per USD on parallel market.

household purchasing power, heightened economically-driven crime, diminishing financial access to food and increasing food consumption deficits¹⁰⁵.

Northeast Nigeria faces a dire food security crisis, exacerbated by a surge in civilian-targeted attacks during the crucial harvest season. This year, insurgents have ramped up raids and crop theft, likely driven by economic hardship. Households in Borno state, particularly in Bama, Abadam, Damboa, Gwoza, Mafa, and Monguno, struggle to access their land, hindering harvests and limiting food availability. Insecurity also intensifies competition for scarce urban jobs. The combined effect of heightened violence and unusually high staple food prices severely restricts access to food, particularly for those who couldn't cultivate, internally displaced persons, returnees, and households in inaccessible areas. Crisis-level food insecurity (IPC Phase 3) is expected to persist throughout 2023 and worsen in early 2024 as households deplete their meager harvests. In isolated areas like Bama, Marte, Guzamala, and Abadam, limited mobility, dysfunctional markets, and depleted coping mechanisms will likely trap households in Emergency (IPC Phase 4) conditions until May 2024 (figure 1b).



Northwest and North-central Nigeria continue to grapple with widespread insecurity, primarily driven by banditry, kidnappings, and farmer-herder clashes. These events are causing significant displacement, disrupting livelihoods, and impacting food access. In Maru LGA, Zamfara state, a single incident on November 24, 2023 saw over 100 abductions, reflecting a trend of similar attacks reported throughout October and November across Benue, Kaduna, Katsina, Kebbi, Sokoto, and Zamfara. This ongoing violence has severely hindered harvest activities in the worst-affected areas, leading to reduced income generation and limited food availability. The decline in cross-border trade with Niger further disrupts market functionality, exacerbating food insecurity. In major urban areas of the northwest, internally displaced persons (IDPs) reside in makeshift shelters, heavily dependent on limited community-based food assistance, domestic labor, and even negative coping strategies like begging and prostitution to secure sustenance. Their depleted household assets and lack of cultivable land contribute to significant food consumption gaps. Despite the ongoing harvest, food consumption gaps and Crisis (IPC Phase 3) outcomes are projected to persist in the northwest and north-center through May

¹⁰⁵ Famine Early Warning Systems Network, November 2023.

2024 (figure 1b). Notably, a subset of extremely vulnerable households in the most conflict-ridden areas, unable to cultivate due to the insecurity, are resorting to bartering, foraging, and begging for food, pushing them towards Emergency (IPC Phase 4) food insecurity.

Food prices: Despite the recent harvest season (October to December 2023), staple food prices remain stubbornly high in many areas, exceeding typical seasonal patterns. In Maiduguri, mid-November saw maize prices 4% higher than the previous month and a staggering 66% higher than the same period last year. Similar spikes were observed in Kaura Namoda (Zamfara) and Dawanau (Kano) markets. While millet prices in Maiduguri dipped slightly compared to October, they remained 47% above November 2022 levels. This atypical price surge stems from several factors including high transportation costs, ongoing conflict in key surplus-producing areas, and increased demand for cereals due to below-average harvests. This confluence of factors tightens the grip on household food access, particularly for those who rely heavily on purchases. In particular, these elevated staple food prices are projected to persist throughout the ongoing harvest and even into the 2024 lean season.

Food and Nutrition Insecurity Risk Areas and vulnerable populations: According to Cadre Harmonize (CH) analysis report published in November 2023¹⁰⁶, 18.6 million of the analyzed populations in 26 states are in the critical (Crisis to Emergency) Phases of Food and Nutrition Insecurity (FNI) for the period between October to December 2023. Moreover, the FNI situation is projected to deteriorate going into the lean season (June to August 2024) thus increasing the number of vulnerable populations to an estimated 26.5 million. Out of the 26 states covered in the CH report, 10 states from North East and North west are represented namely: Adamawa, Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara. In the period between October to December, 46 LGAs in Borno (10), Zamfara (4), Katsina (11), Yobe (7) and Adamawa (2) were classified under crisis. The number of LGAs classified under crisis may increase to 120 during the projected period (June to August 2024) if no interventions in the form of food aids, emergency agricultural support and resilient livelihood intervention initiatives are availed to cushion evolving food and nutrition insecurity crises among vulnerable populations. The primary and secondary outcomes of food and nutrition security in Nigeria are described in the paragraphs below.

Food consumption status: Several states faced stressed food consumption (Phase 2) conditions. However, Internally Displaced Persons (IDPs) in Borno, Sokoto, and Zamfara states experienced a direr situation, with fluctuating food access. In Katsina, Benue, and Niger states, the general population grappled with persistent food challenges. The situation worsens for partially and fully inaccessible populations in Adamawa and Borno, ranging from Crisis (Phase 3) to Emergency (Phase 4) levels. This trend is expected to continue through June-August 2024, with more people falling into worse food consumption categories due to inadequate nutritious food intake. Atypical spikes in staple food prices during this period, coupled with rising inflation and high farm input and food distribution costs, are likely to further negatively impact food consumption patterns and outcomes.

Livelihood dynamics: Over 75% of the analyzed states faced moderate livelihood change (Phase 2) challenges. However, several local government areas (LGAs) including in Katsina, Zamfara, and Borno entered Phase 3 (Crisis) due to prolonged insecurity. In other states, fuel subsidy removal, inflation, and high business operating costs also disrupted livelihoods. The agricultural sector particularly struggled, with soaring farm input prices (fertilizer, agrochemicals), labor wages, and transportation costs all contributing to higher operating costs and reduced activity. Livelihood conditions are expected to remain volatile in the coming months due to unpredictable macroeconomic trends. While livelihood support packages from the government and humanitarian communities may offer some

¹⁰⁶Cadre Harmonize for Identification of Food and Nutrition Insecurity Risk Areas and Vulnerable Populations in 26 States of Nigeria and Federal Capital Territory (FCT), November 2023.

relief in high-risk, food-insecure LGAs (particularly in Borno, Zamfara, Katsina, Sokoto, and Yobe), a significant short-term recovery to offset these challenges is unlikely. Livelihood disruptions are therefore likely to persist.

Nutrition insecurity status: Available data from Adamawa, Borno, Katsina, Sokoto, Yobe, and Zamfara revealed acute malnutrition levels ranging from moderate (Phase 2) to severe (Phase 3). Worryingly, these same states, particularly Katsina and Zamfara, are projected to experience significant deteriorations, potentially reaching critical (Phase 4) or emergency (Phase 5) levels by June to August 2024 due to evolving food insecurity challenges. Several factors driving this nutritional decline include unhealthy food consumption patterns, social barriers, including poor health-seeking behaviors by caregivers, limited access to functioning healthcare facilities and services, inadequate access to water, sanitation, and hygiene (WASH) services, including poor infant and young child feeding practices and low exclusive breastfeeding rates.

Mortality: While death rates in Zamfara, Katsina, and Sokoto remained relatively low, hovering between 0.1 and 1.27 per 100 people across all analyzed areas, concerns for children under five persist. Under-five mortality and overall crude death rates are expected to remain stable in the coming months. Despite the absence of major epidemics during the analyzed period, malnutrition and high prevalence of diseases like malaria, diarrhea, and measles continue to pose significant challenges to child health and survival.

The potential impacts of contributing factors to the outcomes of food and nutrition insecurity above are summarized in the table below:

Factors	Impacts on livelihoods	FNI Outcome status
<ul style="list-style-type: none"> -Protracted insecurity. -Economic factors (fuel subsidy removal, effects of naira-redesign, cashless monetary policy). -Climate shocks. -Soaring prices of staple food and basic essential commodities. -Post COVID economic crisis. -War in Ukraine. 	<p>Negative impact on livelihoods, agricultural input prices and supply.</p> <p>Increases in prices of farm inputs (fertilizer and agrochemicals) (150% to 236% increase).</p> <p>Negative impact on households capacity to increase cultivated cropland area Inability to apply the recommended fertilizer rate needed for optimum crop performance.</p>	<p>Poor food and nutrition insecurity outcomes</p>
<ul style="list-style-type: none"> -Banditry -Kidnapping 	<p>Negative impact on livelihoods by depriving HHHs' access to agricultural inputs (lands and labour) and functional markets to acquire seeds, fertilizer, agrochemicals and also sell their harvested crops in several communities of Benue, Zamfara, Katsina, Niger, Sokoto (East) and Kaduna States.</p>	
<ul style="list-style-type: none"> -Floods 	<p>Resulted in population displacement, losses of assets and washing away of ready-to-harvest crops in several communities along river belts</p>	
<ul style="list-style-type: none"> -Conflicts 	<p>Limited HHHs access to farmland leading to high livelihood vulnerability in several affected communities.</p>	

Factors	Impacts on livelihoods	FNI Outcome status
-Poor coping strategies.	At least 50% of HHs across the analyzed areas adopted stress to crisis coping strategies (Begging, debt and selling of their productive assets) to acquire food. These was reflected in their inability to consume sufficient calories and quality of nutritious meal to meet acceptable food consumption levels.	
-Flash floods, pests and diseases.	Poor crop performance year on year Yield losses (15% to 65%)	
-Insecurity, increased cost of fertilizers and agrochemicals	Limited agricultural production activities	
-Severe dry spell	Affected early planted cereal crop (Maize, rice and sorghum) Depletion of stocks at HH level (54% of the population) Low HH stock availability. Negative impact on food consumption Undermined potential supplies from 2023/24 dry season farming	
-Increased staple food prices	Negative impact on household's capacity to sustain acceptable food consumption thresholds. Led to between stress to crisis food consumption score, household dietary diversity and hunger scales. Reduced Coping Strategy Index (rCSI) was observed to be under stress (Phase 2) in at least 50% of the analyzed population, and more severe (Phase 3) in areas with protracted insecurity.	
-Removal of fuel subsidies	Led to more than 225% rise in Premium Motor Spirit prices. Increased cost of haulage and transportation. Affected trade flows and the overall optimal performance of markets across states	
-Rise in Consumer Price Index (CPI) rate.	Affected the prices of staples and complementary food items such as cooking oil, dairy, condiments and vegetables.	
-Rise in the dollar to Naira exchange rate	Affected essential items like pharmaceuticals, WASH and general HHs living cost.	
-Atypical spikes in food prices	To continue in the lean season (June to August 2024). However, late harvest from the 2023 wet season and early harvest from the 2023/24 dry season farming may cushion the undue spikes in food prices, reduce the pressure on producer HHs dependence on the market and boost food access among the general population. Nonetheless, vulnerable populations in risk areas with limited access and non-access to production assets (Land and farm inputs) may continue to rely on food aids to sustain acceptable FNI outcomes.	
-Limited access to safe and portable water sources for drinking and WASH purposes.	50% of HHs have poor WASH facilities. Increased incidences of water borne diseases (cholera & diarrhea) in rural communities.	

Factors	Impacts on livelihoods	FNI Outcome status
-Insecurity	Poor access to road networks and communication channels; access to optimum health care facilities and delivery services remained a challenge	
-Delayed onset of rains early cessation of rains. -Incidence of severe dry spell (above 15 days)	Unstable production calendars poor Normalized Difference Vegetative Index (NDVI) affecting livestock production	
-Flash floods	population displaced, properties destroyed, ready to harvest cropped fields washed off	
-Removal of fuel subsidy. -High cost of transportation and service delivery. -High inflation, CPI and Naira-Dollar exchange rates.	Negative impact on livelihoods. Slowed growth of economic indices. increased food prices and basic essential non-food items. Adoption of poor coping strategies. Borderline Food consumption score, hunger scale and dietary diversity thresholds.	
-Low yields, failed crop from previous season.	Affected stability of food availability for all staple crops Low HH stock levels (50% of population analyzed have stocks to last only 3 months). Output from 2023/24 dry season farming may help HHs to augment depleted stocks. Otherwise, food availability instabilities will result during the lean season.	
-Spike in fertilizer and agrochemicals prices by 200%.	Limited engagement in dry season farming among HHs constrained production by dry season farmers	
-Rising inflation rates, high haulage and transportation costs.	Increases in staple prices. Spiked cost of living. Eroded purchasing power of producer households despite gains earned from sale of their farm produce.	
-Insecurity	Low purchasing power among displaced populations Severe difficulties in maintaining acceptable FNI outcomes. Unsustainable coping strategies among IDPs in the absence of humanitarian food aid and emergency agriculture support and resilient livelihood re-building interventions.	

Risks to monitor affecting nutrition as informed by recent reports: The IPC analysis report, October 2023, has enumerated important risk factors that are imperative to monitor to effectively combat the burden of malnutrition and improve nutritional outcomes for the affected population in the Northern geopolitical zones. VCN will consider these risks to inform the development of mitigation plans. The table below presents the proposed risks and potential mitigation approach for VCN:

	RISK FACTORS TO MONITOR	POTENTIAL VCN MITIGATION APPROACH
North East Nigeria	Flooding and its effects – particularly in LGAs and communities bordering Cameroon Republic	Include flooding mitigation measures in VC environmental plans
	Seasonal trends of common childhood illnesses particularly malaria, respiratory infections, diarrhea and early warning signs for outbreak of cholera, diphtheria and Meningitis	Participate in multisectoral information dissemination platforms for timely response. Include preventive measures and education in WASH SBCC activities
	Evolution of trends in crude death rate and under-five mortality rate.	Use trend analysis reports to modify VCN interventions approach particularly for nutrition vulnerable HHs
	Changes in weather patterns in the three periods related to malnutrition.	Enhance timely dissemination of weather information to farmers
	Practice of early initiation of breastfeeding and exclusive breastfeeding within the first two days after birth, as well as household food consumption patterns (MAD and MDD).	Strengthen nutrition education and SBCC targeted at HHs with children under five
	Population movements in LGAs and communities bordering Niger Republic that may be induced by the political crisis	Build mitigation plans that anticipate population movements. Promote community cohesion to support resilience during such occurrences.
	Comprehensive aid coverage from both humanitarian and government sources. Accessibility of humanitarian assistance and availability of basic services including food, WASH, nutrition, protection and health services in hard-to-reach areas	Strengthen food environment elements in VCN value chains. Invest in robust last mile food distribution mechanisms.
	Market stock and food prices, and the economic impact of recent monetary and fiscal policies like the removal of fuel subsidy, floating of the naira.	Advocate for implementation of farmer cushioning mechanisms while identifying policy opportunities for VCN's engagement.
	Civil unrest may result from conflict between farmers and herders and communal clashes.	Build mitigation plans in anticipation for farmer herder conflict. Include continuous community engagement mechanisms to reduce conflicts. Provide timely and clear feedback mechanisms between relevant actors and communities affected.
	Sub-optimal coverage of preventive and curative nutrition services and public health campaigns to optimize the impact.	Strengthen delivery of preventive nutrition activities through VCN's SBCC and nutrition education strategy.
Household food insecurity, particularly in the tail end of the postharvest season when food stocks are expected to be depleted.	Strengthen market-oriented nutrition interventions such as improved storage, processing and value addition. Improve production and productivity elements of VCN to ensure increased quality and quantity of food in the market and at households.	

	RISK FACTORS TO MONITOR	POTENTIAL VCN MITIGATION APPROACH
North West Nigeria	Insecurity such as banditry, kidnapping, and farmer-herder clashes. These are likely to increase protection-related issues such as Gender-based Violence, Sexual Exploitation and Abuse, limited movement of people, attrition of healthcare workers and hampering of economic-related activities.	Promote interventions that occupy the youth to reduce banditry incidences. Promote community dialogue spaces to encourage youth in crime to reform. Provide community recreational services for the youth. Support initiatives that strengthen availability of entrepreneurship opportunities for the youth. Promote interventions geared at community cohesion.
	Disease outbreaks (cholera/acute watery diarrhoea, measles, acute respiratory infections etc.), in addition to malaria/ fever, due to seasonal changes, low vaccination coverages and increased population against the limited health and WASH facilities.	Participate in multisectoral information dissemination platforms for timely response. Include preventive measures and education in WASH SBCC activities
	Niger political crisis: this has led to border closures, with the attendant toll on trading activities and a possible influx of refugees into neighboring LGAs should the situation further deteriorate	Build mitigation plans that anticipate population movements. Promote community cohesion to support resilience during such occurrences.
	Food insecurity due to limited access to farmlands, caused by heightened insecurity and depletion of household supplies because of the influx of displaced persons who are majorly accommodated within the host communities.	Explore collaboration with States to allocate alternative farming land to affected HHs in the Farm Estates established by policy to settle displaced persons.
	Poor Maternal, Infant, and Young Child Nutrition (MIYCN) and their impact on caring and feeding practices, especially among pregnant women and children under five, as reflected in sub-optimal breastfeeding and appropriate complementary feeding indicators	Ensure nutrition education and SBCC approaches are effective in addressing barriers to nutrition.
	Erratic changes in government policies, such as removal of fuel subsidies and other financial policies related to foreign exchange rates, have led to increased cost of living.	Advocate through policy engagement avenues
	Flooding leads to loss of agricultural produce, reduced food availability at the household level and limited access to market, health and nutrition services	Build mitigation measures in anticipation of flooding in flood prone areas.
	Population displacement resulting to the over-bearing effects of the influx/migration of Internally Displaced Persons (IDPs) on the limited structures such as health, nutrition, and WASH facilities at both Primary Health Centers (PHC) and community levels will likely exacerbate the existing poor health-seeking behavior	Build mitigation plans that anticipate population movements. Promote community cohesion to support resilience during such occurrences. Develop value chain products through processing and value addition to target the displaced to ensure prolonged shelf life and hence availability of food throughout the year.

	RISK FACTORS TO MONITOR	POTENTIAL VCN MITIGATION APPROACH
	Funding gaps for humanitarian interventions limiting access to health, nutrition, WASH services and food security and livelihood by the affected population.	Build synergies with relevant actors working in the North.
	The sale of farm produce meant for household consumption to meet other needs as coping mechanisms are likely to impact food security at the household level.	Address negative coping mechanisms through SBCC and nutrition education. Promote market-oriented nutrition approaches to ensure food availability throughout the year. Build infrastructure required to support a better food environment e.g. feeder roads to the markets.

LESSONS LEARNT FROM FOOD AND NUTRITION SITUATION ANALYSIS: VCN intends to be Nutrition-Sensitive. In keeping with food and nutrition insecurity recommendations from the most recent studies done in Northern Nigeria, VCN will seek to leverage opportunities presented in these multi-sectoral recommendations to define entry points and impact pathways to nutrition. The most relevant recommendations to inform nutrition and overall interventions for VCN from these reports are summarized in the table below:

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
NORTH EAST NIGERIA	Sustain the existing response capacity and modalities throughout the lean season and utilize risk monitoring indicators and early warning systems to adjust (scale-up or scale-down) the response to fit the evolution of the situation in the projection periods.	<ul style="list-style-type: none"> i) Understand risk monitoring indicators that are of interest to value chains and develop mitigation strategies. ii) Utilize the season classification to inform production schedules and marketing approaches. iii) Leverage the early warning systems to inform market approaches including food environment improvement approaches.
	Continue the scale-up of targeted supplementary feeding programs using available specially formulated foods (RUSF, Blended Flour such as Tom Brown, etc.) aimed at closing the existing gaps in MAM treatment.	<ul style="list-style-type: none"> i) Explore opportunities presented by Blended Flour supplementary feeding programs particularly Tom Brown and promote utilization at HH level for prevention of malnutrition. ii) Empower Farmer organizations to have voice in nutrition by participation in Tom Brown value chain activities. iii) Explore relevant partnerships particularly with RBAs (FAO, WFP, UNICEF) to build synergies for Tom Brown supply chain.
	Tailor support and messaging on MIYCN and other Social and Behavioral Change (SBC) interventions to emphasize early initiation of breastfeeding, exclusive breastfeeding, continuation of breastfeeding, caregivers' health seeking behavior, personal hygiene and use of locally available food items to	<ul style="list-style-type: none"> i) Integrate recommended messaging into SBCC strategy and include the elements of feeding practices and care giving into project progress monitoring indicator system. ii) Promote locally available food items through cooking demonstrations and through backyard gardening to increase diversity of nutrient rich foods at HH level. iii) Review existing recipe books (where

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	prepare and feed children with nutritious foods that contain the required macro and micronutrients.	available) or develop (where needed) and update with additional nutritious recipes to promote utilization of locally available foods.
	Advocate for programs to address epidemics of malaria and diarrheal diseases that have been a recurrent event in the period of peak malnutrition. Ahead of the period of peak malnutrition, implement sets of malaria prevention interventions as well as programs to improve soft and hard components of WASH, especially at the household level.	<ul style="list-style-type: none"> i) Leverage small water infrastructure interventions to improve hard components of WASH at HH and community level. ii) Explore partnership with actors in WASH sector to improve 'hardware' components e.g. facilities to improve sanitation and hygiene such as toilets or latrines. iii) Integrate WASH soft components in nutrition education and SBCC strategy.
	Prioritize programs to address maternal and adolescent malnutrition.	<ul style="list-style-type: none"> i) Include poor women and adolescent girls in nutrition target groups ii) Target women at risk of malnutrition with nutrition interventions. iii) Integrate nutrition in GALS modules and FFS modules.
	Strengthen the existing mechanisms for early identification and referrals such as the family MUAC approach, routine screening by community health influencers promoters and services such as community nutrition mobilizers, and comprehensive mass MUAC screening either quarterly or in each of the three seasons.	<ul style="list-style-type: none"> i) Leverage the already existing community health influencers/promoters' structures, (particularly the community nutrition mobilizers) to reach more HHs targeted to receive support to improve their nutrition. ii) Explore the avenue of community nutrition mobilizers (CNM) as an entry point for Nutrition Education and SBCC. Target CNMs as ToTs for nutrition training iii) Explore CNM avenue as an entry point for marketing and distribution of value added nutritious products by VCN's Farmer Organizations.
	Leverage the provisions of the guidance on Cash Voucher Assistance (CVA) for nutrition in Nigeria to utilize cash and voucher approaches to strengthen preventive and curative nutrition interventions e.g., supplemental nutrition assistance (including using locally available food items), feeding options for infants without breastfeeding support, food fortification, MAM and SAM treatment.	<ul style="list-style-type: none"> i) Identify lessons from the Cash Voucher Assistance for nutrition in Nigeria to inform VCN's digital approach to nutrition. ii) Explore how VCN's VCs can fit into the pool of locally available food items to promote improvements in availability of nutritious foods in the local markets. iii) Identify food fortification opportunities from the pool of VCN's priority value chains per state.

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	<p>Advocate for the operationalization of non-functional health facilities (primary and secondary health care centers) through rehabilitation of dilapidated infrastructure, health workforce development, and provision of pharmaceutical and non-pharmaceutical supplies to deliver an integrated package of health (including MNCH), nutrition and WASH services.</p>	<p>i) In LGAs where open defecation is rampant, advocate for relevant ministry to provide support in building latrines. ii) Assess policy gaps in this regard and include as actions under policy engagement interventions.</p>
	<p>Engage in multi-risk emergency response preparedness and/or contingency planning ahead of the next lean season and possible population movements that may result from the political crisis in Niger Republic and possible flooding due to the anticipated opening of dams in Cameroon. Advocate for flexibility of grants to finance emergency response and rapid response actions.</p>	<p>Develop multi-risk mitigation strategies to cushion VCN beneficiaries from crisis likely to affect those near border countries (particularly Niger and Cameroon).</p>
	<p>Prioritize multi-sectoral programs and strengthen the integration and/or mainstreaming of livelihood components, protection (including GBV), education, WASH, food security and health interventions into nutrition programs and vice versa.</p>	<p>i) Assess existing multisectoral programs that support nutrition and identify actors in the multisectoral space for partnership e.g. with WASH activities ii) Integrate livelihood components such as small livestock (goats, sheep, local chickens) targeting most vulnerable poor women. iii) Integrate gender transformative approaches to address harmful norms like GBV at HH and community levels. iv) Identify nutrition interventions that support food and nutrition security by amplifying dietary diversity e.g. promotion of Moringa oleifera for nutrition</p>
	<p>Advocate for and promote initiatives and actions that will provide and/or encourage social protection, economic empowerment and income generation (including saving schemes, skills acquisition, credit facilities, etc.), increased land-space for farming, SMART agronomy, micro and macro-gardening, dry season agriculture/irrigation farming, post-harvest management (processing, storage, preservation, etc.) and peacebuilding and conflict mitigation.</p>	<p>i) Support economic empowerment and income generating activities for the poorest, vulnerable HHs through specific value chain opportunities. ii) Map value chain opportunities for economic empowerment and income generation for women and youth to strengthen their agency e.g. through village saving schemes, capacity development, participation in farmer cooperatives, access to tailored credit facilities etc. iii) Leverage the Farm Estate model introduced by the government to advocate for increased land for farming particularly for the youth and poor women. iv) Promote SMART agronomy practices that can be compatible with the farming</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
		<p>context in the North to increase quality and quantity of crops.</p> <p>v) Promote climate smart gardening technologies e.g. in enhancing micro and macro gardening; and for dry season agriculture/ irrigation farming including support for tube wells to facilitate all year production in the Fadamas, support to community nurseries for agro-forestry with carefully selected trees for enhanced environmental value, livestock fodder and human food; establishment or rehabilitation of large water infrastructure such as earth dams to support large scale irrigation.</p> <p>vi) Promote context appropriate post-harvest management practices including in processing, storage and preservation of value chain crops.</p> <p>vii) Support peace building initiatives targeting the youth and include conflict mitigation approaches targeting herders and farmers.</p>
	<p>Promote early recovery and resilience building approaches in the nutrition sector and other sectoral programs, targeted at MMC and Jere which host a number of out-of-camp IDPs, and other locations where IDPs have been, or will be resettled</p>	<p>i) Apply lessons learnt from previous projects like IFAD funded CASP, AFDB funded ATASP-1, World Bank funded Accelerating Nutrition Results project, WFP's Out of Conflict to Resilient Programme that targets complementary livelihood for people in crisis, UNHCR's Resilience Building Programme in Borno and similar others.</p> <p>ii) Apply the lessons learnt above to integrate resilience building approaches in VCN's strategic direction on creating sustainability of project interventions.</p> <p>iii) Identify scalable resilience building approaches compatible with VCN's mandate.</p>
<p>NORTH WEST NIGERIA</p>	<p>Scale-up existing humanitarian program for the prevention and treatment of malnutrition, such as strengthening Maternal Infant and Young Child Nutrition (MIYCN), Micronutrient Deficiency Control (MNDC) and Integrated Management of Acute Malnutrition (IMAM) services.</p> <p>Strengthen active case finding and referral of acutely malnourished children (severe and moderate) through house-to-house screening of children aged 0-59 months by Community Health Influencers, Promoters, and Services (CHIPS) agents and the scale-up of family-</p>	<p>i) Promote malnutrition preventive approaches through tailored VCN nutrition activities targeting the most nutritionally vulnerable HHs.</p> <p>ii) Identify scalable malnutrition preventive approaches compatible with VCN's mandate and leverage existing actors for potential partnership building.</p> <p>i) Utilize existing local knowledge by engaging the CHIPS agents during targeting for nutrition to identify nutritionally vulnerable HHs or groups to be supported through VCN project.</p> <p>ii) Leverage the existing CHIPS agents infrastructure to implement VCN's SBCC and Nutrition Education strategy.</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	led Mid Upper Arm Circumference (MUAC) screening.	
	Increase access to basic amenities such as shelter, food, health, nutrition, WASH and protection services for displaced populations.	<p>i) Where relevant to VCN's mandate, integrate displaced populations in targeting for small water infrastructure at community level as an entry point for soft WASH interventions.</p> <p>ii) Identify opportunities in the existing social protection services in the North and leverage them for social enterprise development by linking to value chain opportunities.</p> <p>iii) Develop context appropriate models for sustainability of interventions targeted at IDPs.</p>
	Strengthen disease surveillance, emergency preparedness and response plans to aid in timely response, including the fall-out from the ongoing political crisis in Niger Republic.	<p>i) Participate in multisectoral platforms that disseminate real time information related to disease outbreaks, emergency preparedness and response plans to inform timely development or adjustment of mitigation plans for VCN beneficiaries.</p> <p>ii) Assess opportunities to link VCN's ICT4D strategy to multisectoral ICT platforms for real time access to crucial information to inform timely response.</p>
	Scale up of social protection services such as the National Social Investment Program (NSIP), cash transfer, food distribution, and other income-generating activities to cushion the existing economic impact on food security and well-being at household levels.	<p>i) Assess potential opportunities presented by the scale up of social protection services particularly the National Social Investment Program to link with relevant VCN's VC interventions.</p> <p>ii) Use the above activity as an entry point to develop a cushioning strategy for vulnerable HHs from the impacts of economic instability on food security and well-being.</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	<p>Scale up of food systems and large-scale agro-economic investment such as multi-seasonal farming (irrigation), access to improved seedlings (early maturing and drought resistant variety seedlings), fertilizers, homestead gardening and livestock rearing, school farms, and storage of farm produce to enhance food availability and accessibility.</p>	<p>i) Map out existing food systems and large scale agro-economic investments to inform synergy building with VCN interventions such as: ii) Build or strengthen large scale (for commercial level) and small scale (for subsistence level production) irrigation infrastructure. iii) Improving access to improved seedlings that combine early maturing and drought resistant properties. iv) Promote high nutrient fertilizers with restorative capabilities including promotion of organic fertilizers. v) Promote integrated homestead gardening including promotion of water efficient technologies such as cone gardens. vi) Support small livestock rearing targeting most vulnerable poor HHs/women. vii) Identify major actors in school farms and explore opportunities for partnership to promote nutrition in VCN through schools to reach a wider community. viii) Promote market-oriented nutrition interventions such as proper storage of farm produce, value addition and processing to enhance availability and accessibility of safe, nutritious foods throughout the year. ix) Provide support for storage facilities/ equipment and/or support for processing equipment as appropriate to enhance sustainability of food availability and access throughout the year.</p>
	<p>Robust sensitization and awareness creation on food consumption, caring and feeding practices using contextualized Social Behavioral Change Communication (SBCC) materials to increase appropriate complementary feeding for children 6-23 months which will improve Minimum Dietary Diversity (MDD), Minimum Acceptable Diet (MAD), and Minimum Meal Frequency (MMF).</p>	<p>i) Conduct a desk review to synthesize evidence available on knowledge gaps, practices and attitudes affecting food consumption, caring and feeding practices. ii) Carry out a formative assessment to triangulate evidence generated in the above desk review and contextualize for VCN States. iii) Develop a comprehensive SBCC and nutrition education strategy to guide awareness creation on food consumption, caring and feeding practices targeting improvement in women's and adolescent girl's nutrition as well as those households with children under five years.</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	Strengthen health systems to improve integration and delivery of quality routine services to the beneficiaries and sensitize communities through existing structures such as CHIPs agents and Ward Development Committees (WDCs) for improved access and uptake of these services.	i) Explore possibility of working with existing structures such as the CHIPS agents and Ward Development Committees (WDCs) for improved and access and uptake of VCN interventions. ii) Explore partnerships with existing structure to implement nutrition interventions on the demand side of the value chains, to promote GALs approaches and SBCC/NE activities.
	Improve access to potable water, sanitation and hygiene (WASH) facilities.	i) Prioritize support for motorized boreholes for home consumption and water provision for livestock at village level. ii) Provide support for harvesting and pumping of on-farm rain water harvesting ponds targeting households affected by water shortage for home consumption. iii) Harness on-farm rain water for watering backyard gardens by making provision for pumping. iv) Combine small water infrastructure interventions with soft WASH interventions e.g. SBCC education programme on water safety, good hygiene practices and proper sanitation. v) Advocate for zero open defecation policy formulation or review of similar existing policy including implementation of anti-open defecation policies.
	Put in place pragmatic measures such as price regulation to control inflation	Advocate for policy level interventions on price regulation to cushion VCN beneficiaries and FOs from inflation (address drivers of inflation affecting farmers e.g. high cost of inputs, dysfunctional market systems, poor food environments, etc.)

LESSONS LEARNT FROM FORMER CLIMATE CHANGE ADAPTATION AND AGRIBUSINESS SUPPORT PROGRAM (CASP) IN THE SAVANNAH BELT OF NIGERIA.

This section documents lessons drawn from two sources: i) CIAT assessment of CASP & VCDP Projects through the strategic support on mainstreaming nutrition in IFAD’s investments using Nutrition Sensitive Value Chain Approach (NSVC) ii) VCN design mission field visits to the former CASP States. It also includes recommendations from VCN wrap up meeting with stakeholders.

PART 1: Lessons from CIAT’s assessment:

1. Improved income through sale of commodities does not necessarily lead to improved nutrition amongst households benefiting from the program. This is particularly relevant to gender and women empowerment as a mediator for nutrition impact. VCN will build on this fact to implement interventions related to improvement of nutrition at household level through the income pathway.

2. A previous study done by the Royal Tropical Institute (KIT) in 2017 on CASP value chains showed that the five value chains selected (cowpea, groundnut, soybean, millet and sorghum) could contribute at various degrees and through different pathways to improving nutrition as well as livelihoods for smallholders. VCN will define clear pathways to nutrition to build on contributions of CASP value chains to nutrition.
3. Promotion of production and consumption of the five crops could help improve and lay the foundations for a more nutritious local food system, and could also be used to promote women's empowerment and resilience in the face of climate change. Importantly, these crops also make business sense for smallholders and value chain development. VCN will integrate this learning to ensure selected value chains are nutrition sensitive and still make business sense for smallholder farmers.
4. Although nutrition training manuals were developed, the content was not effective as it was theoretical in approach. During VCN design field interactions with CASP beneficiaries, this challenge was evident as beneficiaries could not recall the tenets of nutrition training received thus hampering practice. VCN will aim to improve the approach on nutrition trainings to ensure they include simplicity in presentation, are practical given the vulnerabilities context in the North and integrate local scenarios to aid adoption of desired nutrition practices.
5. Although CASP was not nutrition sensitive at design, CASP MTR recommended that nutrition should be mainstreamed in the project. At the time, CASP did not have a nutrition specialist and relied heavily on outsourced support through consultancies. The recommendations by consultants were still difficult for CASP PCU to implement as they lacked a focal specialist on nutrition. VCN will provide nutrition specialists at the national and state levels for effective implementation and mainstreaming of nutrition activities.
6. People's nutrition and diet diversity can be enhanced through several entry points, including crop selection, farming practices, post-harvest handling, food environment improvements and nutrition awareness, based on the results of analysis of some staple VCs supported by VCDP (rice) and CASP (cowpea, groundnuts). VCN will promote these entry points.

PART 2: Lessons from VCN's Design Field Visits to Former CASP States:

7. Providing start-up packs for nutrition activities proved to be a valuable catalyst for positive change. These starter kits, tailored to specific needs like backyard gardening or poultry/small ruminants rearing, equip families with the resources and knowledge needed to improve their diets and generate income. The initial boost empowers communities to take ownership of their nutrition and build sustainable food systems for long-term well-being. VCN's nutrition approach will integrate start-up packs for nutrition.
8. Investing in women's economic empowerment and fostering male engagement emerged as powerful tools for reducing intrahousehold conflicts and strengthening families. When women have income and decision-making authority, they can ensure nutritious food for their children and invest in the family's well-being. Engaging men as partners in these efforts, encouraging their support for women's economic activities, and addressing traditional gender roles can break down harmful power dynamics and create a more harmonious household environment. VCN's will adopt a nutrition sensitive GALS approach to maximize nutrition impacts at HH level.
9. Targeting women directly with program interventions, providing backyard poultry for their families' consumption and income generation, and promoting small ruminant rearing should be a key focus of the new project. These initiatives empower women economically and improve household nutrition and food security. Labor-saving technologies like energy-saving stoves can empower women and improve time management. VCN's targeting strategy for nutrition will prioritize poor women.
10. Targeted interventions for vulnerable groups are crucial. Targeting households with mothers of young children for complementary food for children, training on Infant

and Young Child Nutrition (IYCN), and integrated home gardens rich in diverse, nutrient-dense foods will ensure healthy development for the next generation. Including nursing mothers and the most vulnerable families in small ruminant interventions, using the "pass on" model for sheep and goats, and focusing on egg-laying chickens will ensure equitable access to nutritious food and income opportunities. VCN's targeting strategy for nutrition will consider households with young children and adolescent girls.

11. Sustainable agriculture approaches are essential for long-term success. Promoting short-season-early-maturing varieties, food trees like *Moringa oleifera*, backyard gardening, and organic farming with manure from integrated livestock rearing, will build resilience against environmental degradation and enhance food security. VCN will promote these approaches.
12. Promoting diverse food sources is crucial. Targeting fish farming in suitable locations, horticulture crops relevant for nutrition, and fruit production and consumption will offer a wider range of essential nutrients for the community. Local production of soybean should be explored to enhance diet diversification. [However, VCN will not promote aquaculture activities since the water infrastructure developed under VCN is targeted at promoting irrigation.] But horticulture crops, fruits and soybeans will be promoted in line with context specific agronomic characteristics.
13. Capacity building and education are vital components. Trainings and re-trainings with gender-differentiated approaches at both technical and village levels, combined with nutrition education, will empower communities to make informed choices about their food and health. VCN will promote these initiatives.
14. Community support structures are also important. The project should consider opening community centers, modeled after existing UNICEF centers, or seek collaboration with existing centres, to provide mothers with essential support and resources. Targeting men to encourage their support for women's roles in feeding families will further strengthen the project's impact. VCN will assess possibilities of partnership with UNICEF and opening community centres for nutrition promotion.
15. Supporting local processing with equipment like groundnut processing machines, improved storage and processing techniques to reduce post-harvest losses will add value to crops, generate income, and diversify food options. VCN will promote cottage industry development among targeted communities.
16. Interventions such as water treatment initiatives, sanitation promotion strategies, capacity building for farmer groups can create a healthier and more prosperous future for these communities. VCN will promote relevant WASH and food safety interventions.

PART 3: Recommendations from stakeholder meeting during VCN wrap-up workshop:

The wrap-up stakeholder meeting highlighted the importance of promoting nutrient-dense crops, food safety, sustainable interventions, and livelihood opportunities for women as summarized below:

- I. **Prioritize Nutrient Dense & Biofortified Crops:** Incorporate biofortified crops into the VCN project to optimize nutrient intake for consumers while addressing deficiencies at the supply chain level. Promote nutrient-rich crops like *Moringa*, already present in the project areas, to further diversify and enrich diets.
- II. **Strengthen Food Safety & Value Chain Resilience:** Prioritize food safety throughout the value chain, including improved post-harvest management and addressing water safety and sanitation concerns identified in the North. Implement off-season interventions, including small ruminant rearing, to ensure sustainable access to nutritious food and income generation, especially for women.
- III. **Balance Value Chain Focus with Livelihood Opportunities:** Integrate small ruminant and poultry rearing into the VCN project design to the extent possible, considering its potential for both nutritional benefits and women's economic empowerment. Explore the potential of incorporating additional crops like *Moringa*

oleifera, hibiscus, and jute, based on their local relevance and value chain compatibility.

Nutritionally vulnerable beneficiaries/groups: VCN will target the most nutritionally vulnerable groups along the selected value chains. As such, nutrition target groups will include children under five, adolescent girls and boys, pregnant and lactating women in addition to men and women involved in the selected staple, legume and horticulture value chains. A mix of nutrition pathways will be used to deliver the desired nutrition outcomes through defined intervention pillars as described in the sections below.

Targeting for nutrition in VCN: Nutrition targeting for VCN will follow the overall targeting approach for the project. Additional criteria for nutrition targeting will be as follows:

1. Direct targeting of Households with children under 5 years
2. Direct targeting households with women of reproductive age (15-49 years)
3. Direct targeting of adolescent girls
4. People with additional vulnerabilities such as persons living with disabilities, the elderly and IDPs.
5. The actual selection criteria for nutrition beneficiaries will consider prevalence of malnutrition (stunting levels and anaemia) per state to allow for more direct targeting of affected households where malnutrition levels are higher.

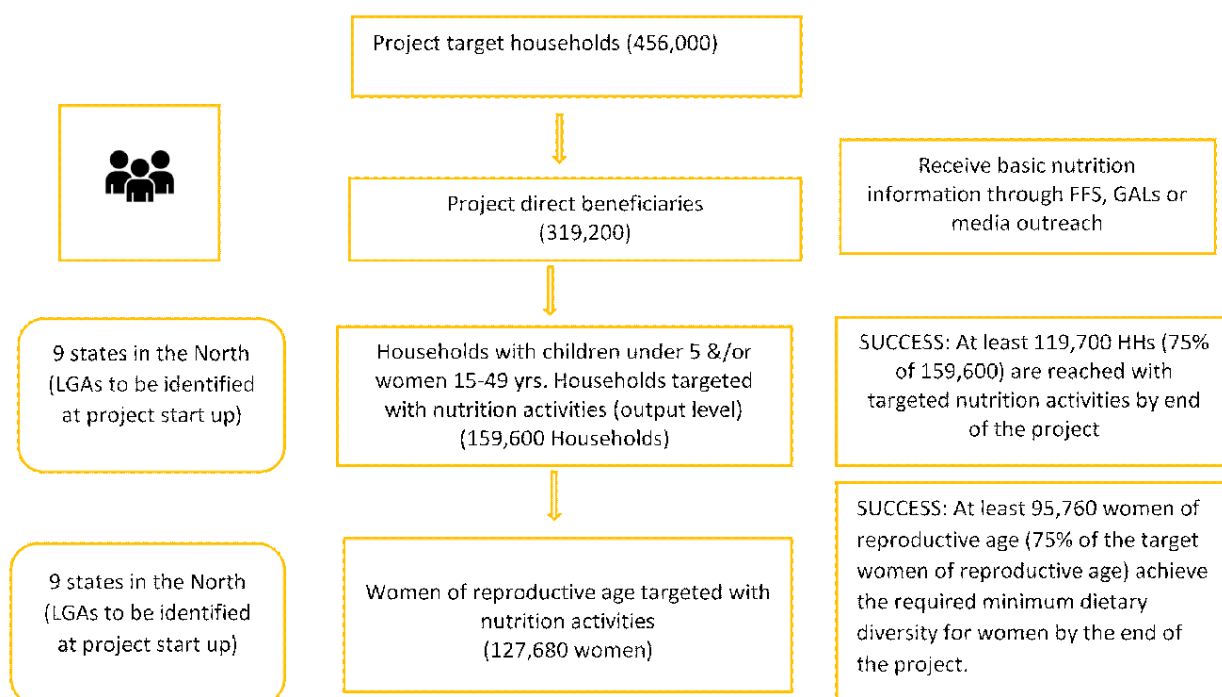


Figure 1: Targeting households and women for nutrition activities

Impact pathways and the contribution of VCN to nutrition:

Malnutrition stems from several food-based factors, including food availability, access, and diet quality. Improving diet quality requires addressing specific nutrient gaps and ensuring access to a diverse and high-quality diet. Traditionally, value chain development focuses on specific commodities, posing a challenge for addressing overall dietary needs. The VCN project aims to overcome this limitation through two key strategies: 1) Diversification: VCN will incorporate a range of commodities into its program, providing beneficiaries with access to a wider variety of nutritious foods and promoting dietary diversity; 2) Geographic scope: Covering nine states in the Northern region, VCN fosters the development of diverse

value chains tailored to local contexts and food systems. This approach encourages the production, distribution, and consumption of a wider range of nutritious foods across the project area.

VCN recognizes the widespread nature of malnutrition in the Northern states and extends its impact beyond producer households. The project incorporates strategies to improve the nutrition of consumer households as well, focusing on: i) Affordability: VCN aims to make nutritious foods more affordable and accessible for consumers through various interventions; ii) Availability: The project will work to increase the availability of nutritious foods in local markets, ensuring wider access for consumers; iii) Demand stimulation: VCN will promote consumer awareness and demand for nutritious foods, creating a ripple effect that benefits both producers and consumers.

By implementing these strategies, VCN strives to reshape the entire food system, making nutritious foods more available, affordable, and desirable for all. This comprehensive approach strengthens the food system and contributes significantly to improved dietary outcomes across the project region. VCN aims to significantly improve the diets and nutrition of beneficiary households through a multi-pronged approach focused on three key pathways:

1. Own Production pathway: VCN will empower households to cultivate and consume more nutritious crops, increasing food security and income through potential surplus sales. This income can then be used to further diversify diets by purchasing additional nutritious options.
2. Income pathway: VCN will support income generation through various initiatives, enabling households to purchase a wider variety of nutritious foods and improve overall dietary quality.
3. Market pathway: VCN will work to strengthen market systems, ensuring consistent availability and affordability of nutritious options. This involves increasing efficiency in production, processing, and transportation to ultimately deliver greater food diversity and lower costs for everyone.

VCN's impact on nutrition will further be amplified by two crucial mediators: i) Women's empowerment: VCN will leverage existing GALS tools and create targeted initiatives to empower women, ultimately leading to improved nutrition within their households; ii) Nutrition awareness: VCN will launch comprehensive nutrition awareness campaigns, educating beneficiaries about the importance of healthy diets and equipping them with the knowledge to make informed choices.

This multi-layered approach, addressing both individual household capacity and broader market systems, will create a sustainable and lasting impact on the dietary habits and nutritional well-being of beneficiary communities in the targeted States.

The nutrition strategy of VCN is therefore 3 pronged and will seek to increase supply, add nutrition value and increase demand of nutritious foods. The figure below summarizes VCN's impact pathways to nutrition, the main target groups for each pathway and the mediators of impact. The main contribution of VCN to nutrition will occur through improvements in diet quality by increasing consumption of nutritious and safe foods, both on farm by producer households and off farm by consumers within the broader food system in which the value chains operates. The combination of the three approaches in the nutrition strategy of VCN will support changes in consumption of nutritious foods.

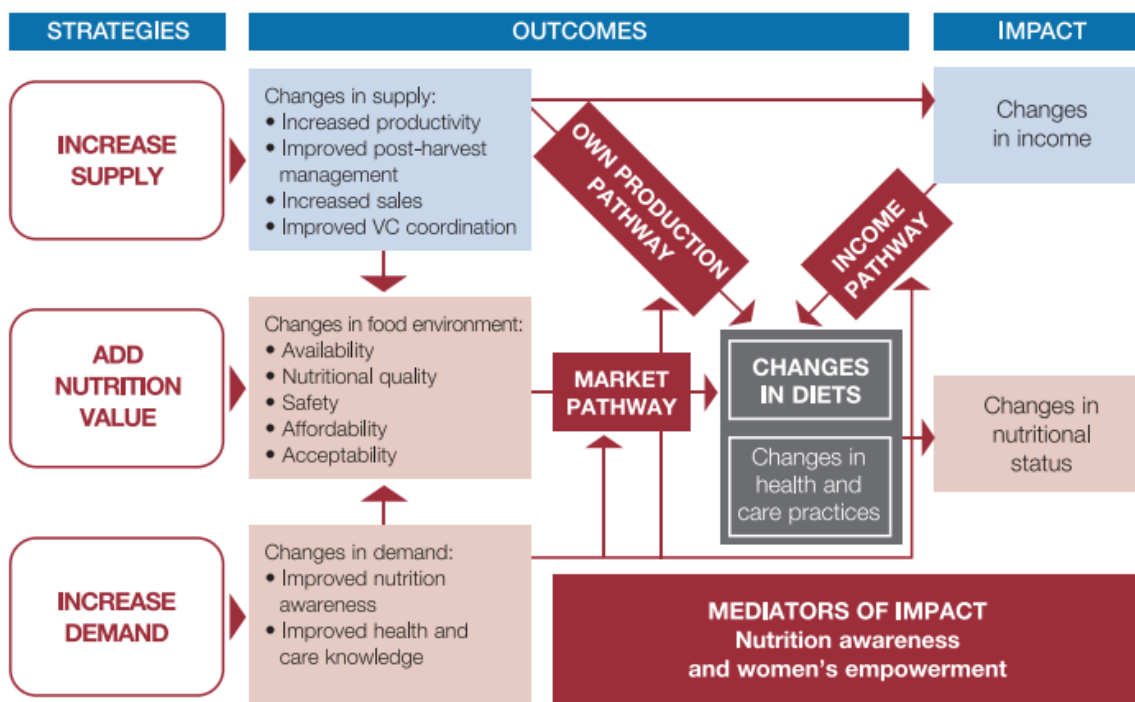


Figure 2: VCN's Agriculture to Nutrition Impact pathways and strategies

Adopted from: Nutrition sensitive value chains from a smallholder perspective- A framework for project design, 2018 by Isabel de la Pena et al

VCN's entry points for nutrition:

VCN's design has relied heavily on lessons learnt from CASP project. Being a nutrition sensitive project, VCN has applied a nutrition lens during design of technical components. This was done by identifying critical entry points which will provide the basis for mainstreaming. These include: a) Leveraging value chain opportunities to ensure diversified agricultural production of nutrient rich crops b) food environment improvements c) resilience building for sustainable nutrition security through integrated homestead production d) expanding markets for nutrient rich products and market access for vulnerable groups e) fostering climate resilient approaches f) gender sensitive nutrition education and social behaviour change mainstreaming across components h) policy engagements. This design proposes delivery mechanisms and partnership arrangements which will be validated at the project inception stage. Insights from the gender fragility study in the North will be used to inform VCN's Nutrition education/SBCC strategy. In order to triangulate nutrition nuances emanating from the fragility study, a nutrition formative study is proposed to inform geographical SBCC typologies for sustained impact.

Nutrition Mainstreaming through VCN technical components:

Component 1: Foster climate resilient and nutrition sensitive production:

This component aims at achieving two outcomes: (i) improved productivity, climate adaptive capacity and resilience of smallholder farmers (SHFs) farming systems in the target VCs; and (ii) improved diet quality and nutrition awareness of target rural HHs. The component consists of three subcomponents. Nutrition will be mainstreamed through subcomponent 1.2.

Subcomponent 1.2: Promote nutrition and gender awareness and practices: This subcomponent contributes to programme output 1.2.1: Increased targeted action to improve nutrition and diet diversity. Through this sub component, high impact interventions

will be prioritized to improve diet quality and nutrition awareness of targeted rural households. Nutrition mainstreaming under this subcomponent will address production and consumption related constraints affecting supply and demand of nutritious foods. The activities under this sub-component include: (a) promotion of nutrition sensitive value chain crops; (b) gender sensitive social behavior change communication and nutrition education targeting awareness creation and knowledge transfer for nutrition at household, community and value chain levels; (c) promotion of context appropriate homestead food production including: (i) backyard gardens for nutrient rich vegetables and other foods in areas with adequate water, (ii) adoption of climate-resilient backyard gardening technologies in areas with water challenges and, (iii) support with starter packages for small livestock targeting very poor women; and (d) Promotion of market oriented nutrition sensitive approaches along value chains and among value chain actors (e) promotion of policy dialogue for nutrition at state and local levels. The key actors for this subcomponent are: Line government ministries relevant to nutrition (Ministry of Agriculture, Ministry of Health, Ministry of Budget and Economic Planning, etc), extension service providers (both government and private), partners operating in nutrition sector with presence in the North, and Farmer Organizations. The project will conduct a partner assessment at inception to identify other relevant implementing partners from among RBAs, INGOs and Local NGOs. Mainstreaming approach for each intervention is highlighted below:

- (a) **Promotion of nutrition sensitive value chain crops:** Under this intervention the VCN project will prioritize value chains with the highest nutrition advantage for each state coupled with commercial viability and at the same time meeting the rest of criteria set forth for selection of value chains. In the interest of ensuring dietary diversity, selection of value chain crops will take into consideration representation of crops from each category (staple crops, cash crops and horticulture crops). Through this intervention, nutrition will be mainstreamed throughout each value chain by articulating actions that enhance nutritive value at production, processing, marketing, distribution and consumption. These nutrition mainstreaming actions for specific value chains include: for supply side: i) Scale up improved high-yield varieties developed for different agro-ecological zones. This applies to commodities whose high –yield varieties already exist such as cowpeas; ii) Sensitize smallholder producers to the dangers of unregulated chemicals when storing harvested produce; iii) Promote safe storage practices, such as use of PICS bags and improved hygiene; iv) Promote pest-resistant varieties to reduce loss; v) Explore the use of biofortified varieties as they are developed and released; vi) Introduction of an efficient, appropriate, and affordable drying technology to assist in drying commodities like groundnut, hence reducing/avoiding rancidity, contamination and nutrient leakage; vii) Promote processing methods that prevent discoloration, which is associated with nutrient loss for VCs like soybeans; viii) Promote labor-saving technologies for hulling and milling to free up women’s time and reduce drudgery ix) Promote diversification of food production through integrated farming systems, incorporation of additional varieties, intercropping, agroecology, etc.; For demand side: i) Nutrition education and behaviour change communication on consumption and appropriate cooking methods to avoid nutrient loss ii) Develop products of different types -including blended formulations, targeting different consumers –e.g. children under five and women; iii) VC related cross cutting issues on WASH (water, sanitation and health) as well as gender and women empowerment through nutrition sensitive GALS trainings.
- (b) **Gender sensitive social behavior change communication and nutrition education:** Insights from the gender fragility study in the North will be used to inform VCN’s Nutrition education/SBCC strategy. In order to triangulate nutrition nuances emanating from the fragility study, a nutrition formative study is proposed to inform geographical SBCC typologies that effectively address existing barriers to good nutrition for sustained impact. Through this intervention, VCN will support increased production efforts by creating adequate demand for more nutritious foods.

This will involve awareness creation and knowledge transfer for nutrition at household, community and value chain levels. The intervention will focus on building demand for the selected commodities particularly in the targeted VCN states. Delivery of activities under this intervention will encompass various dimensions of consumption, such as food preparation methods and recipe development using VC commodities aimed at nutrient preservation and food safety promotion (to avoid contaminations that can lead to food poisoning). Given the important roles women play in household food preparation and care practices, they will be a major target group of this intervention, particularly those of reproductive age. Men and school children will also be targeted as consumers to strength VCN's efforts to improve household and community nutrition. To strengthen the role of gender dynamics at household level, nutrition sensitive GALS tools will be applied. Activities under this component will include: i) Conduct a nutrition formative study to validate findings of the gender fragility study and inform the context specific nutrition SBCC strategy for each targeted state ii) Targeted nutrition education for community's household members and communities; iii) Nutrition education for extension workers and integration of nutrition modules in Farmers Field Schools; iv) Cooking classes for nutrient retention and promotion of healthy diets; v) Collaboration with local media for breastfeeding, maternal and child care and supplementary feeding practices campaigns vi) Hygiene, health and Water, Sanitation and Hygiene (WASH) campaigns leveraging VCN's HH and community level small water infrastructures vii) Consumers' awareness campaigns viii) promotion of domestic labour reduction technologies targeting women

- (c) **Promotion of context appropriate homestead food production:** This intervention is aimed at increasing diversification efforts of household diets through additional production of nutritious foods particularly horticultural value chains for home consumption and income generation. This will be coupled with integration of small livestock to build nutrition resilience for nutrition through livelihood support. Activities under this intervention will include: (i) backyard gardens for nutrient rich vegetables, tubers, fruits and food trees in areas with adequate water, (ii) adoption of climate-resilient backyard gardening technologies (such as multi-storey cone gardens) in areas with water challenges but served by VCN's small water infrastructure and, (iii) support with starter packages for small livestock (goats, sheep, local chickens) targeting very poor women.
- (d) **Promotion of market-oriented nutrition sensitive approaches along value chains and among value chain actors:** Through this intervention, VCN will provide linkages between smallholder's production and the market by leveraging food environment opportunities to amplify nutrition value from value chain commodities and surpluses from those foods produced for own consumption. VCN will explore value addition and processing activities for income generation under this intervention targeted at cottage to community level Small-scale Food Enterprises (SFEs) for various value chain commodities. These SFEs will produce a variety of food products high in nutritional value, that are low risk from a food safety standpoint. The VC commodities promoted by VCN will provide raw ingredients for these enterprises. VCN will develop Commodity Aggregation Centres for nutrition (N-CACs) to facilitate ease of supply to these enterprises. The N-CACs will include aggregation of subsidiary nutritious commodities promoted by VCN such as Moringa oleifera which will provide dried leaf powder that will serve as one of key ingredients in value chain products' development. Value added products from value chains will be traded in markets within communities and across states in the North.

Activities under this intervention will target the youth and women who will be empowered with basic business skills to run the enterprises. In addition, VCN will explore market linkages for nutritious commodities that present higher demand in the North such as the Tom Brown complementary food. Strategic opportunities from VCN's value chains relevant to Tom Brown complementary food will further be explored, particularly to link Farmer Organizations in respective value chains to already established market (at community level-food voucher kiosks, nutrition

centres and organizational/institutional levels). Potentially, N-CACs will be capacity built to supply key ingredients to WFP for their locally promoted complementary food (Tom Brown) which relies on locally grown foods such as ground nuts, maize, sorghum, millet and soybean.

Through such linkages, formulations of high nutrition value composite blends, developed by SFEs using VCN's commodities, will be promoted and made available to local markets. Value addition and processing activities will address intrinsic and extrinsic factors affecting safety and quality of value chain products and as such prolong shelf life of nutritious commodities enhancing year-round availability. These food transformational approaches will in turn increase availability of nutritious food in the markets thus enabling smallholder households in the project areas to easily access foods (access also to be enhanced by VCN's interventions on market-feeder roads rehabilitation). This SFEs approach to value addition ensures efficiency of food processing by cutting down on high costs typical of foods manufactured in distant locations, thus promoting affordability of nutritious foods. Besides, since product development is informed by local context, the processed foods will be highly acceptable thus making them equally desirable hence galvanizing demand for nutritious and safe foods. Through targeted nutrition education and social behaviour change communication, VCN will amplify behavior change to ensure that increasing incomes as a result of increased economically viable VC activities, subsequently result in increased nutrition related consumption expenditure.

Activities under this intervention will include: i) promotion of post-harvest practices aimed to preserve and enhance nutrient quality of food produced at farm level and at aggregation centers; ii) Support with appropriate equipment/technologies and training to FOs/SFEs on cottage/community level processing for increased year round availability; iii) support for food safety, quality control, certification and implementation of hygienic standards for food preparation and commercialization iv) awareness creation on nutritious products/foods for consumption by HHs and social marketing to increase consumer's food and nutrition awareness; v) Support with public, private, and farmer organizations partnerships to increase market linkages with a focus on nutrition, for example targeting VC based food fortification, and establishing institutional markets for nutritious food products including nutrient rich varieties;

- (e) **Promotion of policy dialogue for nutrition at state and local levels:** VCN will build on CASP's local institutions to promote the voice of FOs at policy level through fostering participation in nutrition fora and multisectoral platforms. Through the existing Community Development Associations (CDAs), VCN will support establishment of FOs Nutrition Dialogue Centres (FONDiCs) which will provide a platform for nutrition engagement at community level aimed at capacitating CDAs for greater participation in transformative nutrition activities sustainably. These activities will be captured in the Community Action Plans for ownership and resource allocation. Activities under this intervention will include: i) Establishment of FONDiCs in all targeted LGAs; ii) Support FOs to have a voice in nutrition fora at local and state levels; iii) Policy engagement and advocacy on food security and nutrition; iv) Promotion of policy dialogue for nutrition at state and local government levels; v) Support policy domestication at state and LGA levels contributing to improved nutrition.

Potential Implementing partners for Nutrition in VCN with proposed partnership arrangements

This section proposes delivery mechanisms and partnership arrangements which will be validated at the project inception stage. The owner of nutrition implementation in VCN is the Federal Ministry of Agriculture whose structure is replicated at state level through the State Ministry of Agriculture. Given the context of VCN, it is proposed that VCN will collaborate closely with the Ministry of Health to leverage synergistic opportunities arising

from already existing nutrition centres and provide a basis for establishment of the proposed VCN farmer oriented nutrition centres (FONDiCs). The rationale for establishment of FONDiCs is that existing nutrition centres run by the ministry of health and funded by UNICEF are curative in nature while FONDiCs are envisioned to be preventive in nature. Both will be complementary in the sense of addressing the multi-layered causes of malnutrition which mirrors best practices in alignment with multi-sectoral approach for nutrition. VCN will also explore potential collaboration with the Ministry of Education to leverage market opportunities for nutritious foods through the school feeding programme. This will provide an additional market opportunity for the established SFEs who through the support of VCN will add value to VC commodities with targeted products for school feeding. In this regard, VCN will explore off take opportunities directly with MOE and/or indirectly with MOE School feeding programme partners.

An important partnership to consider is WFP. Given WFP's presence in the North and the nature of programmes already implemented (including specialized nutritious food provision to vulnerable women and children; and food assistance), VCN will explore market oriented opportunities with WFP to leverage their supply chain for nutritious food whether as raw food ingredients or processed products including the potential to collaborate on fortified VC foods such as rice and staple flours. From a value chain perspective, WFP has a focus on rice value chain aiming to improve the nutrient value of rice (by adding folic acid, B-complex vitamins, iron and zinc) through fortification during milling. They have recently carried out a VC analysis to inform the process. VCN should explore partnership with WFP on rice fortification targeting rice farmers in the northern states and the enterprise development opportunities for nutrition through VCN SFEs. In addition, WFP will be piloting a local complementary food popularly known as Tom Brown in 2024 whose ingredients align with VCN's target VCs (groundnuts, soybeans, maize, sorghum). VCN can leverage this opportunity through the Nutrition-Commodity Aggregation Centres (N-CACs) that will serve as business centres to link farmers with WFP commissioned off-takers.

Other potential partners proposed include: The Food and Agriculture Organization (FAO) particularly to explore market opportunities with Tom Brown complementary food interventions; ICRISAT for provision of biofortified varieties (with Iron and Zinc) of sorghum and millet; Heifer international on small ruminants; UNDP; World Bank; Research institutions; relevant local and international Non-Governmental Organizations. The project will conduct a partner assessment at inception to identify relevant implementing partners from among RBAs, INGOs and Local NGOs.

Programme Coordination & Management related to Nutrition:

To ensure effective nutrition coordination and management, VCN will recruit one National Programme Coordination Office (NPCO) nutrition specialist and a nutrition specialist at each State Programme Coordination Office (SPCO) level. This is informed by the geographical scope of the project and in consideration of the fragility context. The nutrition team in VCN will be responsible for implementation of nutrition activities as guided by a national VCN nutrition strategy to be drawn by the NPCO nutritionist which will be contextualized at State level by the SPCO nutritionists. VCN has factored nutrition costs in the cost tabs to ensure seamless and timely implementation and monitoring of nutrition indicators.

Nutrition Monitoring and Evaluation/ Knowledge management: The Ministry of Agriculture, through VCN NPCO, is one of the institutions with key responsibilities working towards the achievement of nutrition outcomes in Nigeria and will provide logistical support and relevant staff to monitor, collect and analyze the routine nutrition outcome related data. To contribute to the strengthening of the dietary diversity and other national nutrition outcomes indicators, the Programme will engage with relevant partners with demonstrated capacity in analysis of nutrition outcomes, working specifically on food and nutrition evaluation assessments and related surveys. VCN design has factored in monitoring of nutrition-related outcomes as part of the overall M&E budget for sustainability of nutrition-related intervention.

Monitoring of nutrition COI indicator (CI 1.2.8) will be done during baseline, mid-line and endline through planned COI surveys. Nutrition output indicator 1.1.8 will be monitored annually through progress reports. VCN M&E and nutrition specialist will be recruited and trained on nutrition monitoring requirements to adequately support quality assurance during MDDW surveys and also ensure accuracy during annual progress monitoring. The Programme M&E system will factor in all the mandatory multipliers for respective outcome and output nutrition indicators. Nutrition knowledge generated through VCN interventions will be documented to capture good practices and lessons learned. These will be disseminated through context appropriate channels that may include fact sheets, reports, publications, meetings and workshops with subject relevant stakeholders. VCN will seek to establish knowledge sharing platforms at local and State levels.

APPENDICES

Appendix 1: Summary of nutrition mainstreaming through VCN components:

Component	Subcomponent	Activities
<p>Component 1: Foster climate-resilient and nutrition-sensitive production to be achieved through:</p>	<p>1.1 Promoting sustainable agricultural systems, improved technology and climate-resilient agricultural practices.</p>	<p>Promote food and feed tree planting to include moringa oleifera tree for vegetables and associated enterprises; and variety of fruit trees. Fodder trees with high nutrition value will be promoted targeted at households supported with small ruminants. Moringa is drought resistant, nitrogen fixing and fast growing hence will support nutrition while at the same time contributing environmental restoration. At the nexus of climate, nutrition and resilience building, Moringa will be an avenue for targeted communities to derive multiple benefits including soil fertility, diet diversification and incomes. Targeted communities will be supported to produce Moringa oleifera leaf, which will be harvested, dried and made available to HHs during the lean/dry season. Also, this will be used as an additional source of income for HHs or FOs who will be capacity built to convert surplus leaf into a nutrition supplement powder to be sold to the existing nutrition clinics or promoted to community members through CHIPS. Cooking demonstration on how to incorporate moringa into family diets will be done. Emphasis will be made on multiple ways of utilization of powdered moringa leaf to combat hidden hunger at household level and at the community nutrition centres. This is an approach to PREVENT rather than treat malnutrition. Farmer Organizations Nutrition Dialogue Centres (FONDICs) will be established to provide an avenue for promoting moringa for nutrition leveraging the existing local networks of multisectoral actors and policy actors for nutrition. This will give our FOs voice in nutrition fora. Develop recipe book for moringa based recipes to encourage utilization by communities and as a tool for behaviour change. Promote Moringa leaf powder as a food based fortificant into locally made Tom Brown.</p>
	<p>1.2 Promoting nutrition awareness and practices</p>	<p>Promote social behaviour change communication and nutrition education to increase awareness of nutrition knowledge and good practices for nutrition at household level Promotion of context appropriate homestead food production including backyard gardens for nutrient rich vegetables and other foods in areas with adequate water. Promote adoption of climate resilient backyard gardening technologies in areas with water challenges hence enhance water smart technologies for backyard gardens. Support with starter packages for small livestock targeting very poor women</p>

Component	Subcomponent	Activities
		<ul style="list-style-type: none"> Conduct targeted nutrition demos and trainings at household level and through VCs farmer field schools Integrate nutrition in the delivery of GALS to empower women to make decisions for nutrition and enable them to access and control resources for enhanced household nutrition
	1.3: Promoting an enabling Policy and institutional framework	<ul style="list-style-type: none"> Policy engagement and advocacy on food security and nutrition. Promotion of policy dialogue for nutrition at state and local government levels. Support policy domestication at state and LGA levels contributing to improved nutrition. Support FOs to have a voice in nutrition fora at local and state levels
Component 2: Enhance profitable inclusion of target groups in VCs through:	2.1: Improving post-harvest and value addition	<ul style="list-style-type: none"> Promotion of market-oriented nutrition sensitive approaches along value chains and among value chain actors including: Promotion of nutrition sensitive value chains with a focus on nutrient rich varieties; Promotion of nutrient retention approaches such as through fortification; Promotion of post -harvest practices aimed to preserve and enhance nutrient quality of the food produced; Support with appropriate equipment or technologies and training to farmers for safe home storage and food preservation for increased shelf-life; Provision of equipment and training to farmers on home processing for increased year-round availability; Promotion of appropriate food safety, quality control, certification (packaging/ labelling) initiatives and implementation of hygienic standards for food preparation and commercialization.
Component 3: Programme Coordination & Management		<ul style="list-style-type: none"> Nutrition officers recruited at National and State levels to oversee implementation of nutrition strategy. Nutrition to be factored adequately in the cost tabs Monitoring of nutrition indicators to be factored at baseline, midline and end-line for core outcome indicators; regular monitoring through Project M&E system

Appendix 2: Examples of climate resilient backyard gardening technologies - 1



Appendix 3: Examples of climate resilient backyard gardening technologies- 2



Annex 13.6: Technical Note: FARMERS’ ORGANIZATIONS, RURAL INSTITUTIONS AND POLICY & INSTITUTIONAL DEVELOPMENT SUPPORT

INTRODUCTION

The Value Chains North Programme is conceived as a follow-up phase of the CASP¹⁰⁷ program completed in 2021. Hence it will target the same northern area of Nigeria and expand to an additional state of Kano¹⁰⁸. AFD will be the co-financing agency.

The overall goal of VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The Development Objective is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The expected Outcomes are the following:

- Improved productivity, climate adaptive capacity, and resilience.
- Improved diet quality and nutrition awareness,
- Improved post-harvest handling, value addition, and access to markets,
- Improved entrepreneurship and self-employment opportunities
- Improved policy and institutional framework.

SUMMARY OF COMPONENTS, OUTCOMES, AND ACTIVITIES

Component/ Subcomponent	Outcome	Activities
1. Foster climate-resilient & nutrition-sensitive production		
1.1 Promoting sustainable agric. systems improved technology & climate-resilient practices	Improved productivity, climate-adaptive capacity & resilience of SHFs farming systems	Development of small irrigation; provision of quality climate-resilient seeds, organic fertilizers, GAPs/ water-smart practices
1.2 Promoting nutrition & gender awareness & practices	Improved diet quality & nutrition awareness	Nutrition education/Social Behavioral Change, intercropping for diversity, promotion of bio-fortified varieties, cooking demos
1.3 Promoting social cohesion and an enabling policy, and institutional framework	Improved policy & institutional framework for poverty reduction, food and nutrition security & gender equality	Strengthen territorial dialogue spaces, Facilitate inclusive processes to identify policy/regulation issues affecting the target VCs, Support to enhanced extension services, Support for nutrition, gender & youth orientation, Support platforms for interaction among VC actors and conflict resolution, strengthen voice of women/youth, institutional strengthening of FOs & other key actors

¹⁰⁷ Climate Change Adaptation and Agribusiness Support Programme in the Savannah Belt covered Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Yobe and Borno states

¹⁰⁸ Included to provide market opportunities

Component/ Subcomponent	Outcome	Activities
2. Enhance inclusive & profitable value chains for target groups		
2.1 Improving post-harvest, value addition, market linkages and partnerships with VC actors	Improved post-harvest handling, value addition & access to the market in the target value chains	Market infrastructure (storage/processing, sheds, last mile roads), Nutrition-sensitive VC (nutrient retention, avoidance of contamination), packaging, labelling, certification
	Professional partnerships/linkage and professionalization of the actors are developed and consolidated. Youth and women are trained and supported with business packages for entrepreneurship..	Replication & and scaling up of CAF platform, facilitate market access for VCN graduates with Babban Gona
2.2 Promoting entrepreneurship for women and youth	Entrepreneurship opportunities	Training & business start-up support
2.3 Improving access to finance & scale access to digital financing	Feeds into the two outcomes	Financial literacy training, link with FIs, ICT4D/digital products to facilitate access to financial services
3. Programme Coordination & Management		
3.1 Programme management	Effective and efficient support of program implementation	Programme coordination
		Monitoring and evaluation (M&E) & Knowledge management (KM)
		Financial management

FOs AND RURAL INSTITUTIONS: LESSONS LEARNED FROM PREVIOUS FGN/IFAD's INTERVENTIONS THAT WILL BE USEFUL FOR THE DESIGN AND IMPLEMENTATION OF THE VCN.

1. Lessons from the completed Original Value Chain Development Programme (VCDP)

The completed original VCDP has engendered the following key changes in rural institutions development and FOs strengthening in targeted States.

(a) Agricultural development

- The most salient achievement in this area is: (i) government's buy-into VCDP's inclusive, private sector driven value chain approach to developing the smallholder agriculture sector; (ii) mobilization of state government support to VCDP land development initiative in all states; (iii) establishment of cooperative registration office in States' ministry of agriculture for better proximity to farmers

(b) Policy engagement strategy

- Strategy focusing on influencing government action in the following areas among others: (i) defining norms and standards for produce quality, packaging, weights and measures and formulating guidelines for enforcing/controlling the standards; (ii) developing a rural regulatory framework that will address the abuse (especially produce diversion) of farmers/off-takers agreement; (iii) engaging the key actors to improve the business environment for investors in terms of security of investment and market enhancement; (iv) strengthening the framework for the establishment and operational scope of CAFs' states; and (v) adoption of land development as one of the key functions of the government

to improve access to agricultural land by Smallholder farmers, including women and youth.

2. Lessons from the ongoing VCDP AF (for which a MTR has been done).

- Strategic Partnerships built by VCDP with key stakeholders, namely the private sector, through the 4Ps model (CAFs), alongside VCDP's quick gain approach, are pivotal and significantly elucidate the achievements in the value chains development across the beneficiaries States.
- The significant contribution of VCDP is Nigeria's strategic objective of food security. VCDP is also a finance model aiming at transforming Nigeria's food systems.
- Area of improvement

Reporting.

Significant achievements in the field are unfortunately not adequately documented in the implementation reports. There are things you cannot count that need to be acknowledged and communicated effectively. VCDP should move beyond the routine log frame-oriented reporting and emphasize the processes and qualitative transformational dynamics taking place on the field. Technical notes be appended to the report will provide a piece of useful information and lessons for knowledge sharing.

3. Lessons from CASP, captured in the PCR

- CASP succeeded to establish two principal institutions - the community development association (CDA) composed from the leadership of farmer groups, and the financial services association (FSA), to channel financial resources to the rural people and promote a savings culture among the community. CASP was envisioned to scale up the foundation of community cohesion and voice built by the CDAs and the FSAs to entrench a culture of agribusiness, and to take advantage of emerging market opportunities.
- CASP promotion of women only groups and awareness-raising through GALS methodology has contributed substantially to women economic empowerment as evidenced by the performance of women rice processors in Enugu or women cassava processors in Niger State.

QUICK ASSESSMENT BY QUESTIONNAIRES OF FARMERS ORGANIZATIONS AND RURAL INSTITUTIONS FOR VCN DESIGN IN SOKOTO, KEBBI, ZAMFARA.

As part of my participation in the design of VCN as expert in charge of Farmers organizations, rural institutions, Policy and Institutional Development Support, a rapid questionnaire¹⁰⁹ survey was conducted alongside discussions with key stakeholders during my mission to Sokoto, Kebbi and Zamfara states from December 02 to 10, 2023. The survey aimed at deepening understanding of challenges faced by smallholder farmers and FOs in accessing markets and agricultural value-added opportunities. The purpose of this technical note is to outline the findings of the survey, the aspirations and expectations of smallholder farmers and members of rural institutions which are critical for the design of VCN.

Methodology

Sampling and data collection

- A quick survey was conducted in Sokoto and Kebbi, targeting members of fifteen associations bringing together 241 smallholder farmers, including 102 women.

¹⁰⁹ The questionnaires are appended to this note.

According to these farmers, 47.3% of their associations or production groups are very effective and 52.6% are somehow effective.

- All the smallholder farmers are part of the 1612 N-agripreneurs trained and supervised by CASP. They are also part of the 315 CDAs established in the states of Sokoto (121), Kebbi (97) and Zamfara (97).
- They are also part of the 132 FSAs in the three states. Sokoto State (36 of which 21 are linked to microfinance institutions), Kebbi State (39 of which 18 are linked to microfinance institutions), and Zamfara State (57 of which 26 are linked to microfinance institutions).

Key Informant Interviews were conducted during meetings with purposively selected respondents who were persons considered critical stakeholders who had appreciable knowledge on CASP and the value chain development dynamics. While it's true that time constraints prevented us from diving deeper into our survey, it's equally true that the judicious choice of respondents and their mastery of the issues involved in the inclusive and sustainable development of agricultural value chains in Northern Nigeria enabled us to identify the major trends and challenges.

PRELIMINARY RESULTS OF GROUP DISCUSSIONS WITH STAKEHOLDERS

1. Discussions with stakeholders of Sokoto – Kebbi & Zamfara.

Key challenges	Interventions recommended
● Access to financial resources for poor & vulnerable groups (women – youth – PWDs – IDPs etc.)	<ul style="list-style-type: none"> ▪ Involving the community head in the profiling and mapping process to ascertain identity, field location, and farmland size before registration. ▪ Using Private-Public extension services for GAP training. ▪ Promoting Community nutritional centers and partnership with UNICEF – Gain - NI. ▪ Promoting gender transformative approach and financial inclusion of rural poor. ▪ Promoting State Agency and sustainability funds for VCN's achievements. ▪ Deploying climate-resilient seeds & weather predicting gadgets in collaboration with Nimet. ▪ Provisioning organic fertilizers and other agricultural inputs. ▪ Involving youth in VC activities such as seed production enterprises, mechanization, transport, insurance coverage risk, ITC4D. ▪ Promoting peace & strengthening conflict resolution mechanism
● Climate change	
● Nutritional challenges	
● Access to land for women, youth, Pwds	
● Poor mechanization of agricultural practices.	
● Poor Access to agricultural inputs	
● Youth unemployment	
● Fragility & conflict.	

ANALYSIS OF THE SHF'S RESPONSES TO THE QUESTIONNAIRES

DEMOGRAPHICS

Age: 50% of respondents fall within the 40-49 age group, indicating a relatively mature population. Around 28% are in the 50-59 age range, reflecting a significant portion of middle-aged individuals. The 30-39 age group constitutes 11%, and the 60 and above category also makes up 11%.

Gender: This gender distribution indicates a predominantly male representation, constituting 78%, while females make up 22% of the respondents.

Years of Farming Experience: This distribution suggests a diverse range of farming experience, with a notable portion (33%) having 30 years or more of engagement.

CURRENT INVOLVEMENT IN FARMER ORGANIZATIONS

Membership of Smallholder Farmer Organization: In the study, 83.3% are members of smallholder farmer organizations while 16.7% are not.

Management Team of Smallholder Organizations: About 16.67% of groups are all-female, indicating a focus on women's leadership. In 33.33% of cases, women constitute the majority, showcasing a commitment to gender diversity. Additionally, 22.22% maintain a balanced representation with an equal distribution of male and female members. In 27.78% of instances, the majority of the team is male, suggesting a potential area for improvement in gender inclusivity. This overview reflects a varied approach to team composition, with different levels of emphasis on gender diversity within the management structures.

PERCEPTION OF EFFECTIVENESS OF POs/FOs AND ENTERPRISES BY THEIR MEMBERS

Services to Members of Organization: 52.6% of respondent described the effectiveness of services to members of smallholder organization as somewhat effective whereas 47.3 as very effective.

Challenges of Farmer Organizations: Financial challenges, including insufficient funds, financial problems, and a lack of financial support, collectively account for 28.13%. Issues related to farming activities, inadequate funds, and knowledge gaps on modern farming techniques contribute 15.63%. Insecurity, poor road networking, and economic challenges make up 18.75%. The need for inputs, farm equipment, and efficient training constitute 15.63%, while concerns about sustainability, orientation, and member contributions collectively represent 9.38%. Overall, financial constraints, insecurity, and knowledge gaps emerge as prominent challenges, indicating a need for comprehensive support in these areas.

INTEGRATION IN THE VALUE CHAIN: ACCESS TO RESOURCES

Access to Arable Farmlands: In this study, 94.7% of respondents have access to arable farmlands whereas 5.3% do not.

Government Initiatives Supporting Rural Farmers: 78.9% are aware of government programs or initiatives supporting smallholder farmers in their area while the remaining 21% are not aware.

Access to Agricultural Inputs: 73.6% are aware of obstacles in accessing agricultural inputs (seeds, fertilizers, etc.) while 26.3% are not aware.

MARKETING AND INCOME

Marketing Agricultural Produce: Local markets are a common avenue, with 11.11% utilizing this method. Challenges such as lack of access roads and water facilities prompt 5.56% to sell locally. Open markets, both traditional and recent off-taking, contribute 11.12%. Direct approaches, including taking produce to markets or selling directly, are reported by 11.11%. Middlemen play a role for 5.56%, while 5.56% opt for nearby markets. Advertising, both through traditional methods and media, is utilized by 11.11%. Engaging with agents or brochures, as well as selling directly from the farm, each represent 5.56%.

Off-takers and Price Challenges: Predominant issues, each at 14.29%, encompass a lack of water facilities, poor access roads, climate/natural concerns, insufficient market information, and difficulty finding off-takers, especially in saturated markets. Additional challenges, each at 7.14%, involve open market prices exceeding off-taker prices, absence of off-takers, low pricing compared to local markets, off-taker prices being too low with issues related to loan repayment in kind, transportation challenges, scarcity of off-takers, lack of customers, hoarding of goods, and off-takers setting prices through their union.

Average Annual Farming Income: The analysis of average annual income from farming reveals a diverse distribution among respondents. A notable percentage (11.11%) reports an income of ₦500,000, while another 11.11% fall within the range of ₦100,000. The bracket of ₦2 million and above per annum is also represented by 5.56% of respondents.

TRAINING AND SUPPORT

Training Support: Out of the 19 respondents for this study, 95 received training or support related to farming practices in the past while the remaining 5% did not.

Training Support Received: Farmers field school training holds the highest percentage at 15.38%, indicating a significant focus on this form of capacity building. Other forms of support include agricultural input support and capacity building on agricultural production, each representing 7.69%. Various specific trainings, such as FFBS establishment, animal traction, tube well, water pump, and power tiller training, among others, are reported by 3.85% each.

Additional Trainings to Benefit Smallholder Farmers: Approximately 7.69% of respondents expressed the need for farming production support, such as fertilizer, certified seeds, and skills acquisition training on modern farming techniques. Additionally, 3.85% highlighted the importance of training in processing commodity marketing, post-harvest handling, and processing. Other identified needs include government support with loans or grants, value chain knowledge, effective resource management, agro-chemical use, and post-harvest management, each representing 3.85%. A subset of respondents (7.69%) emphasized the desire for more training on farming and financial support.

Extension Skills for Farmer Organization: The most notable areas of interest include weather information management (14.29%), followed by various topics such as training on irrigation farming, financial management, computer appreciation/ICT, improved production techniques, irrigation water efficiency, malaria prevention during the rainy season, support for farmers with training and facilities, good agricultural practices, improvement of new agricultural skills and marketing strategies, post-harvest losses, constant training, rural development, modernized skills, effective agricultural practices through improved technologies, and modern farming methods, each representing 7.14%.

DESIRED IMPROVEMENTS

Improvements in Existing Smallholder Farmers: The improvements desired in existing smallholder farmer organizations include implementing all activities related to farming, transforming smallholder farmers into large holders through knowledge and equipment, achieving high yields for increased investment, and experiencing economic improvement with higher returns. Additionally, desires include group cohesion, increased support from organizations like IFAD, regular training and retraining, agricultural research linkages, extension visits, enhanced input support from government and donors, and the direct funding of smallholder organizations for subsidized agricultural inputs. The aspiration is for smallholder farmers to grow into

large-scale operations, supported by modern facilities, resulting in high-yield products and income.

Strategies for Revitalizing Smallholder Farmers: To revitalize inactive farmer organizations, a comprehensive strategy is essential. This includes involvement in new farming activities, provision of adequate farm implements and improved seeds, financial support through linkages and training, programs like IFAD and NIRSAL, inter and intra-visit for knowledge sharing, training and retraining, regular training, financial support, additional and timely support, government assistance with equipment, effective resource utilization, assistance with farming tools, enlightenment, encouragement, and incentives, support with improved input at the right time, engagement through improved technology, and community mobilization.

SUPPORT AND SERVICES

Support to Smallholder Farmers: Smallholder farmer organizations should provide diverse support, including improved seeds, modern farming technology, training, and grants. They play a crucial role as intermediaries for sensitization, training, and communal responsibilities. Supporting members in farming activities, offering grants, loans, input packages, capacity building, and financial access are vital. Ensuring member involvement, linkages for better production, and regular meetings are essential.

External Strengthening Support to Smallholder Farmers: External entities such as government agencies or NGOs can support smallholder farmer organizations by providing diverse assistance, including capacity building, financial sourcing, constructing accessible structures, fostering linkages, and offering social amenities. Additionally, support in capacity building, provision of adequate farming resources, and guidance on resource management, as well as supplying required goods to improve farming systems, promoting cooperation among members, and facilitating training, sensitization, and input support, are crucial for enhancing productivity and sustainability.

FUTURE NEEDS AND RECOMMENDATIONS

Needs for Strengthening Smallholder Farmers: The most pressing needs for strengthening smallholder farmers in Northern Nigeria include a significant emphasis on addressing the lack of access to agricultural finance through a combination of training programs and soft loans, with a notable call for government and NGO support. Additionally, the need for modern agricultural techniques and skills development is underscored, along with collaboration with research institutions to improve seeds and mechanization knowledge. Security concerns, proper funding, and awareness creation are also identified as crucial, along with the importance of occasional training, affordable financing, and the involvement of local figures in the loan process.

Government/Organizations Improving Smallholder Farmers: The recommendations emphasize the need for comprehensive rural development, with priorities on providing affordable agricultural financing, modern production techniques, improved seeds, and extension services, alongside promoting conflict resolution awareness and ensuring effective government intervention and support. Additionally, there is a call for intensive security measures coupled with financial support, including proper funding linkages, agricultural program emphasis, and improved funding and disbursement mechanisms. The recommendations also stress the importance of training on modern facilities, enhancing security through capital and modernized tools, and addressing government funding and disbursement improvements, including affordable storage facilities and provision of funds and equipment to meet farmers' needs.

CURRENT STATUS OF FARMERS' ORGANIZATIONS (FOS) AND RURAL INSTITUTIONS OF SOKOTO – KEBBI & ZAMFARA ACCORDING TO RESPONDENTS.

A quick survey was carried out with fifteen associations bringing together 241 smallholder farmers, including 102 women. According to these farmers, 47.3% of their associations or production groups are very effective and 52.6% are somehow effective.

The tables below summarize the results of our quick survey by questionnaire, field consultations with stakeholders in the development of rural institutions as well as the recommendations made.

DEMOGRAPHY

Gender	18-25	26-35	36-45	46-55	56 & above	Occupation	No formal education	Pri. Sch	Sec. sch	Voc./Tech . training	Higher Edu. (specify)
F				✓		Farming			✓		
M			✓			Civil servant					Diploma
M		✓				Processing and marketing			✓		
F				✓		Civil servant					B.AD Islamic Studies
F				✓		Civil servant					B.Sc
F			✓			Poultry farmer			✓		
F		✓				Farming	✓				
M		✓				Rice processing			✓		
M				✓		Farming		✓			
M			✓			Rice production					NCE
M					✓	Civil servant					University
M				✓		Farming		✓			
F	✓					Farming and marketing			✓		
M					✓	Civil servant			✓		B.Sc Sociology

COMMUNITY AND INSTITUTIONAL DEVELOPMENT

Community	How long have you been living in the community?	Are you a member or do you belong to the management team of any local institution or organization in the community	If yes, pls specify the name and nature of the organization in the community	What are the major challenges faced by the local institutions in your community	Are you a member or do you belong to the management team of any of the following local institution development and supported by CASP in the past
Magajin Gari CDA Sokoto North LGA	At birth	Yes	Kungiyar Mata Manoma Shiyar M/Gari	Non-inclusion and dominance by men and capacity building	CDA
Wajake	20 years	Yes	Rice Farmers Association	Poor infrastructure facility such as light, poor road, irrigation	FSA
Rara/Rarah	At birth	Yes	Wheat processing association (Dibila) processing and marketing	Bandit and poor processing centres	FSA
Wajake Gidan Boka	50 years	Yes	Millet Farmers Association	No electricity enough and bad roads	
Gagi	40 years	No			
Danchadi/Bodinga	45 years	Yes	Danchadi Development Association	Lack of modern farming techniques	CDA
Gambuuta village area	35 years	Yes		Funds and awareness creation	CDA
Labara village area	35 years	Yes	Lambara Rice Processing Association	Processing materials	CDA
G/Boka, Wajakke	Above 50 years	Yes	Wajakke Community Development Association	Technical know-how on modern farming techniques	CDA
Riji/Riji	Since birth	Yes	Farmer, Rice and Millet	Lack of security and inputs	CDA
Dandin Mahe	58 years	Yes	Community Development Association	Underemployment, out of school children	CDA
Wajake	50 years	Yes	Wajake Community Development Association	Finance and capacity building on grouped community management	CDA
Gandi	25 years	Yes		Money and autonomy to execute activities	CDA
Saida village area	58 years	Yes		Lack of funds	FSA and CDA

INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING

In your opinion, how can the capacity of local institutions to which you belong be improved to better serve the community	Are there existing programs for members of your institutions and for your community	If yes, pls describe the nature of these training program
All inclusive fair play and capacity building through trainings, workshops etc	Yes	Training onbook keeping at CDA, on maintenance and nutrition
By empowering the community through financial, human and natural resources	Yes	Training on planting of improved rice farming and also how to reduce lost of product due to pest/birds' infestation
By providing and adequate money to CDAs decentralization and support to smallholders' organizations	Yes	FSA management and funds disbursement
Assisting the community with capitals	No	
By training and retraining of the community members	No	
To provide them with farming support	Yes	Mobilization and sensitization Awareness creation
Involvement of women in decision making process	No	
Effective sensitization. Training	No	
Training and retraining of farmers on how to engage in mechanized farming	Yes	Sensitization on how to keep records Knowledge on how to plant economic trees
By giving adequate money to CDAs direct funding and support to smallholder organization	Yes	CDA management and fund disbursement
Awareness creation	No	
Give them adequate training on capacity building on management of human resources, community resources and linkages with financial institution for easy farming	Yes	Mobilization on:i) training on village and community projection and participation ii) training on record keeping
By direct disbursement of money to CDA and FSA	Yes	FSA management skills and disbursement
Regulate members i.e. farmers in getting loans and training on their activities	No	

COMMUNITY PARTICIPATION AND EMPOWERMENT

How can community members be more actively involved in the decision-making processes of your local institution	What role do you think women and youth can play in strengthening your institutions and other rural institutions	Are there specific strategies that can enhance the participation of youth and women in local institutions
Through participatory approach and recent approach of GALS	By delegating responsibilities to each category of people including women and youth in the community	Inclusion in decision making, enterprises, support women and youths' activities and seed capital support
By sensitization on the benefit to derive by contributing to the decision making	By being self-employed and being educated	i) Training; ii) encouraging the girl's child education
Direct funding of FSA and CDAs and local leaders' inclusiveness	Very active in farming and processing	By providing soft loan to them through FSA/CDAs and ensure usage and starter packs for processing associations
Through mobilization	By educating them	Allowing women/girls to participate in school
	By giving them or involving them in all activities of the community	Through skills development
Through community participatory approach and community driving approach	To participate fully in decision making processes	Imparting knowledge and skill to the farmers
Awareness creation Improvement support	Reasonable percentage of women should be involved in decision making. Awareness creation by women in the group	Involvement of traditional leaders in awareness creation. Support improvement programme to women as a priority
By attending regular meetings and involvement in every aspect of group activities with no bias	By giving them specific roles in the group so as to carry them along	Women should be given 30% and youth 30% in membership composition
Through mobilization and sensitization. Awareness creation to participate fully in all the activities	Participate fully in decision making processes Involve all members to participate actively	Impart knowledge and skills to all categories of members of the community
Direct funding of FSA and CDAs and local leaders inclusiveness	Very effective in farming and marketing	By providing soft loan to them through FSA/CDAs and ensure usage and starter packs for processing association
Capacity building	Capacity strengthening and inclusiveness	No.
Through participatory approach	Assign responsibilities of management members to support the development communities	Engage women and youth in various entrepreneurship development or establishment. Support women and youth with productive skills
By direct funding of CDAs and FSA and involvement of local leaders	Activity participation and ensure involvement in all programme	To fund FSA and CDA directly and provide adequate supervision of funds allocated
Through reinforcement of members to their activities and regular meetings	60% involvement in all aspects of decision-making processes	Giving them special training with regards to their field

RESOURCES AND INFRASTRUCTURE

What are the main resources (financial, human, natural) available for your institutions in your community	Are there any infrastructure challenges hindering the effective functioning of your institutions
There are both human and natural resources with little or no finance to harness them	There is infrastructure deficit in all ramification including security
Human – availability of the villages who are ready to work/farm. Natural – the abundance of land which requires little manure	i) Storage facilities; ii) lack of capital; iii) poor irrigation
Human and natural resources are available and poverty is increasing	Poor transportation and network facilities
Human for those that needs to farm in their community	Yes. Lack of storage facilities
Human and natural resources	Lack of facilities and access roads
Human and natural resources	Yes. Office base
Human and natural resources	Provision of offline structure and administrative facilities
Bot human and natural resources are available in the community but lack of adequate financial resources	Poor access to roads, lack of health facilities, no portable water and lack of market stall etc.
Human and natural resources are available and poverty is increasing	Poor transportation and network facilities
Human and natural	Financial
There is availability of human and natural resources	There are challenges of poor road network, market and health facilities. Challenges of insecurity
Natural and human resources are available but limited or lack of financial supports	Poor roads from farm to villages and poor processing centers or inadequate centers
Human and natural resources	Yes

SUGGESTIONS AND RECOMMENDATIONS

Bases on your experience, what recommendations do you have for improving and strengthening rural institutions in Northern Nigeria	Are there successful examples of institutional development in nearby communities that can serve as models
Women and youth empowerment; identify and support genuine enterprises and develop institutions responsible for development	
i) Sensitization; ii) provision of roads/power supply; iii) modernized farming tools; iv) provision of boreholes	Yes. YARLABE
By giving them autonomy and ensuring utilization	Yes. Rabah CDA and FSA
Sensitization and provision of roads	Yes. Gidan Boka
i) Through giving the community members the opportunity decision making ii) Through training	No
Empowering youth and women	
Broader and regular sensitization. Linkages to financial institutions, donors and government agencies	
Involvement of women and youth to a 60%. Government support and other donors. Sensitization and training	
Empower women and other vulnerable groups in the society. Provide micro credit and skills acquisition programmes	
By giving them autonomy and ensure utilization	Yes. Rabah CDA and FSA
Awareness creation, engagement and participatory rural approach	No.
i) Women empowerment should be accorded priority. ii) Community mobilization ad support iii) Provision of micro credit to women and youth enterprises	
After giving training, there should be starter packs or soft loan for start up	Very limited but Rabah FSA and Yartsakuwa are models
Linkages to financial institutions Wider mobilization for acceptability of the institutions	

ANALYSIS OF THE RESPONSES OF SHFs, CDA's AND FSA's MANAGEMENT TEAMS TO THE QUESTIONNAIRES

Demography

Gender: Females (F) account for 42% of the study and Males (M) make up the remaining 58% of the study.

Occupation: Farming and Civil servants are the most common occupations, each representing approximately one-third (33.33%) of the study. Specialized roles such as Processing and Marketing, Poultry farming, Rice Processing, Rice Production, and Farming and Marketing each make up around 6.67% of the study.

Educational Qualification: The educational qualifications are diverse, with B.Sc being the most common, making up 16.67% of the study. Other qualifications such as Higher

Education (Specify), Diploma, B.AD Islamic Studies, NCE, University, and B.Sc Sociology each represent 8.33% of the study.

COMMUNITY AND INSTITUTIONAL DEVELOPMENT

Duration of Living in the Communities:The majority of individuals (35.71%) have been living in the community since birth. Residents with durations of 30 years, 40 years, and 50 years each make up significant portions of the study, with 14.29% each. Those with 20 years and above 50 years of residence constitute 7.14% each.

Membership of Community Organization:The majority of individuals (86.67%) are members or belong to the management team of a local institution or organization in the community. A smaller portion (13.33%) answered "No" to being a member or belonging to the management team.

Major Challenges of Local Institutions: Challenges are diverse, covering issues related to gender dynamics, infrastructure, fragility and security, farming techniques, funds, and community management. The most frequently mentioned challenges include poor infrastructure facilities, funds, fragility/security and awareness creation.

Membership of Organizations Supported by CASP: The majority of individuals (91.67%) are members or belong to the management team of CDA, which has been developed and supported by CASP. There is one instance (8.33%) where individuals are associated with both FSA and CDA.

INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING

Fragility and insecurity in northern Nigeria is a complex and interconnected issue. The answers recorded in the questionnaires under challenges and opportunities heading highlight three major challenges faced by agripreneurs in this part of the country: (a) climatic challenges; (b) security challenges; and (c) socio-cultural challenges. Under the future needs and recommendations, the responses also highlight a number of mitigation measures proposed by respondents.

- 1. Climatic Fragility.** Changes in climate patterns, including increased temperatures and irregular rainfall, Insufficient water resources are factors contributing to desertification, land degradation and exacerbating agricultural challenges as well as contributing to conflicts over access to water and grazing lands.
In terms of recommendations, SHFs/agripreneurs suggest improving and strengthening farming practices that are adaptable to changing climate conditions, water management strategies and irrigation systems, planting of trees to combat desertification and reduce the impact of climate change, establishing effective mechanisms for resolving inter-community and farmers-herders conflicts and grievances.
- 2. Security fragility: Insurgency and terrorism.** Groups like Boko Haram have caused widespread insecurity, leading to displacement and economic disruption. In addition, deep-seated ethnic and religious divisions contribute to conflict and violence.
In terms of recommendations, SHFs/agripreneurs suggest strengthening security measures to combat insurgent groups; fostering dialogue between different ethnic and religious groups to promote understanding and unity; address root causes of terrorism by investing in education and creating economic opportunities to reduce recruitment into extremist groups.
- 3. Cultural and gender fragility,** the causes of which are to be found in discriminatory social norms and women's exclusion from decision-making and voice; women's and youth's difficult access to land and control over productive assets, such as land, credit, inputs, machineries and technology.

In terms of recommendations, respondents suggest Supporting women's organizations and networks that advocate for women's rights and participation in political and economic spheres. Enhancing women's access to and control over productive assets, such as land, credit, inputs, machineries and technology.

Capacity Improvement of Local Institutions: The suggestions cover a diverse range of strategies, including capacity building, financial empowerment, support to local institutions, and training initiatives. The most common theme is providing adequate money to CDAs and supporting smallholder organizations, which represents 17.65% of the responses.

COMMUNITY PARTICIPATION AND EMPOWERMENT

Involvement of Community Members in Decision-making: In this study 20% of participants suggested participatory approaches and Gender Action Learning System (GALS), 15% on sensitizing members about the benefits, 20% on direct funding for FSA and CDAs with local leaders' inclusiveness, 15% on mobilization efforts, 10% on community-driven approaches, 10% on awareness creation, and smaller allocations for improvement support, regular meeting attendance, capacity building, and member reinforcement.

Role of Women and Youth in Strengthening Local Institutions: Delegating responsibilities to women and youth, promoting self-employment and education, and ensuring active engagement in farming and decision-making (60%) enhances institutional strength. A reasonable percentage of women in decision-making fosters inclusivity, supported by awareness creation and specific roles. Their effectiveness extends to farming, marketing, and capacity building, creating a comprehensive approach for holistic rural institution growth.

Strategies to Enhance Participation of Women and Youth in Local Institutions: 20% of responders were for decision-making inclusion and seed capital, 10% for girls' education, and 15% for soft loans through FSA/CDAs. An additional 5% of allocations cover school participation, skills development, traditional leader involvement, and improvement programs for women. Also, 5% each for 30% membership allocation, knowledge impartation, entrepreneurship engagement, and specialized training. The final 5% addresses direct funding of FSA and CDA with supervision, completing a comprehensive approach for increased participation.

RESOURCES AND INFRASTRUCTURE

Resources for Local Institutions: Human and natural resources are the primary assets in the community, with varying financial constraints. Approximately 25% of respondents emphasize the abundance of land requiring minimal manure for farming. Another 25% highlight the availability of villagers ready to work or farm. However, financial constraints hinder resource utilization in 30% of cases, leading to an increase in poverty. Despite this, 20% of respondents note the existence of both human and natural resources in the community. In a few instances, about 10%, limited financial support poses a challenge to tapping into available natural and human resources.

Infrastructure Challenges in Local Institutions: Infrastructure challenges are prevalent, with respondents highlighting various issues. Approximately 20% mention a deficit in all infrastructure aspects, including security. Storage facilities, capital, and irrigation pose challenges for 20% of participants. Poor transportation and network facilities hinder 20% of respondents. Lack of storage facilities is reported by 10%, while inadequate facilities and access roads affect another 10%. A few (10%) mention challenges related to office space. Offline structure and administrative facilities are indicated by 10%. Poor access to roads, health facilities, water, and market stalls affects 10%. Financial infrastructure challenges are noted by 10%, and specific issues like poor roads, inadequate processing centers, and insecurity are highlighted by 20% of respondents.

WAY FORWARD WITH THE VCN

- The lack of social cohesion between production groups is coming up in the response of smallholder farmers. According to the respondents, this is affecting their annual income and savings.
- Most of the production groups formed based on mutual trust between members are doing well. This is the case of a few groups that existed and was functional before CASP. Their average annual income is substantial and the level of their saving in growing at the FSA, enabling them to make regular loan disbursements for their productive activities.
- According to the Development Exchange Center (DEC), a CASP's strategic partner in providing support to CDAs, FSAs and CAFs as well as granting loans, the following rural institutions across the three states will play a key role in the implementation process of the VCN.
 - 65 FSAs across Sokoto, Kebbi, and Zamfara are functional and could serve as driving forces for the promotion of financial inclusion.
 - 315 CDAs are functional across the three States and could as well serve as driving forces for the promotion of the community driven development planning.
 - CAFs need to be strengthened in the 315 functional CDAs as they were set up towards the end of CASP.

POLICY AND INSTITUTIONAL SUPPORT UNDER SUBCOMPONENT 1.3 OF VCN.

The objective of this sub-component is to advocate for supportive policies at the local, State and national levels that promote sustainable agriculture and value chain development. It is also to empower local communities to take ownership of their development by involving them in decision-making processes. Under this component, VCN will (i) support the development of enabling policies and regulatory frameworks for agricultural Value chain, (ii) facilitate local policy dialogue for conducive and inclusive market linkages, (iii) strengthen quality control, grading and standardization systems, (iv) Establish and strengthen conflict management mechanisms. The expected outcomes of sub-component 1.3 are (i) Improved policy & institutional framework for poverty reduction, food, and nutrition security & gender equality; (ii) Dialogue spaces supported at the territorial level; (iii) Rural producers Organizations strengthened in their governance, management, and inclusivity.

Activities under sub-component 1.3 include:

- Support to development of policy, legislation and regulation enabling business environment and incentives to support private sector investments in the VCN;
- Investment promotion, branding and marketing of the VCN;
- Policy and regulatory reform to improve smallholder farmers, women and youth access to land, finance and quality technical and material inputs;
- Facilitate local policy dialogue for conducive and inclusive market linkages (support to the setup/ institutionalization of the CAF contributing to an enabling local policy and investment environment that ensures that target group can benefit from the opportunities created by the VCN. Policy dialogue at CAF level will aim to bring out key policy and regulatory issues affecting the activities and businesses of the direct beneficiaries of VCN investments. This may involve specific studies. CAF and its members will be capacitated in advocacy for an improved business environment for VCN target groups. Building on the policy dialogue facilitated through the CAFs, VCN will develop with FMAFS a policy guidance note to provide an environment conducive of market linkages with off-takers, creating opportunities for vulnerable smallholders and small VC actors to increase incomes and employment.
- Strengthen quality control, grading and standardization systems: The program will support the establishment of quality control, grading and standardization systems, which are a precondition for credible and transparent markets, and smallholders'

participation in them. It will also facilitate collaboration among relevant state and local regulatory authorities with statutory roles and responsibilities in establishing and enforcing agricultural commodity quality norms, grades, and standards.

- Establish and strengthen conflict management mechanisms: VCN will support mechanisms to compensate farmers and processing centres for conflict related damages. The program will develop an action plan to support conflict resolution in the participating LGAs, which will be validated by the CAF. The action plan will be based on lessons learned from VCDP
- develop insurance products for states to allocate a specific budget to offset losses arising from conflict– and on best practices in the field of violence prevention in Nigeria such as: i) community-level conflict management and resolution, and ii) the use of Information, Communication, and Technology (ICT). CAF will be supported to provide dedicated services to members in conflict mitigation measures especially as it affects farmers/herders.

VCN will also Strengthen territorial dialogue spaces; Facilitate inclusive processes to identify policy/regulation issues affecting the target VCs; support enhancement of extension service; strengthen the voice of women/youth, ensure the institutional strengthening of FOs and other key actors; support platforms for interaction among actors aiming at finding solutions to problems affecting VC.

A. Phasing of sub-component 1.3 activities

Promoting an enabling policy and institutional framework for agricultural value chain development requires ongoing commitment, adaptability, and collaboration among all stakeholders involved. Key phases include:

1. Assessment and analysis of the existing policies related to agricultural value chain development in fragile as well as insecure beneficiary States of VCN.
2. Stakeholder Engagement: (i) involve key stakeholders, including farmers, processors, government agencies, NGOs, and private sector players; gather input from these stakeholders to understand their needs, challenges, and aspirations within the agricultural value chain.
3. Policy Development: (i) develop policies that support the entire agricultural value chain, from production to marketing and addressing issues such as farmers/herders conflict, access to credit, market infrastructure, land tenure, and incentive measure for technology adoption; (ii) ensure that policies are flexible enough to accommodate the diverse needs of different value chains and States.
4. Legal and Regulatory Framework (i) develop and enforce a supportive legal and regulatory framework; (ii) revise existing laws or create relevant new ones to address fragility, insecurity and other emerging challenges and opportunities in the agricultural value chain development.
5. Promotion and Communication: (i) develop a communication strategy to raise awareness about the benefits of the new policies and institutional changes; (ii) engage in advocacy efforts to gain support from various stakeholders.

B. Implementing mechanism and partners

Development of a supportive policy and institutional framework for agricultural value chains in Northern involve engaging the following implementing mechanism with key stakeholders:

Policy Advocacy and Formulation:

- Key Mechanism: Establish a robust policy advocacy platform that brings together representatives from government agencies, research institutions, farmer associations, and the private sector. This platform should advocate for the development and implementation of supportive policies for agricultural value chains.

- Key partners: (i) MDAs, beneficiary States to ensure that policies are aligned with their development; (ii) agricultural research institutions to provide evidence-based insights and recommendations for policy formulation; (iii) farmer organizations to work closely with production groups to incorporate the perspectives of smallholder farmers, women and youth into policy discussions and ensure that policies meet their needs; (iv) NGOs and development agencies with experience in agricultural training and capacity building; (v) private sector; (vi) financial institutions; (vii) trade associations Work to strengthen market connections and advocate for the interests of agricultural businesses in regional and national markets.

C. Exit strategy

The following exit strategy aims at building local capacity, ensure ownership, and create a sustainable ecosystem for value chain development in Northern Nigeria.

1. Policy and Institutional Development:
 - Work closely with government agencies to develop and implement supportive policies.
 - Strengthen existing institutions and establish new ones if necessary
2. Local Ownership:
 - Gradually transition project ownership to local institutions and communities.
 - Ensure that local stakeholders are actively involved in decision-making processes.
3. Exit Plan:
 - Develop a phased exit plan outlining the gradual withdrawal of external support.
 - Ensure that local institutions have the capacity to sustain the initiatives independently.
4. Documentation and Reporting:
 - Document the entire process, challenges faced, and lessons learned.
 - Share this information with relevant stakeholders and the wider development community.
5. Advocacy and Policy Influence:
 - Continue to advocate for supportive policies at the regional and national levels.
 - Use success stories and evidence from the project to influence broader policy changes.

D. Main risks and mitigation

Policy and regulatory framework issues, social cohesion issues and weak institutional capacity pose the following significant risks to effective achievement of sustainable poverty reduction and resilience of rural population in Northern States of Nigeria.

1. Social isolation and discrimination:
 - Risk: Individuals or groups may feel discriminated, leading to social exclusion who hinders the cohesiveness of a community.
 - Mitigation: promote policy and regulatory framework fostering inclusivity, creating spaces for open dialogue, addressing concerns and building connections.
2. Economic Disparities:
 - Risk: Economic inequality can contribute to social fragmentation, as vulnerable groups (youth, women, PWDs, IDPs) may feel marginalized or disadvantaged.
 - Mitigation: Implement VCN programs and promote policy that create opportunities for all community members, support initiatives that address poverty, unemployment, and provide access to education and skills training.
3. Political Instability & insecurity:
 - Risk: Political instability at the local level can contribute to social unrest and division.
 - Mitigation: Promote transparent and inclusive governance policy, enhancing civic participation, empowering community members to have a voice in decision-making processes and fostering a sense of civic responsibility.
4. Cultural barriers and Social Exclusion

- Risk: Cultural barriers may contribute to gender inequality and social exclusion within the community, fostering stereotypes and prejudice.
 - Mitigation Measures:
 - Promote inclusivity and gender transformative approach through GALS methodology. Encourage events and activities that celebrate diversity and inclusion, fostering a sense of belonging for all community members.
 - Diverse representation: Ensure that decision-making bodies and community leadership reflect the diversity of the population, preventing the marginalization of specific groups.
- 5. Limited Access to Services and Opportunities:**
- Risk: Cultural barriers and social exclusion may result in certain community members facing obstacles in accessing essential resources, services, educational opportunities, or employment.
 - Mitigation Measures: promote enabling environment policy ensuring that resources and opportunities are distributed equitably among different cultural groups, addressing disparities and promoting equal access to benefits.

INSTITUTIONAL STRATEGY AND OUTCOME

The institutional strategy for the development of an agricultural Value chain in Northern Nigeria include:

- 1. Stakeholder engagement consisting of:**
 - Identifying and engaging key stakeholders, including farmers, government agencies, NGOs, private sector entities, and research institutions.
 - Facilitating collaboration and partnerships to enhance the select value chains.
- 2. Capacity building which consists of:**
 - Investing in training programs for farmers, extension workers, and other stakeholders to improve agricultural practices, technology adoption, and business skills.
 - Establishing farmer cooperatives and provide support for collective action.
- 3. Infrastructure development which consists of:**
 - Improving transportation, storage, and processing facilities to reduce post-harvest losses and enhance the overall efficiency of the value chain.
 - Investing in irrigation systems and water management to mitigate the impact of climate variability.
- 4. Market access, consisting of**
 - Developing and implementing market-driven strategies to ensure farmers have access to local, regional, and international markets.
 - Facilitating the establishment of market linkages between farmers and buyers through the CAFs 4Ps model.
- 5. Technology adoption consisting of**
 - Promoting the adoption of Good Agricultural technologies practices, including improved seeds, precision farming, and mechanization.
 - Supporting research and development initiatives focused on addressing region-specific challenges.
- 6. Policy advocacy consisting of**
 - Advocating for policies that support agricultural development, including land tenure reform, access to credit, and incentives for private sector investments.
 - Engaging with government agencies to create an enabling environment for sustainable agriculture.

Outcomes: the outcomes of the institutional strategy are the following:

1. Increased productivity: adoption of modern farming practices and technologies leads to increased agricultural productivity.
2. Income generation: improved market access and better value chain integration contribute to increased income for smallholder farmers and other stakeholders.

3. Employment opportunities: expansion of agricultural value chains creates employment opportunities along the entire value chain, from production to processing and marketing.
4. Food security: enhanced productivity and market access contribute to improved food security at both household and regional levels.
5. Sustainable practices: implementation of sustainable agricultural practices helps preserve the environment and ensures the long-term viability of the agricultural sector.
6. Social development: capacity building and community engagement contribute to social development by empowering local communities and improving their overall well-being.
7. Private sector Investments: creation of a conducive business environment attracts private sector investments, fostering economic growth in the region.
8. Resilience to climate change: implementation of climate-smart practices and infrastructure development enhances the resilience of the agricultural sector to climate change impacts.

APPENDIX 1: Questionnaires for assessing SHFs, FOs and Rural Institutions.

Field Survey Questionnaire for Assessing & Strengthening Smallholder Farmers (VCN)

Thank you for participating in this survey.

1: Demographics

Name (Optional):

Age:

Gender:

Location (Village/LGA):

Number of years engaged in farming:

2: Current Involvement in Farmer Organizations:

- a. Are you currently a member of any smallholder farmer organization in your community? (Yes/No)
- b. If yes, please provide the name of the organization and your role within it:
- c. Do you belong to any of the following production groups/FOs and activities developed and supported by CASP in the past? If yes tick the group to which you belong:
 1. Production group/FO? Specify the group/Organization, the community and the LGA
 2. Enterprises? Specify the community and the LGA
 3. Market warehouse? Specify the community and the LGA
 4. Processing centers? Specify the community and the LGA
 5. Input shops? Specify the community and the LGA
 6. Post-harvest handling processing centers? Specify the community and the LGA
 7. Others? specify
- d. How many people make up the management team of your group or activities? How many women? How many young people?

3: Perception of effectiveness of POs/FOs and enterprises by their members:

- a. How would you describe the effectiveness of services to members of your organization, groups, and enterprises in your community? In your LGA? At your State level?

(Very Effective, Somewhat Effective, Not Effective)

- b. What challenges do you think the group to which you belong are currently facing?

4: Integration in the value chain: Access to Resources

- a. Do you have access to arable land for farming?

Yes

No

- b. Are you aware of government programs or initiatives supporting smallholder farmers in your area?

Yes

No

- c. Are there any obstacles in accessing agricultural inputs (seeds, fertilizers, etc.)?

Yes

No

5: Marketing and Income

- a. How do you market your agricultural produce?
- b. Are there challenges in getting off-takers and fair prices for your products? Please explain.
- c. What is your average annual income from farming?

6: Training and Support

- a. Have you received any training or support related to farming practices in the past?

Yes

No

- b. If yes, what kind of training or support have you received?
- c. What additional training or support do you think would benefit you as a smallholder farmer?
- d. What topics or skills do you believe should be covered in extension programs for these organizations?

7: Desired Improvements:

- a. What improvements would you like to see in existing smallholder farmer organizations?
- b. Are there specific strategies you think would help in revitalizing inactive farmer organizations?

8: Support and Services:

- a. In your opinion, what types of support and services should smallholder farmer organizations provide to their members?
- b. How can external entities like government agencies or NGOs support the strengthening of these organizations?

9: Challenges and Opportunities:

- a. What are the main challenges faced by smallholder farmer organizations in your community?
 - b. Are there specific opportunities that could enhance the effectiveness of these organizations?

10: Future Needs and Recommendations

- a. What do you believe are the most pressing needs for strengthening smallholder farmers in Northern Nigeria?
- b. Do you have any recommendations for the government or organizations to improve the livelihoods of smallholder farmers in your region?

11: Additional Comments

Please feel free to provide any additional comments or suggestions that you think are important.

Field Survey Questionnaire for Assessing Developing & Strengthening Rural Institutions (VCN)

Introduction:

Thank you for participating in this survey. Your responses will contribute valuable insights to the development and strengthening of rural institutions in Northern Nigeria. Please answer the following questions to the best of your knowledge and experience.

1: Demographic Information

a. Name of Respondent (Optional): _____

b. Gender:

Male Female

c. Age:

18-25

26-35

36-45

46-55

56 and above

d. Occupation: _____

e. Educational Background:

No formal education

Primary school

Secondary school

Vocational/Technical training

Higher education (please specify) _____

2: Community and Institutional Information

a. Name of the Village/Community: _____

b. How long have you been living in this community? _____

c. Are you a member or do you belong to the management team of any local institution or organization in the community?

Yes

No

d. If yes, please specify the name and nature of the institution: _____

e. What are the major challenges faced by the local institutions in your community?

f. Are you a member or do you belong to the management team of any of the following local institutions developed and supported by CASP in the past? If yes tick the group to which you belong:

1. CAF

2. CDA

3. FSA

3: Institutional Development and Capacity Building

a. In your opinion, how can the capacity of local institutions to which you belong be improved to better serve the community?

b. Are there existing training programs for members of your institutions and for your community?

Yes

No

c. If yes, please describe the nature of these training programs.

4: Community Participation and Empowerment

- a. How can community members be more actively involved in the decision-making processes of your local institutions?
- b. What role do you think women and youth can play in strengthening your institutions and other rural institutions?
- c. Are there specific strategies that can enhance the participation of youth and women in local institutions?

5: Resources and Infrastructure

- a. What are the main resources (financial, human, natural) available for your institutions in your community?
- b. Are there any infrastructure challenges hindering the effective functioning of your institutions?

6: Suggestions and Recommendations

- a. Based on your experience, what recommendations do you have for improving and strengthening rural institutions in Northern Nigeria?
- b. Are there successful examples of institutional development in nearby communities that can serve as models?

Annex 13.7: Technical Note : VALUE CHAIN INFRASTRUCTURE

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Acronyms and Abbreviations

BoQs	Bills of Quantities
CASP	Climate Change Adaptation and Agribusiness Support Programme
CN	Concept Note
COSOP	Country Strategic Opportunities Programme
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FGN	Federal Government of Nigeria
FOs	Farmer Organisations
Ha	Hectare
IFAD	International Fund for Agriculture Development
IWUOs	Irrigation Water User Organisation
Km	Kilometer(s)
LGA	Local Government Areas
LGCs	Local Government Councils
MMC	Market Management Committee
MOU	Memorandum of Understanding
m ²	Square Meters
M ³	Cubic Meters
NBC	Nigerian National Building Code 2006
NPMU	National Project Management Unit
O&M	Operation and Maintenance
PWD	People With Disabilities
RMCs	Road Maintenance Committees(s)
VCN	Value Chain Northern Nigeria Programme
SECAP	Social, Environmental and Climate Assessment Procedures
SP	Service Provider
SPMU	State Project Management Unit
SVCIO	State Value Chain Infrastructure officer
USD	United States Dollars
UO	User Organization
VC	Value Chain
VCDP	Value Chain Development Programme
WUOs	Water User Organisation

Introduction

Background

1. The Federal Republic of Nigeria and IFAD are currently in operation under the Country Strategic Opportunities Programme (COSOP) 2016-2023. The COSOP has the objectives of supporting smallholders, small processors and traders to derive wealth from tapping into the national food market through an integrated value chain approach; and, to foster the economic empowerment of rural youth and women along agricultural value chain. Towards meeting the two objectives, the COSOP has been implementing, among others the Climate Change Adaptation and Agribusiness Support Programme (CASP) and the Value Chain Development Programme (VCDP). The CASP has been implemented in the North of the Country and is now complete and closed while the VCDP has been implemented in Anambra, Benue, Ebonyi, Niger, Ogun and Taraba states. While CASP has demonstrated favourable results in climate resilience, it was short in value chain activities support. VCDP, on the hand, has been strong in the value chain activities especially the post harvest value chains while not being as strong on resilience support. This design draws lessons from the two Projects and other projects, among them being the French Development Agency (AFD) supported Rural Access and Agricultural Marketing Project (RAAMP).
2. The infrastructural development implemented under CASP, VCDP and RAAMP has been shown to have improved livelihoods and stimulated business engagements between farmers and the private sector. Roads constructed through the projects have remarkably reduced post-harvest losses and improved connection to markets and processing centres. The Value Chain North (VCN), therefore, will learn from these projects and build on the results and lessons therefrom, particularly the two projects CASP and VCDP. Thus, the design will be drawing a lot from the success in production and climate resilience for dry areas demonstrated in CASP and RAAMP while at the same time leveraging on the successes of VCDP on value chain infrastructure.

Rationale

3. The VCN is to be implemented in Northern Nigeria where poverty levels are among the highest in the country. Key among the causes of the poverty is that the people are lacking in many of the necessary inputs for profitable production. For instance, while the population lives in region where climate change, including extreme weather events is normal, the greater majority of households are reported to be engaging in rainfed agricultural activities. They lack production infrastructure including irrigation water and other production inputs such as quality seeds, extension services, and so on. Additional to that is that they are using poor natural resource management practices, and have limited access to post harvest value chain infrastructure which results in high post harvest losses.
4. The VCN is, therefore, aimed at supporting value chain infrastructure with a view to redressing these critical infrastructure constraints that limit smallholder farmers' ability for production, productivity and access to market. This will be achieved through the provision of irrigation facilities to reduce reliance on unpredictable rains; provide on-farm climate resilient soil & water management technologies as well as support to floods and erosion control. The Project will also address post-harvest challenges through the rehabilitation/construction of last mile access roads, support market infrastructures such as market stalls, infrastructure for aggregation/bulking of produce, as well as infrastructure for local grading and processing. Another key intervention will be to equip the farmers with the skills and knowledge to sustainably operate and maintain the infrastructure.
5. The value chain infrastructure will be implemented through a participatory approach whereby smallholder farmers will be supported to form Farmer Organizations (FO) for each of the target value chains. The FOs will then be supported with a flexible package of interventions proposed in the infrastructure sub-component of the

Project. The interventions, as observed above, are aimed at responding to the main needs of the target groups as identified and assessed during project appraisal process, the mission field visits, as well as lessons learnt from projects cited above. The proposed mix of infrastructure is an indicative package which can be further adjusted and refined during the implementation. However, any adjustments/refinements would require the concurrence of Project steering committee and IFAD. It would also be based on actual field experience but without compromising the basic principles of equitable distribution of resources, participatory principles, smallholder focus, efficient use of available resources and sustainability.

Proposed Investments

6. The Project will fund irrigation infrastructure under sub-components 1.1 which will enable farmers engage in year-round production; and, supporting infrastructure under sub-component 2.1 which to address infrastructure-related constraints such as storage and processing facilities, market sheds and last mile roads. This will be achieved through investments in climate resilient value chain infrastructure as summarized in Table 1 below. A brief description of the activities that will be undertaken for the different categories of infrastructure follow the summary.

Table 1: Summary of Value Chain Infrastructure

Infrastructure Category	Unit	Unit cost (USD)	Budget Allocation (USD)	No of Unit
Small Scale Irrigation Systems				
Tube wells for irrigation with solar pumps	No.	500	2,372,000	4,744
Wash bore wells for irrigation with solar pumps	No.	400	592,800	1,482
Construction/Rehabilitation of small earth dams with solar irrigation pumps	No.	5000	1,785,000	357
On-farm lined ponds for supplemental irrigation	No.	2000	1,066,000	533
Small flood control works	No.	200	106,800	534
Post harvest and Value addition Infrastructure				
Studies/assessments, designs & supervision	item		1,150,000	
Facility Users capacity building for O&M	item		460,000	
Market stalls	No.	45,000	3,600,000	80
Aggregation/bulking centers	No	50,000	5,000,000	100
Agro Processing facilities constructed or rehabilitated with solar powered bore hole for human consumption and sanitation services	No	65,000	2,405,000	37
Rehabilitation of last mile rural roads				
Project implemented access roads	Km	25,000	5,725,000	229
Community implemented access roads	Km	10,000	1,720,000	172
Drainage infrastructure including water storage ponds, culverts, drifts etc.	No.	7,000	3,108,000	444

7. Selection of the infrastructure categories that will be supported will be with of consultations with a wide range of stakeholders, including the government, both federal and State, local communities, market players such as traders and processors. The selection is also informed from experience and lessons gained from the IFAD portfolio as well as from other development projects. The selection and the numbers of the different categories of infrastructure, however, should not be considered as prescriptive. The States can adjust the numbers depending on their needs and priorities. Such adjusts would mean that output numbers may differ, although it not expected to differ radically.

Sub-Component 1.1 Development of Irrigation Systems

8. Irrigation: In addition to the improved rainfed production, the VCN will also support irrigation infrastructure. The provision of irrigation water has the objective of providing water for irrigation to enable all year production where the water sources are sufficient or supplemental irrigation where the water may not be enough for all year irrigation. A key criterion in selection of where the irrigation infrastructure will be provided is that the land has potential of having water sources. It is the potential water sources that will determine the type of irrigation facilities to be developed. Thus, where there is potential for water is above 15 deep, a tube well will be implemented; where the water table is high below 15 meters a wash bore well will be constructed, and so on. On farm water harvesting ponds will be provided to poor household to produce both for sale and for improved nutrition. Other criteria would include availability of surface or sub-surface source of reliable water supply; and, where the infrastructure will be serving more than one farmer, they be willing to organize into an Irrigation Water User Association (IWUA), collect fees for maintenance of the system and establish required systems for sustainable operation and maintenance of the system. The Project will support those that meet these criteria with the necessary capacity building to gain knowledge and skills in organization and management to enable them sustainably operate and maintain their irrigation infrastructure.
9. As observed above, the irrigation water provision will be through different technologies depending on the availability and reliability of the water source. A total of 7,707 ha of land will be irrigated through the combination of technologies as follows include:
 - 4,744 tube wells equipped with pumps each capable of irrigating 1 ha of land, thus are total of 4744 ha irrigated using tube wells;
 - 1,482 wash bore wells equipped with solar pumps each capable of irrigating one ha of land, thus are total of 1482 ha irrigated using wash bore wells;
 - 357 small earth dams with pumps, capable of irrigating 4 ha of land or more thus are total of 1428 ha irrigated using small earth dams; and,
 - 533 on-farm water harvesting ponds each having a potential of irrigating 0.1 ha of land thus are total of 53 ha irrigated using on-farm rainwater harvesting ponds
10. From the combination of all these irrigation technologies, it expected that the output will be 7,707 hectares of land under irrigation. Over and above the irrigated land the Project will support the construction of small flood control works such as drainage channels to evacuate water from areas that are susceptible to flooding. About 534 structures which would be about 300-meter length on average will be constructed.

Sub-Component 2.1 Post Harvest Value Chain Infrastructure

11. Investments in post harvest infrastructure are meant to support the farmers with infrastructure and equipment to reduce post harvest losses; aggregate/bulk produce; and, package and sell produce. The infrastructure to be supported include close-to-producer infrastructure for bulking, aggregation, basic processing, grading and packaging to ease access to larger aggregators and final processors. The expected outcome is to reduce post-harvest losses, address quality and volume

challenges that farmers currently experience in order for them to get better prices for their produce. VCN is focusing on five commodities i.e. rice, maize, sorghum, millet, and cowpea and will provide value chain equipment and infrastructure suited to these crops. These will be physical facilities in designated spaces whereby land will be provided by LGAs and the VCN will support different local entrepreneurs, primarily the small-scale processors, to invest in the necessary processing machines and equipment.

12. Aggregation/village bulking centers: Objective of this intervention is to enable the farmers to preserve the quality of products, reduce post-harvest losses and ease the pressure to sell immediately after harvest when prices are usually low. Additionally, the centers can help provide a direct link between the producers and the bulk buyers thereby cutting out middlemen which would result in higher price for their produce. The centers also enable the creation of market linkages between buyers and producers. The selection criteria for aggregation centers will be accessibility and proximity to the production area to enable the farmers to easily deliver the farm produce. They are basically warehouses constructed closer to the production sites or FO clusters. They would have a store/warehouse with basic facilities including, concrete drying floor, reception area, office and product storage space/stalls.
13. The capacity of each center in terms of covered area and product storage will be between 300 to 400 square meters (m²) depending on the crop. The center would also be provided with auxiliary facilities such as weighing scales and toilets which would be a ventilated improved pit latrine where waterborne toilet is not feasible. Management of the center and its facilities will be in the hands of the beneficiaries who have three options: a) the beneficiaries form a committee for the day-to-day management; b) they hire a manager; or c), the lease out the facility. The beneficiaries will be paying a user fee to sustainably manage the facilities. The output from this activity will be 100 aggregation centers.
14. Processing facilities: The objective of investing in processing facilities is to enable farmers to add value to their produce and improve on efficiency of operation, quality, and the return on investment. The selection of the sites will be based on their proximity to the aggregation centers. The Project will support a private-based management model. Depending on the locations – culture/social setting and business environment (to be determined during the value chain study) – two models will apply, i.e.
 - Model 1: A complete line of processing activities, owned/managed by one entrepreneur; or
 - Model 2: Different business segments in the processing chain owned or managed by separate individual entrepreneurs.
15. In the case of the first model, the processing facilities (machineries and related applications) will be owned/managed by one entrepreneur who will provide services to clients. In the case of the second model, the different entrepreneurs will own different processing facilities in the center. The cluster FOs will have full ownership of the business premises comprising the building, electricity, water borehole and physical environment funded by the project. FOs will collect the maintenance levy and utilities bills from the users (entrepreneurs) for sustainability.
16. Women FOs and youth will be specifically targeted to own the business premises as a strategy to increase their participation in commodity value chain and to gain business management skills. The Project will support the construction of the physical facilities in which different entrepreneurs, primarily the small-scale processors, will invest in the necessary processing machines and equipment with support from the Project. The NPMU will engage consultants to carry out assessments on the demand for the facilities for the different value chains and undertake the designs based on the demand.

17. The facilities would have different footprints depending on the commodity, but it would be about 500-600m² and would have the appropriate spaces such as: washing/peeling area (as needed); processing area (wet & dry); finished product store; office; changing room, toilets (segregated male/female) and a proper drainage system. For each of these facilities, a borehole will be provided to avail the water needed for maintaining proper hygiene and sanitary standards. The boreholes would be boreholes/tube wells equipped with solar pumping systems including submersible pump, solar panels, control panels, overhead storage tank, and piped distribution the points of use within the facility. Because the entrepreneurs spend most of their time within these facilities, they will include a special baby care room, a creche, to enable even nursing mothers participate in the activities, a ramp for the people with disabilities (PWD) as well a toilet for PWDs. Output from this activity will be 37 processing facilities.
18. Marketing and storage facilities: The objective of these facilities is to avail marketing outlets in the clusters where production will be taking place. The market facilities will comprise of five (5) 2.5*2.5-meter stalls in the front and similar ones on the back side. For each of these facilities, a borehole will be provided to avail the water needed for maintaining proper hygiene and sanitary standards. The boreholes would be boreholes/tube wells equipped with solar pumping systems including submersible pump, solar panels, control panels, overhead storage tank, and piped distribution the points of use within the facility. The facilities located in selected sites in close proximity to the aggregation centers.
19. It is expected that the facilities will bring more women into the programme, as about 60 per cent of the stores will be allocated to women using selection criteria to be established by the Project in collaboration with other relevant stakeholders. Management of facilities will be in the hands of the beneficiaries who have three options like the aggregation centers: a) the beneficiaries form a committee for the day-to-day management; b) they hire a manager; or c), the lease out the facility. The beneficiaries will be paying a user fee to sustainably manage the facilities. The expected outputs from this activity will be 80 markets.

Access Roads

20. In the areas where production will be taking place, the Project will invest in last mile access roads. The objective of the access roads will be to improve the delivery of production inputs as well as improving market access for the produce. The roads will be constructed in sites that will be selected in such a manner that they link the production areas with the nearest post harvesting facilities. These will be the centers where there would have been constructed market stalls, processing/aggregation or processing facilities or connecting to a main road.
21. While evacuation of the farm produce will be the main objective of the access roads, this mission proposes that the access roads be designed in a way that they also be used for water harvesting. The approach referred to as Green Roads for Water (GR4W) is recommended because the access roads so constructed would contribute to the resilience of the land by enabling rainwater harvesting. They do this by taking advantage of the road drainage structures which are designed in such a manner that they contribute to rain water harvesting. In that way, the runoff from the roads, rather than being a nuisance by causing erosion, is deliberately directed into ponds in the farms or into gravel/laterite quarry borrow pits for storage. Thus, the roadside drainage infrastructure: cut-off mitre drains, cross-drains or diversion from cross culverts, gabions, check dams, non-vented river drifts/road crossings, and so forth are all designed, to the extent possible, to support rainwater harvesting.
22. International development agencies such as the World Bank and many international non-governmental organisations (NGOs) are increasingly adopting this approach when supporting rural roads construction. The World Bank has gone further and developed guidelines that explain the techniques that can be used to make access roads instruments for water management. The guidelines "Green Roads for Water:

Guidelines for Road Infrastructure in Support of Water Management and Climate Resilience” is available for use by the Project during the design of the access roads¹¹⁰. Another useful document is a handbook developed by the Royal Danish Embassy in Kenya that describes techniques to use for harvesting water from roads. The handbook “Water from Roads: A handbook for technicians and farmers on harvesting rainwater from roads”, is also available for use by the Project¹¹¹.

23. The Project will support the construction/rehabilitation of 229 km of roads directly by the Project, 174 km of roads done by the community and 444 road drainage structures. The NPMU in consultation with the SPMU will determine the kilometers of roads and the number of road drainage structures that will be allocated to the different States using criteria that they will have agreed upon. Once the numbers are agreed upon, the SPMUs will engage consulting firms to carry out the assessments to identify the specific road section that will be rehabilitated and carry out the engineering design of the roads. The maintenance of the constructed roads will be by the LGAs and the local communities through a roads maintenance system that is described under the sustainability section.

Implementation Arrangements & Process

Overall

24. The National Project Implementation Unit (NPMU) will have oversight responsibilities for all the infrastructure works but the actual implementation in the States will be led by the State Project Implementation Unit (SPMU). The implementation will be guided by the principle of working in close collaboration and participation of all stakeholders. This implies that the SPMU will have to work with relevant stakeholders in all the categories of VC infrastructure and in coordination with applicable federal/state ministries and agencies, LGAs and the local communities/FOs.
25. The NPMU in consultation with the SPMU will determine the numbers of the different categories of infrastructure that will be allocated to the different States using criteria that they will have agreed upon. Once the numbers are agreed upon, the SPMUs will engage consulting firms to carry out the assessments and feasibility of the proposed infrastructures. For the selected sites, the SPMUs will engage consulting firms to carry out the designs of the infrastructure that will be found to be feasible. The designs will include the Bills of Materials (BoMs) and tender documents which the SPMUs will use to tender the works to private contractors to carry out the construction works. The maintenance of the constructed will be through a combination of different arrangements is described under the sustainability section.

Institutional framework

26. The institutional framework for implementing the VC infrastructure sub-components will be as presented in the Box 1 below.

Box 1: Institutional Arrangements

- The State Value Chain Infrastructure officer (SVCIO) of the SPMU will be responsible for supervising all civil works, supported by the Engineers from the respective LGAs.
- For each of the infrastructure, the SPMU will form a user’ organization that will assume responsibility for O&M. These will be organizations such as Irrigation Water Users Association (IWUA), Market Management Committee (MMC), Road Maintenance Committees (RMCs) etc.
- For the feeder roads, the SPMU will also sign an MOU with the concerned State Ministries so that they assume full responsibility for recurrent, periodic and

¹¹⁰ <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/102951623742853259/green-roads-for-water-guidelines-for-road-infrastructure-in-support-of-water-management-and-climate-resilience#:~:text=The%20concept%20of%20Green%20Roads,without%20sacrificing%20or%20diminishing...>

¹¹¹ https://www.samsamwater.com/library/Book6_Water_from_roads.pdf

emergency maintenance which are beyond the capacity of the LGAs and communities, to ensure a stable financial base for maintenance. The SPMU action will be aligned to the Federal Government of Nigeria (FGN) Draft National Transport Policy, which proposes to give top priority to effective routine, periodic and emergency maintenance of rural roads in all LGAs and communities using RMCs that will be created at LGA level.

- The SPMU will ensure that MOU are developed and signed by relevant parties including community representative and representative of Fos before execution of work commences.
- If applicable, the SPMU will also collaborate with the Ministry of Commerce and Industry, municipalities and/or Local Government Councils (LGCs) to facilitate the construction or rehabilitation of assemble markets and processing infrastructures in the target LGAs.
- The Project will support the training of each of the users' organization on the Organization and Management necessary for the organization to carry out the Operation and Maintenance of physical infrastructures.

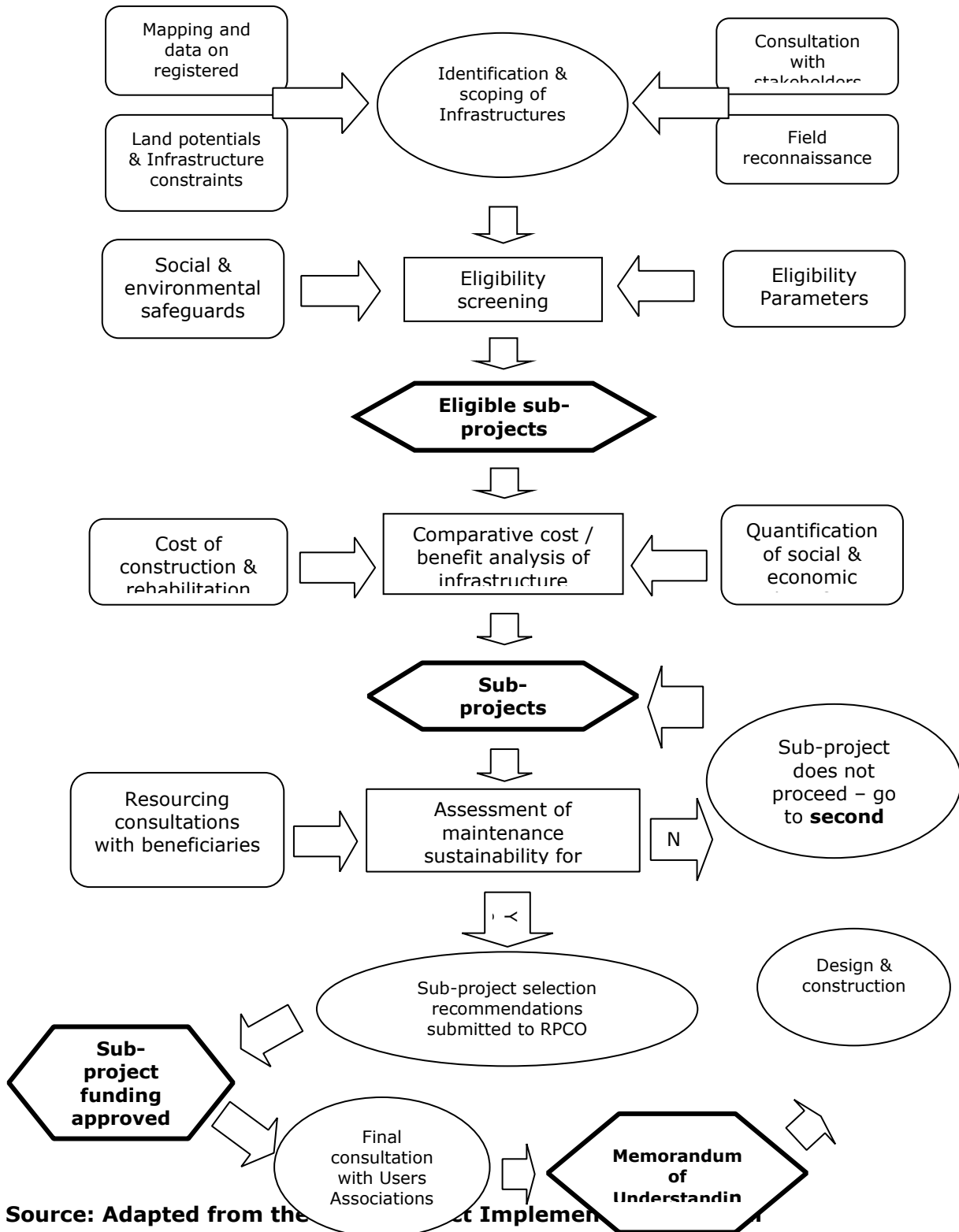
Source: Adapted from the VCDP Project Implementation Manual

Identification and Selection of the Sub-projects

27. As noted in earlier paragraphs, the first activity in the implementation is to carry out field assessments in the States to determine where the different infrastructure will be constructed. As noted above the NPMU/SPMU will contract consultants to undertake the assessments and feasibility studies of the infrastructure. The consultants will carry out studies in close consultation with the LGAs and the local communities to ensure that the finally selected infrastructure is what the community truly needs and is aligned to their VC development requirements. The process of identification and selection of the sub-projects that will be supported is as depicted in the Flow Chart 1 below.
28. Identification and scoping: The first step in the process will be the identification and scoping of the potential demand for value chain infrastructure in relation to the land potential and farmers in the target areas. This will be done through a combination of secondary data collection and field reconnaissance to confirm the accuracy of secondary data. The output of this data collection and field reconnaissance will be a listing of the possible VC infrastructure, both new ones and existing ones that would require rehabilitation.
29. While the identification and scoping will be carried out by contracted consultants, the relevant SPMU's staff would be working alongside the consultants, both as a learning experience and to ensure that the process is participatory. This will involve consultations with all the potential private and public sector stakeholders that might have an interest in the selection of infrastructure sub-projects. This would be stakeholders such as the investors, agro-processors and market operators, local authorities as well as the community leaders. The participation of these stakeholders will not only be to disseminate information but also to ensure that all parties contribute and buy in to the infrastructure development process.
30. Selection of eligible sub-projects: The infrastructure identified above will undergo an initial screening to ensure that those selected for further screening have fully covered the scope to meet the Project's objective. The considerations at this stage would be that the candidate infrastructures broadly fit within the framework envisaged to enhance production and processing and to serve the target stakeholders. Further, the screening will ensure that the selected infrastructure would be:
 - possible to be maintained at community level.
 - would not result in any land compensation claims; and,
 - would not result in serious adverse social or environmental impacts.

31. **Ranking of sub-projects:** A ranking will be done by means of comparative cost/benefit analysis that will be based on the assessed whole-life cost of construction/rehabilitation and maintenance against the assessed value of social and economic benefits accruing from the investments. The construction/ rehabilitation cost will be estimated from the visual condition survey undertaken as part of the identification process above, while the maintenance cost will be taken over the lifetime of the different assets.

Flow Chart 1: Process of Identification and Selection of Sub-Projects



Source: Adapted from the ... Implementation ...

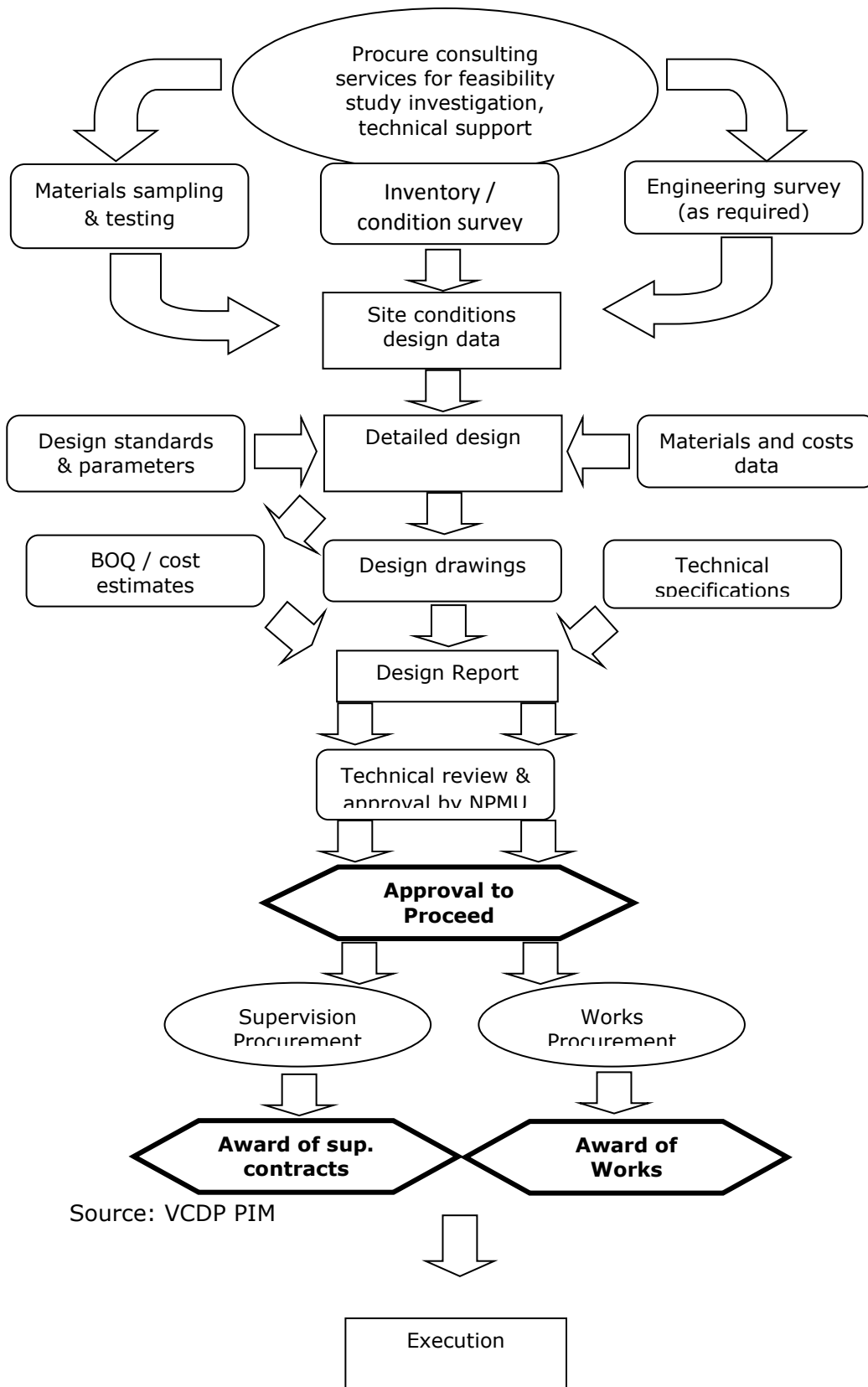
Assessment of Sustainability. Final criteria will be the assessment of sustainability of the ranked infrastructure. The SPMU will consult with all the stakeholders of the ranked infrastructures to obtain a commitment from all parties to setup an operations and maintenance system for their infrastructure. The system should be responsive to the routine, periodic and emergency maintenance that is envisaged for each infrastructure.

32. Approval by the NPMU and MOU: The infrastructure that will thus have qualified will be submitted to the NPMU for approval of funding. Once the funding approval is secured, the SPMU will facilitate the formalization through an MOU. The MOU negotiated between the Project and the Users should clearly set out the roles and responsibilities of each party and particularly the O&M responsibility of the users.

Design of the Sub-projects

33. The NPMU/SPMUs will contract qualified consultants to carry out the required technical designs including the Bills of Quantities (BOQs) and tender documents. After approval of the design and cost estimates, the works will move on to the tender stage. The entire process up to the tender stage will be as per the Flow Chart 2 below.

Flow chart 2: The Design and Tender Process



Source: VCDP PIM

Construction of the Sub-projects

34. With the tender documents prepared by the consultants the NPMU/SPMU will tender for construction of the infrastructure. The construction process will take the approach described in the following paragraphs for the different categories of infrastructure. It is recommended that as much as possible the contractors to use labour-based methodologies except for such tasks for which the use of machinery is unavoidable. The use of labour-based methodologies is meant to: (i) ensure employment of the local women and youth during the construction which would inject money in the community; and (ii) impart construction/technical skills among the community members, which skills will be used during the operation and maintenance phase of the infrastructure.
35. The markets and processing facilities will be provided with a borehole water supply whose construction would be a separate contract given that drilling and equipping of boreholes is a specialized field. Development of a borehole-based water supply system entails a number of steps and processes. For each of the sites that will have been selected, a hydro-geological study will first be carried out. This study is meant to establish the possibility of striking ground water at that site as well as establishing an estimate of the water the borehole is likely to produce. This study is carried out by a hydro-geological professional. The hydro-geologist would also be the one to supervise the drilling and equipping of a fulltime basis.
36. The next step is the actual drilling of the borehole which is undertaken by the contractor with the appropriate drilling equipment, primarily a rotary drilling rig with the necessary equipment. When the hole is drilled to the recommended depth and water is struck, then the casings will be installed still with the rig, gravel pack installed, the hole developed/cleaned and protected. The drilling equipment are then demobilized and, on a later date, a test-pumping unit is mobilized to establish the yield of the borehole and the appropriate depth for the pump to be positioned. The pump capacity will be determined using the borehole yield and the pump positioning thus established in combination with the height at which the storage tanks will be mounted.
37. The next step will be the equipping of the borehole. In this Project the proposal is to equip each of the boreholes with solar pumping units delivering water to elevated storage tanks. The size of the pumping units and the storage capacity will be determined as observed above by the yield of each of the boreholes and the height of the elevated storage tanks. The final key activity will be the construction of distribution system from the storage tank to the points of use within the facility.

Phasing

38. The Project is planned to be implemented over a period of 8 years. For the VC infrastructure there will be need to carry out the pre-construction activities (assessments, establishing feasibility, engineering designs etc.) before construction is undertaken. These are expected to start in year one and be spread over five years. Thus, construction is expected to start from year two through to the seventh year to allow for remedial works during the defect's liability period and user trainings to take place in throughout to eighth year.

Table 6: Activity Phasing

Activity	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	TOTAL
Physical Quantities by Year									
Assessments/ studies & designs									
Community capacity building									
Tube wells		1245	949	949	1,423	1,423			4,744
Wash bore wells		389	296	296	445	445			1,482
Construct ion/ Rehabilita -tion of small earth dams		47	36	71	107	107	36		357
On-farm lined ponds		70	53	107	160	160	53		533
Small flood control works		78	59	119	178	178			534
Market stalls		8	8	16	24	16	8		80
Aggregati on/bulkin g centers		10	10	20	30	20	10		100
Agro Processin g facilities		4	4	7	11	7	4		37
Project implemen ted access roads		23	46	46	68	46			229
Communi ty implemen ted access roads		16	31	31	47	47			172
Drainage infrastruc -ture.		44	89	89	133	89			444

Sustainability

General

39. A key prerequisite for sustainability of infrastructure is setting up a functional O&M system and adequately building the capacities of persons responsible to manage the system. For all categories of infrastructure, the functionality is depended on availability of O&M funds. All categories of infrastructure will raise the O&M funds from the users through various approaches as will be discussed for each of them. In the case of access roads, however, since the roads are not "owned" by the community and are open for use by the wider public, it would be unrealistic to expect the community to meet the maintenance costs. Their maintenance arrangements are discussed in detail in paragraphs later in this chapter. For the other categories of infrastructure, a management committee will be formed for each facility and be adequately capacity build to manage the O&M of their infrastructure. The Project will, therefore, support the formation and capacity building of a UO for each facility. The UO will be composed of the entire membership of users who will elect a management committee to manage the day-to-day O&M of the facility. It will be necessary to create awareness among all the users for them to understand the requirements for O&M and especially the rationale behind setting the user fees. For the management committees, however, it will be necessary to build their capacity in the two aspects necessary to sustain the facilities: (a) Organization & Management; and, (b) Operations and Maintenance
40. Under Organization & Management the committee would be capacity build to become effective in managing the O&M requirements specific to their facility. Among the topics they would be trained on would include areas such as:
 - Governance, including aspects such as: leadership; making and using by-laws to guide/govern the operations of their scheme; roles and responsibilities of the different users of the facility; how to organize meetings including records keeping and decision making, communication, conflict management, etc;
 - Financial Management, including areas such as: understanding the costs involved in maintaining the facility to guide in setting user fees and preparing budgets that cover both management costs and O&M costs; collecting and managing user fees, etc.
41. Under Operations and Maintenance, the committees would be capacity build to understand the technical aspects of their facility. Depending on the complexity of the facility there are aspects they would be trained to manage at their level and others, such as repairing a submersible pump, which would require engaging external technical service providers. The committee would be trained to understand the day-to-day operational routines of their facility and the maintenance requirements of the technology including estimated costs of such maintenance.
42. The committees would also be capacity build to effectively participate in the supervision, monitoring and evaluation of the scheme operations from the onset so that they would be part of oversight of contractors during construction as well as to ably monitor the performance of their scheme once it becomes operational.
43. A requirement of the Nigerian National Building Code 2006 (NBC) is that contractors develop a maintenance manual for each facility they construct. The construction contract should, therefore, include a clause requiring the contractor to develop an O&M manual for each of the facilities and train the management committee or hired technicians for the more complex maintenance routines.
44. At the Project level, community capacity building is provided for under sub-component 2.2, output 2.3.2 "Rural producers Organizations strengthened in its governance, management and inclusivity". However, this capacity building is geared towards building the capacity of the Farmer Organizations (FOs) to better manage the production. This level of training is not suitable as capacity building for O&M of the infrastructure. For this reason, this design has provided for funds to carry out

these trainings separate from the FO training under sub-component 2.2. The capacity building which will be tailored for each category of infrastructure will be carried out before the construction of the infrastructure, during the construction and post construction. The pre-construction training will address the organization and management skills and knowledge that the UO will require to manage the O&M of their facility. The construction stage training will address the technical operation and maintenance requirements for the infrastructure.

45. The capacity building of the facility UOs will be a two-step process. The first step will be to train trainers at the LGA level who will be responsible for training the different user organizations in the LGA. The staff to be trained as trainers (ToT) would be State and LGA officers from the relevant department for each infrastructure category. For instance, trainers for maintenance of water facilities would be from the ministries responsible for water and irrigation, finance, as well as social/community services. The NPMU/SPMU will, from the beginning of the Project, contract qualified service providers to carry out ToTs. The next step will be for the trained trainers to, on a continuous basis, keep training the user committees of the infrastructure: before the facilities are constructed, as they are constructed and after construction as discussed above.

Irrigation and Water Control

46. While the FOs have the overall management responsibility for the production from inputs supply, farm management and agronomical requires, and so forth up to the point of marketing the produce. Management of the irrigation facilities, which requires specialized knowledge and skills should be under the responsibility of a committee elected to specifically handle the day-to-day operations and maintenance. This committee, the IWUC would be elected by the assemblage of all the farmers in the irrigation scheme. The IWUC should be in place long before the construction. This is necessary for the committee to be trained in organization and management and for the members to be part of the oversight of the construction. Their involvement during construction would familiarize them with the facilities as construction progresses. Some of them could even get employment as workers in the construction thereby gaining technical skills they could use in the operational phase.
47. In addition to the organization and management training referred to above, the IWUCs would also require to be trained on the day-to-day operation and maintenance routines specific to irrigation technology of their scheme. Depending on the technology in use, it may be necessary to hire staff or technicians to manage the daily O&M routines and who would also be trained specifically for the facility.
48. At the beginning of the operations of the facility and every beginning of the year, the IWUC will be making an operations and maintenance plan covering the different O&M routines needed to keep their facility in good operational condition. These will vary depending on the technology used as the source of water and the delivery system but would include aspects such as highlighted in Table 7 below that would be carried out for a river pumping station.

Table 7: Maintenance Routines for Irrigation Water Facilities from a River Intake

Category of maintenance	O&M Routines
Operation	<ul style="list-style-type: none"> • the weir intake gates. • pumping station operations. • Delivery gates and valves, etc.
Routine maintenance and regular repairs	<ul style="list-style-type: none"> • machine and equipment servicing. • recurring painting of mechanical works to protect against corrosion. • scheduled removal of sediment from structures. • canals and drains regular removal of vegetation and silt. • sealing leaks on structures and earthworks, etc.
Periodic maintenance and major repairs	<ul style="list-style-type: none"> • recommended major services of machinery and equipment. • manufacturer recommended replacement schedules of wearing parts on pumps and engines. • replacement of damaged mechanical parts. • repair of concrete works on structures and canal lining, masonry, pitched rubble and gabion works on structures. • embankment and bank protections, etc.
Emergency repairs	<ul style="list-style-type: none"> • these are ordinarily unforeseeable and involves the breakdown of equipment or structural collapse of works and have to be urgently addressed

Post Harvest Facilities

49. The post-harvest facilities constructed have more of maintenance needs and relatively fewer operational routines. However, these too require a functional user’s organization whose membership is all the users of the facility. After the initial awareness creation, the users would as a first step organize an assembly of business community members to elect representatives for the facility management committee, which for a market for instance, would be the Market Management Committee (MMC). The MMC would be capacity build in the management and organization to equip them with the organizational skills they need to run the facility. They would also need to be trained on how to make the by-laws that would be followed in the management of their facility.
50. The committees would also require to be trained on the day-to-day operation and maintenance routines specific to their facility. This would enable them to decide on their roles and those that may require hired staff or outsourced to a service provider. Whichever the case, they would then hire staff or contract the service provider and orient and onboard them to kick off the operations of the facility. Like in the water facilities at the beginning of the operations of the facility and every beginning of the year, the MMC would be making an operations and maintenance plan covering the different O&M routines needed to keep their facility in good operational condition. These will vary depending on the type of facility but would include routines such as in Table 8 below.

Table 8: Facility Components and their Maintenance Requirements

Infrastructure component	Routine Maintenance	Preventative/periodic maintenance	Corrective maintenance
Building interiors	<ul style="list-style-type: none"> • Sweeping and cleaning; • removing of cobwebs; checking for bird nests and removing them, if necessary, etc. 	<ul style="list-style-type: none"> • Chiseling of cracks and repointing with mortar; • painting of walls, floors, ceilings, etc 	<ul style="list-style-type: none"> • Rebuilding of damaged ceilings, floors, etc.
Walls and ventilation bricks	<ul style="list-style-type: none"> • Checking for dirt and for cracks; • checking and repairing of mosquito screens; • regular cleaning 	<ul style="list-style-type: none"> • Chiseling of cracks and repointing with mortar; • plastering and painting 	<ul style="list-style-type: none"> • Rebuilding of damaged walls • replacing of broken bricks
Doors and windows	<ul style="list-style-type: none"> • Checking and repairing of locks, replacing of broken glass panes, etc. 	<ul style="list-style-type: none"> • Anti-termite painting of wooden structures • anti-rust painting • greasing of metal mounts 	<ul style="list-style-type: none"> • Replacing of damaged windows and doors
Roofs	<ul style="list-style-type: none"> • Inspection of the structure • cleaning of roof sheets when soiled 	<ul style="list-style-type: none"> • Painting to avoid the build-up of rust and corrosion 	<ul style="list-style-type: none"> • Replacing damaged roof sheets
Rainwater drainage and harvesting	<ul style="list-style-type: none"> • Cleaning of gutters, ensuring the correct running of water • inspection of water valves • checking of water quality 	<ul style="list-style-type: none"> • Replacing damaged gutters, valves, etc • ensuring water quality in tanks through regular disinfections 	<ul style="list-style-type: none"> • Replacing damaged pipes or water storage tanks
Latrine and toilet facilities	<ul style="list-style-type: none"> • Cleaning after use • maintaining hygienic conditions • checking of pipe joints in water borne systems • ensuring that the surroundings are clean 	<ul style="list-style-type: none"> • Emptying the pit or arranging for an alternative pit • Checking and repairing the slab 	<ul style="list-style-type: none"> • Replacing the cover or slab when damaged

Borehole Water Supply Systems

51. The water supply facilities are meant to supply water to the markets and processing facilities. While each of these markets and processing facilities will have a facility management committee, it would be desirable to have a sub-committee tasked to specifically manage the operations of the water supply infrastructure. This would be a Water Users Committee (WUC) responsible for the day-to-day O&M of the borehole operations. This committee, like the IWUC, would be elected by the assemblage of all the market or processing facility users. Again, it would be desirable for the WUC to be in place during the construction of the scheme for the members to be trained in organization and management and be part of the oversight of the construction. Their involvement during construction would familiarize them with the facilities as construction progresses. Some of them could even get employment as workers in the construction thereby gaining technical skills they could use in the operational phase.
52. Just like in the case of the IWUCs the WUCs would require to be trained in the organization and management training referred to above. They would also require to be trained on the day-to-day operation and maintenance routines of the borehole supply systems. For the boreholes, it will be necessary to hire staff or technicians to manage the daily operational and maintenance routines. Like in the water facilities at the beginning of the operations of the facility and every beginning of the year, the WUCs would be making an operations and maintenance plan covering the few O&M routines needed to keep the facility in good operational condition. These are few as in Table 8 below.

Table 9: Borehole Maintenance Routines

Component	Routine Maintenance	Preventative/periodic maintenance	Corrective maintenance
Pump house	<ul style="list-style-type: none"> • Sweeping and leaning; • removing of cobwebs and other routines like for building above 	<ul style="list-style-type: none"> • Chiseling of cracks and • repointing with mortar; painting of walls, floors, ceilings and other preventative maintenance routines like for buildings above 	<ul style="list-style-type: none"> • Rebuilding of damaged ceilings, floors, etc. and corrective maintenance other routines like for building above
Pump	<ul style="list-style-type: none"> • Its submersible so no routine maintenance but only the turning on and off as an operational routine 	<ul style="list-style-type: none"> • Its submersible so no periodic maintenance 	<ul style="list-style-type: none"> • Rewinding of a burnt motor
Solar systems	<ul style="list-style-type: none"> • Cleaning of solar panels • checking of batteries, inverters, switch boards 	<ul style="list-style-type: none"> • Refilling of acid in batteries, if necessary • repair of electronics 	<ul style="list-style-type: none"> • Replacing of panels, batteries and other devices

Feeder Roads

53. Due to the nature of feeder roads whose ownership is not with the local community, the O&M management arrangements would be different from the schemes "owned" by the users. The proposal is to form and capacity build Road Maintenance Committees (RMCs) along sections of the feeder roads where improvements have taken place. The process of formation of the RMCs will start during construction

where the contractor will be obligated to employ the community living along the road sections, and especially the women and youth. The contractor will train them on road construction skills, which skills will be used in the maintenance of the roads. Towards this end the Project will demand and include it in the construction contract that the contractor will create a community-based maintenance system.

54. The actual execution of these tasks requires the creation or development of feeder roads maintenance system consisting of personnel that are trained on management of road maintenance and equipped with the necessary tools and equipment. However, developing and operationalizing a system that responds to the needed actions to actualize the feeder road maintenance is challenging. The challenge comes about because unlike other community-based infrastructure which are owned, used and maintained by the target communities, feeder roads are neither owned nor exclusively used by the target community. Thus, the responsibility of funding feeder roads maintenance, unlike operations and maintenance of other community-based infrastructure, cannot be expected to be met by the target community. While the maintenance of feeder roads can be community based, the responsibility for financing of the activities is (or should be) a government responsibility.
55. The setting up of functional access road maintenance systems in Nigeria has generally been a challenge. Projects such as the Value Chain Development Programme (VCDP) had recognized this challenge and initiated action by developing a feeder roads maintenance strategy. That strategy proposes a maintenance management cycle comprising of the following steps: preparation of a road inventory; an inspection and analysis of defects; determination of the works and resources needed to remedy the defects; setting priorities, especially due to budgetary constraints; preparation of maintenance plans; carrying out the maintenance works; and, monitoring and reporting. The VCN will adopt a roads maintenance system designed along lines like the strategy adopted by VCDP.
56. The proposed system is the "length-man" system whereby a small team is assigned a given length of road which they maintain and are paid based on actual maintenance work done. Supported by the State and LGA technical roads personnel (engineers, inspectors and roads supervisors), they will be formed into RMCs and equipped with the necessary organizational and technical skills as well as equipment to execute the maintenance tasks, among them including:
 - a) Annually mapping the roads network, assessing their condition and determining their maintenance requirements;
 - b) From the results of the assessment, developing an annual maintenance plan and including it in the States/LGA annual work plan and budget;
 - c) Annually for each road or a number of roads lumped together and deriving from the States/LGA AWPB, a rural roads maintenance plan is made and broken down into monthly work plans;
 - d) Throughout the year carry out the routine, periodic and emergency tasks as necessary;
 - e) Measure, record and make payments for tasks completed; and,
 - f) Write and file the reports (both technical and financial) as necessary.
57. This proposal envisages a system that would start at the State level down to LGA level and to RMCs operating at the LGA levels. The tasks a) and b) are quite technical which means they would require a level of knowledge and skills that would be found at the State or LGA level. Thus, carriage of these tasks would be at the State Ministry responsible for infrastructure. The annual assessments and maintenance plans for a particular road (or a number of roads lumped) together can be undertaken by an inspector or technician at the LGA level together with a road supervisor. From the LGA AWPB, the LGA personnel would jointly with the RMCs be making the monthly work plans for the different roads. The roads supervisor would oversee the RMCs carry out of the maintenance tasks, measure the tasks done and write the technical reports. The payments for the RMCs can be made at the LGA treasury with the LGA

accountant recording the payments and writing the financial reports. The maintenance routines involved in access roads are presented in Table 10 below.

Table 10: Maintenance Routines for Feeder/Access Roads

Category of maintenance	Activities/Routines
Routine maintenance	<ul style="list-style-type: none"> ● grass cutting and vegetation control ● removing small landslips ● cleaning/re-shaping of side drains ● de-silting of culverts and channels ● repairing potholes ● maintenance of signs and traffic safety facilities ● uprooting of vegetation from roadways and across bridges ● clearing of flood debris, etc.
Periodic Maintenance	<ul style="list-style-type: none"> ● reshaping or re-gravelling of the road surface ● repair of culverts ● re-surfacing and major repair or reconstruction of cross-drainage structures ● spot maintenance, etc.
Emergency Maintenance	<ul style="list-style-type: none"> ● these are unforeseen but they do occur, e.g. floods, landslides, etc., that require urgent or emergency remedial action

58. The proposal described in the above paragraphs gives a roadmap, which if followed, would greatly improve the conditions of the feeder roads in the VCN area. However, as mentioned before, it can only be implementable if the Government provides the funds for maintenance, and they are included in the States/ LGAs AWPB. This will only be possible if entire government from the federal level to the State and lower levels appreciate the importance of road maintenance so that the States/LGAs can prioritize it and provide for the necessary funding in their budgeting plans. Otherwise, sustainability of the feeder roads will not be assured and if it is not assured the States/LGAs will end up being locked in a "build-neglect-rebuild" syndrome that has affected feeder roads in many developing countries.

Annex 13.8: Technical Note: POVERTY, TARGETING AND SOCIAL INCLUSION

This Technical Working Paper on Poverty, Targeting and Social Inclusion is divided into two sections. Part I: Background and Analysis; and Part II: VCN's Socially Inclusive Targeting Strategy. The working paper also includes an attachment with some considerations related to the use of the Gender Action Learning System (GALS) methodology.

Part I: BACKGROUND AND ANALYSIS

Demography. Nigeria is home to 200 million people and the most populous country in the African continent; 70% of the country's population lives in rural areas¹¹². Kano is the second most populous State in the country¹¹³.

At national level HHs in rural Nigeria are composed of an average of 5.42 people, with variations that can reach 8.15 people as is the case of Jigawa State. The average HH size among the nine VCN participating States is 6.82 people per HH.

It is estimated that approximately 17% of HHs in rural Nigeria are headed by women¹¹⁴, yet anecdotal evidence collected during the design mission indicates that in some of the VCN target states in northern Nigeria it is likely to be substantially higher than the official 2018 data. Around 25-43% of women in the Northern States are in polygamous marriages¹¹⁵.

Over 65% of the country's population is under the age of 29¹¹⁶, the top threshold age for youth in Nigeria, highlighting the current and future role of youth in the country's economy and food production systems.

Despite progress achieved in education over recent decades Nigeria continues being a low Human Development country, ranking 163 of 191¹¹⁷. Only 62% of people aged 15 and above are literate¹¹⁸.

Economic poverty. 40.1% of Nigerian's are poor according to the national poverty line (137,430 naira per person per year). Sharp spatial differences in poverty are found between southern and northern Nigeria and even across States within regions. Also, poverty levels are higher and deeper in rural areas; 52% of the rural Nigerians live under the poverty line (against 18% in urban areas)¹¹⁹. Over 72% of the extreme poor live in Northern Nigeria¹²⁰.

¹¹²NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

¹¹³ National Bureau of Statistics, May 2018. 2017 Demographic Statistics Bulletin.

¹¹⁴ NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

¹¹⁵Ibid.

¹¹⁶Ibid.

¹¹⁷<https://hdr.undp.org/data-center/specific-country-data#/countries/NGA> Accessed 1st January 2024.

¹¹⁸<https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=NG> Accessed 1st January 2024.

¹¹⁹ WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.

¹²⁰ FGN, 2021. National Poverty Reduction with Growth Strategy (NPRGS).

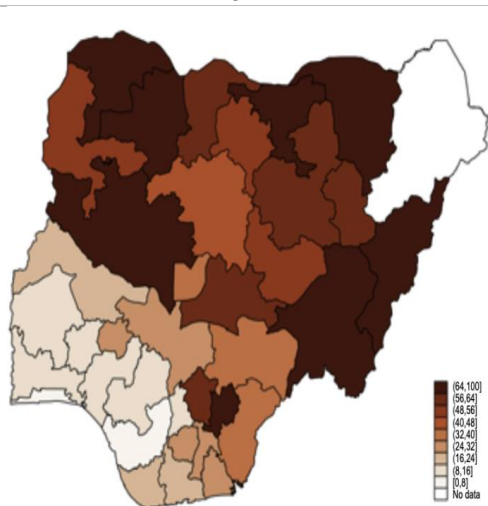
Table 1: Key demographic and poverty data in VCN target States, Nigeria

State	Population / # people	Economic poverty level / % (2018)	Average HHsize / # people (2018)
Kebbi	5,200,000	50.2	6.39
Sokoto	6,400,000	87.7	5.93
Zamfara	5,300,000	74.0	6.54
Katsina	9,500,000	56.4	6.80
Jigawa	6,800,000	87.0	8.15
Kano	15,900,000	55.1	7.10
Yobe	3,900,000	73.3	6.87
Borno	3,100,000	Information not available	Information not available

Sources:

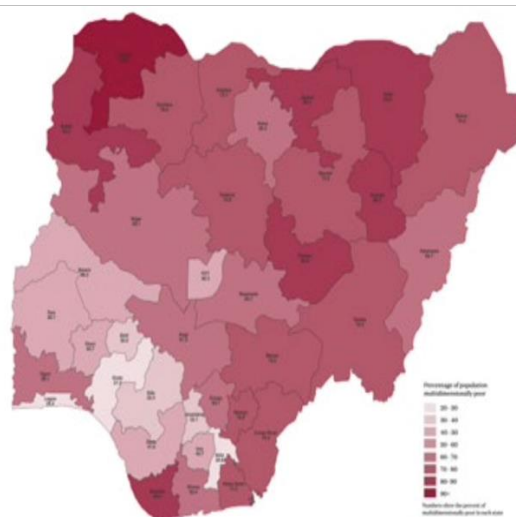
Population: obtained from the project concept note, exact citation to be obtained and inserted here;
 Poverty headcount: WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians;
 HH size: NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

Figure 1: Economic Poverty Headcount by (Nigerian) State, 2022.



Source: WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.

Figure 2: Multidimensional Poverty Level by (Nigerian) State, 2022.



Source: NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

Age, gender, education, reliance on rainfed agriculture and shocks are the primary drivers of poverty in Nigeria¹²¹. Young people and those with lower levels of education are common among the poor due to lacking capital and not having the means to engage in lower risk or diversified income generating streams. Women with young children are likely to be poorer than their male counterparts due to the combined effects of gender norms, being youth and their multiple responsibilities. External shocks such as the negative effects of climate change, low resilience and conflict have profound effects on HH wellbeing.

Multidimensional poverty. Multidimensional poverty, that is, poverty associated to deprivations related to health, education, living standards, employment, and shocks¹²² are widespread in Nigeria. 63% of the population is multidimensionally poor; 72% of people living in rural areas encounter this type of poverty. Like economic poverty, multidimensional poverty is also greater in northern Nigeria than the southern regions of the country; 65% of people living in the North of the country are multidimensionally poor. Even within northern States multidimensional poverty levels vary considerably; the same variations occur within States.

Both maps presented above highlight the sharp contrast between poverty levels between the north and the south of the country, and across States. In both cases intensity of colour depicts higher poverty levels.

High levels and depth of multidimensional poverty entails for ordinary citizens, as especially poor rural dwellers, tensions among competing priorities such as basic consumption needs towards food security, access to basic social services, improvement of living conditions and investment in productive assets.

Rural livelihoods. 52% of the population is within working age (15-65)¹²³. Over 80% of households engage in rainfed agricultural activities and animal husbandry¹²⁴. The most widespread crops being maize (cultivated by 48.3% of households), followed by cassava (41.6%), sorghum (39%) and cowpea (30.6%).

Land in rural areas is acquired through the following different channels, by order of importance: (i) through family inheritance (through the patrilineal line, from father to son¹²⁵); (ii) made available by other households for use free of charge; (iii) acquired through community structures; (iv) rented; or (v) purchased. Not all social groups have equal access to land. Use of inputs in rural areas is not widespread; extension service coverage is only 13.2%.

Numerous barriers limit the progression of smallholder farmers and processors. The rural population also suffers from limited alternative employment opportunities. In this context, households resort to non-farm self-employment activities (60.7% of rural households) most of which is retail trade¹²⁶. Most activities of this nature are practiced at home or in the vicinities (42.5%), markets (17.5%) and shops in commercial areas (11.6%), while 13.3% are mobile activities. Over 90% of non-farm enterprises provide goods / services directly to the final consumer.

Start-up capital is most important factor for households to engage in non-farm income generating activities; 46% of households use household savings, while 29.1% borrow money from relatives or friends or use funds obtained from traditional savings groups (esusus). Over half of the population is unable to accumulate the capital to start a non-farm activity. Other factors impeding the stagnation of inclusive rural development are

¹²¹ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

¹²² Ibid.

¹²³ NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

¹²⁴ <https://www.worldbank.org/en/programs/lsm/initiatives/lsm-isa#6x>

¹²⁵ Federal Ministry of Agriculture and Rural Development, August 2016. Gender Policy in Agriculture.

¹²⁶ Ibid.

poverty, the generalised existence of weak governance systems and environmental degradation.

The rise in food prices, the impossibility or loss of a working household member, increase in the price of inputs and non-farm enterprise failure constitute the main shocks experienced by rural households which affect their livelihood activities and livelihood outcomes¹²⁷.

In addition to self-employment, 11.6% of males and 5.3% of females are involved in formal wage employment¹²⁸. Finally, remittances play an important role in Nigerian HHs, especially poor HHs: 54% of HHs report receiving remittances among which 80% use the funds received to cover consumption needs¹²⁹.

In the face of shocks, rural HHs in Nigeria reduce food and non-food consumption, receive support from family and friends, sell productive assets and consume savings. In extreme situations leading to displacement HHs become highly dependent on emergency aid support and support from family networks. In such times coping strategies have been seen to also include harmful strategies, especially for women and children, including transactional sexual relations and falling into situations of coercion to meet very basic needs.

Conflict and insurgency. In 2023, Nigeria ranked 144 / 163 countries in the Global Peace Index according to the Institute for Economics and Peace, pointing to very weak foundations for potential future peace¹³⁰.

Since 2011, the North Central and West Regions of Nigeria have been affected by competition over natural resources materialized as violent conflict between farming and herder communities. Armed groups and gangs ("bandits") have emerged in the context of tension perpetrating abuses such as organized cattle rustling, kidnappings, sexual violence and causing innumerable casualties. Since 2021 the government has intensified its military response to banditry in these areas. At the same time, the North-Eastern States have been affected by atrocities inflicted by extremist terrorist groups (Boko Haram and the Islamic State in West Africa, ISWA) tackled by counterterrorism operations led by the Nigerian Security Forces. Affected States have faced a humanitarian emergency affecting at least 8.3 million people – 80% of these are women and children¹³¹.

In November 2023, a total of 2,295,534 people were internally displaced in Nigeria's Northeastern Region of which 94% as a result of insurgency; and 1,190,293 in the North West and North Central Regions. In addition, over 240,000 Nigerians from Sokoto, Yobe and Borno and have sought refuge in Chad and Niger¹³². Formal and informal IDP camps and host communities have received those internally displaced by conflict and violence in northern Nigeria.

¹²⁷ Ibid.

¹²⁸ NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

¹²⁹ Ibid.

¹³⁰ IEP, 2023. Global Peace Index 2023: Measuring Peace in a Complex World.

¹³¹ Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.globalr2p.org/countries/nigeria/> Accessed 30th December 2023.

¹³² UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.

Table 2: IDPs per VCN Target State, September 2023.

State	# IDPs	State	# IDPs	State	# IDPs
Kebbi	-	Katsin a	174,00 0	Borno	1,800,00 0
Sokoto	72,000	Kano	25,000	Yobe	172,300
Zamfar a	156,40 0	Jigaw a			

Source: UNHCR, September 2023. Nigeria: Education Dashboard 2022-2023 Schoolyear.

The Federal Government of Nigeria is intensively engaged in achieving peace, safety and security in affected States in VCN’s target States resulting in the start of a progressive return of displaced populations to their communities of origin. Anecdotal evidence however indicates that even in these locations absolute reduction of all risks of violence has not been achieved in all communities resulting in movement restrictions beyond a perimeter of 5 or 10 kms from the community center. In this context, land available for farming can be limited in communities affected by conflict and violence resulting in increased competition over land.

According to the Nigeria Security Tracker, violence has resulted in varying degrees of deaths in VCN target States. Data between July 2021 and July 2023 indicates that over 4,115 people have died in Borno State; 2,018 in Zamfara; 769 in Katsina; 534 in Sokoto; 237 in Kebbi; 160 in Yobe; 44 in Kano and 25 in Jigawa¹³³.

Violence and conflict generally affect the entire population of affected communities with the loss of lives, homes, assets and means of livelihoods; lack of access to essential services; displacement; and the infliction of multiple layers of trauma. However, as referred to above, women and children tend to be the most affected by conflict and violence.

Different forms of sexual violence have been common in situations of conflict in Northern Nigeria including rape¹³⁴ and sexual exploitation in camps and in situations of lack of access to or poor shelter conditions, and trafficking to North Africa and the Gulf Region¹³⁵.

Consistent with these documented findings, interviewees reached during the design mission indicated that displaced women in Northern States are often subjected to sex in exchange for food, shelter, water, and others by men in positions of relative power controlling decisions related to access to these basic human rights. Survivors are primarily women but can also include their children. Anecdotal evidence also indicates that PWDs are, due to their vulnerability, also more acutely affected by situations of conflict, as well as by sexual exploitation and abuse (SEA).

While conflict and insurgency have had an important bearing in the lives of rural dwellers in what will be VCN’s target area, the high levels and depth of poverty and the negative effects of climate change all contribute to high levels of fragility.

In sum, in situations of conflict, women, children and PWDs face increased lack of access to productive resources such as land, and acute risks of SEA. Perpetrators include strangers as well as from men managing women’s access to basic services and opportunities. These facts will be considered as part of the context in which the project will be implemented.

Socioeconomic stratification of the population. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of

¹³³<https://www.cfr.org/nigeria/nigeria-security-tracker/p29483> Accessed 19 December 2023.

¹³⁴ Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.globalr2p.org/countries/nigeria/> Accessed 30th December 2023.

¹³⁵ UNHCR, 2020. Assessment of Trafficking Risks in Internally Displaced Persons Camps in North East Nigeria. <https://data2.unhcr.org/en/documents/details/75273> Accessed 10th of December 2023.

HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

The table below offers brief description of the socioeconomic characterization of the population and the estimated proportion of the population that is in each group. The table was produced based on interactions with stakeholders during the design mission and observation. While the information does not mirror the reality in every community, it provides indicative information on the most common characteristics of the different socio-economic strata.

Table 3: Socioeconomic characterisation of the rural population in VCN’s rural target communities.

Very poor 50%	Poor 30%	Non-poor but vulnerable to poverty 15%	Rich 5%
Varying family size.	Large families.	Ratio of working adults vs. dependants is favourable.	Small families.
Low education/illiteracy.	High levels of illiteracy.	Usually have some education.	The head of HH often have higher education.
Low social capital.	Low social capital.	Have some connections with powerholders.	Have connections, influence, and power.
No assets or depletion of all assets due to conflict.	Have some access to land.	Have access to land and still have some assets (house, equipment, machines, etc.).	Have assets of economic value.
Beg for food or receive food from neighbours and relatives. Obtain food from transactional exchanges. In some cases, HHs can go 1-2 days without eating.	At least 1 meal a day is secured.	2 meals a day secured.	Dietary diversity and 3 meals a day.
A vast proportion of those in this category are WHH, child headed HHs, HHs with a member with a disability, and people who have due to insurgency or banditry lost all their assets but can easily re-establish their socio-economic status.	WHH also present in this group.		
Work for others as farm labourers, servants, and even petty traders for others.	Work for others but also farm to meet some HH consumption needs and sell some produce at times.	Good farming and / or commercial activities. These HHs can fall back into poverty in when they face	Diversified income stream. Usually involving salaries, assets generating income and business.

		external or internal shocks.	
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Not all HHs in the very poor category have always been very poor but fell into this situation because of the conflict and have not been able to recuperate due to intrinsic characteristics that in the context limits their progress (for example, not having a male head of HH, having a disability, illness, etc.).

Women and gender. Women and girls represent half of Nigeria's population with women accounting for about 49,3% of the population. Nigeria has developed several policy instruments to promote and protect gender equality and women's empowerment (GEWE), including the National Gender Policy 2021 – 2026. The policy is based on the premise that GEWE is paramount for the country's economic and political development. The policy is consistent with the equality principles of the country's constitution and several international conventions on GEWE ratified by the country¹³⁶. Other national instruments upholding the principles of GEWE include the National Gender Policy in Agriculture is the main instrument for sectoral gender mainstreaming which seeks to meet the gender gap in Nigeria's agricultural sector¹³⁷.

Gender inequalities remain pervasive in Nigeria, fueled by norms limiting women's access to services, productive assets, affecting participation and decision making, and mobility, among others. Forty-seven percent of adult women over 15 are illiterate (against 29% of men)¹³⁸. Nigeria falls in the group of countries with the highest gender inequality in human development outcomes with a Gender Development Index value of 0.868. Nigeria is among the top 10% of countries worldwide that exhibit the highest levels of gender discrimination¹³⁹.

While the participation of women in agricultural value chains is generally low compared to that of men, women are overrepresented as unpaid family members engaged in farming. Women involved in farming are mostly working in the areas of harvesting, processing and marketing of farm produce¹⁴⁰. In fact, women represent between 60-79% of the country's rural labor force, yet men are five times more likely to own land than women. Women have limited decision-making power at HH in relation to the use of assets and money. Women generally own assets of low economic value which are easily disposed of to meet daily family needs. Women's influence in mixed gender FOs is also low. Trainings are often conducted in the location and time of convenience of trainers and men because of not accounting for women's productive and reproductive responsibilities. Access to capital/credit, limited access to information on project opportunities and poor literacy also limit women's participation in agricultural development projects and ownership of businesses in agricultural value chains¹⁴¹.

Approximately 28% of girls aged 15-19 are already married, and 23% in that age group are already mothers or pregnant with their first child. The incidence of early marriage and childbearing is even higher in the states of the semi-arid northern Nigeria with the

¹³⁶ International conventions and instruments Nigeria is a signatory of include: the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Convention on the Rights of the Child (CRC), the Vienna Conference on Human Rights, and the Beijing Platform for Action (BpFA), New Partnership for African Development (NEPAD), AU Solemn Declaration for Gender Equality, African Protocol on People's Rights, and the Rights of Women (APRRW), International Conference on Population Development Plan of Action (ICPD PoA), the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs).

¹³⁷ FMARD, 2019. National Gender Policy in Agriculture.

¹³⁸ <https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?locations=NG> Accessed 1st of January 2024.

¹³⁹ Country Partnership framework Nigeria FY21-FY25 World Bank Group.

¹⁴⁰ Thompson, O. A. and Amos. T. T., 2016. Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark.

¹⁴¹ FMARD, 2019. National Gender Policy in Agriculture.

youngest ages of marriage seen in the Northwest, Northeast, and North Central regions¹⁴². Early childbearing is strongly correlated with maternal and child mortality. Millions of adolescent girls (10-19 years)¹⁴³ are currently out of school; they have never enrolled or dropped out early. The low proportion of girls attending secondary schools is particularly concerning, given that attaining this level of education is associated with fewer unwanted pregnancies and reduced infant mortality.

Anecdotal evidence collected during the design mission indicates that poor women, especially poor women headed HHs provide cheap labor to others. In some locations the surplus of supply of cheap labor by poor women could be resulting in women receiving less than they would in situations without conflict and / or instability.

The group indicated that many women are becoming widowed given the high rate of polygamy; one man dies, 2-4 women become widows and highly vulnerable. Men do not want to marry a woman with several children in a situation of important levels of widowhood.

The project should consider the high number of women headed households (WHH); according to local participants these represent about 40% of HHs who are live under the poverty line; and their extremely high levels of vulnerability given that women have extremely limited access to assets such as land, low participation, and influence in collective and public spaces. Measures need to be devised to ensure that this segment of the population is targeted at scale and considered in all decision-making processes and spaces supported by the project.

Adolescent girls and women in a situation of high levels of poverty (very poor) can find no option to feed their children than sexual transactional exchanges. Also, sexual harassment, exploitation and abuse are common in a situation of displacement, according to local participants in the group, from IDP camp staff, other men in a situation of power. The same applies to when resettling back to communities into precarious shelter with men holding positions of power. These cases often go unreported through conventional channels and are known in through specific inquiry by entities specifically interested in protecting women's rights.

What this means for the project is twofold: widowed women and female youth may carry high levels of trauma associated with GBV and others, which could condition their access to spaces, information, and promptness to respond to project activities, which needs to be accounted for and considered in project mobilization and selection processes. Secondly, strong mechanisms should be in place to ensure that women are protected in the context of project implementation; IFAD upholds zero tolerance for SH/SEA; the grievance redress mechanism (GRM) will include explicit elements around SH/SEA.

Youth. Generally, Nigeria has one of the youngest and largest working-age populations in the world. Youth in Nigeria constitute people aged between 15-29 years according to the new youth policy (2019)¹⁴⁴ and make up the largest demographic group after children, accounting for 23 percent of the total population at 41 million, a figure that is set to rise to 84 million by 2050¹⁴⁵.

The International Labour Organization estimates that some 60% of young people between the ages of 15 - 24 in Nigeria are in working poverty¹⁴⁶, youth unemployment (15-35 years) 42.5% and underemployment rate 21%¹⁴⁷. Engagement of youth in agriculture is a priority for the government. Youth have an untapped potential to become the food

¹⁴² Thompson, O. A. and Amos, T. T., 2016. Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark.

¹⁴³ Definition: pmdata.org

¹⁴⁴ Federal Republic of Nigeria. National Youth Policy (2019-2023). Enhancing Youth Development and Participation in the context of Sustainable Development.

¹⁴⁵ World Bank Group, 2019. Nigeria on the Move: A Journey to Inclusive Growth. Nigeria Systematic Country Diagnostic. June 2019.

¹⁴⁶ Based on ILO estimates (percentage of employed living below US\$1.90 PPP).

¹⁴⁷ NBS, 2021. Q4 2020 Unemployment Report <http://nigerianstat.gov.ng/elibrary> Accessed 1st January 2024.

producers of the present and the future. However, targeting youth often focuses on male youth of different ages because they are more visible than female youth, especially in more conservative communities. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Youth with education are thus a low hanging fruit. Without deliberate efforts rural youth with low education, especially females can often be missed by development interventions.

A large segment of the youth is in northern Nigeria where both youth unemployment and underemployment are higher due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. Not enough jobs are being created for the youth, who are characterized by lower human capital relative to adults.

PWDs. In Nigeria, it is estimated that approximately 15% of the population of Nigeria lives with at least one disability¹⁴⁸. Yet, anecdotal evidence in States affected by insurgency indicates that many people have acquired a disability because of terrorist attacks. As such, many more PWD are likely to be present in northern States than documented in recent population data.

71% of people living in HHs with at least one member living with a disability are multidimensionally poor¹⁴⁹. PWDs in Nigeria receive limited support from the government and rely strongly on family members and non-governmental organizations and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their households or can be abandoned leaving PWDs in a situation of using begging to survive¹⁵⁰.

The Joint National Association of People with Disabilities (JONAPWD) created in 1992 is an umbrella organization of PWDs established in Nigeria to promote the rights and development of Nigerians with disabilities. The organization represents the interests of the teeming population of PWDs at the local and international level. JONAPWD is a full-fledged member of the international body called Disabled People's International (DPI). Also, in 2019, Nigeria passed the Discrimination Against Persons with Disabilities (Prohibition) Act in 2019¹⁵¹ and created the National Commission for Persons with Disabilities (NCPWD) pursuant to section (31) of the Discrimination Against Persons with Disability (Prohibition) Act 2018¹⁵².

Part II: PROJECT STRATEGIES

VCN's Targeting Strategy encompasses three dimensions: geographic targeting, direct beneficiary targeting and value chain screening.

Geographic Targeting. The Project will target nine States in northern Nigeria. Based on the high levels and depth of poverty as well as fragility, VCN will target states previously covered by CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe) plus Kano State as it offers important market opportunities and linkages with the IFAD and ADB financed SAPZ project, and the additional State Bauchi will be included considering it is covered by AFD-financed RAAMP.

Specific LGAs will be selected within these nine participating States based on the following criteria:

- CASP / RAMP / RAAMP targeted
- Withing cluster of LGAs where project supported VCs are viable
- Peace and security
- Poverty level

¹⁴⁸<https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law> Accessed 1st January 2024.

¹⁴⁹ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

¹⁵⁰<https://borgenproject.org/disabilities-in-nigeria/> Accessed 1st January 2024.

¹⁵¹<https://drive.google.com/file/d/12459t6medwbLvSunXgk6o9x9npnXG6W4/view> Accessed 1st January 2024.

¹⁵²<https://ncpwd.gov.ng> Accessed 1st January 2024.

The project will not be operating in highly unsecured areas” for the selection of areas. For selection on the basis of security, the project will be using different data from various sources especially the IOM’s Stability Index. The IOM’s Stability Index generates recurrent security scores and information indicating citizens’ perceived security or insecurity levels and indication on their intention to stay or to leave and cluster analysis which enables the identification of pockets of stability¹⁵³. Such index can provide useful in identifying locations that are highly insecure.

Direct beneficiary targeting. A total of about 456,000 direct beneficiaries/ households will be targeted by VCN. The VCN seeks to primarily target people living under the poverty line, but also acknowledging the need to target people who are vulnerable to falling into poverty. Together, the perspective will propel economic development among those who can make economic progress with limited project support primarily at agricultural production level (farmers) as well as at other levels of the value chain (entrepreneurs). VCN includes three main target groups:

- a)** Subsistence and semi-subsistence producers (very poor and poor households) - 40% of beneficiaries. This group comprises farmers with less than 3.0 hectares and produce mainly for subsistence and have very limited surplus – if any. HHs in this category generally earn less than \$1 per day, have no or very few production assets (of low value). Many of these HHs are female headed.

Rural dwellers in this category will be supported to enhance their production, productivity and resilience of farming activities; as a result, food security levels are expected to see important increases in this group. Beneficiaries in this category will receive support to access land (women, youth, PWDs, IDPs), receive technical training, be offered matching grants linked to input suppliers, service providers, markets, and any financial services available. As many of the beneficiaries in this category will not be members of formal FOs, the project will support the legalization of people that apply in informal or new groups. Beneficiaries supported in this category are expected to sustainably transition out of poverty.

- b)** Market oriented producers (poor households and households vulnerable to poverty) - 30% of beneficiaries. This group is constituted by farmers who are market-oriented, cultivating their own or leased land but who are highly susceptible to poverty because of internal or external shocks. Generally, these producers are members of relatively strong and formal FOs which link them to markets. These farmers can also be involved in and post-harvest activities.

This category of farmers will receive support to render their activities more robust and commercially viable. Interventions to be offered to this group include training on technical and business skills, offered matching grants albeit with lower subsidies than poor farmers in category (a) above and linked to financial institutions. More, these farmers will be linked when possible, to poor farmers targeted by the project and others to increase marketing volumes and ease access to fair markets among all. Farmers in this category targeted by the project are expected to consolidate and expand their farming activities under conditions of decent employment among their workers with fair wages.

c) Individuals not associated to POs, involved in starting entrepreneurship, such as agribusiness or employment opportunities (30% of all beneficiaries). The rationale for this is the existence of a large portion of the population mostly youth not interested in on-farm production, but off-farm innovative income opportunities. People in this category live under the poverty line and are interested in entrepreneurial activities, that is, opportunities around farming including seed production, provision of services to farmers, processing, transport, trade, etc in project supported VCs.

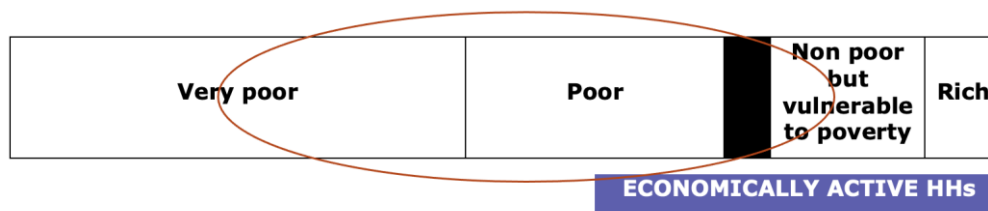
¹⁵³ An example of the stability index report is as follows: <https://dtm.iom.int/reports/nigeria-stability-index-overview-round-3-september-2023>

The Project will provide the following interventions to this category of beneficiaries: technical and business training, access to matching grants and linkages to financial institutions, service providers and markets.

Cross cutting interventions will be offered to beneficiaries from all three groups, namely, nutrition and the Gender Action Learning System (GALS), as relevant.

70% of women, youth, PWDs and returning IDPs targeted will be poor subsistence and semi subsistence producers and poor (aspiring) entrepreneurs.

Figure 3: VCN target groups vis-à-vis socio economic groups in rural target communities



Women and gender. To be gender transformative and meet the specific needs of women in terms of economic empowerment, workloads and increase in voice, the project will:

- VCN will create opportunities for women as beneficiaries, with a quota of 40% of VCN beneficiaries being women.
- Understanding that women are not a homogeneous group and that some sub-sets of women can be more vulnerable than others, specific attention will be placed on targeting young women and women headed households (WHH). (Half of women targeted will be WHH).
- As part of its gender transformative nature, the project will promote women’s access to land and work towards strengthening the enforcement of systems protecting women’s tenure security.
- VCs and specific self-employment nodes of interest to women will be included among opportunities supported by the project. The matching grant scheme will provide more favorable terms to poor women given this social group’s limited capacity to access financing.

Opportunities offered to women will seek to improve the resilience of food production for consumption and income with activities executed as close as possible to their homes. In locations in which access to land is a serious constraint and there is access to water, measures such as vertical farming in large bags will be promoted.

- Women will receive knowledge acquisition and skills development activities from the project in separate groups in communities where women and men do not generally participate in joint groups. Measures will be created for trainers to be women. Participants will be able to bring their children under 10 years of age to the training. The trainings will occur in locations in proximity to HHs of convenience to women at times that are suited to them.
- Special considerations will be employed to poor eligible women in polygamous marriages by including other co-wives who have a child under 15 years of age as additional individual beneficiaries (each of the eligible wives will be counted as a separate HH given their responsibility over their children). This measure seeks to avoid the distribution of project support given to one woman in a polygamous marriage among several wives and results thus not being achieved due to dispersion of investments.

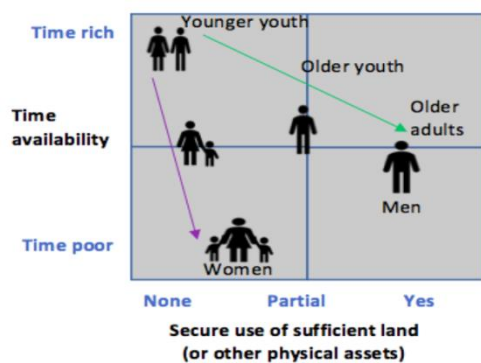
- Additional gender equity measures will be employed, as needed, to ensure that women receive all the support required to effectively access project opportunities in line with the VCN's targeting and overall project strategy. This could include integrating additional capacity building activities, easing procedures, and adjusting packages to enable poor women to achieve envisaged beneficiary outcomes.
- Support will be provided to women to create women's only cooperatives if this is women's preference.
- Women representatives will be involved at all moments in the project cycle to ensure that women receive information on project opportunities; that they understand application processes as well as the project's GRM (including SH/SEA) principles and procedures; and participate in beneficiary selection as well as in project monitoring and planning processes.
- VCN will include a robust zero tolerance policy to SH/SEA and be included in the project's GRM.
- The Gender Action Learning System (GALS) intervention will be offered primarily to men and women beneficiaries who are married (and to others when possible) to equip HHs to remove persistent gender barriers limiting women's empowerment and HH socio-economic progression. Given their responsibilities as managers of HH nutrition but men's heavy influence in their decisions, the project will embed nutrition in the GALS methodology.

The methodology will be employed as well in FOs, CAFs, and communities directly affected by conflict to develop a vision and path towards gender equality and socially inclusive development.

In addition to these programmatic measures, and to comply with gender transformative, the project will integrate measures at management level, such as training all staff on gender (as part of a broader training on social inclusion), GEWE responsibilities will be embedded in the job descriptions and contracts of all staff, performance appraisals will also assess the level of successful contribution in achieving gender transformation. A Social Inclusion Specialist will be hired at project HQ level and a social inclusion assistant in each State which will be responsible for all GEWE activities. The monitoring system will collect gender disaggregated data and determine if women are heads of household or not¹⁵⁴, and the ToC includes gender transformative pathways. Finally, the project will adopt a zero-tolerance stance towards SH/SEA; the GRM will include clear indications of procedures to follow in the specific occurrence of a case of SH/SEA.

Figure 4: Time availability and access to land among women and youth in rural communities of northern Nigeria

¹⁵⁴ VCN will consider women to be heads of household if: (i) they do not have a spouse and they and their children depend on the woman's activities and earnings; and (ii) if they are married but the spouse suffers from a debilitating illness or disability that does not allow them to earn a living.



The adoption of a gender transformative approach requires commitment at the highest level. While gender transformative projects have specific requirements to meet to be considered transformative, the absence of understanding, commitment and leadership at the highest level hampers its actual implementation. It will be necessary that in addition to the comprehensive set of measures outlined in this design, the project management structures are committed to making important advancements in GEWE.

Youth. As a youth sensitive project, VCN will integrate the following measures:

- VCN will adopt a 30% targeting quota for youth aged 18-29. Of these, half will be women and half men. Understanding that older youth (youth aged 25-29) are easier to reach by development interventions, the project will strive to also reach younger youth (youth aged 18-24); at least 30% of youth will be of the younger youth category.

- Capacity building measures will be adopted by the project to enable youth access to productive resources (land and investment capital); services, goods and skills adapted to their capacities and interests; and include them in all processes and groups supported by the project to ensure that: (i) youth receive information about project opportunities, eligibility criteria, application process and the project's GRM; (ii) participate in the selection process of youth and other social groups to be targeted by the project; (iii) ensure their voices are heard and taken into account at all levels; and (iv) that they participate in project monitoring and planning processes.
- VCs and specific self-employment nodes of interest to youth will be included among those supported by the project, i.e., those offering quick returns and low capital investment and short cycle.
- Work with the Federal Ministry of Agriculture and Food Security to promote policy dialogue in relation to youth's sustainable access/tenure ship to land.
- The incubation model promoted under VCDP and LIFE-ND, or the wage employment promotion efforts of the Agri-business hubs are not suited to the levels of poverty and underinvestment prevalent in rural communities in the States to the targeted by VCN.

Being a youth sensitive project, VCN will also integrate additional management measures to ensure that programmatic actions outlined above are effectively managed and achieve stipulated results. Among these are training of project staff on youth sensitive programming (as part of a social inclusion training), include responsibilities towards youth targeting and success in job descriptions, contracts and performance appraisals, allocate youth sensitive programming responsibilities to SI personnel, integrate youth pathways out of poverty in the log frame and equip the project's M&E system to capture beneficiary age, so that monitoring of targeting performance and beneficiary performance can be tracked regularly.

PWDs. Loyal to its socially inclusive targeting strategy, VCN will ensure that all opportunities are created for PWDs to participate in the project. The following measures have been considered at design:

- The project will establish a quota for PWDs of 10%; this will include direct or indirect targeting. VCN will consider a PWD to be a direct beneficiary when the person becomes a beneficiary in their own right. This entails having the capacity to succeed in the income generating activity of their choice. Indirect targeting of PWDs refers to targeting the HHs of a person with disability under the same terms and conditions as direct targeting; the beneficiary in this case should be one of the people that the PWD depends on. Indirect targeting will be employed for PWDs who are unable to work in the types of opportunities offered by the project and could include cases such as cognitive disability and mental illness. Entry points for direct targeting of PWDs:
 - Irrigated vegetable farming
 - Animal fattening
 - Agriculture relying on paid labor
 - Trade: purchase and sale of produce at times in which prices are more favourable
- PWDs will participate in all stages of the project cycle, through organizations of PWDs and PWDs themselves in target communities to ensure that information on project opportunities, eligibility criteria, application process and the project's GRM reaches PWDs in target communities; (ii) participate in the selection process of PWDs (direct and indirect targeting); (iii) ensure their voices are heard and taken into account at all levels; and (iv) that they participate in project monitoring and planning processes.
- As with other groups targeted by the project, the project's M&E system will make it possible to monitor the performance of PWDs on a regular basis so that operational strategies can be fine-tuned to maximize the possibilities of success of PWDs targeted.

IDPs and their host communities. VCN will be implemented in communities with proved rates of safety and security. Given the trend in displacement of populations in most target States, it is likely that the project targets entire communities that were displaced due to conflict or returning IDPs and their host communities. The project will only intervene in the development landscape; as such it will not target people living in temporary (formal or informal) IDP camps. Because of its context specific and adaptive nature, the project will not establish a quota for IDPs.

In communities where some or all community members are constituted by returnees, the project will:

- IDPs receive information about the project, eligibility criteria, beneficiary selection and the project's GRM.
- Ensure that returning IDPs are considered as potential candidates if they meet all established criteria.
- That IDPs in targeted communities are included in all project processes.

Beneficiary selection. VCN, will apply eligibility criteria to select beneficiaries as well as participatory processes. Self-targeting measures will reduce the risks of inequality and elite capture.

Entry points. Entry points for the selection of target groups engaged in agricultural production activities (target groups (a) and (b) above) will be selected from existing FO, new groups constituted as a response to project mobilization activities and off-taker outgrower schemes.

Participatory poverty and livelihood analysis and stringent pre-agreed selection criteria for each type of beneficiary be used in each target community to select beneficiaries. Representatives of all the different target groups (men, women, youth, PWDs, IDPs) will be involved in the application validation and selection process.

Value chains screening. All value chains considered by the project will be screened to ensure climate and environmental, social and market suitability. In this context, opportunities will exist for women, youth and PWDs to participate in the project through income generating activities that these groups commonly engage in and / or that they aspire to be involved in.

APPENDIX 1: Special Considerations for GALS implementation

The impact of GALS on beneficiaries is directly correlated to the quality of implementation. Like any other facilitative methodology related with behaviour change, especially when related to sensitive topics, requires that beneficiaries receive process-oriented support to make the changes which best suit their realities. This support needs to be provided by duly trained peers. Without adequate training and supportive supervision GALS facilitators (those spearheading GALS outreach among project beneficiaries) can often instruct or preach instead of facilitating self-analysis towards decision-making; they can also pollute their efforts with their own social baggage unknowingly. Delivering facilitative processes is a skill that is acquired with guided practice.

GALS is by nature a self-replicating methodology, as those transformed by it wish to share the GALS transformational path with others. Experience in other projects shows however that the following measures can substantially increase the impact of the methodology in the pool of project beneficiaries:

- GALS facilitators should be trained in phases, to allow them to digest the information shared with them and be transformed before aiming to transform others (for example through 2 or 3 trainings a few weeks apart). Training should finalize by equipping them to replicate the transformational process they went through with others along with an action plan with clear and simple targets.
- GALS facilitators should not be spread too thinly across communities. A minimum number of 2-4 should be present in easy to reach locations to support each other in the quest of positively influencing others.
- When project beneficiaries “graduate” from the GALS process guided by the GALS facilitators they should be invited to replicate it among another limited number of project beneficiaries (for example, three). The implementation strategy chosen for the GALS under the project should seek to target 30-40,000 people through high quality replications. Beyond that, GALS graduates are free to share the methodology with anyone else they wish to share it with. The commitment with the project should be to replicate among project beneficiaries in locations which are easy to reach.

GALS has been seen to produce a number of different results, all of which are important for women and the households that they live in to work in stronger coordination and collaboration, making the best use of all resources they have available.

At beneficiary household level these include:

- Increase in women’s access to and control of assets such as land and other productive resources.
- Increase in women’s participation in decision-making on decisions that have a direct bearing on their wellbeing and that of their households.
- Improvement of income generating activities.
- Increase in household income.
- More equitable distribution of responsibilities.
- Women have more time available for their self-development, for income generation activities.
- Increase in household nutrition security.
- Increase in household wellbeing.
- Reduction of GBV.

At FO level, GALS can produce changes such as:

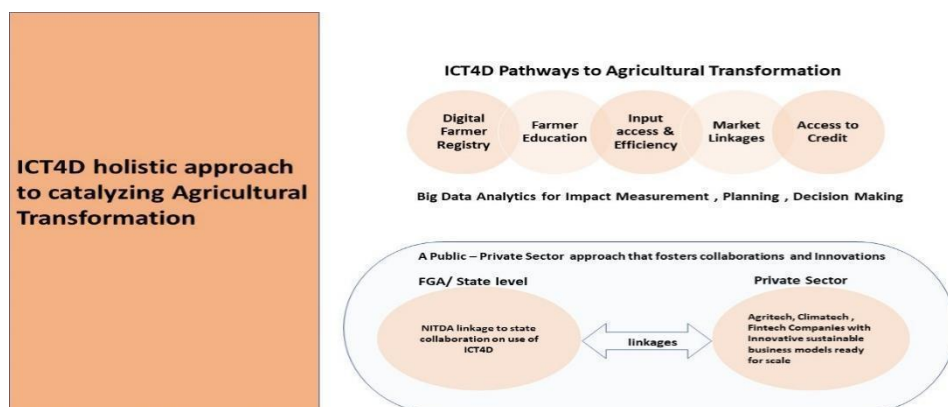
- Increase in women's access to opportunities that would previously be largely accessible to men.
- Increase in women's access to inputs, services, and markets.
- Increase in women's voice and influence in decision-making rendering FOs sensitive to women's concerns and needs.
- Greater coordination and collaboration between FO members.
- Emergence of female leaders that collaborate with men as equal partners of development.

Equally, at CAF level, the use of GALS can result in:

- Women's voices being heard and influencing stakeholder decisions.
- Women's pressing needs being increasingly met.
- The emergence of female leaders that collaborate with men as equal partners of development.
- Greater coordination and collaboration among CAF stakeholders.

Developing the necessary capacity within the project requires specialized GALS support to: develop a GALS implementation strategy and technical step by step manual; train all relevant staff and facilitators and other relevant stakeholders; and provide implementation support while internal capacity is built.

Annex 13.9: Technical Note: ICT4D



a) Challenges in Farmer Data Management:

- Data integrity concerns
- Data gaps and incompleteness
- Insufficient financial investment in data infrastructure and management (updating database)
- Cultural sensitivity issues
- Poor sensitization or community engagement

Initiating the digital transformation journey of VCN commences with the crucial task of refining the management of farmers' data. The Value Chain Nigeria (VCN) project aspires to bring about a revolutionary transformation in the agricultural sector by implementing an integrated digital farmer registry. Acknowledging the existing challenges in handling farmers' data, including non-standardized data fields, governance issues, sharing obstacles, and incentives hurdles, VCN is dedicated to overcoming these barriers that hinder the effective profiling of farmers within their communities.

To improve the accuracy and accessibility of farmer data, VCN will critically assess and refine the existing Ministry of Agriculture and Food Security (FMAFS) – NATIP ICT4D Priorities. The project will integrate cutting-edge technologies, such as the Drone-DJI P4 Multispectral for precise crop health and vegetation management insights, the Kobo Collect tool for efficient data collection, E-extension services, E-wallet services, and Mid Infrared (MIR) Spectroscopy Equipment for soil dry chemistry analysis. Drawing inspiration from successful examples in the market, such as Farm Stack, Agro-pocket, Easy Club, AI Chatbot, and Stingray (farmer registry), VCN aims to enhance its technological arsenal.

The establishment of a centralized integrated farmer registry, leveraging the National Animal Identification and Traceability System (NAITS), will serve as a comprehensive database. This registry will facilitate seamless connections for both public and private sector players, including Agritech, Fintech, and Climatetech, through an open API (Application Programming Interface). Partners like the National Identity Management Commission (NIMC), Committee of Bankers/Deposit Money Bank (BVN – sharing), Nigerian Commission Corporate (NCC), National Information and Technology Development Agency (NITDA), Telecommunication companies (internet data is too expensive, more investment), and Federal Consumer Protection will play a crucial role in spearheading this integrated farmer registry.

Through strategic collaboration with these partners, VCN will spearhead initiatives to standardize, govern, share, and incentivize farmer data, ensuring a cohesive and effective

approach throughout the project lifecycle. The integrated digital farmer registry not only grants farmers a digital identity but also lays the foundation for robust decision support systems and impact measurement. This marks a significant stride towards realizing the overarching goals of the VCN project.

Proposed Next Steps to Boost Collaborations and Partnerships:

- Sensitization of key stakeholders through round-table events
- Review Data sharing and privacy laws/policies
- Advocacy
- Mobilize investment and incentivize actors on data management
- Harmonize databases

Recommendations:

- Adopt open-source data systems
- Mobilize investment and incentivize actors on data management
- Promote strong multistakeholder collaboration

b) Enhancing Access to Weather and Climate Information:

In the pursuit of fostering resilient agricultural practices, VCN recognizes the pivotal role of accurate weather forecasting and early warning systems for timely decision-making in planting, harvesting, and post-harvest handling, particularly in fragile contexts. To achieve this, VCN will collaborate with NiMET to enable farmers' access to user-friendly climate-smart weather readers. Additionally, partnerships with digital service providers (DSPs) will be forged to empower farmers through the utilization of a weather and crop calendar App developed using smartphone technology. This innovative application integrates data on weather forecasts, crop calendars, and pest and disease control, offering early warning services to highlight potential risks and bolster farmers' resilience. Collaborative partners for this initiative include NiMET, research institutions, non-governmental organizations (NGOs), DSPs, and farmers.

Proposed Next Steps:

1. Dissemination of information in local languages prevalent among smallholder farmers.
2. Engagement of traditional and religious leaders, along with other relevant stakeholders, to enhance awareness.
3. Three key recommendations:
 - a. Raise awareness on climate change.
 - b. Improve funding for climate-related initiatives.
 - c. Foster increased government-private sector partnerships and collaborations.

c) Facilitating Access to Digital Extension Advisory Services for Enhanced Agricultural Practices:

In an effort to attract women and youth to engage in agriculture as service providers and entrepreneurs, VCN is committed to establishing robust digital extension advisory services. This initiative aims to provide personalized advice tailored to specific value chain (VC) crops and individual farmers, fostering informed decision-making for improved crop yields, reduced input costs, and enhanced overall farm management. Recognizing the high illiteracy levels among women, the approach ensures inclusivity by utilizing local languages and diverse channels such as Agribots, SMS, Integrated Voice Recording, and mobile-based applications.

The establishment of digital agricultural advisory services under VCN will significantly impact the agricultural landscape. By accelerating the development of E-advisory platforms for Good Agricultural Practices (GAP), Post-Harvest Management (PHM), and nutritional guidance, VCN aims to cover all aspects requiring informed advisories along the agricultural value chain. The anticipated impact includes increased productivity, resource optimization, and improved livelihoods for farmers.

VCN will engage reputable service providers such as AfricaRice and IITA to facilitate farmers' access to digital extension advisory tools. These tools include RiceAdvice Lite, an Android app-based decision support tool for optimizing fertilizer use in lowland rice production systems, promoted by organizations like GIZ MOVE, AGRA, and USAID. Other tools include WeedManager/AKILIMO for optimizing herbicide use, Land Area Calculator for precise measurement of farmers' land area, and the utilization of drones for pest control, particularly targeting Quelea birds. Partnerships with the Department of Extension Services under the FMAFS, CAF, National Information Technology Development Agency (NITDA), Digital Green, Farm Monitor, and Convexity Technologies Limited will further contribute to achieving the digital service targets.

VCN will collaborate with existing players in the E-extension realm, including Vijona Africa, Digital Green with video-enabled extension and AI chatbot capabilities, One CGIAR (IITA) providing solutions like RiceAdvice and IITA Herbicide Calculator, and Farm Monitor. This collaborative approach is anticipated to yield comprehensive digital extension services, empowering farmers with valuable insights, knowledge, and technological tools for sustainable and efficient agricultural practices.

D) Enhancing Input Distribution through Digital E-Vouchers:

In a dedicated endeavor to streamline the distribution of inputs, encompassing seeds and fertilizers, championed by federal states through input subsidies programs, VCN is poised to implement a digital e-voucher system harnessing Information and Communication Technology for Development (ICT4D). The primary aim is to ensure the efficient distribution of inputs while establishing traceability and authentication of quality inputs within rural communities.

Through the integration of ICT4D, VCN seeks to augment the efficiency of input distribution by improving traceability and transparency in allocation. The deployment of the e-voucher system will generate a comprehensive farmers' register and other digital records, enabling efficient monitoring of subsidy allocations to guarantee that the intended beneficiaries receive their entitled benefits. To further streamline decision-making processes and resource allocation, ICT4D tools will be employed to support input demand forecasting and planning. The analysis of data trends and demand patterns will empower state authorities to make informed decisions, facilitating the timely and targeted distribution of quality-certified inputs to farmers.

To implement the e-voucher system, VCN will collaborate with esteemed service provider firms like IFDC and Cellulant, recognized for their proficiency in transparent input distribution. Furthermore, existing solutions such as the Community Pass Card by Mastercard Foundation, Agro Pocket, AgromallTelagri, and NAGS Agropocket will be incorporated for their contributions to farmers' profiling, e-wallet functionality, registration support, and communication of specific input requirements based on farmers' data.

By leveraging digital e-vouchers and integrating with established solutions, VCN strives to revolutionize the accessibility and distribution of agricultural inputs, ensuring farmers receive quality inputs promptly and transparently. This strategic approach aligns with the overarching goal of promoting sustainable and efficient agricultural practices within rural communities.

Recommendations:

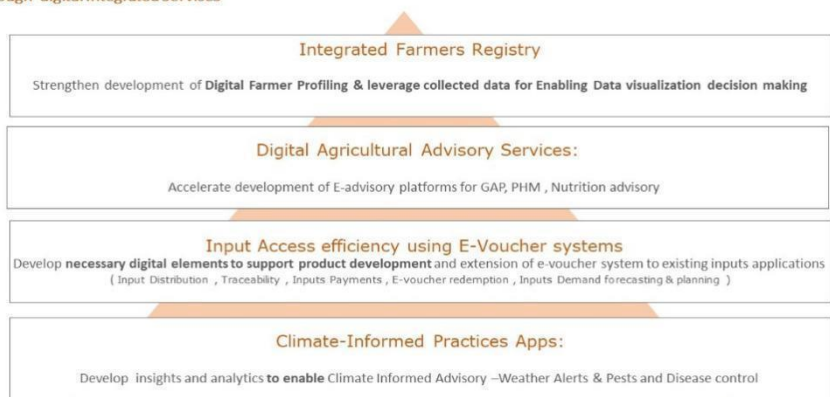
- Collaborate with Heifer International, IITA, Digital Green, and Vijona Africa for capacity building and technical assistance.
- Foster collaboration with the National Agricultural Extension Research and Liaison Services, Agric aid volunteers, and key private sector actors.
- Conduct system-wide stakeholder mapping and ensure consistent engagement through an exchange platform.
- Advocate for the establishment of a task force on ICT for Agriculture by the presidency and the creation of a community of Practice (CoP) on ICT4Ag by the Nigerian government to harness synergies among key partners.

(e) Improving Farmers' Access to Output Markets and Fair Prices:

To address the prevailing challenge of farmers being at the mercy of middlemen or traders manipulating market prices within the farming community, VCN is dedicated to enhancing market linkages and collaborations. The objective is to better connect farmers to output markets, enabling them to earn fair prices for their produce.

As part of this initiative, VCN will undertake a comprehensive review of existing Agritech e-marketplace applications currently undergoing pilot programs in the country. Additionally, collaboration with the federal Ministry of Agriculture and Food Security will be established, leveraging their Agricultural Marketing Information System (AMIS). This system serves to connect farmers with output markets and provides regular updates on food prices, ensuring transparency and fairness in transaction. Furthermore, VCN will explore innovative market linkage models that cater to the diverse needs across the entire value chain. The goal is to create a mutually beneficial scenario for all value chain actors, fostering a win-win situation. By scaling up the Agriculture Market Information System and incorporating mobile-based solutions for accessing market information, VCN aims to empower farmers and promote equitable and transparent market transactions.

Component 1: promoting sustainable agricultural systems, improved technology and climate-resilient agricultural practice through digital integrated services



ICT4D related Risks and Mitigation Strategies:

a) Challenges in Farmer Data Management:

1. **Data Integrity Concerns:**
 - Risk: Inaccuracies in the data could lead to flawed decision-making.
 - Mitigation: Implement robust data validation processes, conduct regular audits, and provide training to data entry personnel.
2. **Data Gaps and Incompleteness:**
 - Risk: Incomplete data may hinder the effectiveness of the integrated digital farmer registry.
 - Mitigation: Establish clear data collection protocols, conduct regular data quality checks, and incentivize farmers for accurate information.
3. **Insufficient Financial Investment in Data Infrastructure and Management:**
 - Risk: Inadequate funding might lead to outdated databases and limited system capabilities.
 - Mitigation: Allocate a dedicated budget for data management, explore public-private partnerships, and seek external funding sources.
4. **Cultural Sensitivity Issues:**
 - Risk: Cultural differences may impact the willingness of farmers to share data.
 - Mitigation: Implement community engagement programs, involve local leaders, and respect cultural norms regarding data sharing.
5. **Poor Sensitization or Community Engagement:**
 - Risk: Lack of awareness may result in low participation and resistance to the digital transformation.
 - Mitigation: Conduct extensive awareness campaigns, involve community leaders, and address concerns through open dialogues.

b) Enhancing Access to Weather and Climate Information:

1. **Language and Cultural Barriers:**
 - Risk: Disseminating information in local languages may pose a challenge.
 - Mitigation: Collaborate with local influencers, utilize multilingual communication channels, and leverage community networks for effective dissemination.
2. **Limited Funding for Awareness:**
 - Risk: Insufficient funding might hinder awareness campaigns.
 - Mitigation: Seek partnerships with NGOs, engage in public-private collaborations, and allocate a portion of the budget specifically for awareness initiatives.
3. **Government and Private Sector Collaboration:**
 - Risk: Inadequate collaboration may limit the impact of the initiative.
 - Mitigation: Advocate for increased collaboration, establish formal partnerships, and encourage joint initiatives for climate-related awareness.

c) Facilitating Access to Digital Extension Advisory Services:

1. **Limited Technology Adoption:**
 - Risk: Resistance to technology among farmers, especially women and youth.
 - Mitigation: Provide user-friendly interfaces, offer training sessions, and demonstrate the practical benefits of digital advisory services.
2. **Technological Infrastructure Challenges:**
 - Risk: Inadequate infrastructure may hinder the deployment of digital advisory tools.
 - Mitigation: Collaborate with telecom companies for improved network coverage, explore offline capabilities, and invest in infrastructure development.
3. **Privacy Concerns:**
 - Risk: Farmers may be hesitant due to privacy and data security issues.

- Mitigation: Implement robust data protection measures, ensure compliance with privacy regulations, and educate farmers on data security.

d) Enhancing Input Distribution through Digital E-Vouchers:

1. Technological Literacy:
 - Risk: Limited digital literacy among farmers may hinder the adoption of the e-voucher system.
 - Mitigation: Provide training programs, conduct awareness campaigns, and offer ongoing support for users.
2. Dependency on Service Providers:
 - Risk: Reliance on external service providers may introduce vulnerabilities.
 - Mitigation: Diversify service provider partnerships, establish clear service level agreements, and build internal capacities for system management.
3. Resistance to Change:
 - Risk: Resistance from stakeholders accustomed to traditional input distribution methods.
 - Mitigation: Implement change management strategies, involve stakeholders in the decision-making process, and showcase the benefits of the e-voucher system.

e) Improving Farmers' Access to Output Markets and Fair Prices:

1. Marketplace Competition:
 - Risk: Introducing e-marketplace applications may face competition or resistance.
 - Mitigation: Conduct market analysis, collaborate with existing market players, and differentiate the platform with unique features.
2. Data Security Concerns:
 - Risk: Farmers may be concerned about the security of their market data.
 - Mitigation: Implement robust data encryption, ensure compliance with data protection regulations, and communicate transparently about data security measures.
3. Lack of Stakeholder Buy-In:
 - Risk: Stakeholders may not fully support the proposed market linkage models.
 - Mitigation: Engage stakeholders in the design process, address concerns through dialogue, and showcase successful pilot programs to build confidence.

By addressing these potential risks and implementing the suggested mitigation strategies, the Value Chain Nigeria (VCN) project can enhance the success and sustainability of its digital transformation initiatives in the agricultural sector.

Innovative Features of the Value Chain Nigeria (VCN) Project

Description of Innovations:

The Value Chain Nigeria (VCN) project stands out for its incorporation of cutting-edge innovations that address the dynamic challenges in agriculture. Leveraging the power of Information and Communication Technology for Development (ICT4D), the project introduces several innovative features with a nuanced consideration of mainstreaming themes, including gender, nutrition, climate change, and youth.

1. Digital Integrated Farmer Registry:

- Innovation: VCN pioneers the establishment of a centralized integrated farmer registry, leveraging digital technologies such as Drone-DJI P4 Multispectral, Kobo Collect, E-extension services, and MIR Spectroscopy for accurate profiling.
- Contextual Significance: This digital registry ensures precise data collection, fostering inclusivity in targeting different demographics, and enhances decision-making by providing comprehensive farmer insights.

2. Climate-Smart Weather and Crop Calendar App:

- Innovation: VCN collaborates with NiMET and digital service providers to develop a user-friendly weather and crop calendar App using smartphone technology.
- Contextual Significance: This innovation empowers farmers with timely climate information, enabling them to make informed decisions on planting, harvesting, and post-harvest activities, aligning with climate change resilience strategies.

3. Digital Extension Advisory Services:

- Innovation: VCN engages reputable service providers and organizations like AfricaRice and IITA to deliver digital extension advisory tools, including RiceAdvice Lite, WeedManager/AKILIMO, Land Area Calculator, and drone-based pest control.
- Contextual Significance: These tools offer personalized advice to farmers, especially women and youth, fostering improved crop yields, reduced input costs, and overall farm management in alignment with nutrition and youth empowerment objectives.

4. Digital E-Voucher System for Input Distribution:

- Innovation: VCN implements a digital e-voucher system in collaboration with service providers like IFDC and Cellulant to streamline the distribution of seeds and fertilizers.
- Contextual Significance: This ICT-driven approach ensures transparency, traceability, and targeted distribution, optimizing resource allocation and benefiting farmers through input subsidies, aligning with gender and youth empowerment.

Prospects for Scaling Up:

The innovative features of the VCN project lay a robust foundation for scalability and sustained impact beyond its completion. Similar to successful initiatives like the Climate Adaptation Support Program (CASP), Lifeid, and Value Chain Development Program (VCDP), the VCN project demonstrates the power of leveraging ICT as a driver for innovation in agriculture. The prospects for further scaling up the results achieved by the VCN project include:

1. Replication of the Digital Integrated Farmer Registry:

- Leverage ICT: The success of the digital integrated farmer registry can be replicated in other agricultural projects, ensuring accurate data collection, targeted interventions, and enhanced decision-making.

2. Adoption of Climate-Smart Technologies:

- ICT-Enabled Solutions: The climate-smart weather and crop calendar App can be adopted in various projects, promoting resilience to climate change by providing farmers with real-time information and risk assessments.

3. Extension Services Integration:

- **Collaboration and Partnerships:** Collaborative efforts with reputable service providers and organizations can facilitate the integration of digital extension advisory services in diverse agricultural landscapes.

4. Digitalization of Input Distribution Systems:

- **Knowledge Transfer:** The digital e-voucher system's success can be shared with other projects and governmental initiatives, fostering transparent and efficient input distribution mechanisms.

In conclusion, the VCN project's innovative features, driven by ICT, not only address current agricultural challenges but also set a precedent for future scalability and adoption in diverse agricultural contexts. The project's legacy lies in its ability to inspire similar initiatives that harness the transformative power of technology for sustainable and inclusive agricultural development.

Innovation and Scaling Up in VCN Project

The Value Chain Nigeria (VCN) project is set to revolutionize the agricultural landscape through innovative technological solutions and a strategic scaling-up approach. Leveraging digital technologies from the Ministry of Agriculture and Food Security, such as Drone-DJI P4 Multispectral, Kobo Collect, E-extension services, and MIR Spectroscopy, VCN ensures accurate profiling. Learning from the success of the National Animal Identification and Traceability System (NAITS), the project establishes a comprehensive database, fostering seamless connections for both public and private sector players through an open API.

The integrated digital registry signifies a pivotal step in precise data collection, promoting inclusivity by targeting different demographics. This innovation enhances decision-making by providing comprehensive insights into farmers' profiles.

The Value Chain North (VCN) Project aims to strategically leverage the National Agriculture and Technology Innovation Plan (NATIP) to drive innovation in agriculture, contributing to sustainable national food security, improved nutrition, job creation, and enhanced resilience. Inspired by the IFAD Approach for Smallholder Inclusion, particularly the 4Ps Mechanism, the VCN project recognizes the importance of private sector partnerships in fortifying its foundations.

Digitalization of the Sector: VCN champions a holistic digitalization of the agricultural sector/value chain. The incorporation of ICT aims to boost farm crop yields by increasing access to quality inputs (seeds and fertilizers). Digitized farm advisory services, including Good Agricultural Practices (GAP), Post-Harvest Management (PHM), and climate advisory, empower farmers to enhance productivity. E-vouchers, as an extension of existing input distribution strategies, ensure the efficient and transparent distribution of quality inputs to the last mile.

Market Linkages and Transparency: Transparency along the value chain is a cornerstone of the project. Farmers, supported by digital interventions, will access better prices for their produce, elevating their incomes. This opens significant opportunities for private sector players, such as agritech, fintech, and climate tech, to scale up their innovative business models. The collected data by tech companies will serve as alternative datasets, strengthening credit scoring engines and enabling farmers to access credit without collateral.

The VCN mainstreaming initiative recognizes the pivotal role of innovation in championing the cause of youth and women empowerment. Through a Youth-Centric Approach, the project seeks to unleash the potential of youth by expanding engagement initiatives through innovative means, emphasizing technological advancements and forging strategic partnerships with educational institutions.

Scaling Up Strategies: The scaling-up strategy in VCN involves the adoption of interventions throughout the project cycle, with a keen focus on course correction based on lessons learned. Drawing insights from past IFAD projects like CASP and VCDP, the project ensures a well-informed and adaptive approach to scalability.

Continuous Learning and Adaptation are pivotal in the project's success. A framework is established that harnesses the power of innovation through regular feedback loops, impact assessments, and adaptations to the Gender Action Learning System (GALS) strategy. The creation of a vibrant learning community facilitates the sharing of experiences and insights, ensuring a dynamic and responsive approach to scaling up GALS.

Productivity expansion within the VCN involves building on the success of Community Agricultural Forums (CAFs), with efforts concentrated on expanding the 4Ps model. Collaboration with Non-Sovereign Private Sector Operations (NSO) entities, such as BabbanGona, aims to tap into their resources and expertise, providing valuable insights for further scaling up innovative approaches.

In conclusion, VCN's innovative features and scaling-up strategies position it as a transformative force in the agricultural sector. The project's commitment to leveraging technology, fostering transparency, and learning from past experiences paves the way for sustainable and impactful interventions, ultimately benefiting farmers and stakeholders across the entire agricultural value chain.

Detailed activity plan

Scaling up a centralized integrated farmer and value chain digital registry involves a systematic approach to expand its coverage and impact. Here are activities for scaling up such a registry:

1. Stakeholder Engagement and Partnerships:
 - Activity 1: Identify and engage key stakeholders, including government agencies, NGOs, private sector players, and technology providers.
 - Activity 2: Form partnerships with relevant organizations to leverage their networks and resources for expansion.
2. Technical Enhancement and Standardization:
 - Activity 1: Conduct a comprehensive review of the existing digital registry for improvements and scalability.
 - Activity 2: Standardize data collection formats and processes to ensure consistency across regions and value chains.
3. Geographical Expansion:
 - Activity 1: Develop a phased expansion plan, prioritizing regions with high agricultural activity and diverse value chains.
 - Activity 2: Establish partnerships with local authorities to facilitate the inclusion of farmers and value chain actors from new regions.
4. Technology Integration:
 - Activity 1: Explore and integrate emerging technologies to enhance the functionalities of the digital registry.
 - Activity 2: Ensure compatibility with other agricultural technology platforms for seamless data exchange.
5. Capacity Building and Training:

- Activity 1: Conduct training programs for farmers, extension workers, and other stakeholders on the use of the digital registry.
 - Activity 2: Develop user-friendly manuals and guides to facilitate onboarding and usage.
6. Incentivization and Recognition:
 - Activity 1: Implement incentive programs for farmers and value chain actors to encourage active participation in the digital registry.
 - Activity 2: Recognize and celebrate achievements of individuals and organizations contributing to the success of the registry.
 7. Data Security and Privacy Measures:
 - Activity 1: Strengthen data security protocols to protect farmers' information and maintain their trust.
 - Activity 2: Comply with relevant data privacy regulations and standards.
 8. Monitoring and Evaluation:
 - Activity 1: Establish a robust monitoring and evaluation framework to assess the impact and effectiveness of the digital registry.
 - Activity 2: Regularly review and update key performance indicators based on the evolving needs of the stakeholders.
 9. Customization for Different Value Chains:
 - Activity 1: Tailor the digital registry to accommodate the specific requirements of different agricultural value chains.
 - Activity 2: Engage with experts in each value chain to ensure the registry meets the unique needs of various crops and livestock.
 10. Community Awareness and Sensitization:
 - Activity 1: Launch awareness campaigns to educate farmers and value chain actors on the benefits of the digital registry.
 - Activity 2: Organize workshops and community events to address any concerns and build trust.
 11. Scalable Technical Infrastructure:
 - Activity 1: Upgrade the technical infrastructure to support a growing number of users and data points.
 - Activity 2: Consider cloud-based solutions for scalability and efficient data management.
 12. Feedback Mechanism:
 - Activity 1: Implement a feedback mechanism to gather input from users for continuous improvement.
 - Activity 2: Act promptly on feedback received to enhance user satisfaction and system effectiveness.

Integrated digital agricultural advisory services

Scaling up an integrated digital agricultural advisory service involves careful planning and execution to ensure effective delivery of services across various aspects. Here's a detailed activity plan:

Activity Plan for Scaling Up Integrated Digital Agricultural Advisory Services

Early Warning Systems for Weather Alerts:

1. Activity 1: System Enhancement
 - Assess the existing weather alert system.
 - Identify and integrate advanced meteorological tools and APIs.
2. Activity 2: Stakeholder Collaboration
 - Engage with meteorological agencies for real-time data.
 - Collaborate with technology partners for accurate forecasting models.
3. Activity 3: Mobile Application Integration
 - Upgrade the advisory service app to incorporate real-time weather alerts.

- Ensure compatibility with diverse mobile platforms.
4. Activity 4: User Training
 - Conduct workshops and webinars to educate farmers on interpreting weather alerts.
 - Develop user-friendly guides within the app.

Pests & Disease Control:

1. Activity 1: Pest Identification Database
 - Enhance the existing database with a comprehensive list of pests and diseases.
 - Include images and information for easy identification.
2. Activity 2: Data-Driven Pest Monitoring
 - Implement a digital system for farmers to report pest sightings.
 - Integrate machine learning for automated pest identification.
3. Activity 3: Advisory Notifications
 - Develop a push-notification system for timely pest and disease alerts.
 - Collaborate with agricultural experts to provide recommended control measures.

Agricultural Advisory Services on E-Extension:

1. Activity 1: Content Development
 - Create engaging and informative content on e-extension platforms.
 - Cover various crops, farming practices, and problem-solving techniques.
2. Activity 2: Multilingual Support
 - Translate advisory content into local languages.
 - Implement voice-based advisory for users with low literacy levels.
3. Activity 3: Interactive Features
 - Integrate chatbots or live chat support for instant interaction.
 - Enable discussion forums for farmers to share experiences.

Good Agronomic Practices (GAP):

1. Activity 1: GAP Modules
 - Develop interactive modules covering different aspects of GAP.
 - Include videos, animations, and real-life case studies.
2. Activity 2: Farmer Training Programs
 - Organize virtual and on-site training programs on GAP.
 - Partner with agricultural experts to conduct workshops.

Post-Harvest Management (PHM):

1. Activity 1: Digital PHM Guidelines
 - Create a comprehensive digital guide on PHM.
 - Include storage techniques, transportation tips, and quality preservation.
2. Activity 2: PHM Monitoring Tools
 - Integrate sensors or IoT devices for post-harvest monitoring.
 - Provide farmers with real-time data on storage conditions.

Nutrition-Sensitive Informed Advisories:

1. Activity 1: Nutrition Database
 - Develop a database of nutritional information for different crops.
 - Collaborate with nutritionists to validate and enhance the data.

2. Activity 2: Personalized Nutrition Plans

- Implement a feature for farmers to receive personalized nutrition plans.
- Integrate with local health authorities for expert advice.

Monitoring and Evaluation:

1. Activity 1: Data Analytics

- Implement analytics tools to track user engagement.
- Analyze user feedback and usage patterns for continuous improvement.

2. Activity 2: Impact Assessment

- Conduct periodic impact assessments on farmers' adoption of advisories.
- Use feedback to refine and optimize advisory services.

Community Outreach and Awareness:

1. Activity 1: Awareness Campaigns

- Launch digital and offline campaigns to promote the scaled-up advisory services.
- Engage with community leaders and influencers for wider reach.

2. Activity 2: Collaborate with NGOs and Extension Services

- Partner with non-profits and extension services to facilitate outreach.
- Leverage existing networks for community engagement.

Technical Infrastructure:

1. Activity 1: Infrastructure Upgrade

- Assess and upgrade server capacity and bandwidth for increased users.
- Explore cloud solutions for scalability.

2. Activity 2: User Support System

- Strengthen customer support services for technical assistance.
- Establish a helpdesk for query resolution.

Capacity Building:

1. Activity 1: Training Workshops

- Conduct workshops for extension workers on the use of advanced advisory tools.
- Empower local service providers to assist farmers.

2. Activity 2: Continuous Learning

- Facilitate ongoing training sessions for farmers to stay updated on new features.
- Develop a certification program for advanced users.

Funding and Sustainability:

1. Activity 1: Grant Applications

- Identify potential grants for scaling up agricultural advisory services.
- Submit applications to relevant funding bodies.

2. Activity 2: Public-Private Partnerships

- Explore partnerships with private companies for sustainable funding.
- Develop a revenue model for long-term sustainability.

Monitoring and Reporting:

1. Activity 1: Progress Monitoring

- Implement a real-time progress monitoring system.
 - Generate regular reports on key performance indicators.
2. Activity 2: Feedback Loops
 - Establish mechanisms for user feedback and suggestions.
 - Iteratively enhance the advisory services based on feedback.

Activities for Establishment of Input Distribution through Digital E-Vouchers:

1. Stakeholder Engagement:
 - Conduct stakeholder meetings involving government agencies, input suppliers, and technology partners.
 - Define roles, responsibilities, and expectations of each stakeholder in the e-voucher system.
2. Needs Assessment:
 - Conduct a needs assessment to understand the requirements of farmers, input suppliers, and local communities.
 - Identify specific crops and regions for targeted input distribution.
3. E-Voucher System Development:
 - Develop a digital e-voucher system with user-friendly interfaces.
 - Ensure the system integrates with existing farmer registries and databases.
4. Testing and Validation:
 - Pilot the e-voucher system in selected regions to test functionality and identify potential challenges.
 - Collect feedback from farmers, input suppliers, and other stakeholders for system improvement.
5. Scaling Up:
 - Based on the pilot results, scale up the e-voucher system to cover a broader geographical area.
 - Collaborate with financial institutions for seamless financial transactions.
6. Training Programs:
 - Train local extension workers and community agents on the e-voucher system's usage.
 - Conduct awareness programs for farmers to educate them on the benefits and procedures.
7. Monitoring and Evaluation:
 - Implement a robust monitoring and evaluation system to track the distribution of inputs.
 - Regularly assess the system's efficiency and identify areas for improvement.
8. Transparency Measures:
 - Implement transparency measures to ensure fair and equitable input distribution.
 - Establish mechanisms for farmers to verify the authenticity of inputs received.
9. Data Analysis and Reporting:
 - Analyze data generated by the e-voucher system to assess its impact on farmers' productivity.
 - Generate periodic reports highlighting trends and areas for improvement.
10. Feedback Mechanism:
 - Establish a feedback mechanism for farmers to report issues or concerns related to the e-voucher system.
 - Use feedback to make real-time adjustments and improvements.
11. Capacity Building:
 - Conduct capacity-building programs for local administrators and extension workers to manage the e-voucher system effectively.
 - Ensure continuous training and support for sustainability.
12. Partnership Expansion:

- Explore opportunities to expand partnerships with additional input suppliers and financial institutions.
 - Foster collaboration with other development projects and initiatives in the agricultural sector.
13. Integration with Larger Initiatives:
- Align the e-voucher system with broader national agricultural development initiatives.
 - Seek integration with government programs for enhanced impact.
14. Impact Assessment:
- Conduct a comprehensive impact assessment to measure the effectiveness of the e-voucher system.
 - Evaluate its contribution to increased farm yields, reduced input costs, and improved livelihoods.

Activities for Improving Farmers' Access to Output Markets and Fair Prices:

1. Market Assessment:
 - Conduct a comprehensive assessment of existing market structures and dynamics in targeted regions.
 - Identify challenges faced by farmers in accessing fair prices and market opportunities.
2. Collaboration with Ministry:
 - Collaborate with the federal Ministry of Agriculture and Food Security to leverage the Agricultural Marketing Information System (AMIS).
 - Explore partnerships for joint initiatives that enhance market linkages.
3. Review of Agritech Solutions:
 - Undertake a review of existing Agritech e-marketplace applications being piloted in the country.
 - Evaluate their effectiveness and potential for integration into the project.
4. Stakeholder Engagement:
 - Engage with key stakeholders including farmers, traders, market vendors, processors, and input dealers.
 - Identify and establish partnerships with relevant actors in the value chain.
5. Agriculture Market Information System (AMIS) Scaling:
 - Scale up the Agriculture Market Information System (AMIS) to support enhanced market linkages.
 - Explore opportunities to integrate mobile-based solutions for broader accessibility.
6. Market Linkage Models:
 - Explore innovative market linkage models that cater to the diverse needs across the entire value chain.
 - Design models that create a win-win situation for all value chain actors.
7. Pilot Programs:
 - Design, validate, and pilot programs that focus on improving market linkages and transparency.
 - Integrate feedback from pilot programs for continuous improvement.
8. Training Programs:
 - Conduct training programs for farmers on effective market participation.
 - Educate them on negotiation skills, quality standards, and market trends.
9. Technology Integration:
 - Leverage digital technologies for market information dissemination.
 - Explore the integration of blockchain or similar technologies for transparent and traceable transactions.
10. Mobile-Based Solutions:
 - Implement mobile-based solutions for accessing real-time market information.

- Ensure compatibility with smartphones and other commonly used devices.

11. Transparency Measures:

- Implement transparency measures along the value chain to ensure fair transactions.
- Establish mechanisms for farmers to verify market prices and track their produce.

12. Monitoring and Evaluation:

- Implement a robust monitoring and evaluation system to track the impact of market improvement initiatives.
- Assess the effectiveness of interventions in enhancing farmers' access to fair prices.

13. Documentation and Learning:

- Document successful market linkage models and approaches.
- Encourage learning from experiences and adapt strategies based on lessons learned.

Annex 13.9: Technical Note: MARKETS AND VALUE CHAIN

- COUNTRY: NIGERIA
- Project: VALUE CHAIN NORTH NIGERIA
- Mission Date: 23rd November – 15th December 2023

Mission objectives:

- i. Lead, coordinate, manage and review the work of the team, with responsibility for the outputs of each mission member, ensuring the overall consistency and alignment with IFAD's policies and guidelines, quality, and cohesion of all written contributions.
- ii. Provide technical oversight on the design mission;
- iii. Lead the coordination with the potential co-financiers for the project design;
- iv. Conduct an assessment of major value chains taking into account economic potential, inclusion of youth and gender, nutrition and environment consideration and highlighting cross-border perspectives and fragility
- v. identify key information and analysis gap that needs to be addressed through complementary studies
- vi. Provide detailed technical guidance on farmer organization, CAF and any other issues related to rural institutions and institutional capacity building.
- vii. Identify the scope, content and approach of capacity building needs of implementers (the Government and Farmer Organizations, etc.);
- viii. Coordinate the preparation of the AM to be presented at a validation meeting with all stakeholders and at a subsequent wrap-up meeting, and have the Country Director sign the final Aide Memoire with the government.
- ix. Collaborate and link-up with team members to ensure the timely production of all sections of the PDR, Annexes, Tables and Key documents.
- x. Address any additional comments or suggestions that may arise after the mission; and
- xi. Any other tasks required by the Country Director.

REPORT FINDINGS

A. EXECUTIVE SUMMARY

The outcomes of consultations with direct and indirect stakeholders of the agro-value chain from the state of Borno, Yobe, and Abuja are presented in this study. The goal of the consultations was to clarify the concept note's hypotheses. Desk reviews, reports, focus groups, interviews, field visits, and discussions with state officials were some of the methods used to gather data. The research highlighted areas of key initiatives, by identifying the main challenges and potential for crop value chains. To improve the effectiveness, inclusivity, and resilience of the agri-business value chain in North of Nigeria, this paper makes specific orientations that will inform the project design report (PDR).

1. Introduction:

In the concept (CN) crops such as, maize, sorghum, millet, rice and cowpeas, were highlighted as key focus and do constitute the staple food for a significant portion of the population in northern states. These crops also help to address food security, rural income generation, and economic development of the region. And despite their relevance, the consultations conducted helped us direct our orientations towards crops to be promoted and as well interventions deemed relevant for the sustainability of the project. It is important to state that the VCN project will pay attention at the fragility, climate resilience, food and nutrition security, women and youth empowerment, and ICT4D (key thematic workstreams) angles. All proposals oriented towards value chain development would incorporate all these key priorities.

2. Methodology:

The analysis employed a mixed-methods approach, combining quantitative and qualitative data collection. Data were collected from:

- Desk review: Reviewing existing reports, studies, and data on crop value chain in Nigeria and relevant thematic workstreams in the North of Nigeria.
- Interviews: Conducting semi-structured interviews with key stakeholders, including farmers, traders, processors/Offtakers, input suppliers, financial institutions, and government officials, development agencies, farmers organizations, communities.
- Focus group discussions: Organizing focus group discussions with different actors to address thematic workstreams orientations
- Bilateral consultations: Holding meetings and consultations with state and local authorities involve in rural development.
- Field visits: Visiting farms, storage facilities, processing centres, and markets etc...

On the other side:

- No fields visit in the communities (due to insecurity)
- No Seed/Fertilizers Producers/Importers (met)

B. Findings:

Before going through all the findings, we want to address that most of the findings in terms of constraints, and opportunities have been successfully highlighted in the VCN. This report wants to highlight and stress out additional considerations that will inform projects initiatives proposals.

I. KEY FINDINGS – CHALLENGES:

1. **Value Chain Actors :**

❖ **INPUT DEALER:**

As far as inputs distributors interviewed are concerned, they can have credit line (deposit – trade system) with the Bigger Fertilizer Companies that allow them to be flexible with downstream players. Those suppliers have their base in Lagos and Kano as well. They have moderate management system (transaction legger, P.O.S) in place and receive training from their Tier 1 supplier. However, what is missing from these distributors are:

- No presence in the communities' neighbourhoods (representation through agents)
- Limited Collaborative planning
- Limited training on the use of such fertilizers

It is key to mention that in a case of limited linkage/rapport between value chain actors (Farmers and input Distributors), it would be very difficult to have proper/accurate forecast from Inputs suppliers which might be a potential source quality inputs' shortage.

❖ **FARMERS/FARMERS ORGANIZATIONS :**

In relation to farmers, there have benefitted from several projects. Leveraging from CASP which showed good results, there is still a wide range of actors that need support. CASP has also succeeded to sustaining some LGAs, which should be leveraged during VCN project. On the other side, some limited highlighted are:

- Low financial means/limited value chain credit facility
- Low governance capacity
- low quality inputs used, low productivity.
- Most traditional production mechanism
- High post-harvest losses and limited access to markets (market Asymtric).

We also had a mention of Insecurity, as a key challenge, disrupting agricultural production and market access, impacting food security and livelihoods. Though the situation is improving, this needs to be considered, especially in regions such as Borno and Yobe, where fragility is key and people still depend from support from the government to access food.

Another consideration to point out, is that farmers highly depend of middlemen as a key market Entry point, which of course limits their possibility to generate more incomes from markets (different selling channels).

❖ **Offtakers and Processors**

- Limited collaboration with farmers (downstream actors including inputs dealers)
- Low quality of raw materials (received from farmers)
- Limited financial Capacity
- High cost of production

Most of the offtakers used the intermediaries to collect the raw material from farmers. The ones we interviewed, had mentioned to have extra capacity to process more goods. But due to their financial limitations, and highest cost of loan, they are unable to leverage more purchases. For e.g: Flour Mills has a plant in Borno with a capacity of 400mt, and they hardly process 150mt/year. This shows the potential that the small-scale farmers could access (markets) if Offtakers were able to leverage funds for more purchases.

❖ **Wholesalers and markets**

- Low contact with farmers or farmers Organizations and Offtakers
- Limited financial capacity (self-financing)
- Rely on middlemen to secure their products
- Limited financial literacy

❖ **Indirect value Chain drawbacks**

- Limited collaboration between value chain actors
- High interest rate from Financial Institutions
- Low financial capacity of financial institutions
- Low numbers of villages FSA and VLSAs
- Limited trust from Financial Institution towards farmers (bad debt history)

While we are not mentioning other challenges that have been previously mentioned in the former concept note, we still want to emphasize that in term of challenges there are three fundamental highlights to stress out for the value chain to perform better:

a. Limited communication/awareness of value chain actors:

This creates an absence of data/information (information asymmetry) for actors to jointly address opportunity that may allow market players to benefit from each other services' offers. In our interactions with stakeholders, this model in the north seems to be predominantly influenced by the two-tiered communication/gatekeep Model, where the middlemen seem to be the entry point for the farmer and deal with other actors of the chain. In this model, transparency on market price is missing, access to resources is restricted, the farmers are more vulnerable and dependent. At this stage of the value chain maturity, opportunities are limited for the small-scale farmers.

2. **Value Chain Ecosystem**

Going through all the different variables that characterizes the value chains, we can say that in general the maturity of value chain are still lower stages.

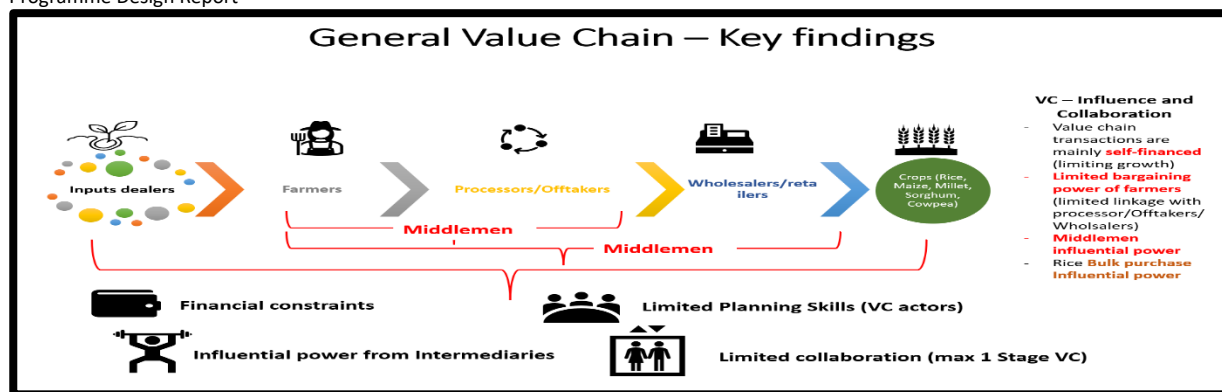
❖ **Lack of Collaborative planning (lack of planning skills):**

There is lack of information sharing between actors which may help each of them to formulate plan on their activities in a coordinated way, considering of lead time constraints. For e.g The Inputs dealers may require needs (in quantity and quality) from farmers organizations (customers) etc. to plan production and procurement activities at a certain plan. If these needs are not expressed timely, inputs out of stock are most likely to occur in the supply chain. Going through desk review and consultations, quality inputs availability is cited as a key challenge, however, it is important to understand the root cause of this shortage, that could be highly linked to limited proper planning skill in the VC, which has to go with actors communicating their needs and requirement timely while accounting for constraints related to the particularity of each value chain player activity. There is necessity to deepen consultation with the inputs dealers to understand their constraints to be able to address shortage of inputs at the level of communities.

❖ **Limited access to financial resources**

After consultation with all direct stakeholders, financial inclusion is a high constraint for the value chain development. Most of the players self-finance their activities, which limit their potential to grow faster. Off – takers (Rice and Maize) interviewed are ready to augment their volumes of purchases with farmers but are financially limited.

Representation of the Value chain:



II. KEY FINDINGS – OPPORTUNITIES:

VALUE CHAIN CROPS – CONCEPT NOTE PRELIMINARY CHOICE

A. Value Chain Crop strategy:

Pre – Selection Concept Note

The crops pre identified, have been already promoted within CASP project. It is imperative to note that, given that the project will encompass nine states, each state may possess distinct priorities and competitive advantages. While each of them presents a competitive advantage, the limitation of these choices is that most of them fall in the range of staple food, which may limit opportunities to engage in other crops that are also market orientated.

It's also important to note that, in addition to the suggested crops of millet, sorghum, maize, rice, cowpea, and cowpea, there have been more crops mentioned during our field consultations, which should highly consider.

a. Other available Crops in Regions:

- Groundnuts:
 - Cash Product
 - High value Product
 - Higher participation/contribution of women across the value chain activities
 - Open for crop rotation
- Sesame:
 - High Value crops
 - Higher participation/contribution of women across the value chain activities
- Horticulture (Vegetables, fruits):
 - Highly Nutritious
 - Higher participation/contribution of women across the value chain activities
- Ginger and Moringa
 - Ginger (Medicinal and culinary use)
 - Moringa (Agroforestry/Soil fertility/Reforestation – Source of economic income – nutrition)
- Hibiscus Nigerian hibiscus flowers (zobo):
 - Niche product which markets is growing
 - Nigeria – Mexico Export Deal (3 Billion \$)

- Small Ruminants (poultry, Sheep, Goat etc...)
- Limited effort to grow
- Rapid Cash
- Nutritious (home gardens), and accessible to women

Other consideration to account for when valuing crop value chain prioritization:

1. According to world bank report ‘Transforming Agribusiness in Nigeria for Inclusive Recovery, Jobs Creation, and Poverty Reduction’ it is mentioned that ‘The value chain groups with highest potential to reduce the national poverty headcount ratio are pulses, goats and sheep, poultry and eggs, fish and aquaculture, cattle and dairy, and traditional cash crops (groundnuts, Sesame, Ginger), in that order’
2. According to world bank report ‘Transforming Agribusiness in Nigeria for Inclusive Recovery, Jobs Creation, and Poverty Reduction’ it is mentioned that ‘Food groups that dominate production and consumption (main staples) perform poorly in the dietary diversity score, primarily because such foods already occupy a large share of the consumption basket and productivity growth makes them more available and cheaper, which further reduces the diversity of diets and leads to poor nutrition outcomes. Sorghum and millet have the worst dietary diversity growth elasticity, followed by yams, cassava, maize, bananas, rice, and edible oil seeds.

Women and Youth:

While we are looking for opportunities in crops strategy, we have also factored women and youth as part of our consultations. Some of the key opportunities captured during our interactions with different actors:

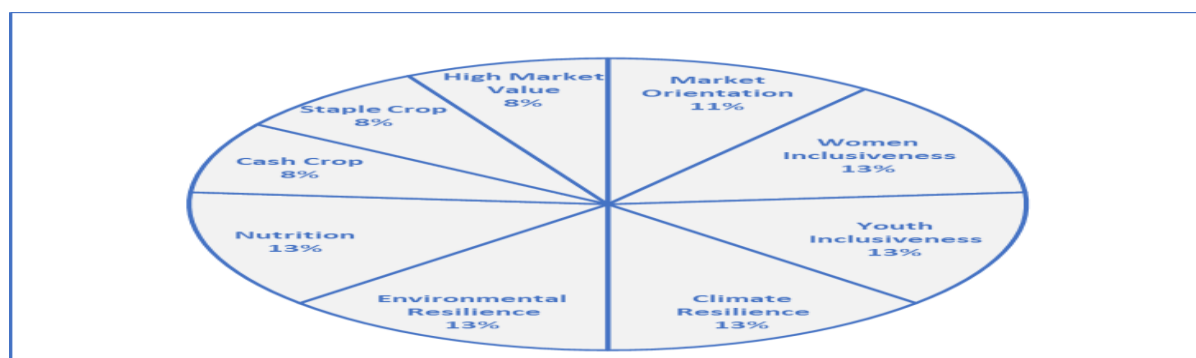
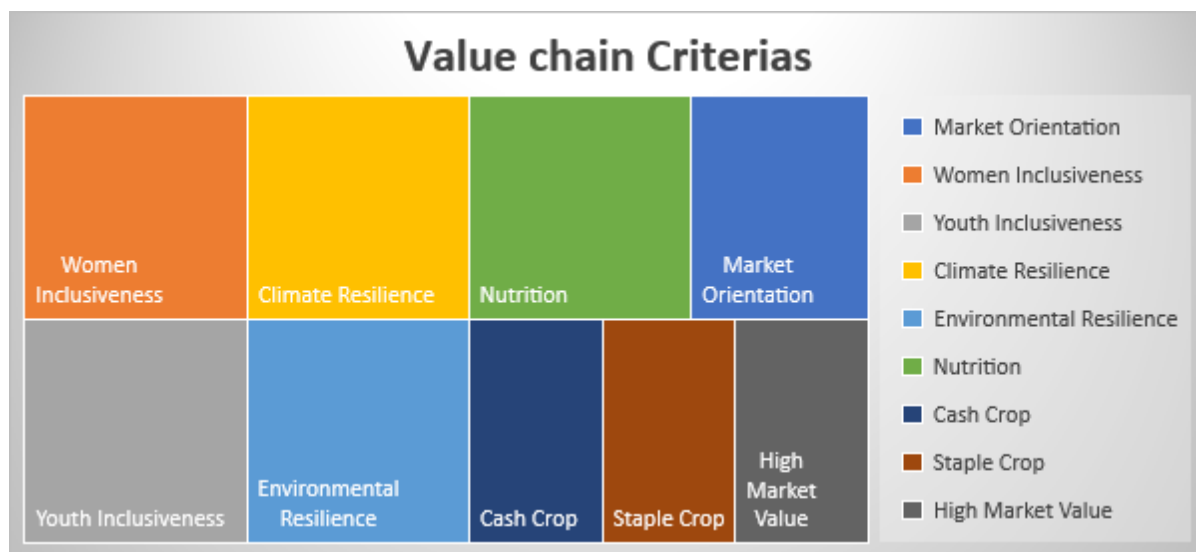
- Youth and women have entrepreneurship opportunities in production (depending on the crop sensitivity. For example, small ruminants), and mostly can gain benefit from off farms activities such as processing (cereals milling, Oil extraction, – seeds multiplication etc...), Services (extensions services – farmers field schools – retail and transport), crop residue management (e.g animal feed, briquette).
- Traditionally, Cowpeas, groundnuts, Sesame, are crops where it is observed high participation of women from all stages of the value chain. Besides, these three products have respectively combination of higher market demand, and higher value market.
- Beside these crops, there are opportunities to promote early maturing seed to ensure short maturity cycle that are resilient to climate change.

C. Crop Selection process and prioritization proposals:

Prior to the decision to finalize the Crop selection and prioritization, and after discussion with key stakeholders, the proposal of crops strategy would be processed as follows:

1. Criteria Definition and Criteria Weighting:

Crops	Market Orientation	Women Inclusiveness	Youth Inclusiveness	Climate Resilience	Environmental Resilience	Nutrition	Cash Crop	Staple Crop	High Market Value
Rate	4	5	5	5	5	5	3	3	3



The choice of crops is a key decision to engage, and the project also wants to ensure that it is well structured so that it helps the beneficiaries to assess the choice and the different aspects covered by each crop, which may differ from one another in term of perspective. The choice of value chain starts with the identification of criteria.

There are certain criteria that are proposed to orient choices towards crops. 09 have been identified as the baseline. These criteria even though they cover thematic mainstreaming angles, they also try to address food security (staple food), nutrition and market value, which is a way to reduce to poverty.

While choosing criteria for value chain selection, we must also weight each criterion, based on the priorities of the project, as each identified criteria may have different level of appreciated importance. For e.g: Women, Youth, Nutrition and Climate and environmental Resilience criteria for VCN project are key focus areas, therefore may be weighted higher at 5, vs other criteria. In the same example, during consultations a list of recurrent crops grown in targeted states has been registered, with the objective to evaluate how they fit in relation the targeted criteria and their definition.

Below the list of recurrent Crops grown in the North of Nigeria:

2. Scoring

During the Consultation, we have been able to map out crops grown in the north of Nigeria. This helps again to have a basket of value chains at disposal and could serve as a baseline for key choice to be made. On the other side, it is important that while considering choosing value chain, there is a need to evaluate their inclusiveness regarding the selected criteria. Cowpeas Crop might have a higher market value than Rice for e.g, may be more sensitive to women than rice, but not a staple food, which rice is. Cowpea may be more environment and climate friendly than rice is. These are the type of hypothesis that would help to lead to value chains prioritizations.

Category	Very High	High	moderate	Low	Very Low
Score	5	4	3	2	1

The higher scoring crops may be prioritized in consensus with the State strategy and but what the state might offer better in term of competitive advantage.

3. Choice Categorization and prioritization

Providing the basket of crops identified in the North and based on cumulated scoring for each of them, the preselection of value chains may also consider the following categories:

1. Staple Food
2. Cash Crops
3. Nutritious food
4. High Value or profitable crops

This step aims at streamlining the crop choice to a maximum of four crops per state. By concentrating our effort in a few value chains, we will increase outcomes depth and impact, reduce risk and complexity of the project.

The Crop prioritization process should be systematized to ensure consistency and also alignment based on the expectations that the project is expected to meet. In our case we consider Youth and Women empowerment, Environment and Climate resilience, and nutrition which are weighted higher than other criteria.

Limitations

While we have been able to collect field information in relation to existing crops and their contribution in relation to market and other consideration, we still believe that out of the produces that are been mentioned stakeholders, there are missing and deeper analysis that need to be done to understand produces grown in the northern part of Nigeria. In that regard, we are proposing to supplementary studies such as:

- Market/Demand analysis/Research (Assess current market trends, demand, and supply for various agro produces, identify potential buyers, distributors, and retailers, Analyze pricing dynamics and market competition of key agro product that focus between the top five crops in the northern targeted areas
- Value Chain Assessment (recent)

The above process is a step by step way to ensure that choices in relation to production meet the requirements of the markets. While we understand that value chain assessment may be done, which focus generally on identifying actors, linkages, challenges and opportunities, Market research is really exploring what is the best product to offer, which might find easiest route to market and respond to different attributes.

In some of the instances, it may be found that during the market research that for example a seed variety promoted by the project is not well suited when it comes to supply chain infrastructure and or accepted by market. This disconnection are most of the time sources of post-harvest losses and discouraging farmers to engage in a particular product.

B. OPPORTUNITIES – VALUE CHAIN ACTORS:

1. Value chain Collaboration fostering

Looking at the challenges faced by the value chain actors, it is clear that we are looking to improve value chains that are still at the basic stage, with high exposure to fragility by farmer. The connection between actors are not fluid and limiting opportunity for the value chain to be more integrated. It is needful to improve value chain actors' collaboration at this stage. Collaboration is a powerful tool that can change this narrative and it needs to be leveraged. Collaboration in the value chain provide the following:

Strength in Numbers: Farmers can overcome obstacles they confront individually by uniting as a group. In addition to using shared resources like storage facilities and transportation, they can bargain better pricing with input suppliers and customers and combine their knowledge and experience. That is why this project will promote the formation and strengthening of farmers organizations as a good start of value chain collaboration

Boosting Market Access: Small-scale farmers frequently find it difficult to meet the demands of large-scale purchasers or to reach far-off markets. They can pool their produces through cooperatives or producer groups, strengthening their negotiating position and facilitating easier access to profitable markets.

Knowledge Exchange and Innovation: Collaboration fosters a vibrant exchange of knowledge and best practices among farmers. They can learn from each other's successes and failures, experiment with new techniques, and adapt to changing circumstances. This collective wisdom becomes a fertile ground for innovation, leading to better yields, improved quality, and sustainable practices.

Improved Access to Resources: By banding together, farmers may take advantage of economies of scale and bargain for better prices on inputs like machinery, fertilizer, and seeds. In order to significantly increase the value of their crops, they can also combine their resources and invest in post-harvest infrastructure, value addition projects, and processing facilities.

Collaborative planning: This requires establishing connection and communication among value chain actors, which generates information from each other. Information allows to generate accurate planning and forecast. Cooperation among farmers, processors, and distributors improves their ability to predict market demand, minimizes food waste, maximizes output levels, and reduce out of stock. The collaborative planning is a great tool for inputs supplier to avail quality inputs at the disposal of farmers when needed. Collaborative planning has to b integrated within value chain for the system to work effectively.

Collaborative planning will succeed with the participation of all actors in the value chain. In the collaborative partnership, it is important for the below actors to be active.

- Farmers Organizations: Representing smallholder and large-scale rice producers.
- Input Suppliers: Providers of seeds, fertilizers, pesticides, and machinery.
- Processors: Entities involved in parboiling, milling, transformation.
- Traders: Aggregators and distributors who move bulk quantities.
- 3rd Party Logistics (3PL): Providers of warehousing, transportation, and other logistics services.
- Wholesalers: Distributors who buy in bulk and sell it to retailers.
- Retailers: Grocery stores and supermarkets selling to consumers.

All of them have a role to play for the value chain to be more effective and efficient. While we are opting for the collaborative planning process to be institutionalized within the CAF, this might require a couple of steps:

1. Initiation and Communication:

- Identify Stakeholders: Value Chain actors mapping already done through the CAF development will be used to identify all key stakeholders that could take part to this process
- Develop a need assessment: Conduct a needs assessment to understand the current challenges and opportunities faced by each stakeholder group within the agri value chain. This can involve surveys, focus group discussions, and interviews. (VCA could be used for preliminary discussions followed by deeper solution driven events such as workshop etc..)
- Benefits and Goals: Clearly articulate the benefits of collaboration for all stakeholders. This could involve increased profitability, improved market access, better risk management, and access to knowledge and resources. Define common goals for the collaborative planning process, such as increasing millet production, improving quality, or developing new markets
- Organize a Kick-off Meeting: Invite representatives from all stakeholder groups to a workshop explaining collaborative planning and its potential benefits. This fosters trust and creates a platform for open communication. In line with the CAF, it would be great to start with a small group that englobes key value chain actors of a targeted value chain by the VCN.

2. Establish a Planning Committee:

The Planning Committee will have the opportunity to:

- Approving the overall vision and goals of the collaboration.
 - Providing strategic guidance and decision-making.
 - Resolving conflicts or challenges arising between stakeholder groups.
 - Securing funding and resources to support the initiative.
-
- Stakeholder Representation: Form a representative planning committee with members from each stakeholder group in the agri value chain. Ensure a balanced voice for producers, processors, traders (wholesalers and retailers), private sector, and public sector representatives.
 - Committee Roles and Responsibilities: Define clear roles and responsibilities for the committee. This could involve setting the agenda for meetings, facilitating discussions, and overseeing the development of a collaborative plan.
 - Technical Working Groups: These groups will focus on specific areas within the collaborative plan. Each group should have a designated leader and include representatives from relevant stakeholder segments. Based on the data analysis, form working groups with representatives from relevant stakeholder groups.

- Production Planning Group: Focuses on aligning production with market demand, including activities like:
 - Seed selection and procurement.
 - Contract farming arrangements.
 - Production planning based on demand forecasts.
 - Sharing best practices for sustainable farming methods.
- Logistics and Distribution Group: Addresses efficient movement of product throughout the chain, including:
 - Optimizing storage and transportation networks.
 - Establishing/supporting aggregation centres for food collection
 - Collaborating with 3PL providers to ensure efficient logistics.
- Quality and Sustainability Group: Defines standards and promotes sustainable practices, involving:
 - Establishing produces quality standards across the chain.
 - Exploring sustainable production methods (e.g., water conservation, organic fertilizers).
 - Integrating sustainability practices into contract farming agreements or Offgrower schemes
- Market Information Sharing Group: Facilitates transparent information exchange, including:
 - Developing and maintaining a data sharing platform (online dashboard or platform for e.g).
 - Sharing market data like demand forecasts, pricing trends, and weather updates.
 - Ensuring all stakeholders have access to relevant information for informed decisions.

3. Facilitate Planning Meetings:

- Structured Discussions: Organize a series of planning meetings with the committee. These meetings should be well-structured with clear objectives and a facilitator to guide discussions.
- Data Gathering and Analysis: Gather and analyze relevant data on the value chain such data are structure as follows:
 - Farmers organizations: Land size, rice varieties grown, current yields, production costs, storage facilities, and challenges faced, Planting campaign start
 - Input Suppliers: Product availability, pricing models, distribution networks, and insights into farmer needs, payment terms.
 - Processors: Processing capacity, good quality requirements, demand forecasts, and preferred sourcing locations, processing lead time.
 - Traders: Sourcing strategies, storage capacity, preferred rice types, and logistical challenges.
 - 3PL Providers: Warehouse capacity, transportation network capabilities, and service offerings relevant to product added value.
 - Wholesalers: Buying patterns, customer preferences, and desired delivery schedules, Minimum quantity order.
 - Retailers: Consumer demand for product (attributes, types, quantities), preferred packaging, and any sustainability concerns.

During the data collection the team highlight operations constraints of each other in link with their own activity. For example, the Inputs Supplier will be interested in farmers organization capacity, cycle of production to be able to avail the seed timely for the upcoming seasons.

Inputs suppliers may require a minimum batch order that will help them secure the production timely to deliver the inputs to Farmers organizations. That is why it is fundamental to cluster farmer as much as possible to generate economies of scale.

4. Develop a Collaborative Plan:

- **Shared Vision and Goals:** Based on the needs assessment, SWOT analysis, and discussions, develop a shared vision for the future of the Nigerian millet value chain and establish specific, measurable, achievable, relevant, and time-bound (SMART) goals.
- **Joint Action Plan:** Create a joint action plan that outlines specific actions and initiatives to be undertaken by different stakeholders to achieve the shared goals. The plan should include timelines, responsibilities, and resource allocation.
- **Monitoring and Evaluation:** Develop a monitoring and evaluation framework to track progress towards achieving the goals and objectives of the collaborative plan. This will allow for adjustments to be made as needed.

5. Implementation and Communication:

- **Stakeholder Engagement:** Once the collaborative plan is finalized, communicate it effectively to all stakeholders in the value chain. This can be done through workshops, farmer meetings, media outreach, and communication channels established by the planning committee.
- **Implementation and Support:** Provide ongoing support to stakeholders as they implement their roles and responsibilities within the collaborative plan. This could involve training programs, technical assistance, or facilitating access to resources.
- **Technology Adoption:** Explore the use of technology solutions (e.g., digital platforms, mobile apps) to facilitate data collection, information sharing, and real-time coordination.
- **Regular Review and Updates:** Regularly review the collaborative plan and adjust as needed based on progress, changing circumstances, and feedback from stakeholders.
- **Monitoring and Evaluation:** Establish a system for monitoring and evaluating the progress of the collaborative plan. This will allow the planning team to track progress, identify challenges, and adjust as needed.
- **Communication Strategy:** Develop a communication strategy to keep all stakeholders informed about the collaborative planning process and its progress. This could involve regular meetings, workshops, and communication channels.

1. Sustainability strategy:

- **Long-Term Commitment:** Put in place the Commodity Alliance Forum to ensure the long-term sustainability of the collaborative planning process.
- **Funding Mechanisms:** Explore grant opportunities or other funding mechanisms to support ongoing activities and capacity building for stakeholders.
- **Continuous Improvement:** Regularly review the effectiveness of the collaboration and make adjustments to improve efficiency and address emerging challenges. Develop key performance indicators that help to monitor the effectiveness of collaboration. (for e.g: Number of volumes sold to processors; Yield improvement; trained farmers; Inputs volumes purchased/generated through Inputs suppliers etc..)
- **Farmers Grouping or Organizations:** To succeed Farming Organization have to be promoted so that they gather their needs in bulk for the processors to meet their requirement. It is important to state that Processing systems may require minimum batch quantities that are informative enough to have a sound transaction.

- **Contracts Development:** while we understand that information is key in collaborative planning and that actors will be linked together to undertake transactions, these letters have to be bound by agreed contracts that will rule the collaboration among actors. Such contracts with refer to contract farming, Offgrowers schemes, etc...
- **Planning Expertise:** this function has to be developed within the CAF. It may occur that some processors/Input suppliers with standard supply chain protocol, already have planning function within their organizations. This need to be leveraged to transfer those skills to other actors to build these competences across value chain actors

Expected Benefits:

- **Improved Demand Forecasting:** Collaboration leads to more accurate demand forecasts, which helps farmers plant the right crops, processors allocate resources efficiently, and distributors avoid stockouts or overstocking. When the demand is rightly addressed, Inputs suppliers will be able to address the issue of availability, as they will possess data that will lead to production and shipments.
- **Reduced Waste and Improved Efficiency:** Collaborative planning helps minimize post-harvest losses and optimizes resource utilization throughout the value. The visibility of data across the chain provides each actors enough information to execute their operations accordingly

The Offgrower scheme model is also promoting the collaborative planning system as the Offtaker which is in charge of prefinancing the farmers, maybe leading this collaborative planning and ensure volumes are secured for its processing. The Offtaker in this view look at the financial planning for procurement of inputs and operational planning as far as collecting the raw material and processing are concerned.

Farmer Organizations

The collaboration is also generated when single small-scale farmers seek interest in mutualizing their effort, through Farmers Ogranizations formations and functioning. The project must envisage strongly to benefit from existing farmers Organizations, Community development associations (CDA) and FSAs from CASP projects and others, map out and profile new ones. To collect this information, the following studies are required:

- Landscaping study of existing farmers organizations (from CASP and non CASP) and potential for farmers Organization formation opportunities in the North. It is not possible to start the project without having a register of active farmers Organizations. The landscaping must be completed with an organization profiling, as an indicative step to:
- Conducting a need Assessment of the selected farmers Organizations. This assessment will be relevant to understand the functioning of the Organization internally (Governance structure, Years of Existence, financial support, membership size, resources available, and services promoted). The study will also drive the understanding of external factors that may impact Farmers Organizations (market, social and cultural environment, policy) performance.

Such evaluation is expected to engage in initiatives leading to improve Organizational effectiveness of the Group, resources mobilization, strengthened stakeholder relationship and improve services provided by the FO. Such actions of course have to be tailored to each organization' needs. While we are moving into working with already

existing organizations, the projects should also encourage the formation of new ones whenever possible to create more collaboration.

While considering farmers Organization as a great asset for collaboration, this collaboration should be expanded to all value chain actors. While the flow of products is key along the chain, the flow of cash and also of information need to be captured. The communication between all actors of the chain is relevant for the sustainability of the value chain system. In that regard, a value chain platform such as CAF already implemented and operating in other regions should be set a priority for VCN. The platform would be a good driver of interactions and actors that will then build a more organized and structured value chain ecosystem.

a. COMMODITY ALLIANCE FORUM (CAF)

Though the "Commodity Alliance Forum" (CAF) has been created at the late stage of CASP project, it has never been operational. There is a need to start thinking about the root of setting CAF from the very start commencing of the VCN project.

Suggestion to have CAF working may require the following steps:

Step 1: Needs Assessment and Stakeholder Mapping:

- Conduct comprehensive needs assessments: Identify the specific needs and challenges faced by different actors across the value chain. (Done – CN; VCN: Desk Review)
- Map all relevant stakeholders: Include farmers, input suppliers, processors, retailers/wholesalers, financial institutions, government agencies, NGOs, research institutions, quality standard agencies and other key players. (extensive Mapping)
- Analyze existing communication channels and gaps: Understand the current level of interaction and identify areas where collaboration can be strengthened. (preliminary inputs from consultation PDR; VCN etc...)

Step 2: Building Trust and Understanding:

- Organize workshops and meetings: Facilitate face-to-face interactions to foster dialogue, build trust, and promote understanding of diverse perspectives.
- Identify common goals and interests: Develop a shared vision for the alliance and emphasize the potential benefits of collaboration for all actors (Planning – training – markets deals, prices, dynamics – policy advocacy -knowledge exchange and sharing – social and community dispute management etc...)
- Promote cross-sectoral learning opportunities: Organize exchange visits, field trips, and training sessions to encourage knowledge sharing and collaboration (CAF Bureau – VCDP CAF visits and exchange).

Step 3: Platform Development and Governance:

- Define clear governance structures: Establish transparent decision-making processes and ensure equitable representation of all actors within the alliance.
- Assign roles and responsibilities: Identify specific tasks and responsibilities for different stakeholders to ensure efficient operation and accountability.

Step 4: Capacity Building and Resource Mobilization:

- Provide training and support: Equip stakeholders with the necessary skills and knowledge to effectively engage and contribute to the alliance.
- Mobilize resources: Secure financial support from government agencies, international organizations, private sector companies, and philanthropic foundations.

Develop sustainable funding models: Explore different options, such as membership fees, service charges, and partnerships, to ensure long-term financial stability.

Step 5: Project Implementation and Monitoring:

- Identify and prioritize key initiatives: Focus on projects that address critical needs (inputs planning – market opportunities etc...), have high potential impact, and promote collaboration across the value chain.
- Implement projects in a phased manner: Start with smaller, achievable initiatives and gradually scale up as the alliance matures.
- Monitor progress and impact: Regularly track project outcomes, measure achievements against goals, and make adjustments as needed.

b. LOCAL AUTHORITIES BUY- IN

While we are promoting an inclusive approach to VCN sustainability, It is also important that we factor the local authorities such as LGAs (Local Government Authorities), Villages communities etc. as drivers of the project success. Strengthening farmers organizations should be backed up by stronger institution that are closer and engaged in rural development. As the project envisages to equip farmers with post-harvest equipment, equipment's (water supply, roads etc...), this also require the know-how of the usage and maintenance of such technologies and tools and therefore capacity building must be integrated in the package.

LGAs and villages communities must have their say in all decision making from the start of the project. As some of these equipment must be managed at community level, that calls for setting up structures (committees for e.g) to ensure proper usage of such tools. On the other side, there is quite a lot of new technologies that would be introduced to the communities which necessitate some management skills. These elements are drivers of transformation, that require also transferring knowledge to all institutional layers that have a link to rural development.

A need assessment may be required to identify areas of improvement (committees creation, project management, maintenance, monitoring and evaluation etc..) and work towards strengthening those institutions that would be able to support those areas on a lasting way. The VCN will also leverage from what has been done in CASP or any other project in term of need assessment for institution capacity building on the management and technical side to provide proper service.

2. Access to market

Access to market is still challenging for value chain actors as they are lacking knowledge and resources however through a couple of initiatives, these farmers will be able to access market through:

- Farmer Organizations: Farmers pulling their resources altogether are able to access more market than been individually processed. The programme will encourage the formation and strengthening of existing and new organizations

- **Collaboration:** Linking farmers to Offtakers directly, while reducing their dependency to the intermediates will not only help to reduce value chain cost, but will also help the Offtakers to buy resources at competitive prices. Such collaboration could be used in several way such as:
 - o Offgrower Scheme system, where Offtakers provide all the necessary inputs to the farmers, that will guarantee them an agreed win to win selling price at the end of the harvest. This system is already executed by OLAM, BABA NGONA, etc... In this system financial institutions can collaborate with Offtakers to reach small scale farmers. Farmers are financed in kind and this reduces risk. This system can leverage the ICT system to mobilize all this inputs and outputs function
 - o Contract Farming, is a win-win mutual agreement between farmers and oftakers based on predetermined conditions and terms such as prices, quality standards, and delivery schedules.All these linkages to be created between farmers and oftakers, will also help farmers to produced customer-oriented produces, at market quality acceptable standard, which will uplift the skills of farmers.
 - o Market Infrastructures building, will be also places used as a direct to customers
- Commodity Alliance Forum as already discussed will be used as a way an information platform on market price and trends, as a policy advocacy windows but also as a demand and supply matching opportunity for actors.
- Value chain prioritizations (based on market studies) is already addressed.

3. Financial Inclusion

As the project promotes private sector engagement, the discussion with a few financial organizations has generated some great interest. We have been able to meet and exchange with NIRSAL Microfinance Bank, Unity Bank, we found an opportunity to strengthen collaboration with them in line with the financial inclusion opportunity. In addition to these banks Nigeria Bank of Agriculture, Stanbic Banks, IBTC etc.. have been also cited to be agro- friendly. Two key challenges mentioned were Trust towards small scale farmers and Cost of borrowing (MPC – 15%). The cost of borrowing is higher at two digits, which is not profitable for farmers. One of the opportunities to drop this challenge will be the risk co-sharing between financiers.

The Central bank of Nigeria has also created NIRSAL (Nigeria Incentive-Based Risk Sharing System for Agricultural Lending), which intervene a guarantor for agri actors. They have the capacity to contribute up to 75% and 50% respectively for small farmers and Off takers (processors). Our exchange with them during our consultations let us in great hope to collaboration in this project to support financial inclusion.

As far as financial inclusion is prioritized, the project can explore the following initiatives way:

Options 1

FSA :

- 1.** Promote Financial Saving associations and VSLAs formations and capacity building. This could be built from existing ones as well (CASP project)
- 2.** Link gradually VSLAs to agri – friendly Financial Institutions
- 3.** Create Account with Financial institutions.

Entrepreneurs:

- 1.** Support directly the targeted entrepreneurs within value chain and existing ones.
- 2.** Provide support in business plan development, capacity strengthening, mentoring, resources allocation to targeted value chain addition functions.
- 3.** Link the Entrepreneurs to financial institutions to support their growth

Options 2 (Value Chain Finance)

In this option, it is considered working directly with Offtakers/ processors. In this type of financial system:

- loan portfolios are larger rather than been in small portion due to the large population of small-scale farmers
- Creditworthiness is well assessed by financial institutions.
- Transactions costs are lowered (less admin cost due to handling numerous small account)

There is need to undertake further discussions with all financial players to put the foundation of risk and financial co sharing that will help Off –takers to procure and secure more volume from farmers (through contract farmers), provide them additional services (capacity building – inputs supply etc..), that will help to improve quality supplies from farmers.

While we are proposing these options when it comes to financial inclusion and after consultation with stakeholders, it is surely noted that both options could be used in the project to help value chain actors to benefit from financial resources and create trust with financial institutions that will sustain their activities.

C. CONCLUSION :

Consultations have been a good occasion to finetune proposals from the concept note of the VCN. While we could really agree on the former concept note highlights in relation to challenges and initiatives, there are additional information that allowed us to strengthen findings. One of these findings relates to the optimal way to organize the value chain selection process by establishing standards and ranking crops according to a mix of seven crops divided among nutrition, cash, and staple food crops.

We have also seen that the deficiency of high-quality actor inputs is frequently mentioned. The underlying reasons for this shortfall are unclear, though. In general, the value chains are characterized by a two-tiered communication/gatekeep model—where the intermediates are typically the link—influences both collaboration and communication. Therefore, it is quite likely that there is a lack of information exchange and communication between input providers and other parties (processors, farmers' organizations, and farmers). A shortage will quickly arise because input dealers will give preference to clients who can communicate information promptly, considering the lead time for procurement and raw material production in order to deliver inputs. Input suppliers require accurate information from the chain to plan and forecast the volume of production in accordance with the demand of the value chain actors. For all parties to be able to trust one another and collaborate effectively, this collaborative planning function needs to be enforced and integrated into the chain.

In addition to aspects like market access, capacity building, market information, and price exchange that the CAF (Commodity Alliance Forum) could generate in connecting all direct and indirect players, we do believe that the operationalization of the CAF will be a great asset towards planning improvement.

The VCN will also endeavour to address financial inclusion. Even while borrowing is still expensive and most actors have limited financial literacy, there are opportunities for risk sharing strategy to lower borrowing costs by lowering the borrower's risk. At this point in the value chain ecosystem, the project could partner with a few agri-friendly financial institutions in order to support the agri-actors. Organizations like NIRSAL and other financial banks, which have been consulted during our mission, have the potential to be excellent catalysts for these kinds of programs.

It is also important to address that even though consultations have provided additional information, there is a need to conduct additional studies that will comfort our hypothesis highlighted in this technical note. Such studies are:

- Market Studies Northern part of Nigeria
- Farmers Organizations landscaping and Needs Assessment Studies
- Need Assessment studies for local authorities (LGA, Villages communities)
- Logistics modelling for infrastructure building (Storage facilities, Aggregations centres, road etc.

For some of these studies, guidance of term of Reference have been proposed in the annexes part.

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Annex 13.10: Technical Note Assessment and Strategies for Promotion of Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict

This technical note provides a summary of the study on “Assessment and Strategies for Promoting Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict”. The study was carried out before the finalization of the design of the Value Chain North Program to guide the design and support the implementation of the program. More details are available in the study which is annexed to the PDR.

I. Context

Nigeria, Africa's most populous country and one of its largest economies, faces significant challenges related to fragility, particularly in its northern regions. The North has been embroiled in a complex web of conflicts, exacerbated by the activities of insurgent groups such as Boko Haram and Islamic State West Africa Province (ISWAP), communal clashes, and farmer-herder conflicts. These conflicts are deeply rooted in historical, socio-economic, environmental, and political factors, including poverty, unemployment, climate change impacts, and governance issues¹⁵⁵. The resulting fragility has led to devastating humanitarian consequences, including loss of lives, displacement of communities, destruction of livelihoods, and severe food insecurity. The fragility in the North not only threatens the socio-economic fabric of the region but also poses significant risks to Nigeria's stability and development prospects. Addressing this fragility requires a comprehensive approach that combines security measures with initiatives aimed at addressing the underlying causes of conflict, promoting social cohesion, and ensuring sustainable development. To integrate fragility considerations into the Value Chain North project based on the detailed insights from the report, a strategic approach that encompasses understanding and mitigating the impacts of fragility on gender and agricultural development is essential. The proposed strategy will consider the key drivers of fragility, leveraging existing policies, and propose innovative methods to ensure gender inclusion and empowerment within the Value Chain Programme (VCN)^{156, 157}. The proposed strategies are anchored in the IFAD

¹⁵⁵ <https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf> accessed 11/04/2024

¹⁵⁶ Nigerian Government Policies on Fragility: <https://drive.google.com/drive/folders/1JkudcVBXV4JEyXiWYj05q36rItr87-3>

¹⁵⁷ <https://www.fao.org/3/i4646e/i4646e.pdf?> 11/04/2024

Policy on Gender Equality and Women Empowerment 2015, aiming to empower poor rural women and men to enhance their food security and nutrition, increase their incomes, and bolster their resilience this study also leverages the Updated Approaches to IFAD Engagement in Fragile Situations.

II. Goal of the study

The study aims to explore the interlinked challenges of fragility, conflict, and gender inequality in Northern Nigeria, particularly their adverse effects on the agricultural sector and aims to propose innovative interventions to mitigate these issues by focusing on three main strategies: a) enhancing women's economic empowerment through improved access to and control over productive resources such as land, credit, and quality agricultural inputs; b) augmenting women's voice and agency by promoting leadership roles and increasing their influence in decision-making processes; and c) fostering a more balanced workload via the implementation of the Value Chain North Project.

The objectives of the study are multifaceted. Firstly, it seeks to analyze the specific gender inequalities present in Northern Nigerian society and assess their impact on women in the agricultural sector, including their roles in key value chains and farmers' organizations. Secondly, the study will identify the unique challenges faced by women in contexts of fragility and conflict, such as security risks, restricted access to essential resources, and market limitations. Additionally, it will examine existing best practices for the transformative empowerment of rural women, both within Northern Nigeria and in comparable international contexts, with a particular emphasis on utilizing Gender Action Learning System (GALS) methodologies. Finally, the study aims to offer targeted recommendations and practical strategies to enhance gender equality and women's empowerment, taking into account the specific drivers, key drivers, and challenges presented by fragility, insecurity conflict in the region.

The study deployed the qualitative approach which combined literature review, administration of questionnaires to key informants, focus groups discussions and key informant interviews to elicit information on fragility and conflict in the study area.

III. Summary of Findings

i. Key drivers of fragility in Northern Nigeria

Key drivers of fragility were identified; economic deprivation leading to high levels of poverty and underdevelopment and limited access to economic opportunities, poor infrastructure, and inadequate public services that exacerbate the living conditions, driving discontent and making the population more susceptible to recruitment by militant groups¹⁵⁸, ethnic and religious tensions have been a source of tension and conflict in these areas. presence of armed groups, such as Boko Haram and other splinter factions, has led to prolonged violence and instability. These groups engage in terrorism, kidnappings, and attacks against civilians and security forces, significantly disrupting social and economic life; Competition over scarce resources, such as land and water, often along ethnic or religious lines, fuels these tensions and can lead to violence¹⁵⁹. Equally, northern Nigeria has one of the highest population growth rates in the country, which strains the already limited access to education, healthcare, and other essential services¹⁶⁰. This demographic pressure contributes to social and economic tensions. Climate change impacts, including desertification, drought, and erratic rainfall

¹⁵⁸ <https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf>

¹⁵⁹ <https://www.beyondintractability.org/casestudy/irobi-ethnic>

¹⁶⁰ <https://www.unicef.org/media/116321/file/Nigeria-2021-COAR.pdf#:~:text=URL%3A%20https%3A%2F%2Fwww.unicef.org%2Fmedia%2F116321%2Ffile%2FNigeria>

patterns, severely affect agricultural productivity and livelihoods thus exacerbating food insecurity and competition for natural resources¹⁶¹

ii. Roles, Practices, and Participation

In Borno and Katsina states, the insurgency has profoundly affected women's roles and participation in agriculture, reshaping their economic activities and coping mechanisms in the face of conflict-induced challenges. The study reveals significant details about their participation rates and the economic impact of the conflict on agricultural practices.

Borno State: The insurgency has disrupted women's agricultural activities, including small-scale wheat processing, livestock fattening, fish farming, and poultry operations. As a result of conflict, many women have been displaced from their homes, losing access to their farms, and facing a sharp decline in the value of agricultural products. Quick sales of harvests to meet immediate needs are common, with 32% of respondents noting women's involvement in the production, processing, and sale of leafy vegetables, and 60% recognizing their role in the fattening and sale of ruminants. Remarkably, about 25% of the population perceives that some women have resorted to the sex trade as a survival strategy. Efforts to support these women include improving market access, enhancing value chain participation, securing the support of male relatives, and providing timely resources such as machinery, inputs, and financial assistance. Interestingly, 36% of respondents indicated that women who own land often employ men for larger-scale production. The insurgency has also increased the burden of household responsibilities for many women, particularly widows.

Katsina State: Women are actively engaged in all aspects of the agricultural value chain, including processing and sales, though they often rely on men for production services. They face market access challenges and struggle with falling commodity prices, yet 42% of respondents believe that women's involvement in agriculture remains profitable. There is a strong advocacy for early support, including cash for land preparation and the provision of small machines, fertilizers, and pesticides. Furthermore, 55% of interviewees emphasized the importance of securing land titles for women to bolster their economic endeavors. The conflict has altered the traditional roles of women, who have had to take on more significant economic responsibilities due to the loss of male family members. Despite facing cultural and religious barriers, which also affect persons with disabilities and internally displaced persons, women continue to adapt and engage in agriculture. The survey highlighted that 66% of respondents acknowledge women's involvement in growing crops like sorghum, wheat, beans, groundnuts, rice, and tomatoes, with specific challenges in accessing the tomato market.

The research underscores that the conflict has led to a reconfiguration of gender roles in agriculture, with women increasingly taking on both productive and reproductive roles. Despite the challenges, women's resilience, and adaptability in managing both farm and household responsibilities illustrate their critical role in sustaining rural economies in conflict-affected regions of Northern Nigeria.

This analysis explores the significant challenges faced by women in Borno and Katsina states, Nigeria, with regard to access to resources and control over agricultural benefits, amidst the backdrop of ongoing conflict and socio-cultural constraints.

iii. Access to Resources and Control Over Benefits

In Borno State, despite women's motivation and capability for large-scale farming, female land ownership remains disproportionately low compared to men, with a ratio of 1/3 for

¹⁶¹https://riseprogramme.org/sites/default/files/2023-03/Problem%20of%20Out-of-School%20Children%20in%20Nigeria_0.pdf#:~:text=URL%3A%20https%3A%2F%2Friseprogramme.org%2Fsites%2Fdefault%2Ffiles%2F2023 accessed 17/04/2024

women to 2/3 for men. About 48% of respondents indicated that men often take precedence over women in resource sharing, a reflection of broader patterns of male dominance. Although 38% of respondents noted that women could purchase and maintain land, they typically access smaller parcels, facing challenges such as limited access to farms and markets, insufficient infrastructure, and competition for scarce resources.

In Katsina, women's access to land has improved slightly, yet disparities persist with only 1/3 of lands accessible to them and full access being rare. Financial and input access shows some parity, but not consistently in land dealings. Women, along with Persons with Disabilities (PWDs), encounter significant socio-cultural restrictions on their movement and economic activities, further hampered by the prerequisites for forming cooperatives which limit access to support mechanisms.

Farm and Income Management: Women in Borno are integrally involved in agriculture, managing the production and processing of various crops and livestock. Yet, they face formidable obstacles including market closures, farm inaccessibility, and fluctuating commodity prices, with over 80% of agricultural cooperatives dormant due to these adversities. In Maiduguri, land leasing costs reflect the severe constraints on land accessibility and economic pressures faced by agricultural practitioners. During harvest, the rush to sell drives down prices, exacerbating financial pressures.

In Katsina, 90% of respondents noted that women rely entirely on farming for their livelihood. They contend with similar challenges as those in Borno, including market closures and restricted farm access, which have worsened due to ongoing conflicts, shifting economic responsibilities onto women.

Marketing and Information Availability: In Borno, the availability of critical weather data from the National Meteorological Agency is limited by the lack of access to smartphones among smallholder farmers, compounded by security issues and socio-cultural restrictions that prevent women from accessing markets. Around 66% of respondents reported that men are hesitant to allow their wives to participate in market activities due to religious concerns. This restricts not only access to vital weather information but also participation in agricultural marketing, with significant impacts on agricultural productivity and family livelihoods. Overall, the study underscores the complex interplay of gender, conflict, and socio-economic factors that constrain women's access to agricultural resources and markets in Northern Nigeria.

This summary elucidates the resilience and coping mechanisms of women in Borno and Katsina states in Nigeria, detailing their struggles and the support mechanisms in place to enhance their empowerment in the face of socio-cultural norms and conflict.

iv. Resilience and Coping Mechanisms

In Borno State, views on the impact of social norms on women's empowerment are mixed. Although some argue that no societal norms affect women's empowerment, it is evident that traditional gender roles, cultural biases in leadership, and discriminatory land practices pose substantial barriers. Despite ongoing conflict, more than half of the women in the state's All Farmers Association of Nigeria (AFAN) have been granted over 100 hectares of land by member Baba Kashim for farming, reflecting their resilience and active engagement in agriculture. The new government has pledged to support economic recovery and food reform by providing irrigation facilities for key crops, recognizing the challenges posed by male dominance and emphasizing the need for gender-inclusive legislation.

In Katsina State, despite claims of non-existent societal norms affecting women's empowerment, the reality shows traditional gender roles and discriminatory practices continue to restrict women's economic activities. The government is responding with

policies aimed at enhancing women's participation in agriculture, including granting land titles directly to women, which signals a commitment to addressing historical gender inequities.

v. Support and Interventions

The precarious situation in northern Borno due to limited access to farmlands and markets has led women to prefer individual over group operations, exacerbating resource scarcity. Over 80% of agricultural cooperatives are inactive, reflecting the severe impact of conflict and male dominance in resource distribution. Government support includes irrigation farming programs, farm input provisions, and financial assistance, with advocacy for specified resource allocations to women to reduce competition with men and enhance their economic roles.

In Katsina, agricultural challenges are compounded by inadequate infrastructure and the ongoing conflict, prompting interventions such as conflict mapping and engagement with religious and traditional authorities on gender-sensitive issues. The Ministry of Women Affairs' involvement underlines efforts to address gender-related community issues, emphasizing the need for advocacy and reorientation towards gender inclusivity.

vi. Legal Frameworks and Decision Making

National and state-level legal frameworks to support gender inclusivity exist, but implementation remains inconsistent, with significant disconnects between national policies and state-level awareness and execution. Decision-making and voice for women are crucial for empowerment, yet many barriers persist due to social conventions, lack of education, and limited economic opportunities.

IV. Summary of Key Recommendations

IV.1. Strategic Recommendations

1. Leverage Existing Policies and Frameworks

Utilize the frameworks outlined in the National Gender Policy, 2021-2026, the National Gender Policy in Agriculture 2019, National Counter Terrorism Strategy (NACTEST) 2016, National Security Strategy 2014, Policy Framework and National Action Plan for Preventing and Countering Violent Extremism 2017, Terrorism (Prevention) Amendment Act 2013, National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria 2017-2020, The Nigerian Legislatures Role in Advancing Women ,Peace and Security 2020¹⁶² and the International Fund for Agricultural Development (IFAD) Policy on Gender Equality and Women's Empowerment to guide the integration of gender considerations in the face of fragility. These policies provide a solid foundation for promoting gender-sensitive approaches, but their implementation and monitoring need to be intensified and adapted to the context of northern Nigeria, which is marked by fragility and conflict.

- i. Create comprehensive support systems that include legal aid, psychological counseling, and vocational training for survivors of sexual and gender-based violence. These programs should aim not only to rehabilitate but also to reintegrate survivors into the economy, enhancing their independence and financial stability.
- ii. Promote Legal and Institutional Reforms to Secure Women's Economic Rights by advocating for and support governmental actions to provide women with land titles and simplify the process of land acquisition. This includes advocating for policy reforms that recognize and enforce women's land ownership rights.

¹⁶²<https://drive.google.com/drive/folders/1JkudcVBXV4JEyXiWYj05q36rItxr87-3>

- iii. Ensure that women have equal access to loans, agricultural inputs, machinery, and technology by working with financial institutions to create gender-sensitive lending criteria and with government bodies to subsidize essential inputs and equipment for women in fragile and conflict prone areas.

2. Women's Economic Empowerment

Ensure that women have equal access to loans, agricultural inputs, machinery, and technology by working with financial institutions to create gender-sensitive lending criteria and with government bodies to subsidize essential inputs and equipment for women in fragile and conflict prone areas. Moreover, considering the high impact of GBV in fragile areas on women's wellbeing, productivity, and access to and control over economic resources, in addition to using GALS to promote women's rights, the VCN should facilitate linkages between women organizations and providers of legal aid to survivors of sexual and gender-based violence, along with emotional support and job training to help facilitate network between women groups and service providers. Build a Robust Data Infrastructure and Advocacy Network-Establish a centralized data repository to collect, analyze, and disseminate data on gender equality and women's empowerment in fragile contexts. This repository should support evidence-based policymaking and program development, ensuring that interventions are effectively targeted and monitored.

3. Market access and livelihood support

Adopt Market Systems Development (MSD) Approach- Implement MSD strategies to enhance the resilience and functionality of local markets, focusing on understanding and addressing systemic barriers within the market. Ensure Conflict-Sensitivity in Market Interventions- Conduct thorough conflict assessments to ensure that market interventions do not exacerbate existing tensions or inequalities. This strategy aims to identify existing tensions and inequalities by thoroughly assessing the dynamics of the conflict, stakeholders can understand the underlying causes of tensions and how different groups are affected differently. This includes identifying economic disparities, social inequalities, and political grievances that could influence or be influenced by market interventions. The primary goal is to ensure that any economic initiatives or market interventions do not unintentionally worsen existing conflicts or create new ones. For instance, an intervention that benefits one group disproportionately over another could exacerbate feelings of injustice or exclusion, potentially leading to heightened tensions.

4. Financial Support Services

Capacity Building and Resilience Strengthening, establish emergency funds that women farmers can access during crises to mitigate the impacts of fragility, conflict, and climate change; improve data collection and market Analysis, by organizing targeted surveys and focus groups with women in various conflict and fragile settings to understand their specific financial needs, barriers to access, and preferences for financial services. This might include questions about their experiences with formal banking, needs for microfinance, insurance, and credit facilities, and any cultural or societal barriers they face in accessing these services and partner with local NGOs, women's groups, and community leaders to ensure a broad and inclusive data collection process, capturing the diverse needs of women across different regions and conflict scenarios; develop and analyzing gender-disaggregated data by collaborating with financial institutions, government bodies, and international organizations to collect and analyze gender-disaggregated data that reveals how women and men are differently impacted by financial systems in these settings. This data should cover aspects such as loan repayment rates, savings behaviors, and participation in financial training. Develop pilot projects for new financial products or services designed specifically for women in these environments, based on the insights gained from the needs assessments and data analysis. Examples might include microinsurance products tailored to the risks women face in conflict zones, such as loss of spouse or market instability, or savings groups that help women build assets in a culturally appropriate and secure manner; monitor and evaluate the impact of these pilot projects rigorously, collecting data on uptake, satisfaction, and economic impact on women's lives.

Use this data to refine the products and scale up successful pilots to reach more women across different settings.

5. Gender Action Learning Systems (GALS)

It is highly recommended that the Gender Action Learning Systems (GALS) be promoted more to raise awareness and share the benefits and impacts of the methodology among different stakeholders, such as community members, organizations, partners, and policy makers. Some possible strategies are: Organizing workshops, trainings, and events to introduce GALS to potential participants, facilitators, and partners, and to demonstrate how it can be applied to various sectors and contexts. Creating and disseminating communication materials, such as brochures, posters, videos, and stories, that showcase the success stories and testimonies of GALS users, and that explain the principles, processes, and tools of GALS. Establishing and strengthening networks and platforms, such as online forums, social media groups, and peer learning circles, that enable GALS users and practitioners to exchange experiences, challenges, and best practices, and to support each other in their empowerment journey. Advocating and influencing policy makers and decision makers, such as government officials, private sector actors, and partners, to recognize and support GALS as an effective and innovative approach for gender justice and social change.

6. Geographical Expansion and Localization of the Programme through ICT4D

Develop and Deploy Tailored ICT Solutions and tools specifically designed for rural women in agriculture. These tools should provide access to vital information on agricultural best practices, real-time market prices, weather forecasts, and other critical data. Focus on user-friendly interfaces suitable for low-literacy users and local language support to ensure broad usability which can be verified by monitoring the adoption rates and user feedback on these tools. Establish Partnerships for Support and Scaling up by collaborating with local NGOs, government agencies, telecommunication companies, and international development organizations to support the rollout of ICT4D initiatives. These partnerships should aim to secure funding, technical support, and policy backing necessary to scale these solutions across fragile regions. Verification of successful implementation can be achieved by reviewing partnership outcomes, such as the extent of network establishment, policy changes, or levels of sustained funding.

7. Policy Advocacy and partnership along the Humanitarian, Development, Peace and Security (HDPS) nexus

Implement gender-inclusive agricultural policies that specifically developing and enforcing legal frameworks that protect women and vulnerable populations from gender-based violence and exploitation, which are prevalent in conflict zones. Ensure that community engagement and cultural sensitivity training for agricultural extension services are respectful of local customs and are effectively communicated, which can increase adoption and cooperation within the community. Recognize and integrate indigenous knowledge and practices in agricultural strategies and programs by ensuring conflict-sensitive, meaning they recognize and aim to mitigate the potential for agriculture-related conflict, such as disputes over land and water use. This could include support for dispute resolution mechanisms at the community level. Furthermore, the VCN programme should build cooperation and synergies with existing partners and projects along the humanitarian, development, peace and security (HDPS) nexus to ensure effectiveness, efficiency and sustainability.

IV.2. Highlight of Practical Recommendations

- 1.** Priority must be given to gender transformation through the GALS approach to enhance women's participation in households and community decision-making and their increased access to productive resources, equitable distribution of work and targeting of gender-sensitive value chains (vegetable gardening, poultry and small ruminants). These are key for enhancing women's absorptive and adaptive

- capacity, economic empowerment and community nutritional outcomes as evidenced by the SRE and Nigeria's Community-based Natural Resource Management Programme (CBNRMP) experience. However, this did not lead automatically to higher influence in decision-making, so more action is needed to fully empower women and equip them to play a role in prevention and management of fragility and conflicts¹⁶³.
2. Promote community dialogue and advocacy with authorities to facilitate women access to land and to advance the implementation of women's rights to own land. In this process, the programme can leverage lessons from LIFE-ND and VCDP to negotiate lands for women and youth. However, in the context of northern Nigeria more efforts need to be done to promote women ownership control of lands). An operational and deeper study could be useful to identify context specific and community accepted approaches to in addition to what is already accepted in exiting projects.
 3. Expand matching grants to women groups and youth while considering the specific challenges of security fragility and conflict. These matching grants should serve as steppingstone to connecting women with financial service associations and other relevant financial services. A complementary study is needed to identify the key success factors, challenges of matching grants in the context of fragility, conflict, and insecurity to help define operational approaches for gender responsive implantation of matching grants in the project area.
 4. Leveraging existing successful experience in connecting farmers to market through the 4Ps, digital solution, market infrastructure and identifying additional measures to effectively consider dynamics of insecurity, conflict, and fragility. These additional measures will require complementary study and dialogue and should help ensure that no market interventions worsen existing conflicts or create new ones.
 5. Promote gender responsive, extension and training programs that are implemented with the support of women leaders and staff considering restriction link to socio-cultural values. Foster the positioning of women and male champions of innovative approach to agriculture, business management and gender equality to support agricultural training for women including their integration in value chains with high economic potential where women are underrepresented due to socio-economic barriers and or in more profitable segments of the current value chains in which women are highly represented (poultry, leafy vegetables, and small ruminants). Programme could encourage and support linkages between men's groups and literacy organizations providing literacy for women and digital solutions and training should use local language and promote voice and image technology instead of written content. Operational strategies should be defined through deeper analysis and community dialogue to identify context relevant and community accepted approaches.
 6. Use GALs to encourage community and household dialogue on balance work distribution, women's mobility¹⁶⁴, GBV and women safety, equitable remuneration, and improvement of work conditions (in households, farms, businesses and communities) Build women's groups, capacity, voice and influence to negotiate for enhanced access to lands and other resources, improved working conditions, equitable remuneration, better protection against GBV in farms, businesses, and communities greater representation in leadership. Strengthen partnership with women's organizations and other relevant NGOs to scale up support to women and facilitate community dialogue in the above areas. Mobilize, national, state, local, security and religious authorities as well as leaders of farmer organizations, public and private sectors actors especially those involved in the value chains supported by the programme to address the issues raised and facilitate progressive measures.

¹⁶³ Sub-regional evaluation of countries with fragile situations in IFAD-WCA. Learning from experiences of IFAD's engagement in the G5 Sahel countries and northern Nigeria, pp. 61-64.

¹⁶⁴ Men, influenced by religious concerns, are reluctant to allow their wives to go out according to 66% of the interviewees, these compounds the difficulties faced by the community, restricting access to both essential weather information and markets, further impacting agricultural activities and livelihoods.

- 7.** Allocate specific percentages to women during resource distribution to prevent competition with men. Provide loans, starter packs, machinery, farm inputs, and training.
- 8.** Allocate specific percentages to women during resource distribution to prevent competition with men. Provide loans, starter packs, machinery, farm inputs, and training.

In conclusion, the study identified the key challenges to gender equality and women's empowerment within the agriculture sector in the Northern Nigeria marked by fragility, insecurity, and conflict. The consultations with key stakeholders combined with analytical work carried out were instrumental in identifying high-level strategies and practical approaches for promoting transformative empowerment of women for value chain development and food security in Northern Nigeria in the context of fragility and conflict. To facilitate the implementation of the above recommendations, an in-depth study followed with stakeholders' consultations should be carried out to formulate context-relevant and community acceptable operational guidelines. These guidelines should be; a) integrated in the programme implementation manual; b) used for training of staff and leaders of farmer organization and women organizations; c) leveraged for dialogue with communities. These strategies and operational approach will help facilitate the design and implementation of gender transformative Value Chain North programme which aims to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northeast and northwest geopolitical regions of Nigeria.

Nigeria, Africa's most populous country and one of its largest economies, faces significant challenges related to fragility, particularly in its northern regions. The North has been embroiled in a complex web of conflicts, exacerbated by the activities of insurgent groups such as Boko Haram and Islamic State West Africa Province (ISWAP), communal clashes, and farmer-herder conflicts. These conflicts are deeply rooted in historical, socio-economic, environmental, and political factors, including poverty, unemployment, climate change impacts, and governance issues¹⁶⁵. The resulting fragility has led to devastating humanitarian consequences, including loss of lives, displacement of communities, destruction of livelihoods, and severe food insecurity. The fragility in the North not only threatens the socio-economic fabric of the region but also poses significant risks to Nigeria's stability and development prospects. Addressing this fragility requires a comprehensive approach that combines security measures with initiatives aimed at addressing the underlying causes of conflict, promoting social cohesion, and ensuring sustainable development. To integrate fragility considerations into the Value Chain North project based on the detailed insights from the report, a strategic approach that encompasses understanding and mitigating the impacts of fragility on gender and agricultural development is essential. The strategy should be holistic, addressing the root causes of fragility, leveraging existing policies, and employing innovative methods to ensure gender inclusion and empowerment within the agricultural sector.¹⁶⁶¹⁶⁷

Recommendations

¹⁶⁵<https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf> accessed 11/04/2024

¹⁶⁶<https://documents1.worldbank.org/curated/en/099730003152232753/pdf/P17630107476630fa09c990da780535511c.pdf> 11/04/2024

¹⁶⁷<https://www.fao.org/3/i4646e/i4646e.pdf?> 11/04/2024

The recommendation and actionable points for the study are drawn from the literature review, focus group discussions and key informant interviews undertaken in the northern Nigeria which details can be found in annex 3:

1. Leverage Existing Policies and Frameworks

Utilize the frameworks outlined in the National Gender Policy, 2021-2026, the National Gender Policy in Agriculture 2019, National Counter Terrorism Strategy (NACTEST) 2016, National Security Strategy 2014, Policy Framework and National Action Plan for Preventing and Countering Violent Extremism 2017, Terrorism (Prevention) Amendment Act 2013, National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria 2017-2020, The Nigerian Legislatures Role in Advancing Women ,Peace and Security 2020¹⁶⁸ and the International Fund for Agricultural Development (IFAD) Policy on Gender Equality and Women's Empowerment to guide the integration of gender considerations in the face of fragility. These policies provide a solid foundation for promoting gender-sensitive approaches, but their implementation and monitoring need to be intensified and adapted to the context of northern Nigeria, which is marked by fragility and conflict.

- iv. Create comprehensive support systems that include legal aid, psychological counseling, and vocational training for survivors of sexual and gender-based violence. These programs should aim not only to rehabilitate but also to reintegrate survivors into the economy, enhancing their independence and financial stability.
- v. Promote Legal and Institutional Reforms to Secure Women's Economic Rights by advocating for and support governmental actions to provide women with land titles and simplify the process of land acquisition. This includes advocating for policy reforms that recognize and enforce women's land ownership rights.
- vi. Ensure that women have equal access to loans, agricultural inputs, machinery, and technology by working with financial institutions to create gender-sensitive lending criteria and with government bodies to subsidize essential inputs and equipment for women in fragile and conflict prone areas.

2. Women's Economic Empowerment

Provide legal aid to survivors of sexual and gender-based violence, along with emotional support and job training to help facilitate network between women groups and service providers. Build a Robust Data Infrastructure and Advocacy Network-Establish a centralized data repository to collect, analyze, and disseminate data on gender equality and women's empowerment in fragile contexts. This repository should support evidence-based policymaking and program development, ensuring that interventions are effectively targeted and monitored.

3. Market access and livelihood support

Adopt Market Systems Development (MSD) Approach- Implement MSD strategies to enhance the resilience and functionality of local markets, focusing on understanding and addressing systemic barriers within the market. Ensure Conflict-Sensitivity in Market Interventions- Conduct thorough conflict assessments to ensure that market interventions do not exacerbate existing tensions or inequalities. This strategy aims to identify existing tensions and inequalities by thoroughly assessing the dynamics of the conflict, stakeholders can understand the underlying causes of tensions and how different groups are affected differently. This includes identifying economic disparities, social inequalities, and political grievances that could influence or be influenced by market interventions. The primary goal is to ensure that any economic initiatives or market interventions do not unintentionally worsen existing conflicts or create new ones. For instance, an intervention that benefits one group disproportionately over another could exacerbate feelings of injustice or exclusion, potentially leading to heightened tensions.

¹⁶⁸<https://drive.google.com/drive/folders/1JkudcVBXV4JEyXiWYj05q36rItr87-3>

4. Financial Support Services

Capacity Building and Resilience Strengthening, establish emergency funds that women farmers can access during crises to mitigate the impacts of fragility, conflict, and climate change; improve data collection and market Analysis, by organizing targeted surveys and focus groups with women in various conflict and fragile settings to understand their specific financial needs, barriers to access, and preferences for financial services. This might include questions about their experiences with formal banking, needs for microfinance, insurance, and credit facilities, and any cultural or societal barriers they face in accessing these services and partner with local NGOs, women's groups, and community leaders to ensure a broad and inclusive data collection process, capturing the diverse needs of women across different regions and conflict scenarios; develop and analyzing gender-disaggregated data by collaborating with financial institutions, government bodies, and international organizations to collect and analyze gender-disaggregated data that reveals how women and men are differently impacted by financial systems in these settings. This data should cover aspects such as loan repayment rates, savings behaviors, and participation in financial training. Develop pilot projects for new financial products or services designed specifically for women in these environments, based on the insights gained from the needs assessments and data analysis. Examples might include microinsurance products tailored to the risks women face in conflict zones, such as loss of spouse or market instability, or savings groups that help women build assets in a culturally appropriate and secure manner; monitor and evaluate the impact of these pilot projects rigorously, collecting data on uptake, satisfaction, and economic impact on women's lives. Use this data to refine the products and scale up successful pilots to reach more women across different settings.

5. Gender Action Learning Systems (GALS)

It is highly recommended that the Gender Action Learning Systems (GALS) be promoted more to raise awareness and share the benefits and impacts of the methodology among different stakeholders, such as community members, organizations, partners, and policy makers. Some possible strategies are: Organizing workshops, trainings, and events to introduce GALS to potential participants, facilitators, and partners, and to demonstrate how it can be applied to various sectors and contexts. Creating and disseminating communication materials, such as brochures, posters, videos, and stories, that showcase the success stories and testimonies of GALS users, and that explain the principles, processes, and tools of GALS. Establishing and strengthening networks and platforms, such as online forums, social media groups, and peer learning circles, that enable GALS users and practitioners to exchange experiences, challenges, and best practices, and to support each other in their empowerment journey. Advocating and influencing policy makers and decision makers, such as government officials, private sector actors, and partners, to recognize and support GALS as an effective and innovative approach for gender justice and social change.

6. Geographical Expansion and Localization of the Programme through ICT4D

Develop and Deploy Tailored ICT Solutions and tools specifically designed for rural women in agriculture. These tools should provide access to vital information on agricultural best practices, real-time market prices, weather forecasts, and other critical data. Focus on user-friendly interfaces suitable for low-literacy users and local language support to ensure broad usability which can be verified by monitoring the adoption rates and user feedback on these tools. Establish Partnerships for Support and Scaling up by collaborating with local NGOs, government agencies, telecommunication companies, and international development organizations to support the rollout of ICT4D initiatives. These partnerships should aim to secure funding, technical support, and policy backing necessary to scale these solutions across fragile regions. Verification of successful implementation can be

achieved by reviewing partnership outcomes, such as the extent of network establishment, policy changes, or levels of sustained funding.

7. Policy Advocacy

Implement gender-inclusive agricultural policies that specifically developing and enforcing legal frameworks that protect women and vulnerable populations from gender-based violence and exploitation, which are prevalent in conflict zones. Ensure that community engagement and cultural sensitivity training for agricultural extension services are respectful of local customs and are effectively communicated, which can increase adoption and cooperation within the community. Recognize and integrate indigenous knowledge and practices in agricultural strategies and programs by ensuring conflict-sensitive, meaning they recognize and aim to mitigate the potential for agriculture-related conflict, such as disputes over land and water use. This could include support for dispute resolution mechanisms at the community level.

Annex 13.11: Technical Notes from CPAT

Annex 13.11.1 CPAT - INTEGRATING ICT4D IN VCN DESIGN

The Federal Government of Nigeria is deliberate on the need to strategically integrate ICT in all sectors of the economy, most especially in the Agricultural Sector and this is well captured in a number of National Policies such as NATIP: 2022 - 2027, NDEPS: 2020-2030, the renewed hope agenda of the present new government and Presidential Emergency Declaration on Food Security.

There are already a number of digital solutions within the Nigeria Ecosystem that can be leveraged in Agricultural sector, some of which were piloted and being used by the IFAD funded projects.

For VCN, it is important to identify ways to strengthen the use of ICT in project implementation from two dimensions namely; (a) use of ICT4D to support smallholder farmers in areas of access to market, access to income, productivity enhancement, nutrition, extension service delivery, climate resilient practices, value addition and post-harvest management (b) use of ICT4D for effective project management in areas of Planning, Monitoring and Evaluation, Financial Management and Procurement, Management of Beneficiaries Database, Knowledge Management and Communication, Archiving and dissemination of programme results as well as facilitate effective communication among programme staff and other stakeholders.

Leveraging ICT4D for Effective Programme Management

1. Digital Applications for Planning, Monitoring and Evaluation

Timely access to quality data and progress reports is being a major challenge within the IFAD funded projects in Nigeria as reflected in the various Supervision Mission reports of various projects like the Value Chain Development Programme (VCDP), the close Climate Change Adaptation and Agribusiness Support Programme (CASP), as well as the Livelihood Improvement Family Enterprises in the Niger Delta (LIFE-ND). While all these projects have deployed digital solutions in Monitoring and Evaluation, there exist some gaps that must be bridged in order to effectively address this recurring challenge. ICT Solutions such as PlaMEs is being used by VCDP with its major bottleneck being that it is a desktop application and cannot offer real-time data generation, storage and access to information. Based on lessons learned, the LIFE-ND project deployed a digital solution for Monitoring and Evaluation which was an upgrade of the application being used by VCDP. A careful consideration of the LIFE-ND ArcGIS application which offer real-time update and access to data and looking at some of the features of the VCDP's desktop application which could be integrated into the real-time application would avail VCN an improved Monitoring and Evaluation System.

Other Digital solutions to be leveraged in support of M&E include Electronic Document Management System (EDMS) and Integrated Knowledge Management System (IKMS) – a document archiving system for documentation of programme documents, progress reports, report of impact/case studies, innovations and best practices, lessons learned and programme results for transparency, integrity, accountability, ease of retrieval and sharing with other stakeholders. These documents could be easily accessible even after the closure of the project.

In addition, use of quality data collection tools such as KoboCollect, ODK, Survey Monkey among others will minimize errors in data generation from the grassroots. These digital tools are currently being used by an IFAD funded project (KCEP-CRAL) in Kenya.

GIS/Remote Sensing, a planning and decision-making tool that helps in the determination of location for future interventions, planning and resource allocation, geo-referencing of

intervention sites and precision agriculture could be deployed by VCN especially, considering the fragility issues in the North-East and Northwest states.

VCN could effectively use programme website and social media handles such as YouTube channels, Twitter (X), WhatsApp, Facebook Pages among others for knowledge sharing and information dissemination to other stakeholders.

2. ICT4D for Financial Management and Procurement

VCN could leverage from the Accounting Software, a Financial Management Software currently being used by the LIFE-ND project offers real-time consolidation, reconciliation, ease of upgrade and/or modification as well as timely access to financial reports. The service provider being locally sourced avails them quick access to fixing of bugs, maintenance and training/retraining of staff.

The IFAD Open System for Planning and Management of Procurement activities can be easily deployed. The VCN staff will also have the privilege of learning from their counterparts from VCDP and LIFE-ND who are already using the system.

3. Beneficiaries Database Management System

While having a Centralized National Farmers Database has been proposed by the Government is good, it is of importance for VCN to have a programme-managed database of beneficiaries for all the participating states. A quick look into the beneficiary database systems in use by the ongoing IFAD projects like the 'beneficiaries eCapture Software' of VCDP will provide quick guidance and direction.

Leveraging ICT4D in support of Smallholder Farmers

There are several ICT4D solutions within the Ecosystem that can be leveraged in support of the smallholder farmers in Nigeria. Some of these digital solutions are already being used by IFAD-funded projects in Nigeria.

1. Digital Solutions to support Production and Productivity Enhancement

- a) The e-Extension applications – The widening ratio of Extension Officers to the farmers, also the fragility issues call for the use of e-Extension solutions (translated in local languages and commodity specific) to be deployed through mediums like digital applications (e.g Rice Advice, Farm Monitor), radio and TV stations, SMS and USSD codes, voice notes, community volunteers/champion farmers.
- b) E-Voucher system -A digital platform for efficient, transparent and effective management of input subsidy to the farmers, enhanced financial inclusion and foster partnership between VC actors – currently being used by KCEP-CRAL in Kenya. Digital solutions of this like can be locally sourced within Nigeria – like the eWallet System being piloted by NITDA.
- c) Climate Information System – A system to facilitate generation of location specific weather information and its timely delivery to farmers. This can be achieved in partnership with National Agencies like NiMET, with the project putting in place farmers-friendly mediums for dissemination to the grassroots such as Websites, WhatsApp groups, SMS, and community-based volunteer officers. VCDP and LIFE-ND projects are already implementing this technology.
- d) Use of solar-powered bird scaring digital equipment would work effectively in the North-east and North-west states. This technology was piloted by VCDP in Niger State and can be adopted and scaled by VCN.

2. Digital Solutions to Support Access to Market and Management of Post-harvest losses.

- a) The Electronic Value Chain Agricultural Market Information System (eVamis) platform developed by VCDP can be improved and upgraded to a multi-stakeholder, multi-project platform that provide farmers easy access to market.
- b) Warehouse Management Hub/Warehouse Receipt System – a system currently used by KCEP-CRAL project in Kenya to provide multiple functions such as Aggregation of produce after production, storage and quality control of grains and marketing of stored grains at prevailing market prices.
- c) Explore other eMarketing platforms within the ecosystem that are agricultural biased and farmers friendly.

3. Digital Solutions to support Financial Inclusion

- a) Promote use of Agency Banking by training and supporting selected youths to provide community based financial services through the use of POS.
- b) Electronic Loan Information Management System (eLIMS) – An application that automate loan management processes, helps FIs to easily identify genuine programme beneficiaries, facilitate real-time tracking of status of loan replenishment by each beneficiary as well as generate timely reports for informed decision making. This digital solution is currently being piloted by VCDP in Niger State.

Mitigating the Challenges facing ICT4D Implementation in Nigeria

Digital Solutions requires an enabling environment to thrive and there are a number of challenges on the digital environment especially in some of the target states as a result of vandalization ICT infrastructures like telecommunication masks, limiting network coverage. Inadequate telecommunication network coverage, inadequate ICT infrastructures, weak digital literacy of the beneficiaries and programme staff, inadequate funding of ICT4D initiatives are some of the identified challenges.

VCN must employ strategies to mitigate these challenges in order to make any meaningful impact in using ICT4D solutions to support smallholder farmers in Northern Nigeria. Below are some of the recommendations:

- a) Facilitate adequate funding for ICT4D in Agriculture by the project, government and private sector.
- b) Create/establish partnership with other MDAs and sectors, donors/multilateral financing corporations, agro-dealers, network service providers and smallholder farmers.
- c) As much as possible, leverage from existing solutions within the ecosystem (including infrastructures and service providers) rather than creating new ones.
- d) Provide ICT centers as places of learning to facilitate informal conversations and networking among young farmers (both male and female).
- e) Gradually integrate ICT4D across a variety of value chains and activities, rather than going all at once.
- f) While there are differences in the rate and level of adoption of technology between the urban and rural populace, it is recommended to start with the early adopters i.e lead/champion farmers who should be encouraged to scale to other farmers.
- g) Continuous capacity building for staff and beneficiaries on ICT skills and advocacy for use of ICT4D solutions.
- h) Advocate for strong political will and buy-in of the government at the state and local levels in ICT4D initiative.

Annex 13.11.2 CPAT - ENVIRONMENT AND CLIMATE CHANGE

Following field visits, VCN design mission team's reflection, experiences from participation in previous supervision missions to past project implementation, the following activities are highlights to be considered in the design of VCN in order to tackle the environmental and climate issues.

Activity 1: Promote an Integrated Food and Early Warning Systems for Resilient Agriculture in Northern Nigeria. This includes the promotion of access to weather information.

Rationale:

Climate Resilience (SDG 13): The early warning system is a critical tool for anticipating and mitigating the impacts of climate-related events such as droughts, floods, and extreme weather conditions. By integrating climate data and predictive analytics, the FEWS ensures that farmers are well-informed, enabling them to make timely decisions to protect their crops and livelihoods.

Food Security and Zero Hunger (SDG 2): The primary goal of the VCN project is to support smallholders in deriving wealth from tapping into the national food market. An integrated FEWS contributes to achieving SDG 2 by enhancing food security through improved agricultural planning, reduced crop losses, and increased productivity.

IFAD's Mandate: IFAD's mandate emphasizes supporting smallholders and promoting sustainable rural development. By incorporating a Food and Early Warning System, the VCN project aligns with IFAD's objectives of ensuring food security, reducing vulnerability, and building resilience in the face of environmental challenges.

Implementation Strategy:

Meteorological Data Integration: Collaborate with meteorological agencies like NiMET, and NiHSA to integrate real-time weather data and climate projections into the early warning system. This ensures that farmers receive accurate and timely information for decision-making.

Farm-level Sensing Technologies: Implement on-farm sensing technologies such as soil moisture sensors and weather stations to gather localized data. This enhances the precision of early warnings, allowing farmers to make site-specific adjustments to their agricultural practices.

Community Training and Capacity Building: Conduct training programs to build the capacity of farmers in interpreting early warning information and implementing adaptive measures. Empower local communities to take proactive steps in response to impending climate-related challenges. Very critical is the engagement of youth and women as volunteers to help disseminate weather information.

Risk-Informed Agricultural Planning: Develop a framework for risk-informed agricultural planning that incorporates early warning information. This may include guidance on crop selection, planting schedules, and water management strategies tailored to anticipate climate conditions.

Expected Benefits:

Reduced Crop Losses: Timely and accurate early warnings empower farmers to take preventive measures, reducing the risk of crop losses due to adverse weather conditions.

Improved Agricultural Productivity: Enhanced climate resilience leads to improved agricultural productivity, contributing to the overall goal of the VCN project to support smallholders in deriving wealth from the national food market.

Community Resilience: By integrating an FEWS, the VCN project builds the resilience of local communities to climate-related shocks, aligning with IFAD's mandate of promoting sustainable rural development.

Data-Driven Decision-Making: The project fosters a culture of data-driven decision-making among farmers, empowering them with the information needed to navigate a changing climate and market dynamics.

By prioritizing the integration of an Integrated Food and Early Warning System, the VCN project takes a proactive stance in addressing climate-related risks and contributes to the achievement of both SDG 2 and SDG 13. This approach aligns seamlessly with IFAD's commitment to sustainable rural development and resilient smallholder agriculture.

Activity 2: Promote Agroforestry Program: Agroforestry, the intentional integration of trees and shrubs into agricultural landscapes, offers triple benefits: environmental, social, and economic. This initiative aligns with Sustainable Development Goal (SDG) 13 - Climate Action and SDG 15 - Life on Land.

Rationale:

Climate Change Mitigation: Agroforestry acts as a natural carbon sink, sequestering atmospheric carbon dioxide in trees and enhancing overall carbon sequestration. This not only contributes to climate change mitigation but also aligns with global efforts to combat climate change, supporting SDG 13 - Climate Action.

Biodiversity Conservation: Integrating diverse tree species into the agricultural landscape promotes biodiversity. This aligns with SDG 15 - Life on Land, fostering ecosystem resilience, protecting soil health, and providing habitat for various flora and fauna.

Sustainable Land Management: Trees play a crucial role in preventing soil erosion, improving water retention, and enhancing overall soil fertility. By incorporating agroforestry, the project contributes to sustainable land management practices, supporting SDG 15 - Life on Land.

Enhanced Livelihoods: Agroforestry provides additional income streams for smallholder farmers through the sale of timber, fruits, and other non-timber forest products. This economic diversification aligns with the broader goal of poverty alleviation (SDG 1 - No Poverty and SDG 8 - Decent Work and Economic Growth).

Preparation for Carbon Trading: Establishing a robust tree planting program positions beneficiaries ahead of emerging carbon trading opportunities. Trees act as carbon sinks, and the project can quantify and monetize the carbon sequestration potential, contributing to SDG 13 - Climate Action.

Implementation Strategy:

Species Selection: Engage local communities in selecting tree species (such as *Faidherbia albida*, *Alcacia albida*) that are well-adapted to the region, ensuring ecological compatibility and increased community ownership. These are part of the lessons learned from CASP.

Training and Capacity Building: Provide comprehensive training to farmers on agroforestry techniques, maintenance practices, and the potential economic benefits. Emphasize the importance of sustainable harvesting practices.

Monitoring and Evaluation: Implement a robust monitoring and evaluation system to track the growth and impact of the agroforestry program. This data will be instrumental in quantifying carbon sequestration for potential future carbon trading initiatives.

Community Engagement: Foster community participation and ownership through transparent communication channels. Encourage the establishment of community-managed nurseries for sustained tree planting efforts.

Incorporating a well-designed agroforestry program into the VCN project not only aligns with SDGs but also positions the project to harness the potential benefits of emerging environmental markets, such as carbon trading. This approach ensures a sustainable and integrated development model that addresses both environmental and socio-economic objectives.

Activity 3: Bioconversion of Agricultural Waste to Organic Fertilizer through Innovative Fermentation/Green Technology (Waste to Resource/Wealth)

Rationale:

Waste Reduction and Resource Efficiency (SDG 12): The innovative fermentation system technology proposed for converting agricultural waste into liquid fertilizer is a sustainable solution that addresses waste reduction. By recycling biowaste generated from agricultural activities, the project contributes directly to SDG 12 by promoting responsible consumption and production.

Enhanced Soil Fertility and Crop Productivity (SDG 2): The liquid natural fertilizer produced through this process serves as a potent organic source of nutrients for crops, thereby enhancing soil fertility. This aligns with SDG 2 by promoting sustainable agriculture and contributing to efforts to achieve zero hunger.

Circular Economy Principles: The initiative embodies circular economy principles by transforming waste into a valuable resource. This not only reduces the environmental impact of biowaste but also establishes a closed-loop system that aligns with the broader objectives of SDG 12 - Responsible Consumption and Production.

Implementation Strategy:

Technology Adoption: Introduce and implement cutting-edge fermentation system technologies that are not only effective but also accessible and affordable for smallholder farmers. Collaborate with local research institutions and technology providers to ensure the suitability of the chosen technology for the specific context of Northern Nigeria.

Training and Capacity Building: Conduct comprehensive training programs for farmers on the use of the innovative fermentation system, emphasizing proper techniques, maintenance, and the benefits of organic liquid fertilizer. Build the capacity of local communities to independently manage and sustain the bioconversion process.

Community/Home Gardens: Establish community gardens where the organic fertilizer is applied to cultivate crops. This serves as a practical demonstration of the benefits of the technology, providing a tangible example of sustainable agriculture in action.

Awareness and Education: Launch awareness campaigns targeting both farmers and youth to emphasize the importance of sustainable practices. Showcase the positive environmental impact of waste-to-wealth initiatives, fostering a mindset shift towards responsible consumption and production.

Expected Benefits:

Environmental Impact: Recycling tons of biowaste significantly reduces the environmental footprint associated with agricultural activities, contributing to a more sustainable and circular approach to farming.

Nutrient-Rich Soil: The liquid natural fertilizer enhances soil fertility, promoting healthier crops and increased agricultural productivity.

Community Nourishment: The project not only generates a valuable resource but also promotes food security by improving crop yields and providing a source of nourishment for the local community.

Education and Awareness: Raising awareness among farmers and youth about the benefits of sustainable practices fosters a culture of environmental stewardship and responsible consumption.

By integrating this innovative waste-to-wealth initiative, the VCN project not only addresses immediate agricultural challenges but also establishes a model for sustainable, resource-efficient, and environmentally conscious farming practices in Northern Nigeria. This approach resonates with the Presidential Emergency Declaration on Nigeria's Food Security (Action 9: Enhancing Post-Harvest Management) and the principles of responsible consumption and production, contributing to the achievement of SDG 12.

Presented below are some inputs that would support the design process of the Value Chain in the North of Nigeria.

Input	Remarks
<p>Note that across all the states currently under focus, there is a variation in request for additional value chains to be included in the project being designed</p>	<p>During the stakeholders' engagements of November/December 2023, there has been mention of other crops (in addition to the 'top three' in each state). This lends credence to the feedbacks from the initial consultations that were held in the states. Therefore, the design process should consider adding the next two crops of significance per state.</p>
<p>A key sustainability feature of CASP intervention is that the grants of small ruminants given to PWDs matched the needs of the beneficiaries</p>	<p>The peculiar, limited mobility of PWDs restricts them to livelihoods in which the entrepreneur is relatively sedentary; in this regard, the award of starter herds of goats under CASP was suitable for PWDs. The business continues to expand as the herd grows while allowing for periodic sale of selected adults. This feature of sustainable expansion further underscores the relevance and suitability of adding small ruminants to VCN</p>
<p>It is necessary to ascertain the current state of affairs of the Farmers' Savings Associations (FSAs).</p>	<p>FSAs are the first response for inclusive financial service in rural communities in the Northern Nigeria that were covered by CASP, particularly considering the weak presence of National and Regional FIs in rural areas. It is therefore important to leverage the FSAs to boost the technical and financial capacity to deliver a variety of financial services to farmers. This requires a strategy that should be based on an assessment of FSAs as from the closure date of CASP to-date, much would have happened in the business process of the FSAs. Along this line, the interim period between the VCN design phase till mid-2025 presents a window of opportunity for interaction with the existing FSAs in all states, in order to ascertain:</p> <ol style="list-style-type: none"> a. Their current ability to effectively and efficiently carry-on the business of financial intermediation b. How well they have successfully maintained the physical assets given to them by CASP c. Their customer base disaggregated by gender and other indices d. Their loan products disaggregated by gender as well as value chain activities e. Value of good quality assets and value of their liabilities etc. f. The extent of (or potentials for) deploying ICT in providing their financial services g. What capacity building they may require h. How to build linkages between FSAs, National and Regional FIs. i. How to leverage matching grants to foster financial inclusion of FOs and farmers (women, youth and PWDs, IDP returnees) through FSAs. <p>Given the proper budgetary support, CPAT is well-positioned to unleash its wide advisory expertise to facilitate the foregoing dialogue, which would not only serve to identify the readiness of FSAs but would also facilitate the</p>

Input	Remarks
	identification of the entrepreneurs who have been (and are still) effectively engaged in their respective livelihoods. This also supports proper targeting.
There should be a specific determination of the extent to which the value chain concept is currently being practiced among actors in the various states	This entails ascertaining the following facts within a given number of smallholder farmers in a state: <ol style="list-style-type: none"> 1) How many farmers/groups have effective contract linkages (formal and informal), with beneficiary off-takers? 2) How consistent have deliveries been on these contracts? 3) How many off takers have approached (or contemplated approaching) any financial institution for credit to finance the contractual relationship with its primary producers? 4) Have there been any gatherings that bring producers, off-takers, financial institutions and other actors together, to try and hold a dialogue on inter-stakeholder relationships?
In order to make credit significantly available to the smallholder entrepreneurs, deliberate efforts are required in forging close ties with the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL)	<p>Access to finance is (and will continue to be) a major issue determining the ability of small-holder farmers (SHFs) to adopt the required innovations and expand their output and productivity. One feature that dissuades banks from lending to the SHFs is the perceived risk of agricultural enterprises, as exacerbated by poor repayment records of farmers. This has been underscored by the negative image of the Anchor Borrowers' Programme, the flagship lending programme of the FGN.</p> <p>NIRSAL, which is the FGN institution providing guarantee in agricultural finance, provides a credit risk guarantee (CRG), whereby the risk is shared between the financing bank and NIRSAL. The firm is present in all states and it has CRG for all stages of the value chain; the CRG covers 75% down to 50% of the credit. location, and later link with the head office. The firm also engages in the supervision, management and monitoring of projects. NIRSAL would be a key ally in VCN implementation.</p>

Annex 13.11.4 CPAT - COMMUNITY INFRASTRUCTURE

CASP infrastructural development significantly improved livelihoods and stimulated business engagements between the smallholder farmers and the private sector players. With more than 127.33 km roads constructed or rehabilitated, farmers have remarkably reduced post-harvest losses, better connection to farmlands, markets and processing centres and have significantly reduced logistics costs. As such, these cost savings have reinforced improved livelihoods, saving time and resources which are invested in other on-farm and off-farm activities.

CASP's use of standard designs for the construction of market facilities, input shops, processing centres and other production, processing and marketing infrastructures were innovations, the adoption of this approach contributed to more efficiency through reduced time (avoiding repeated procurement of different consultancy firms for each site) and reduced costs. It also brought about a harmonization of the approach for the delivery of market infrastructure.

Working with the Community Infrastructure Consultant with the responsibility of community Infrastructure for production, processing and marketing, I have to share the following;

- 1) The CASP Working Paper for Community Infrastructure;
- 2) The CASP Standard design for the various community infrastructures;
- 3) The comprehensive table for the various community infrastructures and their costs that will help in the design of the cost table etc.

Annex 13.11.5 CPAT - SUMMARY TECHNICAL NOTE ON VCN DESIGN

GENDER

1. Promote peer learning as Farmer field schools are preferred over one-on-one extension model. however, where the use of extension agents is unavoidable, the approach has to be gender sensitive.
2. There is no equity in workloads between men and women at household level, therefore the need to conduct a workload analysis targeting women is paramount as women do all household chores and this affects their agricultural productivity.
3. Training and retraining of beneficiaries are key and should be gender specific especially at the rural level as the women lack exposure and may not have a voice if merged with the men.
4. Intervention supports should not be passed through the men as the supports will not get to the women.
5. GALS methodology to be strengthened
6. Continuous and robust sensitization and stakeholder engagement is key with community leaders taking the lead to elicit stakeholders buy-in.
7. An all-inclusive sensitization approach - the community, men and women to be adopted to promote the need for women's active participation in projects
8. CDD approach fosters intervention ownership and sustainability, therefore, should be promoted.

VALUE CHAIN

1. The region is known for the cultivation of a variety of cereals which play vital roles in the local economy and contributes significantly to the food system. However, it is characterized by short rainfall duration, therefore provision should be made for the use of Short and Early maturing varieties to combat the effect of late onset and early cessation of rainfall in the region.
2. High potential and comparative advantage in groundnut production as both local and improved varieties can be grown twice/year, across all the LGAs in Kebbi State in commercial quantities and its nutritious value is high. However, this was not considered during CASP restructuring.
3. Groundnut value chain stops at production, there is need to scale up and promote other value chains.
4. Promote solar energy as a new energy source in place of PMS to power and support tools for mechanization

FINANCIAL INCLUSION

1. Linkage with Development Exchange Centre (DEC) a financial NGO can be leveraged on, serving as entry point for financial inclusion in Kebbi State

ICT4D

1. ICT4D adoption rate in Northern Nigeria is very limited which can be attributed to low literacy level for the operation of electronic devices, mobile phones are not compliant with ICT application and the unaffordability of gadgets for ICT operations among others. ICT solutions should be made usable and accessible.
2. Capacity building geared towards the teeming Youth population can serve as change agents in Agriculture (AgriTech) ICT-based solutions and innovations
3. ICT needs borders on access to real time weather information, market information, pest control especially quelea birds, improved nutrition and e-extension services, and water harvesting technologies.

NUTRITION

1. Target women directly with nutrition interventions as intense nutrition education is required especially on children's and mother's diets.
2. Millet, soybeans, sorghum, groundnut are crops with great potentials not only for income but formulated as complementary nutritious diets for the prevention of mal/undernutrition in children.
3. Integrated home gardens to include promotion of nutrient dense fruits, vegetables, cereals, poultry, moringa vegetable, recipes, small ruminants.
4. More manure for organic farming will become more available for backyard gardening if small ruminants/ livestock is integrated in the new VCN project.
5. Open defecation in communities is rampant with resultant outbreak of air and water-borne diseases. Continuous sensitization on WASH is therefore key to improve sanitary and hygiene practices.

LESSONS LEARNT FROM OTHER IFAD-SPONSORED PROJECTS

1. Provision of start-up packs in the form of working capital as promoted by the LIFE-ND Project can be adopted in the VCN to empower beneficiaries after trainings to support investments in choices of enterprises.
2. The cluster model being supported by the LIFE-ND project to ease access of enterprises (groups) to resources, inputs and markets, can be introduced to ensure sustainability.
3. Presence of a meteorological facility established by CASP for which a dashboard could be created for collection of data on weather information and disseminated to farmers.
4. Watering points provided by IFAD during CASP should be reconstructed for water availability in the target areas.

Annex 13.12: Technical Note: Nigeria COSOP Fragility Assessment

1. Introduction: why IFAD considers Nigeria to be fragile

This Fragility Assessment Note complements the SECAP background study for Nigeria's new Country Strategic Opportunities Programme (COSOP). It is required by IFAD because Nigeria is listed by the World Bank Group as one of 37 "fragile and conflict-affected" countries¹⁶⁹. Specifically, Nigeria is listed under the "conflict" sub-category. Nigeria has a situation described as a "complex crisis" with a "very high" risk index (at 6.5) by the INFORM Risk Index Report for 2021¹⁷⁰. The World Risk Index report for Nigeria also has a very high rating of 12.66¹⁷¹. Monguno (2021) notes that Nigeria's Global Peace Rating has slid, and poor governance has contributed.

For more than a decade the Boko Harum insurgency in the **northeast** and kidnapping in the **northwest**, have been growing problems. In the **middle-belt** there is increasing farmer-herder conflict as populations have risen and natural resources have become increasingly contested. In the **south**, the biggest challenge is youth restiveness due to lack of jobs, and environmental degradation from oil exploitation activities, and in the oil-rich Niger Delta region there are kidnappings, militancy and partisan politics overspilling into violence¹⁷². These factors, according to the IFAD's COSOP Results Review (2020) are the "most prevalent insecurity threats to Nigeria's agricultural sector".

However, Nigeria's overall fragility is not simply about conflict. A set of broader issues is evident. These are embraced in IFAD's definition of fragility, namely: "vulnerability to natural and man-made shocks, often associated with an elevated risk of violence and conflict¹⁷³." Thus, conflict is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, in turn exacerbated by population growth and poverty. Many of the observations made here coincide with those described by Monguno¹⁷⁴ who focussed on fragility in relation to IFAD's SAPZ project. While that detailed note highlights land ownership, distribution of resources, corruption, proliferation of arms and ethnic and religious tensions, it underplays the vital element of environmental factors.

2. Impact on agricultural sector and drivers of fragility

Where there is conflict and insecurity, it makes farming more difficult and riskier. Exposure in the field when working and traveling are potentially dangerous: smallholders are constrained by less reliable access to markets both for inputs and sales of produce. In the face of severe danger, this can lead to abandonment of homesteads and internal displacement. The total number of internally displaced persons (IDP) in Nigeria is estimated

¹⁶⁹ <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>

¹⁷⁰ Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

¹⁷¹ World Risk Report, 2021. Bündnis Entwicklung Hilft, Ruhr University Bochum – Institute for International Law of Peace and Conflict 2021. <https://weltrisikobericht.de/weltrisikobericht-2021-e>.

¹⁷² Monguno, A.K., 2021. Contextual review of fragility, conflict and violence in Nigeria for the establishment of strategic agro-processing zones (SAPZ) in Kano and Ogun states. Draft report submitted to IFAD, Nigeria Office.

¹⁷³ IFAD, 2016. Strategy for engagement in countries with fragile situations. IFAD, Rome

¹⁷⁴ Monguno, A.K., 2021. Contextual review of fragility, conflict and violence in Nigeria for the establishment of strategic agro-processing zones (SAPZ) in Kano and Ogun states. Draft report submitted to IFAD, Nigeria Office.

at 1.9 million¹⁷⁵. IDPs face adverse economic impacts and that augments the chronic poverty they already tend to experience. Herders' priorities are diverted from livestock production to livestock protection. Where the prevailing conflict is between settled farmers and herders, then neither community can focus on yields.

Nigeria's environmental degradation is being made worse by climate change: more intense rainfall and increasing temperatures are particularly damaging. This contributes to a "progressive decline in productivity of around 3.5 percent annually" according to IFAD¹⁷⁶. The National Action Programme (NAP) against land degradation and desertification (as submitted in 2001 to the UNCCD) had already estimated desertification in the northern states at 50-75 percent. The 2022 floods were devastating, submerging communities, farmlands, fishponds, and other production and processing units, and wiping out investments of millions of smallholder farmers across Nigeria. An attribution study¹⁷⁷ suggests that the flooding occurred because of above average rainfall, and that climate change had made the event about twice as likely to happen.

Increasing rural poverty is the outcome, and smallholders are less able to carry out the sustainable land management practices to secure their resource base and stabilise their yields. Climate change adaptation must be a priority in this scenario: yet the lack of significant progress in coordinated adaptation efforts – as highlighted in the National Adaptation Framework (2020) – contributes to fragility as it fails to help the agricultural sector to become more resilient. An updated plan is under construction, but by December 2022 was not yet finalised.

3. The risk that fragility poses to IFAD's programme

Insecurity and conflict make agricultural development problematic. Projects located in conflict zones may not meet the immediate priorities of smallholders, whose attentions are elsewhere. Nor are they easy to implement or to supervise, as was experienced by IFAD's (now completed) CASP project in the northern states where insecurity is pronounced. Staff are not easy to recruit or keep, and their ability to perform their functions is compromised. Other vulnerability risks, especially land degradation and the impacts of climate change on smallholders, in themselves make IFAD's investments more important – yet project targets more difficult to achieve.

Table 1 sets out a risk and risk mitigation matrix, modified from the COSOP Results Review for Nigeria¹⁷⁸ and the COSOP Extension document¹⁷⁹.

¹⁷⁵ See SECAP Report for COSOP, 2022

¹⁷⁶ IFAD, 2022. COSOP Extension. The Federal Republic of Nigeria. IFAD, WCAD.

¹⁷⁷ Zachariah et al., 2022. Climate change exacerbated heavy rainfall leading to large scale flooding in highly vulnerable communities in West Africa. World Weather Attribution. <https://www.worldweatherattribution.org/climate-change-exacerbated-heavy-rainfall-leading-to-large-scale-flooding-in-highly-vulnerable-communities-in-west-africa/>

¹⁷⁸ IFAD, 2020. COSOP Results Review. The Federal Republic of Nigeria. IFAD, WCAD.

¹⁷⁹ IFAD, 2022. COSOP Extension. The Federal Republic of Nigeria. IFAD, WCAD.

Table 1. Risks to IFAD’s Programme and Measures to Reduce Risks

Risk	Prevalence	Measures to Reduce Risk
Conflict (insurrection)	Localised	<ul style="list-style-type: none"> • Focus on locations with lower risk • Increase the use of digital communications • Emphasise partially remote reviews
Conflict (herders vs farmers)	Localised	<ul style="list-style-type: none"> • Work with community organisations • Integrate both livestock and crops into projects • Explore (multiple) lessons learned from elsewhere
Environmental Degradation	Widespread	<ul style="list-style-type: none"> • Focus on productive restoration, for example: • <i>agroforestry & fertility management</i> • <i>area enclosures & community-based management</i>
Climate Change	National	<ul style="list-style-type: none"> • Awareness-raising at all levels • Focus on CC adaptation for smallholders • Use options from WOCAT’s Global SLM Database¹⁸⁰

4. How IFAD can plan to minimise risks of fragility in its operations

There are several promising channels for IFAD to operate better to minimise risk. Most are universal; all apply to Nigeria.

4.1 Avoid high conflict risk areas but learn to function better where there is conflict.

- Make sure that UNDSS (UN Department of Safety and Security) is regularly consulted about suitability of project location;
- Support, build capacity in, and work with local security and conflict resolution groups; and
- Move more proactively towards virtual communication (smart phones; video conferencing, etc.) in project implementation, training, and supervision.

4.2 Address land degradation through multiple well-known restoration methods.

- Focus on sustainable land management (SLM) to secure the natural resource base, combat land degradation and simultaneously improve climate change resilience;
- Emphasise “production through conservation” and integrate crop production with livestock husbandry for technical and social reasons; and
- Make use of the hundreds of successful examples of SLM available online in WOCAT’s Global SLM Database¹⁸¹.

4.3 Focus on climate change adaptation/ resilience amongst smallholders.

¹⁸⁰ www.wocat.net

¹⁸¹ Available at www.wocat.net

- Adaptation to climate change is essential for the livelihoods of smallholders: this is the priority for them and for IFAD (e.g. IFAD's ASAP+ programme): SLM practices can help to achieve this;
- Integrate early warning systems into all projects: build on NiMET's experience under CASP and VCDP. Climate information is increasingly available, and smallholders are enabled to access it and make informed decisions; and
- Build "climate-smart" capacity through all staff and in smallholders also: tap into local creativity.

4.4 *Support women and vulnerable groups in income generating activities*

- Support women and the most vulnerable groups: this is both a moral obligation and directly addresses those most likely to suffer from risks;
- Where the potential of these groups is at yet unrealized, the rewards in terms of agricultural productivity will be commensurately large; and
- Income generation is the key to independence and empowerment. Value chains are a proven and transformative route to achieve this.

4.5 Utilisation of digital advisory services

- Utilise digital agricultural extension services for the areas where the regular supervision in person is difficult due to the insecurity.

9	Bukar Musa	FMATS	Director	Male	M	<input type="checkbox"/>	<input checked="" type="checkbox"/>	hiring
10	ISHAKI KADZAI	DSS	SO AGR	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	081
11	Mohammeda Ibrahim	Head of group	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
12	Mohamad Ahmad	FHO	Marketing	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
13	Abba Musa	FHO	Marketing	Female	F	<input type="checkbox"/>	<input type="checkbox"/>	1 year
14	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
15	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
16	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
17	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
18	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
19	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
20	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year
21	Mohammeda Ibrahim	C.D.A	Marketing	Female	M	<input type="checkbox"/>	<input type="checkbox"/>	1 year

22	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
23	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
24	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
25	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
26	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
27	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
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30	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
31	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
32	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
33	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	
34	Abu Mohammed	WSP	Chairman	Male	M	<input type="checkbox"/>	<input type="checkbox"/>	

GROUP 4

TITLE: VALUE CHAIN/MARKET ICT FOR DEVELOPMENT

S/N	NAME	PHONE NUMBER
1.	Abu Mohammed Usman	08035180858
2.	Bukar Herma	08066797813
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4.	Bulams Jannani	08021465002
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9.	Thomas Lisa	07030392968
10.		

GROUP 5

TITLE: FINANCIAL INCLUSION

NAME	PHONE NUMBER	SIGNA
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Amadu Umaru	07019411209	
Ibrahim Mohammed	0906882006	

GROUP 2

TITLE: NUTRITION AND FOOD SECURITY

S/N	NAME	PHONE NUMBER
1.	Darman Mohammed	070812354
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5.	Halima Maina Abdullahi	07069519869
6.	ISHAKI KADZAI	07037618836
7.	KHALID MOH'D SHITA	0816020020
8.	SHEIK BALA MOHAMMAD	0806621281
9.	Jahan Bukar Mohd Ngudu	08020783355
10.	Qanniji Adesoye	0806787984

GROUP 3

TITLE: RURAL INFRASTRUCTURE

NAME	PHONE NUMBER	SIG
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Mohammeda Ibrahim	08068077014	
Mohammeda Ibrahim	07088263605	
Mohammeda Ibrahim	07069128279	
Mohammeda Ibrahim	08069782993	
Mohammeda Ibrahim	09070153681	
Mohammeda Ibrahim	09023142909	

ANNEXES:

TERM OF REFERENCE FARMER ORGANIZATION LANDSCAPING & PROFILING

1. Background

2. Objective

Map out and profile FOs (Farmers Organizations) in the targeted area that could be beneficiaries of the VCN project. The objectives will be to provide:

- FO' location in terms of GPS coordinates
- Provide detailed information of Farmers organization as follows:
 - Crops grown, production volumes, Land size capacity.
 - Number of membership count (Women % and Youth %),
 - Existing Structure and Governance of the FO, and the Legal status
- Current relationships and difficulties in accessing markets and analyze potential to leverage from VCN project.
- Need Assessment: Recommendations and initiatives for FO to enhance their market access, while:
 - Improving quality and production efficiency
 - Value chain coordination and alliances
 - Post harvest management
 - Financial literacy and business acumen
 - Value chain collaboration building, marketing and advertising
 - Capacity building in logistics and business processes

3. Scope of work

The following duties will be performed by the consultant:

- Desk research: Review existing data on farmers organizations in the targeted areas
- Field data collection: Conduct in-depth interviews/surveys (face-to-face) and acquire detailed information on their needs, potential, and activities.
- Geo Localization: Ensure the geo localization record of all identified farmers is maintained in hard and soft copy (maps etc.) so that it is utilized by IFAD for further value chain needs
- Data reporting and analysis: Examine the gathered information to determine the primary patterns, openings, and challenges that FOs are facing. Create comprehensive reports and maps that show the geographic distribution and characteristics of FOs.
- Consult with a variety of stakeholders, such as development partners, local (communities incl.) authorities, government agencies, and participants in the agricultural value chain, to gather data and provide recommendations.
- Develop an actionable roadmap: Recommend a comprehensive and actionable plan for supporting identified FOs in accessing VCN market opportunities.

4. Deliverables

- Full database of FOs mapped, including geospatial data and comprehensive profiles.
- Analytical studies on the prospects' potential, drawbacks, and market opportunities.
- Recommendations for capacity building and support interventions for FOs.
- Strategic plan for FOs' integration into SAPZ

5. The credentials of consultants

- A track record of success performing farmer Organization mapping, market research and evaluations of agricultural value chains.
- Proficiency in creating farmer-led organizations and working with rural institution.
- solid familiarity with market linkages creation operations and the Nigerian agriculture sector.
- Experience with gathering, analyzing, and reporting data.
- Good experience in facilitation, presentation, and communication skills.
- Cultural sensitivity and ability to build relationships with diverse stakeholders.

6. Deadline

The project should be completed by [.....].

7. Budget

The Consultant will be responsible for submitting a detailed budget proposal outlining the costs associated with carrying out the project.

8. Additional considerations

The consultant should propose methodologies that ensure gender inclusion and equitable access to project benefits for all FOs targeted.

The consultant should consider incorporating innovative technologies and digital solutions to improve data collection, analysis and communication with FOs.

TERM OF REFERENCE – MARKET STUDY FOR AGRICULTURAL PRODUCTS IN THE NORTHERN PART OF NIGERIA

1. Background

Value Chain North of Nigeria Project is looking to make investments in Nigeria's northern agriculture industry. An extensive market analysis is necessary to evaluate the market prospects for particular value chain crops in order to support strategic decision-making. To improve the resilience and competitiveness of the agricultural industry in the region, the study attempts to identify important trends, obstacles, and possible investment opportunities.

2. Objective

This study's main goal is to perform a thorough market analysis of prospective valuable agricultural goods from northern Nigeria, with an emphasis on engaging initiatives to develop these value chains

3. Scope of Work

The market study will cover the following aspects:

- **Products Selection:** Determine the top seven high-value agricultural items (livestock, crops) with the greatest market potential, considering variables like demand, profitability, climate suitability for northern Nigeria, and ease of value chain development. The selection must integrate attribute such as staple food, cash crop and rich nutrients. This should be done region wise
- **Market Analysis:** Conduct a detailed analysis of the domestic and international markets for each selected product, including:
 - **Demand Trends:** Examine the product's past, present, and future demand, considering market segmentation by region, consumer type, and seasonality.
 - **Competition:** Determine the market shares, advantages, and disadvantages of both present and prospective competitors.
 - **Pricing:** Examine past and present pricing patterns for the product, taking into account the variables that affect price fluctuations.
 - **Marketing Channels:** Chart the product's current marketing channels, noting important players and their positions along the value chain.
 - **Regulatory Environment:** Examine the applicable laws, rules, and guidelines that control the product's manufacture, distribution, and use both domestically and in possible export markets.

Value Chain Analysis: Conduct a detailed analysis of the value chain for each selected product, including:

- **Production:** Examine the inputs, technology, yields, and limits of the present production methods
- **Processing and Storage:** Examine current facilities and procedures for processing and storing, looking for inefficiencies and bottlenecks.
- **Distribution and Logistics:** Examine the product's infrastructure for distribution and transportation, noting any shortcomings and areas in which it may be strengthened.

- **Investment Opportunity Assessment:** For each selected product, assess the feasibility of investment in value chain development, considering factors such as:
 - Value creation
 - **Potential profitability:** Analyze the financial returns for different investment scenarios in the value chain.
 - **Investment risks:** Identify and assess potential risks associated with investment, such as market fluctuations, production challenges, and regulatory changes.
- **Recommendations:** Based on the findings of the study, provide clear and actionable recommendations for investing in value chain development for the selected products. This should include:
 - **Prioritization of products:** Prioritize the products based on their market potential and investment feasibility.
 - **Value chain interventions:** Recommend specific interventions for each product at different stages of the value chain to improve efficiency and profitability.
 - **Investment model recommendations:** Recommend possible investment models and partnerships for implementing the interventions.

4. Deliverables

The following deliverables are expected from the study:

- **Inception report:** Outlining the research methodology, data collection plan, and work schedule.
- **Interim reports:** Providing progress updates and preliminary findings at key milestones.
- **Final report:** A comprehensive report containing all findings, analysis, recommendations, and supporting data.
- **Executive summary:** Briefly summarizing the key findings and recommendations for non-technical audiences.

GUIDANCE: TERM OF REFERENCE FOR THE SELECTION OF AN INCUBATION AND TRAINING CENTER

Sample Selection Guide for Incubation Agencies and Training Centres

Step 1: Definition of TOR

- Definition of the context in relation to the terms of reference
- Selection criteria for agencies (Incubation/Training Centres)
- Sector of activity - agri-food value chain functions (production, supply chain, processing, market access)
- Geographical coverage of the agency
- Type of technical assistance (training or mentoring in business management, access to finance, value chain networking, etc.)
- Positioning of the centre/incubation- Business cycle intervention: (Start ups - growth - mature) and size of the business (Micro, Small, Medium enterprises)
- Type and duration of programmes
- Operational and financial capacity
- Background/history/partners (number of people/companies trained; status of companies < 2 years)
- Other considerations (gender equality, social impact, areas of intervention, etc.),

Stage 2: Choice of agencies

- Mapping (collection of submission from different agencies)
- Due Diligence (agency client survey)
- Choice of agencies, considering criteria and type of intervention according to company development stage)

Stage 3: Contractualization of agencies

- Drawing up specifications
- Contractualization of partners

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex 10: Integrated Project Risk Matrix

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	High	High
<i>Fragility and Security</i>	<i>High</i>	<i>High</i>
<i>Macroeconomic</i>	<i>High</i>	<i>High</i>
<i>Governance</i>	<i>High</i>	<i>High</i>
<i>Political Commitment</i>	<i>Substantial</i>	<i>Substantial</i>
Sector Strategies and Policies	Substantial	Substantial
<i>Policy Development and Implementation</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Policy alignment</i>	<i>Moderate</i>	<i>Moderate</i>
Environment and Climate Context	Substantial	Substantial
<i>Project vulnerability to climate change impacts</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project vulnerability to environmental conditions</i>	<i>Substantial</i>	<i>Substantial</i>
Project Scope	Substantial	Substantial
<i>Technical Soundness</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Relevance</i>	<i>Substantial</i>	<i>Substantial</i>
Institutional Capacity for Implementation and Sustainability	High	High
<i>Monitoring and Evaluation Arrangements</i>	<i>High</i>	<i>High</i>
<i>Implementation Arrangements</i>	<i>Substantial</i>	<i>Substantial</i>
Project Financial Management	High	High
<i>Project External Audit</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Accounting and Financial Reporting</i>	<i>High</i>	<i>High</i>
<i>Project Internal Controls</i>	<i>High</i>	<i>High</i>
<i>Project Funds Flow/Disbursement Arrangements</i>	<i>High</i>	<i>High</i>
<i>Project Budgeting</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Organization and Staffing</i>	<i>High</i>	<i>High</i>
Project Procurement	Substantial	Substantial
<i>A.1 Legal, Regulatory and Policy Framework</i>	<i>Moderate</i>	<i>Moderate</i>
<i>A.2 Institutional Framework and Management Capacity</i>	<i>Substantial</i>	<i>Substantial</i>
<i>A.3 Accountability, Integrity and Transparency of the Public Procurement System</i>	<i>Substantial</i>	<i>Substantial</i>
<i>A.4 Public Procurement Operations and Market Practices.</i>	<i>Substantial</i>	<i>Substantial</i>
<i>B.1 Assessment of Project Complexity</i>	<i>Substantial</i>	<i>Substantial</i>
<i>B.2 Assesment of Implementing Agency Capacity</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project Procurement Overall</i>	<i>Substantial</i>	<i>Substantial</i>
Environment, Social and Climate Impact	Substantial	Substantial
<i>Vulnerability of target populations and ecosystems to climate variability and hazards</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Greenhouse Gas Emissions</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Physical and Economic Resettlement</i>	<i>Low</i>	<i>Low</i>
<i>Community health, safety and security</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Labour and Working Conditions</i>	<i>Moderate</i>	<i>Moderate</i>

Risk Category / Subcategory	Inherent risk	Residual risk
<i>Indigenous People</i>	<i>Low</i>	<i>Low</i>
<i>Cultural Heritage</i>	<i>Low</i>	<i>Low</i>
<i>Resource Efficiency and Pollution Prevention</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Biodiversity Conservation</i>	<i>Low</i>	<i>Low</i>
Stakeholders	Substantial	Substantial
<i>Stakeholder Grievances</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Stakeholder Engagement/Coordination</i>	<i>Substantial</i>	<i>Substantial</i>
Overall	Substantial	Substantial

Country Context	High	High
<i>Fragility and Security</i>	<i>High</i>	<i>High</i>
<p>Risk:</p> <p>The high fragility and security risks in northern Nigeria are attributable mainly to: insurgency in the northeast, banditry and kidnapping crisis in the northwest, the high impact of climate change, and pockets of communal clashes. These problems usually wipe off project investments when farmers are forced to abandon their fields, constrain effectiveness of programme management, and ultimately undermine the achievement of the VCN objective.</p>	High	High
<p>Mitigations:</p> <p>Mitigations: The proposed mitigation measures include: (i) support dialogue and policy dialogue to strengthen policy implementation and institutional service delivery to VCN beneficiaries and others, including the herders; (ii) avoid intervening in the areas characterised by high level of insurgency, insecurity, conflict.; (iii) deepen the use of ICT4D and digital tools deliver services in risky areas without putting at risk project staff; (iv) strengthen activities that promote social inclusion and shared benefits to reduce conflicts (v) integrate conflict and insecurity management committee within community development associations and CAFs; (vi) promote integration of herders in conflict resolution and committee (vii) strengthen the dialogue between FOs and local security committee (viii) involve herders and farmers in community planning process and (ix) integrate a Response to Emergency and Disaster (RED) component to increase VCN's responsiveness to potential natural disasters.</p>		
<i>Macroeconomic</i>	<i>High</i>	<i>High</i>
<p>Risk:</p> <p>There is high vulnerability of the economy and public finances to: oil price shocks, insufficient jobs creation for the large number of young Nigerians going into the labour force every year, as well as exchange rate fluctuations and rising inflation caused by the removal of petrol subsidies. The VCN also faces the risk of government inability at the national and state levels to mobilize counterpart funding to leverage the contributions of IFAD and AFD for full impact on VC development with the target groups.</p>	High	High
<p>Mitigations:</p> <p>VCN will: tap into the great potential in the young workforce to boost economic growth through the development of their digital and entrepreneurship skills; leverage partnerships with the private sector and other development partners to enhance the access of youth to financial resources, youth-led enterprises, and digitalization; work with the programme states and LGAs that demonstrate commitment on delivering impact to women and youth farmers; and consider basing unit cost of VCN support to beneficiaries on the USD equivalent to cushion the effect of inflation.</p>		

Governance	High	High
<p>Risk:</p> <p>In 2023 Transparency International ranked Nigeria 145 out of 180 on the Corruption Perception Index with a score of 25. In view of this rating, new government may introduce measure that could result in delayed disbursement for projects. Corruption could affect the effectiveness and efficiency of project management as well as increase the risk of undue political interference on project. In addition, low capacities, and lack of transparency in financial management, procurement, audit, and M&E also poses high risk to the VCN.</p>	High	High
<p>Mitigations:</p> <p>(i) IFAD ICO will further broaden its oversight mechanisms by exploring relationships with the Office of the Auditor General of the Federation to strengthen compliance to rules of borrowing and projects implementation. (ii) IFAD will work with the Federal Government to promote understanding of rules of project management by high level government decision maker at both Federal and State Level. (iii) IFAD and FGN would work together to ensure transparent recruitment of staff the open market, applying appropriate salary structure and enforcing accountability mechanism including through objective evaluation of performance and strengthened internal audit function. (iv) VCN will also leverage the CPAT expertise to strengthen the NPCO's capacities in financial management, procurement, audit and M&E to reinforce compliance.</p>		
Political Commitment	Substantial	Substantial
<p>Risk:</p> <p>Risk: Under the Renewed Hope Agenda, the new Federal Government declared an emergency on Nigeria's food security situation and developed Nigeria's Agricultural Transformation Engagement Strategy and an Agribusiness Transformation Engagement Strategy. The VCN is in line with the Renewed Hope Agenda and support the Presidential Deceleration on Food Emergency. (i) However, the new administration at the federal and state level having to deal with socioeconomics crisis there is a risk that government focus will be more on food security and other emergency actions than on transformative strategies. This could lead to delay in decision making and implementation of policies and projects in the agri-food sector. (ii) The socioeconomic crisis having an impact on fiscal space could affect decision making and capacities of governments to pay counterpart funding and limit their investment capacities in the agri-food system transformation. (iii) This crisis can also affect the process of signature of Subsidiary Loan Agreement (SLA) between the Federal Government and States Government. All the aforementioned risks are likely to affect start-up and implementation of VCN.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>Mitigations: (i) VCN will support national food and nutrition security priorities while investing in inclusive sustainable food systems transformation. (ii) IFAD to advocate with FMF and FMAFS for intensifying dialogue with state governments for timely negotiation of the signature of Subsidiary Agreement as required by the Federal Government. (iii) limiting the counterpart funding requirement by state governments to payment of seconded staff salaries and in-kind contribution such as accommodation for the programme office, in line with the recommendations of the IFAD country programme review and the practices of other development partners operating in Nigeria. (iv) strengthen policy engagements with the national and state governments for scaling up private sector investment in food system transformation.</p>		
Sector Strategies and Policies	Substantial	Substantial
Policy Development and Implementation	Substantial	Substantial

<p>Risk:</p> <p>The substantial risk of this subcategory in northern Nigeria results from: (i) social isolation and discrimination of individuals and groups, which hinders community cohesiveness; (ii) economic inequality, contributing to social fragmentation, with vulnerable groups (youth, women, PWDs, IDPs) feeling disadvantaged in the community; (iii) political instability and insecurity, contributing to social unrest and division, and (iv) cultural barriers to gender equality, social inclusion and access to services and opportunities within the community.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>Mitigations: The policy and implementation risk will be mitigated by: promoting policy and regulatory framework fostering inclusivity, creating and/or strengthening spaces for open dialogue to strengthen social cohesion, addressing concerns and building connections; implementing programme activities that create opportunities for all community members, addressing poverty and unemployment; empowering community members to have a voice in decision-making processes and foster a sense of civic responsibility; promoting gender transformative approach through GALS methodology; ensuring that decision-making bodies and community leadership reflect the diversity of the population; and promoting strategies on equitable distribution of resources and opportunities among different cultural groups.</p>		
<p>Policy alignment</p>	Moderate	Moderate
<p>Risk:</p> <p>The Renewed Hope Agenda of the current Federal Government places a premium on the agricultural sector to drive job creation for youth and improve the food security situation in the country. However, considering the higher level of fragility, conflict and resulting food insecurities in Northern Nigeria, there is the risk that the state authorities will prioritize emergency actions over long term development strategies and policies for food systems. (especially with regards to rural and agricultural sector development, and governance of natural resources) . In addition, considering difficult economic situation, investments may not be sufficiently pro-poor and/or aligned with IFAD priority themes and target groups (e.g., on land, environment, climate, gender, , nutrition, youth, private sector engagement, etc). In addition, high poverThis has the potential to undermine project implementation and the achievement of project development objectives.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>Continued policy dialogue and engagement with the government to ensure consistency in policies implementation in line with the SDGs and pro-poor agriculture sector development, food systems best practices. IFAD will provide policy and technical advisory as well as investment funds through its country programme to support pro-poor policy implementation aligned with IFAD priorities (e.g., on land, environment, climate, gender, marginalized groups, nutrition, youth, private sector engagement, etc). Continuous advocacy and awareness building with decisions makers on importance to prioritize transformative pro-poor and cohesion enhancing investments to break the continuous cycle of food and insecurity emergencies.</p>		
<p>Environment and Climate Context</p>	Substantial	Substantial
<p>Project vulnerability to climate change impacts</p>	Substantial	Substantial
<p>Risk:</p> <p>The unpredictability of rainfall in terms of onset and cessation dates in the VCN programme area poses significant risks to small rainfed agricultural VCs. In recent years, water scarcity in the dry season, alternating with flooding during the short rainy season, have greatly affected farmers' investments in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the dry season also gets drier.</p>	Substantial	Substantial

<p>Mitigations:</p> <p>The mitigation measures for this risk will include: (i) promote climate-smart GAP practices; (ii) strengthen access to climate information services and climate risk insurance; (iii) support farmers with climate-tolerant and high yield seeds; (iv) promote clean and energy-efficient processing systems; (v) provide capacity building on SWC and LR techniques, and (vi) strengthen extension services to disseminate innovations and digital agriculture technologies that improve climate resilience.</p>		
<p>Project vulnerability to environmental conditions</p>	Substantial	Substantial
<p>Risk:</p> <p>The value chain development approach of sustainable rainfed arable crop agriculture in a difficult semi-arid ecology with widespread degradation conditions. poses the risk of poor yield, loss of crops and land conflicts.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The risk will be mitigation by: (i) developing SECAP safeguard documents (SRN, ESCMF, ESCMP) which will guide environment and climate mainstreaming and NRM; (ii) building on the achievement of CASP by integrating activities that deepen the capacity of farmers in SWC and LR to improve the environment and NRM; and (iii) supporting extension services to promote adoption of GAP.</p>		
<p>Project Scope</p>	Substantial	Substantial
<p>Technical Soundness</p>	Substantial	Substantial
<p>Risk:</p> <p>Although VCN is not expected to be an extension of CASP, limited institutional memory and quick understanding of the project objectives and technical details at the State levels due to retirement and redeployment of former experienced project staff may affect initial take-off. There may be is limited institutional memory at the state level since many of the staff of the predecessor project, CASP which closed two years ago, had moved to other areas. A complete appraisal of the entire programme area was limited due to insecurity, which may underestimate the major technical opportunities and challenges at hand. There is also the risk of over-complexity of the design to address the high level of fragility in the region, all of which may undermine programme implementation and achievement of the development objectives.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>At design, the risk was mitigated by: (i) drawing on lessons learned from CASP and ongoing IFAD and AFD projects; (ii) consultation visits to five out of the nine states, and inviting stakeholders of the remaining four states to join in the consultations in nearby states to understand the needs, gaps and opportunities for VC development in the northern region; (iii) holding meetings with staff of the CASP sustainability projects in three states and with the AFD-assisted RAAMP in Kano, for lessons of implementation and guidance focal areas for VCN; (iv) leveraging the technical expertise and strong knowledge of the country context of CPAT to arrange the field visits to the five states and guide the interactions with the stakeholders at the state and national levels; and (v) identifying and executing complementary studies to fill in data gaps for finalizing the design report.</p>		
<p>Project Relevance</p>	Substantial	Substantial

<p>Risk:</p> <p>The VCN is relevant to Nigeria's priorities and the rural beneficiary needs in northern Nigeria. It is also aligned with the priorities of IFAD and AFD to improve food and nutrition security, income, and resilience of smallholder farmers and other vulnerable segments of the rural population (women, youth, PWDs, IDPs), connecting them to markets and income-generating opportunities and addressing some of main fragility drivers. However, VCN is being implemented in an unpredictable and challenging context which is often associated with a wide range of risks (e.g. social conflict, insecurity, and vulnerability to climate change, food and nutrition insecurity), factors that may hamper the abilities of farmers to produce sustainably.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>VCN will continue to support engagements and dialogues, capacity building and risk management to de-escalate and reduce the current fragility drivers. The design includes actions at different levels to strengthen the beneficiaries capacity to cope with the different risks and challenges, it will adopt a demand-driven and participatory approach, thereby ensuring that interventions are relevant. VCN will promote climate resilient economic activities, partner with NiMET to provide early warning for disaster preparedness, with insurance companies to reduce the risk of complete loss, and with off-takers to provide a profitable market for farmers' produce.</p>		
<p>Institutional Capacity for Implementation and Sustainability</p>	High	High
<p>Monitoring and Evaluation Arrangements</p>	High	High
<p>Risk:</p> <p>The risk rating is based on the lessons of CASP which showed several challenges in M&E implementation, including: (i) absence of field M&E staff to conduct routine monitoring of activities for about half of the project cycle, due to the conflict and fragility situation in the targeted areas; (ii) absence of an M&E coordinator at national level; and (iii) absence of a concise M&E plan, outlining standardized tools, roles and responsibilities.</p>	High	High
<p>Mitigations:</p> <p>To mitigate these challenges, VCN will: (i) Ensure that an adequate budget for M&E, that considers issues of conflict and fragility, provided and clearly outlined in the COSTAB; and (ii) Provide a thorough M&E guidance in the implementation manual that will detail the flow of data from LGA to National level, contextualize the IFAD core indicator definitions as per the project and, provide a detailed framework of an M&E plan.</p>		
<p>Implementation Arrangements</p>	Substantial	Substantial

<p>Risk:</p> <p>Risks:</p> <p>(i) Capacity - there is the risk of a potential erosion of implementation capacity, due to the three years that would have elapsed between the completion of CASP and the start of VCN, the dismantling of the CASP headquarters in Katsina, and some states not sustaining the CASP arrangements and activities after the completion of CASP; (ii) VCN's lack of experience with AFD projects/procedures and lack of capacity to coordinate implementation arrangements that may involve several government agencies, different levels of government, non-government entities, and multiple donor agencies with different procedures and/or reporting requirements; (iii) For financial inclusion, the operational risks of lack of reliable off-takers and markets for farmers' produce, and poor implementation of the socially inclusive gender transformative approach, the financing risk of lack of participation by financial institutions (FIs), and the credit risk of non-payment of loan; (iii) For ICT4D, capacity for farmer data management including inaccurate and incomplete data, insufficient financial investment in data infrastructure and management, cultural sensitivity issues on sharing data, poor sensitization or community engagement, funding and language barriers to disseminating weather information, poor adoption and infrastructure of digital extension advisory services, resistance to input distribution through digital e-vouchers, and risks to improving farmers' access to output markets including competition, data security.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The risk will be mitigated by: (i) Capacity – consider giving some advantage points to applicants who had served successfully in CASP during the recruitment interviews, to bring in useful institutional memory for a quicker take-off of implementation, leverage the technical capacity of CPAT and PCU of the FMAFS to build implementation capacity for staff at the start of VCN, exploit the capacity of the private sector for private-public partnership and service provision in support of VC development activities, and locate the VCN headquarters in Abuja for closer proximity to the national technical support and oversight agencies, and for more effective air links with all the programme states in the face of risky interstate road travels due to banditry and terrorism; (ii) Financial inclusion - apply a market-driven approach where the type, quantity, and quality of production is determined by the off-takers in agreement with the producers, ratified by CAF, seek the buy-in of relevant stakeholders to allow a higher number of women, and youth, PWDs and displaced returnees to participate in the programme and access credit, target the involvement of diverse FIs such as the Development Financial Institutions (DFIs) e.g., Bank of Agriculture, the Deposit Money Banks (DMBs) and Micro Finance Banks (MFBs) and orient FIs and provide technical assistance, make loan disbursement mainly in kind to prevent loan diversion, make loan repayment by the smallholder farmers in kind through the delivery of harvested produce in the right quantity and quality to off-takers who are to remit cash to the loan accounts of farmers in satisfaction of loan repayment, facilitate part-guarantee on loans disbursed under VCN, and, provide agricultural insurance for the beneficiaries; (iii) ICT4D – implement robust data validation processes, conduct regular audits, provide training to data entry personnel, establish clear data collection protocols, conduct regular data quality checks, incentivize farmers for accurate information, allocate a dedicated budget for data management, explore public-private financing partnerships and external funding sources, implement community engagement programmes, respect cultural norms regarding data sharing, use multilingual communication channels, and leverage community networks for dissemination of weather information, collaborate with telecom companies for improved network services, conduct market analysis, robust data encryption, and comply with data protection regulations.</p>		
Project Financial Management	High	High
Project External Audit	Substantial	Substantial
<p>Risk:</p> <p>Delay in submission of audit report and unacceptable audit report.</p>	Substantial	Substantial

<p>Mitigations:</p> <p>SAI to carry out an independent external audit of project financial statements based on ToRs acceptable to FIDA.</p>		
<p>Project Accounting and Financial Reporting</p>	High	High
<p>Risk:</p> <p>Failure to adequately account for project funds and provide full supporting documentation. Delayed submission of financial reports of acceptable quality. Incomplete configuration of the accounting software with financial statements (FS) leading to manual preparation of FS with inaccuracy and errors.</p>	High	High
<p>Mitigations:</p> <p>Accounting and internal control procedures established and documented in project Financial Procedures Manual (FPM)</p> <p>Robust FM arrangements at NPMU and SPMU.</p> <p>Project financial reporting guidelines included in the FPM</p> <p>Use of computerized accounting system to generate financial reports</p>		
<p>Project Internal Controls</p>	High	High
<p>Risk:</p> <p>Misuse of funds and inadequate documentation of incurred expenditures. Inadequate documentation of transactions and failure that funds are used for the intended purposes with economy and efficiency FCS of the implementing states does not permit full compliance with acceptable FM requirements</p>	High	High
<p>Mitigations:</p> <p>Incorporation of alternative internal control and assurance arrangements for FCS context Robust Financial Procedures Manual (FPM) including checklist of support documents for incurred expenditures to be in place, and staff familiar with the FPM. Independent and effective internal audit and risk management function will be in place. Enhanced project accountability framework over soft expenditures will be implemented. Biometric identification (fingerprints) of beneficiaries</p>		
<p>Project Funds Flow/Disbursement Arrangements</p>	High	High
<p>Risk:</p> <ul style="list-style-type: none"> - Co-mingling of funds between various IFAD financing instruments, FGN/State contributions - Delay in the preparation of quarterly IFR and submission of Advance and Justification W/As leading to liquidity constraints and delaying activities implementation. - The Naira is currently floated and highly volatile due to its continuous depreciation against the USD which may affect or reduce available dollar for the project implementation. - Inadequate arrangements for matching grants administration, and de-risking mechanism with NIRSAL on the Credit Risk Guarantee - Lack of clarity and timeline on AFD co-financing, and ability of FGN to meet government counterpart contributions 	High	High

<p>Mitigations:</p> <ul style="list-style-type: none"> - Separate bank accounts will be opened per financing instrument, and financing source - Effective capacity building on IFR preparation, disbursement based on IFR and submission of W/As through FE module and ICP should be undertaken during project launch. - Inflation analysis will be considered when developing the AWPB - In-depth due diligence and proper review of agreement relating to credit risk guarantee - Matching grant controls will include pre-award, disbursement, and monitoring controls - AFD's commitment is demonstrated through the financing of some design activities 		
<p>Project Budgeting</p>	Substantial	Substantial
<p>Risk:</p> <p>Failure to properly prepare comprehensive budget and effectively monitor performance of same Delay in the preparation AWPB and submission to IFAD for No-Objection may delay in the activities' implementation. Unrealistic and too ambitious AWPB which would not be implemented giving low budget implementation rate at the end of year. No official and documented guideline policies on the government and other counterpart's in-kind contribution giving inaccurate government counterpart contributions.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>Project budgeting is to be synchronized with the timeline for the FGN budget process, considering all entities participating in the project. Budget execution will be monitored through calendar quarterly unaudited IFRs. Project should respect the laid down procedures on AWPB preparation and submission to IFAD. The project to develop in-kind contribution guidelines to be no-objected by IFAD for use before first disbursement. The financial management system will include budget module. Each month prepare AWPB versus implementation schedule and variance to monitor AWPB implementation.</p>		
<p>Project Organization and Staffing</p>	High	High
<p>Risk:</p> <p>Despite having one of the oldest accountancy bodies in the region, a 2022 report by the Chartered Institute of Public Finance and Accountancy (CIPFA) found that only 42% of Nigerian public finance professionals felt they had the necessary skills to effectively manage public funds highlighting prevalent institutional capacity issues.</p> <p>Capacity is unevenly distributed across the country, with particular impact in the Northern regions where illiteracy rate is high. Government interference in the recruitment process is prevalent, and this could lead to recruitment of staff who do not have necessary qualification and integrity.</p> <p>Staff demotivation with the salary and benefit set by the Government may affect the projects deliverables and may provide a rationalization for corrupt practices.</p>	High	High
<p>Mitigations:</p> <p>The staff will be recruited through open competitive procedure. The TORs will be cleared and non-objected by IFAD. Staff will receive in depth training on IFAD financial management procedures, fraud and corruption; and ethics Salary scale will consider ongoing discussions to adjust and harmonise salaries of IFAD projects in Nigeria</p>		
<p>Project Procurement</p>	Substantial	Substantial

A.1 Legal, Regulatory and Policy Framework	Moderate	Moderate
<p>Risk:</p> <p>Public procurement in Nigeria is governed by the Public Procurement Act (PPA) 2007, revised 2018; information on bidding opportunities is available on (Nigeria Open Contracting Portal (NOCOPO)); there are Public Procurement Regulations (PPR) for Goods and Works and a separate one for Consulting Services, both 2007, and a Public Procurement Manual. There are 6 open and non-open methods for Procurement for Goods & Works, and 5 selection methods for consulting services. The risks are: (i) Though the Nigeria Bureau of Public Procurement (BPP) has a full cache of bidding documents (4 for Goods and Works, and 5 for Consulting Services), none of these documents have the self-certification forms and requirements, and the SECAP requirements; (ii) Standard contract exists in each bidding document. The contract template is fine but does not cover SECAP and some other IFAD requirements; (iii) Basic contract management in place but no strategic provisions for contract amendments; (iv) The last BPP Annual Report demonstrates that of 984 contracts, less than 2% of its procurement were done by open means and over 50% used direct selection methods without competition, and emergency procedures; and (v) No updated supplier databases to show how bidders are selected to receive invitations for non-open methods.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>(i) Adjustment of procurement thresholds; amendment of emergency procedures; (ii) Need to establish supplier databases (that are updated) to show how bidders are selected to receive invitations for non-open methods; and (iii) Have contract amendment provisions to ensure that critical high-value amendments are properly reviewed while small amendments are processed expeditiously.</p>		
A.2 Institutional Framework and Management Capacity	Substantial	Substantial
<p>Risk:</p> <p>Risks: The corruption perception index score for 2023 is 25/100, with a ranking of 145/180. Nigeria is ranked 15th in the Fragile State Index for 2023, and among the 'ALERT' countries. The Procurement Plans posted on the BPP website have not been updated since 2017. Contract award information is absent. Procurement complaints have a 9-step procedure prescribed by law. The 1st level review is made by the procuring entity, and the 2nd level review by BPP instead of an independent body. Decisions by BPP are communicated to the complainant and the procuring entity. There is no sanctions system or procedure by BPP for miscreant bidders.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>VCN will have all procurement opportunities and contract awards above the applicable threshold advertised in at least 2 newspapers. No mitigation measures identified for the rest of the items.</p>		
A.3 Accountability, Integrity and Transparency of the Public Procurement System	Substantial	Substantial
<p>Risk:</p> <p>(i) Risk of procurement approvals leading to significant time wastages as prior review items may need to be cleared by both AFD and IFAD, so a complex government approval procedure for procurement items may negatively affect good time management; (ii) Risk that the required competence and experience on the procedures of international procurement standards and good practices may be lacking in the NPCO</p>	Substantial	Substantial
<p>Mitigations:</p> <p>(i) Apart from signature of contracts, all procurement approvals should stop with the programme coordinator; (ii) Ensure that Procurement Specialist pursues appropriate training sessions in IFAD procedures (BuildProc, OPEN-E2E), if he or she does not have sufficient experience in donor-funded procurement.</p>		

A.4 Public Procurement Operations and Market Practices.	Substantial	Substantial
<p>Risk:</p> <p>Part VI and VII of the PPA provides procurement methods for all categories fully consistent with IFAD's framework. All legal and regulatory framework documents are available at BPP website. Section 31 of the PPA specifies a minimum of 3 for the RFQ method, consistent with IFAD PPF. No minimum is established for other competitive methods. Standard Bidding Documents where available, are mostly consistent with IFAD standard solicitation documents, except for a few items. Not all contract formats are consistent with IFAD's. The minimum number of days for advertised procurement as provided for in the PPR, for Goods/Works and for Consulting Services, are consistent with IFAD's. However, public implementing entities do not usually do a focused market research before procurement planning. The Nigeria procurement framework does not cover SECAP requirements.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>VCN to: (i) use IFAD's Standard Solicitation Documents (SSDs) across the board for all advertised procurement. The SSDs cover SECAP requirements; (ii) use the IFAD Handbook which has detailed procedures in Module P for contract management, since the Nigeria procurement framework does not carry detailed contract management procedures (apart from Disposal for Goods); (iii) implement and strengthen the use of procurement plans as a planning tool in portfolio project management; (iv) forward a copy of the bid opening minutes to all bidders, without exception; (v) ensure that supplier invoices are processed in a timely manner and that payment is made within 60 days; and (vi) integrate the provisions of the SECAP standards for all stages of procurement, from REOI, RFP, ICB/NCB to contract and performance monitoring.</p>		
B.1 Assessment of Project Complexity	Substantial	Substantial
<p>Risk:</p> <p>The project, covering eight northern states in Nigeria and supported by IFAD and AFD, involves complex and high-value procurements across multiple categories, requires substantial procurement expertise, and faces significant environmental risks, although it does not incorporate new procurement methodologies or community participation in procurement processes.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The Project has developed SECAP safeguard documents (SRN, ESCMF, ESCMP) which will guide environment and climate mainstreaming and natural resource management</p>		
B.2 Assessment of Implementing Agency Capacity	Moderate	Moderate
<p>Risk:</p> <p>The procurement methods detailed in Part VI and VII of the Nigeria Public Procurement Act 2007 align with IFAD's procurement policies, although updates and specific data such as contract award information are lacking on the BPP website since 2018. While Nigeria's standard bidding documents mostly adhere to IFAD's requirements, they do not integrate IFAD's environmental and climate provisions (SECAP), and there are no standard prequalification documents available online. Additionally, some bid evaluation criteria in the existing documents are not always measurable, and while the PPA supports administrative review of procurement complaints, detailed contract award data is notably missing from the BPP platform.</p>	Moderate	Moderate

<p>Mitigations:</p> <p>IFAD advises using its Standard Shopping Documents (SSDs) for Quality and Cost-Based Selection (QCBS), National Competitive Bidding (NCB), and International Competitive Bidding (ICB) procurements to fully integrate SECAP considerations, and emphasizes the importance of having strategically measurable terms of reference, specifications, and evaluation criteria as part of its due diligence process.</p>		
<p>Project Procurement Overall</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <ul style="list-style-type: none"> • Public procurement in Nigeria is governed by the Public Procurement Act 2007, revised 2018 (PPA) • Information on bidding opportunities available on (Nigeria Open Contracting Portal (NOCOPO)) • Nigeria has Public Procurement Regulations (PPR) for Goods and Works and a separate one for Consulting Services, both 2007 • There is also a Public Procurement Manual • There are 6 open and non-open methods for Procurement for Goods & Works, and 5 selection methods for consulting services. • The Nigeria Bureau of Public Procurement (BPP) has a full cache of bidding documents: 4 for Goods and Works, and 5 for Consulting Services. None of these documents have the self-certification forms and requirements, and the SECAP requirements • Standard contract exists in each bidding document. Contract template is fine but does not cover SECAP and some other IFAD requirements • Last BPP Annual Report demonstrates that of 984 contracts, less than 2% of its procurement were done by open means and over 50% using direct selection methods without competition, and emergency procedures • No updated supplier databases to show how bidders are selected to receive invitations for non-open methods. • Part VI and VII of the Nigeria Public Procurement Act 2007 (PPA) provides procurement methods for all categories fully consistent with IFAD's framework. • All legal and regulatory framework documents available at BPP website • Section 31 of the PPA specifies a minimum of 3 for the RFQ method, consistent with IFAD PPF. No minimum established for other competitive methods • Standard Bidding Documents where available, are mostly consistent with IFAD standard solicitation documents, except for a few items. Not all contract formats are consistent with IFAD's • Minimum number of days for advertised procurement as provided for in the Nigeria Public Procurement Regulations 2007 (PPR) – both for Goods/Works and for Consulting Services - consistent with IFAD's. • Public implementing entities do not usually do a focused market research before procurement planning. • Nigeria procurement framework does not cover SECAP requirements. 	<p>Substantial</p>	<p>Substantial</p>

<p>Mitigations:</p> <ul style="list-style-type: none"> • Adjustment of procurement thresholds; amendment of emergency procedures • There needs to be established supplier databases (that are updated) to show how bidders are selected to receive invitations for non-open methods • Basic contract management in place. No strategic provisions for contract amendments • Require contract amendment provisions to ensure that critical high-value amendments are properly reviewed while small amendments are processed expeditiously • Programme should use IFAD's Standard Solicitation Documents (SSDs) across the board • IFAD's standard solicitation documents (which should be used for all advertised procurement) do cover SECAP requirements • While the Nigeria procurement framework does not carry detailed contract management procedures (apart from Disposal for Goods), IFAD Handbook has detailed procedures in Module P of the Handbook Implement and strengthen the use of procurement plans as a planning tool in portfolio project management • Forward a copy of the bid opening minutes to all bidders, without exception. • Ensure that supplier invoices are processed in a timely manner and that payment is made within 60 days. • Integrate the provisions of the SECAP standards for all stages of procurement: from REOI, RFP, ICB/NCB to contract and performance monitoring 		
Environment, Social and Climate Impact	Substantial	Substantial
<i>Vulnerability of target populations and ecosystems to climate variability and hazards</i>	<i>Substantial</i>	<i>Substantial</i>
<p>Risk:</p> <p>The VCN target group is substantially dependent on climate-sensitive natural resources especially rainfed agricultural plots. For example, Rice, one of the VCN value chain crops, is grown mainly in the fadamas (inland wetlands) and the fertile alluvial plains of the major river systems. All parts of the programme area have been subjected to extreme flooding in the recent past. Projected future climatic changes suggest that the programme area will experience fluctuations in temperatures and precipitation due to increased climate variability, implying high likelihood of increased dry spells and high intensity rainfall leading to pluvial floods. These could affect the impacts, sustainability and return on investment of the sub-projects. These climate change impacts also heighten the risk of land degradation, desertification, and loss of biodiversity, further threatening the natural resource base upon which the programme interventions are built.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>Mitigation measures include: (i) capacity building of the target groups on climate-smart agricultural production strategies; (ii) strong collaboration with extension and weather/climate monitoring institutions for regular agro-climatic information and use of the climate-resilient seed varieties (early maturing and flood and drought tolerant varieties); (iii) investing in market infrastructure (including market-connected roads and small irrigation structures) to strengthen resilience of small-holder farmers; and (iv) pursuing partnerships with relevant agencies to enable farmers access market information and climate-risk insurance to cover losses to floods.</p>		
Greenhouse Gas Emissions	Moderate	Moderate
<p>Risk:</p> <p>The likelihood of some activities (e.g., rice cropping) as well as unsustainable land management practices and operation of environmentally unfriendly processing machines leading to emission of Green House Gases (GHG) is real. In addition, the reliance of processing facilities on fuelwood and charcoal as energy source poses the risk of GHG emissions</p>	Moderate	Moderate

<p>Mitigations:</p> <p>VCN will promote climate-smart agriculture and the use of climate information to guide on- and off-farm activities. Safeguard guidelines developed to guide and promote sustainable agriculture will be followed through. Use of clean and renewable energy technology and use of climate information and advisory services will also be promoted.</p>		
<p>Physical and Economic Resettlement</p>	Low	Low
<p>Risk:</p> <p>The risk of physical and economic displacement is low as the VCN will not support enterprises on disputed lands. Banditry, the Boko Haram crisis and farmers-herders crisis have already precipitated significant physical and economic displacement.</p>	Low	Low
<p>Mitigations:</p> <p>VCN will: (i) screen subprojects to ensure no physical and economic displacement; (ii) support the economic empowerment of IDPs and economically dislocated people within the programme area; (iii) advise farmers to avoid lands in designated grazing reserves and around known grazing routes; and (iv) promote compulsory agricultural insurance for producers and processors as a 'no regret' strategy and policy dialogue on land and resource conflicts.</p>		
<p>Community health, safety and security</p>	Moderate	Moderate
<p>Risk:</p> <p>Productivity of the rural population is also hampered by ill-health, particularly HIV/AIDS, tuberculosis, malaria and the COVID pandemic. There is the risk of surface water pollution because of the programme activities that can impact the health of poor people that depend on surface water sources in the programme area. This includes risk of improper application of agrochemicals and water eutrophication. Lack of personal protective equipment (PPE) on farm poses the risk of exposure to schistosomiasis and other water-associated neglected tropical diseases (NTD). Child malnutrition is also high in northern Nigeria, and this poses the risk of increased childhood mortality.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>VCN will: (i) establish and maintain working relationships with the line ministries (such as health, gender, education) to build synergy in nutrition-sensitive interventions; (ii) create livelihood opportunities in agrochemicals and application and waste valorization by training youths to become experts in agrochemical applications; and (iii) promote the use of appropriate PPE among farmers to safeguard human health.</p>		
<p>Labour and Working Conditions</p>	Moderate	Moderate
<p>Risk:</p> <p>The total fertility rate, family size and number of children out of school is high in the programme area. Poverty is also very high and literacy level is low. The Child Rights Act (2003) states that: No child shall be employed or work in any capacity except where he is employed by a member of his family on light work of agricultural, horticultural, or domestic character... and ... A young person under the age of fourteen years may be employed only: (a) on a daily wage; (b) on a day-to-day basis; and (c) so long as he returns each night to the place of residence of his parents or guardian, or a person approved by his parents or guardian. Thus, although the risk of forced labour is low, the risk of using child labourers on the farm is Moderate. The risk of women carrying out unpaid labour in their husbands' farms is also substantial. This situation is heightened by the fragility situations across the programme area.</p>	Moderate	Moderate

<p>Mitigations:</p> <p>(VCN will: (i) promote the implementation of the GALS which supports collaboration and cooperation between men and women for common goals; (ii) within Nigeria's labour law and Child Rights Act, sensitize the programme beneficiaries and stakeholders on the danger of using childlabourers, while continually monitoring beneficiaries to ensure compliance.</p>		
<p>Indigenous People</p>	Low	Low
<p>Risk:</p> <p>There are no indigenous people according to the UN classification whose existence is threatened by the project</p>	Low	Low
<p>Mitigations:</p> <p>VCN will deepen social inclusion by considering all the social actors and mainstream inclusion and equity through the targeting, stakeholders engagement and grievance redress strategies.</p>		
<p>Cultural Heritage</p>	Low	Low
<p>Risk:</p> <p>Some of the communities in the programme area have invaluable material and non-material cultural heritages (mountains, ruins and buried monuments), geodiversity and geo-heritage and long history of culture, traditions, values, and festivals that enrich their heritages. However, the chances that VCN will negatively impact cultural heritage of the people is low.</p>	Low	Low
<p>Mitigations:</p> <p>VCN will: (i) activate the procedure for chance finds and other protection and handling of cultural heritage throughout all stages and activities of the programme; and (ii) discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values.</p>		
<p>Resource Efficiency and Pollution Prevention</p>	Substantial	Substantial
<p>Risk:</p> <p>The VCN is a natural resource-dependent project that may involve or lead to primary environmentally unsustainable production of living natural resources including arable cropping of value chain crops. Other inherent risks include waste proliferation from production and processing sites as well as excessive use of agrochemicals including inorganic fertilizers and pesticides and the release of pollutants to the environment due to routine or non-routine circumstances with the potential adverse impacts. The cluster farming to be adopted poses the risk of agrochemical pollution as well as massive groundwater drawdown around clusters through tubewell irrigation by several farmers. Adulteration and inappropriate application of agrochemicals could also be an issue</p>	Substantial	Substantial
<p>Mitigations:</p> <p>(i) Resource efficiency and integrated waste management will be promoted. This includes conversion of rice waste at processing sites to briquettes and biochar; (ii) Periodic monitoring of the groundwater around farm clusters will be conducted to ensure sustainability; (iii) As part of the GAP, farmers will be trained in the appropriate use of fertilizers and pesticides; (iv) Production of compost and farmyard manure will be promoted; and (v) Livelihood opportunities in waste valorization and training of youth in agrochemical application as an enterprise will be explored</p>		
<p>Biodiversity Conservation</p>	Low	Low

<p>Risk:</p> <p>The VCN programme area harbours some protected areas, forest reserves, and delicate wetland areas (such as the Hadejia-Nguru wetlands) that also serve as important habitats for wintering birds. Desertification, land degradation and biodiversity losses are already serious issues in northern Nigeria because of unsustainable land management practices and significantly contribute to climate impacts and resource conflicts.</p>	Low	Low
<p>Mitigations:</p> <p>VCN will: (i) conduct environmental screening for all subprojects to ensure minimal impact on the ecosystems and biodiversity and ensure no activities around protected areas, forest reserves and important wetland areas of conservation significance; and (ii) follow through the activities outlined in the SECAP safeguard documents to protect ecosystems and biodiversity (including agroforestry, SWC, LR, etc.). In addition, the land, soil and water management and sustainable agricultural practices (agro-ecology, agroforestry, inorganic fertilizers, reduced tillage, etc.) have positive impacts on biodiversity due to better air, soil and water conditions. For AFD this positive approach ("Nature+") can be accounted for, with "biodiversity co-benefits" (estimated at 40% of the project's budget, following the current tracking methodology).</p>		
<p>Stakeholders</p>	Substantial	Substantial
<p>Stakeholder Grievances</p>	Moderate	Moderate
<p>Risk:</p> <p>There is a risk that VCN has ineffective grievance/complaint redress processes (including with respect to allegations of non-compliance with IFAD's SECAP standards, fraud, corruption, or SEA), leading to unaddressed stakeholder complaints that may undermine programme implementation and achievement of the development objectives.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>VCN will: (i) maintain robust knowledge management, information dissemination and community engagements to keep everybody informed; (ii) implement a simple SEP with a clear complaint/grievances redress and dispute resolution framework, which is make known to all stakeholders. The Grievance Redress Mechanism (GRM) identifies potential issues that may necessitate grievance redress and mitigation, providing access to information on a regular basis to help prevent grievances from arising in the first place, or from escalating to a level that can potentially undermine project performance</p>		
<p>Stakeholder Engagement/Coordination</p>	Substantial	Substantial
<p>Risk:</p> <p>Socially inclusive stakeholder engagement could be resisted by powerholders. In light of potential conflict in communities where conflict has occurred in recent years, stakeholders hold animosities that prevent dialogue and coordination between players.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>Stakeholders will be engaged for conflict prevention and resolution as well as for grievance management, as needed, through common spaces such as the CAF and local community venues. VCN's stakeholder engagement plan (SEP) will consider relevant interventions over the course of the project cycle, from project launch, to mobilization, during implementation as part and parcel of activities and for M&E, learning and planning purposes.</p>		

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex 11: Country Level Policy Engagement

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 11: Country Level Policy Engagement

For IFAD, policy engagement at the country level serves the following critical purposes: (i) it helps to create an enabling environment for project implementation and for achieving project impact; (ii) it contributes to enhance the institutional strengthening and the participation of key stakeholders and to create the conditions for large numbers of rural people to move out of poverty, at a scale that no single project can address; It contribute to enhance the policy development process and to help government craft implementation strategies for their existing policies[1].

The COSOP 2024-2029 incorporates support for the policy reform process through programmes and complements with additional Technical Assistance (TA) to directly support the policy reform process. IFAD’s development goal for 2024-2029 is to “promote inclusive and resilient growth of the rural economy through market-driven, agri-food system transformation for food and nutrition security”. To achieve this, the COSOP will address the root causes of fragility and will pursue two strategic objectives (SOs):

- SO1: Sustainably increase rural people’s productive capacities. This will focus on addressing some drivers of fragility by improving farmers' production capacities by enhancing climate-resilient and nutrition-sensitive agriculture through access to quality inputs, enhanced adoption of good agriculture technologies, and tailored extension services including digital solutions (e-extension) among others. Further integrated investments in gender, nutrition, climate change, and fragility will promote a transformative impact on gender, food security, and nutrition.
- SO2: Strengthen the organizational and policy frameworks, for inclusive and resilient agricultural value chains. COSOP builds on the 4Ps, strengthens FO capacities and supports investments in storage, processing, market infrastructure, and improves product handling to reduce losses. CAFs will be strengthened with innovations including ICT4D to foster business-to-business relationships and market access within the targeted value chains. Regulatory and policy-related matters will help create spaces for dialogue and conflict resolution among actors.

VCN Compliance with the Government strategic vision

VCN will be aligned with the Government’s strategic vision for growth and development expressed in the key policies and programmes of the government, especially the Presidential Emergency on Nigeria’s Food Security[2], the National Pathways to Food Systems Transformation, the National Agricultural Technology and Innovation Policy (NATIP 2022-2027) mandate, mission and vision[3].

VCN Alignment with IFAD’s country-level policy engagement

In line with the COSOP 2024-2029, The Value Chain North (VCN) will support country level policy engagement aiming at Promoting an enabling policy, institutional framework and social cohesion, as well as developing and supporting policies and strategies, institutions at the community, local, state and national levels. They will also take into account, in the

development of enabling policies and strategies, the major challenges articulated by beneficiaries during field consultation missions. These include: (i) low productivity, financial difficulties and limited access to market; (ii) economic inclusion of vulnerable groups (women, youth, PWDs, IDPs returnees) in the development of agricultural value chains and rural agribusiness; (iii) The inability of most of the rural institutions (FOs, CDAs, FSAs, CAF) to fulfill their role towards their members and to influence the rules and regulations affecting their strategic interests in the development of agricultural value chains; (iv) Gender inequality, limited access to land of women and youth and lack of social cohesion; (v) recurrent conflict over resources between smallholder farmers and herders; (vi) sustainability of results and achievements. To this end, VCN under subcomponent 2.3 will prioritize the following:

1. Leverage ITC4D innovations to build capacity and to enhance efficiency, sustainability, and inclusiveness throughout the 6 subcomponents of the project. VCN's ITC4D Policy dialogue and engagement includes:

At the national level: support to (i) the implementation of the digital Innovation Action Plan 2024-2029 to catalyse commodity value chain development in line with the National Agriculture Technology and Innovation (NATIP); (ii) South South triangular cooperation through exchange of best practices.

At the states level: Support to the development of digital agricultural platforms and training aiming at collecting, analysing and disseminating agricultural data including information on weather patterns, soil health crop performance, market prices, and supply chains.

At the LGAs level: development and implementation of a comprehensive digital literacy training program tailored to the needs of farmers and agricultural workers, focusing on the use of mobile apps, online marketing platforms, and precision farming tools.

2. Promote and strengthen territorial dialogue spaces and facilitate the creation of platforms for collaboration among various stakeholders, including farmers, pastoralists, government officials, civil society organizations, and private sector actors. These dialogue spaces will serve as forums for discussing issues related to value chain development, resource management, conflict resolution, and social inclusion, thereby promoting consensus-building and decision-making at the local level.
3. Build capacity for promoting a gender transformative agenda through (a) mainstreaming gender considerations across all the VCN activities, ensuring that women have equal access to resources, training, and market opportunities. (b) using GALS as a reliable gender inclusion tool for equality; (c) promoting gender-sensitive approaches, policies and practices ensuring equitable access to resources, benefits, and opportunities for both men and women; (e) engaging men and traditional leaders as allies in promoting gender equality and challenging harmful gender norms and stereotypes that perpetuate discrimination and exclusion; (f) managing fragility and enhancing social cohesion.
4. Ensure advocacy with relevant government actors and traditional authorities to support women and youth equitable access to land.
5. Strengthen the capacity of FOs, FSAs, CAF and other rural and community-based institutions and committees to enable them to have a voice in policy dialogue. By providing training in leadership, entrepreneurship, and agricultural best practices, VCN

will empower farmers and youth to participate more actively in policy dialogue, advocacy with relevant authorities for equitable access to land.

6. Target and support three functioning multi-stakeholder platforms and three new laws, regulations, policies or strategies to enhance conflict management, inclusive, resilient and profitable value chain development as well as nutrition and food security in line with the Agri Food System Transformation Agenda.
7. Enhance the management mechanism of Fragility conflict resolution and promotion of Social Cohesion by fostering inclusive dialogue, promoting economic opportunities for marginalized groups (women, youth, PWDs, IDPs returnees), and addressing underlying drivers of conflict and fragility.
8. By building trust and cooperation among diverse stakeholders, strengthening effective conflict management and resolution mechanism between SHFs and pastoralists (through Community peace committees, religious and traditional rulers), developing strategy for sustainability of results and achievements, VCN will contribute to peace building and resilience in fragile environments.

Expected outcomes of the promotion of an enabling policy, institutional framework and social cohesion.

The implementation subcomponent 2.3 will lead to the following outcomes:

1. Enhanced inclusiveness, efficiency and sustainability to address the impact of fragility and insecurity through ITC4D innovations
 - Integration of Information and Communication Technology for Development (ITC4D) at the National, State and Local level, leading to (i) increased capacity building of stakeholders; (ii) inclusiveness, wider participation and improved efficiency and sustainability.
2. Strengthened territorial dialogue space
 - Establishment and enhancement of platforms for collaboration among farmers, pastoralists, government officials, civil society organizations, and private sector actors.
 - Creation of forums for addressing value chain development, resource management, conflict resolution, and social inclusion leading to economic empowerment and improved livelihoods, reducing economic drivers of conflict.
 - Promotion of consensus-building and local-level decision-making, leading to improved stakeholder engagement and cooperation.
3. Improved gender transformative agenda
 - Mainstreaming of gender considerations in all VCN activities, (i) engaging men and traditional leaders as allies in promoting gender equality and challenging harmful norms; (ii) ensuring women have equal access to resources, training, and market opportunities.

- Use of the Gender Action Learning System (GALS) to promote equality and inclusion.
 - Addressing fragility and enhancing social cohesion by promoting gender equity and inclusion.
4. Improved equitable access to land
 - Active advocacy with government actors and traditional authorities to ensure women and youth have equitable access to land.
 - Support for policy changes that facilitate land access for marginalized groups.
 5. Strengthened farmers' organizations and community institutions
 - Strengthening the capacity of Farmers' Organizations (FOs), Financial Services Associations (FSAs), Community Action Forums (CAF), and other rural institutions.
 - Training in leadership, entrepreneurship, and agricultural best practices to empower farmers and youth.
 - Enhanced ability of these groups to participate in policy dialogue and advocacy for equitable land access.
 6. Supported multi-stakeholder platforms and policy development
 - Targeting and supporting three functioning multi-stakeholder platforms.
 - Development of three new laws, regulations, policies, or strategies aimed at enhancing conflict management, value chain development, nutrition, and food security.
 - Alignment with the Agri-Food System Transformation Agenda for resilient and profitable agricultural development.
 7. Enhanced community trust leading to a reduction in conflicts
 - Contribution to peace building and resilience by fostering inclusive and effective conflict resolution strategies, promoting social cohesion and conflict resolution through inclusive dialogue and economic opportunities for marginalized groups.
 - Strengthening conflict management and resolution mechanisms, such as community peace committees and engagement with religious and traditional rulers. Provide training in mediation techniques and dispute resolution methods.
 8. Sustainable results and achievements

- State agency and funds: Promote the establishment of state agencies and sustainability funds to support the long-term achievements of the Value Chain North Network.
 - State agency involvement: Support the establishment and functioning of state agencies to oversee the sustainability of the VCD project's achievements. Establish sustainability funds to ensure long-term project impact.
-

[1] Guide book: Country level Policy engagement in IFAD.

[2] Central to the implementation plan road map of the Presidential Emergency Declaration on Nigeria's Food Security by the FGN are: (i) Enhancing agricultural productivity; (ii) Strengthening value chains and market systems; (iii) Investing in rural Infrastructure and resilience; (iv) Empowering smallholder farmers and communities; (v) Strengthening policy and governance. <https://www.vanguardngr.com/2023/07/president-tinubus-declaration-of-state-of-emergency-on-food-security-marks-vital-step-forward> .

[3] NATIP's mandate: "Ensuring food security in the crop, livestock, and fisheries, generating agricultural employment and services, promoting the production and supply of raw materials to agro-industries, providing markets for the products of the industrial sector, generating foreign exchange and promoting rural socioeconomic development.

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: VCN_Outline of Water Management_Plan

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Programme Management Department



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF WATER MANAGEMENT PLAN

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1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of fragile semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. The risk of pest and disease outbreak on farms are moderate. However, the risk of unsustainable use of pesticides and agrochemicals are substantial.

1.2 Project description and objectives

Overall goal. is to contribute sustainably to poverty reduction and better resilience of rural populations in the northern states of Nigeria.

Development Objective. is "to improve food and nutrition security and revenue of households in northern Nigeria by promoting inclusive and sustainable agriculture and crops value chains development as an enabler for rural economic and social transformation".

Specific objectives. The objectives are:

- a. increase sustainable production and productivity of SHFs and MSMEs in Northern Nigeria.
- b. Strengthen the adaptive capacity and resilience of smallholder farming households.
- c. strengthen value addition, nutrition, and access of project beneficiaries to markets.
- d. support the capacity development of existing and new Farmer's Organizations, rural institutions.

Expected Outcomes. The following are the expected project outcomes:

- a. Improved productivity and resilience of farming systems in target value chains.
- b. Improved value addition and marketing of agricultural products in the target value chains.
- c. Enhanced climate resilience and nutrition of small-scale producers.

- d. Increased business and employment opportunities for youth and women along the agricultural value chains.

The Project components are as follows:

Component 1: Foster climate resilient and nutrition sensitive.

This has 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices.*

Subcomponent 1.3: *Improve access to finance and scale access to digital financing.*

Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs.

This has 3 subcomponents:

Subcomponent 2.1: *Improve post-Harvest and Value addition.*

Subcomponent 2.2: *improve market linkages and partnerships with VC actors.*

Subcomponent 2.3: *Promote entrepreneurship and employment of Women and Youth*

Subcomponent 2.4: *promote an enabling policy and institutional framework.*

Component 3: *Programme Coordination & Management*

1.3 Project implementation and institutional arrangements

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

1.4 Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found

in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.5 Rationale for the Water Management Plan

Smallholder agriculture is substantially rainfed in Nigeria, especially in semi-arid northern Nigeria where the VCN project is located. Like the closed Climate Change Adaptation and Agribusiness Support programme (CASP) project, one of the major interventions to strengthen the resilience of the population is investment in small scale water and irrigation infrastructure including small earth dams, boreholes, tubewells and wash bores to make more water available for both cropping and human consumption. In addition, sustainable land management interventions including soil and water conservation and landscape rehabilitation measures will also be promoted to manage erosion, flooding, and improve on the utilization and management of scarce water resources.

The VCN project area spans four hydrological areas/regions (HAs) in northern Nigeria - HA 1 (Sokoto-Rima basin), HA 2 (Upper Niger – Kaduna River basin), HA 3 (Upper Benue – Gongola and Taraba River basins) and HA 8 (Chad basin – Kano-Hadejia River basins). With several river basins in the HAs, the project area has abundant surface and groundwater resources. However, future changes in the average water flows of the sub-basins within the semi-arid northern Nigeria are substantially uncertain¹. This may be complicated by rising temperatures and unsustainable water extraction. Thus, this necessitates the need to determine the amount of water the VCN project foresees to extract and formulate a water management plan.

¹ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions; Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

1.6 The purpose of the Water Management Plan

A Water Management Plan is required to provide proper and implementable guidance and guidelines for Water use and management in VCN to ensure that VCN implementation adheres to the requirements of the ESS Standard 2 on Resource Efficiency and Pollution Prevention.

The full Water Management Plan would help to:

- Provide a holistic overview of water availability in the project area, including seasonal and multi-year variations in water tables and precipitation, as well as water resource demand.
- Analyze the environmental flows preferably at the river-basin level.
- Conduct a participatory water needs audit to determine, in consultation with relevant stakeholders, who depends on surface and groundwater resources for various needs.
- Determine the existence of major water-related socio-environmental conflicts and the prime social group affected.
- Determine the hydrologic balances of the watersheds and the availability of water in the project area for VCN.
- Determine access to water for targeted users and competing consumptive and non-consumptive water uses and interests.
- Assess major existing threats to water quality and project's potential impacts.
- Assess the impacts of climate change and climate-related hazards on water availability in the region.
- Formulate measures to avoid potentially adverse impacts or minimize, mitigate, or compensate for unavoidable impacts on water in project area.

1.7 Scope of the IPMP

The Water Management Plan shall complement other SECAP documents including the ESCMF, ESCMP, and TAA). The scope of the full Water Management Plan will cover the existing national and international legislations on water use, and experiences from projects in the project area. It will also address integrated water resources management including technical and human capacity strengthening for agencies with water resource management mandates including the Nigerian Hydrological Agency (NIHSA) and Nigerian Meteorological Agency (NIMET) to promote climate and hydrological information for early warning.

2. POLICY, REGULATORY FRAMEWORK, AND INSTITUTIONAL CAPACITY FOR WATER MANAGENT PLAN

2.1 Water Resources Act (2004)

The Water Resources Act is targeted at developing and improving the quantity and quality of water resources. **Sections 5 and 6** provides authority to make pollution prevention plans and regulations for the protection of fisheries, flora, and fauna².

2.2 National Environmental (Wetlands, Riverbanks and Lake Shores Protection) Regulations (2009)

The regulations state that the following principles shall be observed in regulating all wetlands³

- wetland resources shall be utilized in a sustainable manner compatible with the continued presence of wetlands and their hydrological functions and services.
- the Environmental Impact Assessment (EIA), shall be conducted in accordance with the relevant laws on all activities in wetlands likely to have adverse effects on the wetlands.
- best practices shall be applied for the conservation of wetlands of international, national, and local importance as ecological systems and habitats for fauna and flora species, cultural and aesthetic purposes, as well as their hydrological functions, etc.
- wise use of wetlands shall be incorporated into the national and local approaches for the regulation of their resources through awareness campaigns and dissemination of information.

2.3 National Environmental (Protection of Watershed, Mountainous, Hilly and Catchment Areas) Regulations (2009)

The regulations states that⁴

- 1) Every landowner or occupier, while utilizing land in a watershed, mountainous, hilly or catchment area shall:
 - ✓ observe and respect the carrying capacity of the land.
 - ✓ carry out soil conservation measures.
 - ✓ carry out measures for the protection of water catchment areas.
 - ✓ use the best available environmentally friendly technologies to minimize significant risks and damage to ecological and landscape aspects; and
 - ✓ maintain adequate vegetation cover.
- 2) The Agency shall, with respect to watersheds, mountainous, hilly and catchment areas in a particular environment, control activities which are inconsistent with good land management practices especially in areas prone to landslides, floods, drought, desertification, siltation, heavy sediment loads, falling rocks, fires, and damage by wind.

2.4 National Erosion and Flood Control Policy 2005

The general soil erosion & flood control guidelines provide necessary instructions for soil and water resources users to develop, implement and monitor plans that are to assure erosion and flood hazard mitigation. The maintenance of levees and other protective structures are also to be developed at areas with potential impacts. In addition to this,

² **Water Resources Act, CAP W2, LFN 2004.**

³ National Environmental (Wetlands, River Banks and Lake Shores Protection) Regulations (2009).

⁴ National Environmental (Protection of Watershed, Mountainous, Hilly and Catchment Areas) Regulations (2009).

all requests for project plan approvals must include soil type and drainage pattern/structures in and around project area and the likely impact of the project on these duly certified.

2.5 Inland Waterways Authority (NIWA), 1997

Nigeria Inland Water Authority (NIWA) Act 13 of 1997 established NIWA whose functions are among others are to:

- ✓ Provide regulations for inland navigation.
- ✓ Ensure the development of infrastructural facilities for a national inland waterways network connecting the creeks and the rivers with the economic centres using the river-ports as nodal points for inter model exchange.
- ✓ Ensure the development of indigenous technical and managerial skill to meet the challenges of modern inland waterways transportation.
- ✓ Carry out environmental impact assessment of navigation and other dredging activities within the inland water and its rights-of-way.

2.6 IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025:

IFAD's Strategic Framework (2016-2025) consolidates and updates IFAD's strategy and policy frameworks on environment and climate change considering internal and global policy changes over the last several years.

The main objective of the strategy is enhanced resilience of smallholder farmers and rural communities to environmental degradation and climate change impacts. The expected outcomes of the environment and climate change strategy and action plan include:

- Governments are increasingly effective in integrating environment and climate change objectives and considerations into smallholder agriculture and other rural development policies and programmes.
- IFAD has the skills, capacity, partnerships, systems, and resources needed to fully support governments in integrating environment and climate change into rural development policies and programmes.
- IFAD investments contribute to the generation of environmental assets and services, and global public goods that make the livelihoods of poor rural people more prosperous and resilient, and IFAD's own operations more environmentally sustainable.
- IFAD becomes a global leader in generating knowledge on managing sustainable rural livelihoods – enabling IFAD to play a greater advocacy role in supporting global efforts to build a healthy planet.

The full Water Management Plan will review the scope of Integrated Water Resources Management in the VCN Project Area and the institutional and policy coordination for Water Resources Management Plan

⁵IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025. <https://www.ifad.org/en/-/ifad-strategy-and-action-plan-on-environment-and-climate-change-2019-2025>

3. SCOPE OF ACTIVITIES FOR INTEGRATED WATER RESOURCES MANAGEMENT PLAN IN THE VCN

3.1 Activities recommended in the PDR

In the PDR, the VCN has the following water resources management recommendations to strengthen the adaptive capacity of the beneficiaries for Integrated:

1. Promote climate and hydrological information for early warning

Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves, and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on water and climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

(i) Climate information production and seasonal rainfall prediction (SRP) downscaling and dissemination with NIMET to the communities

VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmer to aid preparedness and resilience.

(ii) Hydrological information production and downscaling with NIHSA

VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modelling of river flow data on the major river catchments across the project area as well as projected rainfall data to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

(iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

(i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that these measures, which include planting pits (Zai), half moon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds, and vegetative bunds. Bunds will reduce run off speed and carrying away of soil particles, improve soil moisture and reduces surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

(ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera species*), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

(iii) Integrated soil fertility management technologies

VCN will promote the production and usage of farmyard manure by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility, water management, and climate and environmental benefits.

3. Investment in rehabilitation of market infrastructure that strengthens resilience

(i) Small irrigation structures

Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

(ii) Water infrastructure for human and animal watering

VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

4. Supporting farmers with climate-resilient planting materials

(i) Support farmers with climate-resilient seeds: through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

(ii) Support women farmers with Nutrition crops: through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

5. Awareness and capacity building through extension services

Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between climate change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support services including the Farmer Field Schools (FFS) and Training of Trainers (TOT) to ensure that the targets are reached. The specific activities include:

(i) Awareness and capacity building in sustainable land and water management and GAP: VCN will carry out training in good agricultural and agronomic practices to deliver activities sustainable land and water management. The technical and human capacity activities will be driven through extension support and FFS.

3.2 Integrated Water Management Plan for VCN

Activity	Risk category	impacts	Mitigation	Monitoring indicator	Monitoring frequency	Implementation Responsibility
VCN water resource demand	Substantial	VCN smallholder farmers substantially depend on rainfed agriculture. Demand on both surface and groundwater for cropping is substantial and can lead to excessive and unsustainable groundwater abstraction	<p>Conduct a water resource demand assessment at early stage of project implementation.</p> <p>Construct monitoring wells across the VCN project area to monitor groundwater abstraction</p>	Number of monitoring wells constructed in the VCN project area	Annual	NPMU, SPMU
Hydrologic balances and seasonal and multi-year variations of the watersheds	Substantial	The VCN project area has high annual temporal rainfall variability with only 3 to 4 months of rainfall in a year. Multi-year variations in rainfall (and by implication, river flow) is also high	<p>Conduct a study to generate quantitative data on water balance across the VCN project area.</p> <p>Strengthen collaboration and support NIHSA and NIMET to generate water flow and weather data for river monitoring</p>	<p>Hydrological information produced and disseminated by NIHSA on the VCN area.</p> <p>Weather information produced and disseminated by NIMET on the VCN project area.</p>	<p>Annual</p> <p>Annual</p>	<p>NPMU, SPMU</p> <p>NPMU, SPMU</p>
Environmental flow at the river-basin level	Substantial	Apart from the very large river systems including Sokoto-Rima, Hadejia-Jamaare, Komadugu-Yobe, and Zamfara rivers that have large catchments, many rivers and streams are ephemeral and depend on local concentrated runoff during the wet season	<p>Conduct environmental flow studies in the VCN project area.</p> <p>Construction of small dams to store runoff.</p> <p>Training farmers and sustainable land and water management techniques (halfmoon, planting pits, bunds, etc) to reduce runoff and soil erosion.</p>	<p>Number of small earthen dams constructed.</p> <p>Number of farmers trained in sustainable land and water management techniques</p>	<p>Annual</p> <p>Annual</p>	<p>NPMU, SPMU</p> <p>NPMU, SPMU</p>

Climate change impact on water availability	Substantial	Both present and future climate impact on water availability is substantial in the VCN project area and this has significant impact on smallholder agriculture	Training farmers and sustainable land and water management techniques (halfmoon, planting pits, bunds, etc) to reduce runoff and soil erosion.	Number of farmers trained in sustainable land and water management techniques.	Annual	NPMU, SPMU
			Strengthen collaboration and support for NIHSA and NIMET to generate water and climate information for on-farm decision making by farmers. Support extension services to disseminate climate information to farmers.	Number of beneficiaries receiving water and climate related information	Annual	NPMU, SPMU
Water related socio-environmental conflicts	Substantial	Increasing human insecurity including deadly farmers-pastoralists clashes on water	Conduct water conflicts assessment. Provide water infrastructure with water points for both human and animal watering	Number of water infrastructure and water point for human and animal watering constructed	Annual	NPMU, SPMU
Access to water for targeted users and competing consumptive and non-consumptive water uses and interests	Substantial	Water access competition among various social groups for both consumptive and non-consumptive uses is exacerbating conflicts	Conduct water access assessment. Set-up community water users' association or community water users committee in the beneficiary communities to manage access to water issues	Number of operational water users association or community water users committee set up	Annual	NPMU, SPMU, Community
Water quality threats	Substantial	Surface and ground water pollution can result from unsustainable agrochemical and pesticides uses	Implement the integrated pest management plan to ensure sustainable agrochemicals management and less risk of pollution to water sources. Regularly monitor groundwater from the monitoring wells for pollution	Analysis of water from the monitoring wells for pollution	Annual	NPMU, SPMU

4. CONCLUSION

A full Water Management Plan will be developed during the project implementation. The Water Management Plan should be implemented with the Integrated Pest Management Plan (IPMP) and the Waste Management Plan as well as the SECAP, ESCMF and TAA to provide a holistic picture of the VCN environment and social contexts and activities that drive integrated water resource management.

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: VCN_Outline of Waste Management_Plan

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF WASTE MANAGEMENT PLAN

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OUTLINE OF WASTE MANAGEMENT PLAN FOR THE VCN

1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of fragile semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. The risk of pest and disease outbreak on farms are moderate. However, the risk of unsustainable use of pesticides and agrochemicals are substantial.

1.2 Project description and objectives

Overall goal. is to contribute sustainably to poverty reduction and better resilience of rural populations in the northern states of Nigeria.

Development Objective. is "to improve food and nutrition security and revenue of households in northern Nigeria by promoting inclusive and sustainable agriculture and crops value chains development as an enabler for rural economic and social transformation".

Specific objectives. The objectives are:

- a. increase sustainable production and productivity of SHFs and MSMEs in Northern Nigeria.
- b. Strengthen the adaptive capacity and resilience of smallholder farming households.
- c. strengthen value addition, nutrition, and access of project beneficiaries to markets.
- d. support the capacity development of existing and new Farmer's Organizations, rural institutions.

Expected Outcomes. The following are the expected project outcomes:

- a. Improved productivity and resilience of farming systems in target value chains.
- b. Improved value addition and marketing of agricultural products in the target value chains.
- c. Enhanced climate resilience and nutrition of small-scale producers.

- d. Increased business and employment opportunities for youth and women along the agricultural value chains.

The Project components are as follows:

Component 1: Foster climate resilient and nutrition sensitive.

This has 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices.*

Subcomponent 1.3: *Improve access to finance and scale access to digital financing.*

Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs.

This has 3 subcomponents:

Subcomponent 2.1: *Improve post-Harvest and Value addition.*

Subcomponent 2.2: *improve market linkages and partnerships with VC actors.*

Subcomponent 2.3: *Promote entrepreneurship and employment of Women and Youth*

Subcomponent 2.4: *promote an enabling policy and institutional framework.*

Component 3: *Programme Coordination & Management*

1.3 Project implementation and institutional arrangements

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

1.4 Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found

in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.5 Waste and Pollution Management in VCN

Waste Management is critical for a sustainable VCN. Waste proliferation can occur in activities across the different stages of the VCN value chain including production, processing, and marketing (including transportation). Waste and pollution can include solid waste, liquid waste, and gaseous wastes. Waste and pollution can come from use of agrochemicals in production (which has been tackled in the IPMP), farm waste (which are mainly organic and biodegradables), processing wastes, and domestic waste generated during transportation and marketing of Agric products from the VCN.

The Waste Management Plan (WMP) will provide the guidance to **minimize Production rate of waste, reduce pollution effects, protect surface and groundwater sources from waste and ensure sustainability (including through waste valorisation and resource efficiency).**

1.6 Objectives of the waste management Plan

The objective of the Waste Management Plan is to provide generic guidance on the management of solid, liquid, and gaseous waste anticipated to be generated from the VCN project and provide mitigation measures. The specific management plans for each sub projects shall be prepared based on the sites to be selected at the latter stage just prior to implementation.

The objectives of the waste management plan include:

- i. Minimizing waste generation in the VCN
- ii. Promote the use of appropriate waste management measures.
- iii. Promote waste valorisation across the value chain.
- iv. Monitor the mitigation measures put in place to prevent waste and pollution.

2. OVERVIEW OF WASTE MANAGEMENT LEGISLATION INCLUDING KEY ASPECTS OF NATIONAL WASTE LEGISLATIONS AND POLICIES

2.1 National Policy on the Environment (Revised 2016)¹

The goal of the National Policy on the Environment is to “ensure environmental protection and the conservation of natural resources for sustainable development”. Its strategic objective is to coordinate environmental protection and natural resources conservation for sustainable development. This goal will be achieved by the following strategic objectives:

- a. securing a quality of environment adequate for good health and well-being.
- b. promoting sustainable use of natural resources and the restoration and maintenance of the biological diversity of ecosystems.
- c. promoting an understanding of the essential linkages between the environment, social and economic development issues.
- d. encouraging individual and community participation in environmental improvement initiatives.
- e. raising public awareness and engendering a national culture of environmental preservation; and building partnership among all stakeholders, including government at all levels, international institutions and governments, non-governmental agencies, and communities on environmental matters.

2.2 National Guidelines and Standards for Environmental Pollution (March 2001)

The National Guidelines and Standards for environmental pollution control in Nigeria (March 2001) is the basic instrument for monitoring and controlling industrial and urban pollution.

2.3 National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations (1991)

Regulates the legal framework for the effective control of the disposal of toxic and hazardous waste into any environment within the confines of Nigeria.

2.4 NESREA Establishment Act, 2007

The National Environmental Standards and Regulations Enforcement Agency (NESREA) has responsibility for the enforcement of the environment regulations and biodiversity conservation, including coordination and liaison with relevant stakeholders within and outside Nigeria on matters of enforcement of environmental standards, regulations, rules, laws, policies, and guidelines. The following NESREA National Environmental Regulations are considered relevant. The National Effluents Limitations Regulation instrument of

¹ <http://www.environment.gov.ng/publications/REVISED-NATIONAL-POLICY-ON-THE-ENVIRONMENT-FINAL-DRAFT.pdf>

NESREA makes it mandatory that industrial facilities install anti-pollution equipment, make provision for further effluent treatment, prescribe maximum limit of effluent parameters allowed for discharge, and spell out penalties for contravention. It also provides that all industries in Nigeria should be operated based on Best Available Technology (BAT).

2.5 The Management of Solid and Hazardous Wastes Regulations

These regulate the collection, treatment, and disposal of solid and hazardous waste for municipal and industrial sources and give the comprehensive list of chemicals and chemical waste by toxicity categories.

2.6 National Guidelines for Environmental Audit

These are designed to serve as a reference for compliance with the Environmental Audit requirements of the Federal Ministry of Environment. It states that it is mandatory for a company to carry out an audit every 3 years or at the discretion of the Minister of the Environment.

2.7 National Air Quality Standard Decree No. 59 of 1991

The Federal Ministry of Environment is the regulatory agency charged with enforcing ambient air quality standards in Nigeria. The World Health Organization (WHO) air quality standards were adopted in 1991 as the national standards. These standards define the levels of air pollutants that should not be exceeded to protect public health.

2.8 IFAD ESS 2 on Resource Efficiency and Pollution Prevention and Management

It recognizes that economic activity often generate pollution to air, water, and land, it sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with international best practice.

2.9 IFAD ESS6 on Community Health and Safety

It recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to impacts from climate change may also experience an acceleration or intensification of impacts due to project activities. It addresses the health, safety, and security risks and impacts on project affected communities and the need to avoid or minimize such risks and impacts.

2.10 The Basel Convention on the Control of Transboundary Movement of Hazardous Waste and Disposal, 1989

It focuses attention on the hazards of the generation and disposal of hazardous wastes. The convention defines the wastes to be regulated and controls their trans-boundary movement to protect human and environmental health against their adverse effects.

3. ASSESSMENT OF SOURCES OF WASTE AND POLLUTION IN VCN AND MITIGATION MEASURES

3.1 Value Chains and Activities Leading to Waste and Pollution

Production

The key sources of waste proliferation during production include:

- Use of agrochemicals and pesticides (which has been covered by the IPMP)
- Cereal harvesting – which leaves organic crop residue.
- Land preparation – with farm machines dropping spent oil and emitting smoke with hazardous gaseous pollutions and causing dusts during ploughing.

Processing

- Use of processing machine - with farm machines dropping spent oils and emitting smoke with hazardous gaseous pollutions
- Grain milling (especially rice) – leaves enormous amount of rice husks which constitute nuisance in the environment.

Marketing

Construction of market infrastructure - Dust, smoke, noise, and ground movement / vibration due to movement of heavy machines

Transportation - Use of motorized and heavy transportation machines - Dust, smoke, noise and spent oil discharge into the environment.

3.2 Waste and Pollution Management Plan

Value Chain	Activity	Waste type	Risk categorization	Impact	Mitigation measures	Monitoring indicator	Frequency	Implementation responsibility
Production	Land preparation	Spent oil, noise, smoke	Moderate	Inconvenience to people. Pollution of water sources	Enforce contractors ESCMP for subprojects to avoid or minimize dust, reduce noise, and prevent improper disposal of spent oil	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Production	Cereal harvesting	Organic crop residue	Moderate	Nuisance to the environment	Train people in livelihood opportunities in crop residue conversion into animal feeds, biochar, etc	Number of people trained in crop residue conversion to into useful products such as biochar and for animal feed	Annual	NPMU SPMU
Production	Use of agrochemicals and pesticides	Improper disposal of fertilizer bags and agrochemical containers	Moderate	Pollution of surface water resources due to inappropriate agrochemicals containers disposal	Advocacy and training on appropriate disposal of agrochemical containers Train farmers on production and use of on-farm organic manure.	Number of trained individuals on agrochemical waste management. Number advocacy. Number of sensitizations conducted on safe disposal of agrochemicals disposal.	Annual	NPMU SPMU
Processing	Grain milling (especially rice)	enormous amount of grain husks	Moderate	Nuisance to the environment created by grain husks around processing centers	Train project beneficiaries on conversion of grain husks to briquettes, biochar, etc. Conduct periodic monitoring of the	Number of people trained in livelihood opportunities in grain husks conversions to useful products. Number of periodic monitoring conducted	Annual	NPMU SPMU

Value Chain	Activity	Waste type	Risk categorization	Impact	Mitigation measures	Monitoring indicator	Frequency	Implementation responsibility
					processing sites to ensure for hygiene			
Processing	Use of processing machine	spent oils, smoke	Moderate	Inconvenience to people from noise and water pollution from improper disposal of spent oil	Enforce subproject specific ESCMP to avoid or minimize noise and prevent improper disposal of spent oil	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Processing	Waste disposal around processing sites	Nylon, biodegradable materials	Substantial	Environmental nuisance and unhealthy workplace	Provide processing centers with waste bins	Number of centers with waste bins	Annual	NPMU SPMU
Marketing	<i>Construction of market infrastructure</i>	Dust, smoke, noise, ground movement, vibration	Moderate	Inconvenience and health hazard to people from noise, smoke, and vibration	Enforce contractors ESCMP for subprojects to avoid or minimize dust, reduce noise and vibrations	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Marketing	Transportation	Dust, smoke, noise and spent oil	Moderate	Inconvenience and health risk to people from noise, smoke, and water pollution from improper disposal of spent oil	Enforce subproject specific ESCMP to avoid or minimize noise and prevent improper disposal of spent oil	Number of subproject specific ESCMP produced	Annual	NPMU SPMU
Marketing	Waste disposal around market sites	Nylon, biodegradable materials	Substantial	Environmental nuisance and unhealthy workplace	Provide processing centers with waste bins	Number of centers with waste bins	Annual	NPMU SPMU

4. CONCLUSION

A full Waste Management Plan will be developed during the project implementation. The WMP should be implemented with the Integrated Pest Management Plan (IPMP) and the Water Management Plan (WMP) as well as the SECAP and the ESCMF to provide a holistic picture of the VCN environment and social contexts and activities that influence waste management.

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: VCN_Outline of Integrated Pest Management_Plan

Mission Dates: 23 November to 30 December 2023

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West and Central Africa Division
Programme Management Department



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

OUTLINE OF INTEGRATED PEST MANAGEMENT PLAN

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OUTLINE OF INTEGRATED PESTICIDES MANAGEMENT PLAN FOR THE VCN PROJECT

1. INTRODUCTION

This contains project background, project description and objectives, rationale for IPMP, purpose of the IPMP, and scope of the IPMP.

1.1 Project Background

The Value Chain Programme in the North of Nigeria (VCN) project is to be implemented in **9 States of the** semi-arid Sudano-Sahelian northern Nigeria. These states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The target selected crops include **rice, maize, sorghum, millet, cowpea which are** value chains crops of strategic importance to the people living in these areas for commercialization and food security. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of fragile semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. The risk of pest and disease outbreak on farms are moderate. However, the risk of unsustainable use of pesticides and agrochemicals are substantial.

1.2 Project description and objectives

Overall goal. is to contribute sustainably to poverty reduction and better resilience of rural populations in the northern states of Nigeria.

Development Objective. is "to improve food and nutrition security and revenue of households in northern Nigeria by promoting inclusive and sustainable agriculture and crops value chains development as an enabler for rural economic and social transformation".

Specific objectives. The objectives are:

- a. increase sustainable production and productivity of SHFs and MSMEs in Northern Nigeria.
- b. Strengthen the adaptive capacity and resilience of smallholder farming households.
- c. strengthen value addition, nutrition, and access of project beneficiaries to markets.
- d. support the capacity development of existing and new Farmer's Organizations, rural institutions.

Expected Outcomes. The following are the expected project outcomes:

- a. Improved productivity and resilience of farming systems in target value chains.
- b. Improved value addition and marketing of agricultural products in the target value chains.
- c. Enhanced climate resilience and nutrition of small-scale producers.
- d. Increased business and employment opportunities for youth and women along the agricultural value chains.

The Project components are as follows:

Component 1: Foster climate resilient and nutrition sensitive.

This has 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices.*

Subcomponent 1.3: *Improve access to finance and scale access to digital financing.*

Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs.

This has 3 subcomponents:

Subcomponent 2.1: *Improve post-Harvest and Value addition.*

Subcomponent 2.2: *improve market linkages and partnerships with VC actors.*

Subcomponent 2.3: *Promote entrepreneurship and employment of Women and Youth*

Subcomponent 2.4: *promote an enabling policy and institutional framework.*

Component 3: *Programme Coordination & Management*

Project implementation and institutional arrangements

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Honourable Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Honourable Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kobe, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.3 Rationale for IPMP

Crop pests and diseases which significantly affect grains are issues for VCN. In addition, misapplication, wrong usage, and adulteration of agrochemicals for diseases and pest control by smallholder farmers also present risks of environmental and human health. Tests carried out on different food items revealed the presence some pesticides that are frequently used (such as, DDT, Aldrin and Dieldrin) in elevated values. Grains and other food items from Nigeria have found it difficult to gain entry to the markets of the developed world (especially EU and USA) due to non-compliance with acceptable standards in terms of pesticide and agrochemicals presence in the food items.

However, agrochemicals applications also present opportunity to create enterprises for youth by providing them with adequate training and equipment. With proper training, project beneficiaries can be empowered to produce and use environment-friendly organic agrochemicals and soil additives.

1.4 Purpose of the IPMP

An Integrated Pesticides Management Plan is required to provide proper and implementable guidance and guidelines for pesticides and agrochemical handling and usage in VCN. The purpose of the IPMP is to ensure that VCN implementation adheres to the requirements of the ESS Standard 2 on Resource Efficiency and Pollution Prevention.

So, the full IPMP should help to:

- Promote the use of IPM options (hygienic, cultural, biological, or natural control mechanisms and the use of agro chemicals as a last resort) in pest control.
- Effectively manage and strengthen capacity amongst participating farmers in safe handling and use of pesticides.
- Provide for implementation of an IPM action plan if serious pest management issues are encountered.
- Effectively monitor pesticide use and pest issues amongst participating small holder farmers.

1.5 Scope of the IPMP

The IPMP shall complement other SECAP documents including the ESCMF, ESCMP, TAA). The scope of the full IPMP will cover the existing national and international legislations on the use of chemicals for pest management. It also assesses the Nigerian experience in pest management, including experience from existing and closed IFAD projects. Other areas to be addressed include training and awareness raising for project beneficiaries on pesticides safety measures, description of pesticides banned for use in Nigeria as well as those approved for use.

2. REVIEW THE PEST MANAGEMENT APPROACHES IN NIGERIA

This section of the full IPMP will provide a thorough review of pest and pest management approaches in Nigeria drawing experiences from different sectors and projects. The review will include:

2.1 Pest and Diseases Problems of Agriculture in Nigeria:

Crop pests in Nigeria include INSECTS (grasshoppers, locust, aphids, weevils etc) BIRDS (Quelea) and WORMS (Insect's larvae) affect Cereals (Sorghum, Millet, Maize, Wheat, Rice etc), legumes and vegetables resulting in reduction in quality (for processing and market) and quantity (yield and total production) of produce. For animals, contagious Bovine Pleuro-Pneumonia, Foot and Mouth Disease and Worms affect cattle. Peste des Petits Ruminants (PPR) affect Small Ruminants (Sheep & Goats) while Flies, Avian influenza (AI) and Exotic Newcastle Disease affect poultry at various stages of their lives causing economic damage. farmers often respond to pest and diseases infestations by heavy applications of pesticides which threaten environmental quality and pose risks to human and livestock health.

2.2 General Control Methods of Pests and Diseases in Nigeria

Pest management methods in Nigeria vary with the type of pests and livestock.

Cultural control include:

- Use of botanicals such as marigold, lantana camara, neem leaves, pyrethrum, pepper, pawpaw leaves, Tephrosia and peas leaves on pests and diseases,
- Mixed cropping that includes nitrification plants.
- Use of soot and cow dung grannies in storing grain for households.
- use of tobacco to preserve grains.
- Cow's urine sprayed to tomato plants to protect from diseases.
- Crop rotation.
- Intercropping
- Fallow
- Cover crops.
- Trap crops.
- Mulching
- Hand pulling and hoes weeding.
- Burning
- Fertilizer/manure application
- Use of disease-free planting material, e.g. cassava cuttings, sweet potato vines, etc.
- Pruning
- Thinning
- Hygiene: keeping the environment clean,
- Herbs and local concoction: cutting herbs and boiling them for their animals to drink.
- Change of location: This method involves leaving an area for another when it is noticed that there is the presence or outbreak of pests or diseases.
- Bush burning: Burning surrounding bush.
- Timing on grazing - usually during afternoon to allow sun heat to chase the pests.
- Nutrition: Balanced animal diets provided at consistent intervals and in appropriate portions
- Herd sharing - This involves the distribution of cattle among relatives and grown-up children in other location.

Mechanical Tools:

- Use of Grooming combs, brushes, and flea combs with closely spaced teeth to monitor for insects and ticks.
- Use of electronic devices such as bird scares
- Use of traps for rodents that may be carriers of pests.

Physical control:

- providing adequate ventilation to prevent heat, stress, or the spread of diseases.
- avoid over crowdedness of animals to avoid pest outbreaks.
- use of sticky flypaper to reduce nuisance flying insects in confined areas.
- use of cages that separate animals from contact with one another which reduces the spread of insects from infested animals to non-infested ones.
- use of pest resistant breeds and breeds adapted to the climatic conditions of the surrounding environment where they are raised can avoid or reduce the effect of the pests.

Biological Control:

- This involves either encouraging or introducing natural enemies of the pest or interfering with the life cycle of the pest. This area has not been fully harnessed in Nigeria due to inadequate research equipment and facilities.

Chemical control:

- This employs the use of pesticides to kill pests. The use of spray for control of pesticides and herbicides has been in long use in Nigeria.

The growing concerns about the use of pesticides including:

Potency reduction from cold chain

- Increasing rate of pest resistance
- Limited information on usage and side effects
- Growing environmental concerns
- High costs of purchase due to unavailability of Government subsidized pesticides.
- Adulteration
- Misapplication
- Lack of strong regulation and oversight

2.3 Assessment of the Capacity of Nigeria on Integrated Pest Management

Conventional chemical control methods have been the widespread means generally used to control plant and livestock infestation by pests in Nigeria.

The issues around this include:

Emerging cases of numerous intoxications each year.

Resistance of numerous pests to many chemicals.

Destruction of useful species.

Perturbation of the ecological balance.

Dependence on synthetic chemical pesticides; and

Growing debt for farmers compelled to use increasingly expensive products etc.

The full IPM Plan will explore several project-based interventions that have involve IPM in Nigeria including:

- Control of root knot nematodes in tomato and okra
- Control of the *tuta absoluta* tomato disease
- Downy mildew control in maize
- control of the African Rice Gall Midge

3. REVIEW THE POLICY, REGULATORY FRAMEWORK, AND INSTITUTIONAL CAPACITY FOR IPM

3.1 Extant Laws of Nigeria on Pesticides –

This reviews the extant laws on pesticide management in Nigeria including:

- Federal Ministry of Agriculture and food security –
- Federal Ministry of Environment
- State Ministries of Agriculture and Environment
- Environmental Impact Assessment (EIA) Act (1992)
- the National Environmental Standards and Regulation Enforcement Agency (NESREA) Act of 2007
- National Agricultural Technology and Innovation Plan (NATIP) 2022-2027
- National Policy on the Environment (Revised 2016)
- National Action Plan to Reduce Short-lived Climate Pollutants
- Nigerian National Environmental Action Plan
- Pest Management and Pesticide Use Policy (1988)
- Pesticides Registration Regulations (2006)
- NAFDAC Decree 15 of 1993, as amended by Decree 19 of 1999

3.2 International Conventions & Treaties Relevant to Pest Management in Nigeria

Nigeria is a signatory to many conventions on the protection of the environment and this include use of pesticides and agrochemicals. Some of these conventions pertinent to this study include:

- Stockholm Convention on persistent organic pollutants - aims at protecting human health and the environment from persistent organic pollutants such as aldrin, dieldrin, chlordane, endrin, heptacholic, hexachlorobenzene, mirex, toxaphene, DDT, and PCBs
- Rotterdam Convention - on Prior Informed Consent (PIC) aims to help participating countries make informed decisions about the potentially hazardous chemicals.
- Basel Convention- oblige Parties (national governments which have acceded to the Convention) to take appropriate measures to implement and enforce its provisions, on transboundary movement of hazardous wastes which include pesticides.
- ECOWAS - document on harmonization of rules governing the pesticide and animal drugs agreement in the ECOWAS zone adopted at the 60th ordinary session of the ECOWAS Council of Ministers held at Abuja on 17 and 18 May 2008

3.3 IFAD Guidelines

This includes:

- IFAD Environment and Natural Resource Management Policy (2011)
- IFAD Social, Environmental and Climate Assessment Procedure (SECAP Procedure 2021)
- Country strategic opportunities programme (COSOP), Nigeria- 2023

4. REVIEW OF VALUE CHAIN CROPS AND IDENTIFICATION OF ADVERSE IMPACTS OF PESTICIDES

4.1 The Value Chain crops, their pests and pesticide impacts.

This reviews the major value chain crops of VCN and their pests, pesticides usage, including by men, women, and youth and their and their impacts. The following VC are reviewed:

- Rice
- Maize
- Sorghum
- Millet
- Cowpea
- Vegetables

4.2 Adverse Environmental and Health Risk Associated with Pesticide Application

Effects of Pesticides on Human Health –

A wide range of human health hazards linked to pesticides include:

- headaches and nausea
- chronic impacts like cancer,
- reproductive abnormalities,
- endocrine disruption
- cancer

Chronic health effects may occur years after even minimal exposure to pesticides in the environment, or result from the pesticide residues, which we ingest through food and water.

The smallholder farmers that use and spray the pesticides are directly and primarily affected, while the secondary and wider impacts are suffered by the general population that consumes pesticides residues in the crops.

Effects of Pesticides on Animal Health

- Pesticides used could end up in drinking water, hay/ fodder consumed by the animals.
- Some pesticides have devastating effects on honeybees and other pollinating insects, causing in insects memory loss, navigation disruption, paralysis, and death.
- Pesticides are not biodegradable, accumulate in animal systems, and cause contamination of animal products including milk, meat, egg. Etc
- Pesticides decrease the reproductive rate of birds, eggshell thinning, and embryo deaths. Pesticides are highly toxic to aquatic animals, affecting various systems in aquatic animals including the heart and brain, and thus cause mass mortality of fishes.

4.3 Identification of Potential Environmental and Health Risks Associated with Pesticides

Potential adverse environmental and health risks of pesticides application that are of concern to the VCN project include: soil contamination, air pollution, water pollution, harms to non-target species, and social and health concern of diseases outbreak.

- **Soil Contamination** - Pesticides could also enter soil during spraying causing wash-off or run-off into soil. Long-term excessive use of pesticides will cause higher pesticide residues in the soil, which will further cause soil contamination within the area.
- **Air Pollution Vapour** - from sprayed pesticides will be released into the air, and if the chemical compound is very stable, vapour may travel beyond the application location.
- **Surface and Ground water pollution** - Pesticides may pollute surface water through runoff which transports pesticides to streams, rivers, and other surface-water bodies. Groundwater contamination may occur from pesticide residue in surface water, such as drainages, streams, and municipal wastewater.
- **Harms to Non-target Species** - sprayed insecticides reach a destination other than their target species because they are mainly aerosol. Runoff can carry pesticides into aquatic environments while wind can carry them to other fields, grazing areas, human settlements, and undeveloped areas, potentially affecting other species.

- Social and Health Concern of Diseases outbreak - consumption of crops and plants grown under chemical pest control could cause health hazards.

4.4 Assessment of risk for Men, Women and Youth

This section provides some gender lens on the vulnerability of men, women and youth to pesticide usage and impact risks. The full IPMP will populate this section from data collected from stakeholders' engagement on the field to determine the differential vulnerability of people to pesticides risks and impacts across the value chain crops and the different value chain segments. It will also highlight the training needs to handle pesticides efficiently and safely, as well as exploring the enterprise opportunity around IPM.

5. ASSESS INTEGRATED PEST MANAGEMENT IN THE CONTEXT OF CURRENT PEST CONTROL PRACTICES

Integrated Pest Management (IPM) is an important aspect of sustainable agriculture. It is based on the planned and strategic use of pest control methods. It is an effective and environmentally friendly approach that relies on a combination of multiple practices with a view to reduce reliance or use of pesticides. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. The disposal of the pesticide's containers is also key to sustainable agriculture.

The full IPMP will document the range of activities across the value chain that involve pesticides and pesticides application including production, processing, and storage. Through fieldwork and stakeholder engagements, information will be documented on the:

- Pest histories and occurrence
- Activities that involve pesticides use
- Who performs the activities?
- What type of pesticides is used?
- Issues around pesticides adulteration
- Issues around legislation and enforcement
- Issues around pesticides impacts
- How to create enterprise around pesticides and agrochemical management
- Training needs and requirements

6. INTERGRATED PEST MANAGEMNET PLAN FOR VCN

6.1 Introduction

The integrated Pest Management Plan for the VCN Project consists of:

- Pest management activities
- Classes of Insecticide for crops - Chlorinated Hydrocarbons, Organophosphates, organohalogen, etc
- Institutional / implementation arrangements

- Activities to strengthen project capacity.
- Phasing of the plan including recommended activities to be considered for women, men, and youth,
- Mitigation measures for pesticides application and impacts
- Opportunities for value chain enterprise
- Training
- Monitoring and evaluation, and
- Cost estimates for implementing the plan.

6.2 IPM Objectives

The specific objectives of the VCN IPM plan include:

- Acquisition of baseline information on common crop pests and diseases in the VCN project area generated with a view to plan and design location specific IPMP.
- Promotion of participatory approaches in IPM to learn, test, select and implement IPM option.
- Promotion of biodiversity monitoring to serve as early warning systems on pest status, alien invasive species, beneficial species, and migratory birds.
- Determination/appraisal of existing pest management methods and practices in the selected communities with a view to proffering environmentally friendly options.
- Identification of site -specific potential Environmental and Health Risks associated with pesticides.
- Development of relevant tools for effective monitoring and evaluation of IPM plan including its impact on the environment and health
- The plans also complement the Environmental, Social and Climate Management Framework (ESCMF) and other safeguard instruments of the VCN.

6.3 Steps for Establishing the IPM

Establishing an IPM for crop pests involve the following steps:

- Detection - Pest detection requires thorough and regular monitoring of crops for pest invasions and/or other signs and symptoms that indicate a pest is present.
- Identification - to determine the nature of the pest or disease.
- Economical significance – to determine impacts on the economic viability of crops and the value chain. This also include duration of pest infestation and its destructive tendencies.
- Method Selection - selecting a method or methods for managing the observed pests such as are contained in this IPM.
- Evaluation - to evaluate the effectiveness of the applied pest management procedures.

6.4 Steps for the IPMP

Pesticides may be used in the VCN project in combination with other methods of prevention and control or used when other methods have failed or considered in applicable. For example, cultural or other management strategies outlined may not be applicable to

control or prevent some pest. In such cases, the use of repellents or chemicals at appropriate application quantities and methods for the environment are conceivable options. Nonetheless, banned, and obsolete pesticides shall not be procured nor be used in any case under VCN.

Botanical and organic pesticides using plant extract and dried powders such as neem, dry chill pepper ginger, cocoa pod husks, eucalyptus leaf powder are not a replacement for pesticides but rather an important input of the IPM to reduce dependence on synthetic chemicals. A combination of all the control methods will form the basis for the development of the IPM.

The chemical methods should follow the following principles:

- Use of Cost –effective non-pesticides chemicals
- Use of high efficiency, low toxicity, and low residue pesticides
- Extension of the application technologies that have low toxicity to humans, animals, and plant and with reduced pollution on the environment.
- Use of safe spraying devices to enhance the efficiency and effectiveness of the pesticides.
- Strengthen the awareness and education on safe and proper use of pesticides, extend safe application of pesticides through training, follow strictly the regulation on pesticides application and pay attention to safety.
- Safe storage of chemicals (e.g. keeping pesticides away from food and children)
- At planting the IPM practices will focus on appropriate site selection, sanitation, proper tillage, soil improvement practices, selection of resistant and early maturing varieties.
- After planting, the use of highly persistent and highly toxic chemicals must be avoided in pest management.
- Natural pest control methods can be employed to effectively reduce or eliminate pest or disease infestation without harming humans, animals.
- Adoption of sustainable land management practices to reduce pest disease and pest infestation.

The full IPMP will capture the Crop Value Chain Pest and Control Methods for VCN including:

- Goal
- Crop
- Pest
- Control methods – cultural, chemical, biological.
- Implementation Responsibility
- Timeline
- Expected results.
- Performance indicators
- Assumptions/risks

6.5 Capacity building and Monitoring and Evaluation

The plan will also include the training/capacity building requirement plan with cost estimates.

The plan will also include tracking M&E indicators including:

- Reduction in the use and application of pesticides
- performance ratings in pest management using proffered IPM controls.
- Number of farmers and stakeholders aware of the pollution, contamination and toxicity associated with pesticides and pesticides.
- decline or increase in crop pests/diseases within the VCN projects states.
- Number of farmers or farmers association using biological methods of pest control
- Number of persons trained in the method of spraying and handling of chemical pesticides.
- The reported incidences of pest and herbicides concerns among farmers.

- The level of use of resistant and improved species of crops and improvement in crop and livestock production from use of IPM vis-à-vis the pre-IPM baseline.
- Level of understanding of IPM processes.
- Level of involvement of youth and women in crop and livestock production activities.

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: Environmental, Social and Climate Management Framework (ESCMF)

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Investing in rural people

Nigeria

VALUE CHAIN IN THE NORTH (VCN) PROJECT

Environmental, Social and Climate Management Framework



December 2023

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Abbreviations and acronyms

AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
AWPB	Annual Work Plan and Budget
CAF	Commodity Alliance Forum
CASP	Climate Change Adaptation and Agribusiness Support Programme
CDA	Community Development Association
COSOP	Country Strategic Opportunities Programme
ERGP	Economic Recovery and Growth Plan
EIRR	Economic Internal Rate of Return
ESCMF	Environmental, Social and Climate Management Framework
ESCMP	Environmental, Social and Climate Management Plan
FGN	Federal Government of Nigeria
FIRR	Financial Internal Rate of Return
FMARD	Federal Ministry of Agriculture and Rural Development
FO	Farmers' Organization
GHG	Greenhouse Gas
HH	Household
IFAD	International Fund for Agricultural Development
IITA	International Institute of Tropical Agriculture
KM	Knowledge Management
KMC	Knowledge Management and Communication
LGA	Local Government Area
M&E	Monitoring And Evaluation
MT	Metric Ton
MTR	Midterm Review
NAIC	Nigerian Agricultural Insurance Corporation
NGN	Nigerian Naira
NIMET	Nigerian Meteorological Agency
NPC	National Programme Coordinator
NPMU	National Programme Management Unit
NRCRI	National Root Crops Research Institute
PBAS	Performance Based Allocation System
PCU	Programmes Coordinating Unit
PME	Planning, Monitoring and Evaluation
SAPZ	Special Agro-Industrial Processing Zones
SECAP	Social, Environmental and Climate Assessment Procedures
SPMU	State Programme Management Unit
VC	Value Chain
VCN	Value Chain in the North
VCDP	Value Chain Development Programme

Executive Summary

Introduction: Nigeria, with a population of over 218.5 million people, and a GDP of USD 477.39 billion (current USD) in 2022¹, is both the most populous country and the largest economy in Africa. The overwhelming majority (33.3 million of the 49.3 million) of households are smallholders farming households² consisting mostly of the rural poor. Sustainable agriculture is considered a necessity for Nigeria to guarantee food security. The agriculture sector contributed 23.24% to overall GDP in real terms in the second quarter of 2022. Crop Production remained the major driver and accounts for 91.99% of the overall nominal growth of the agric sector in the second quarter of 2022. According to FAO (2020)³, the share of Agriculture in total employment is about 35.1% (with women in agriculture constituting about 30.2% of the agriculture labour force).

National food consumption expenditure patterns show that about 56.65% of total household expenditure in 2019 was spent on food. Despite efforts to improve the agriculture and food security situation, both cereal import dependency ratio and food net trade deficit remain high. Food price inflation, prevalence of undernourishment, prevalence of severe food insecurity, and children under 5 years who are stunted are far higher than the African average. Nigeria faces significant poverty and inequality challenges with a 2022 GDP per capita of USD 2,184.4. The poverty headcount ratio of the population at USD 2.15 a day (2017 PPP) is 30.9% (2018 estimate), while about 40% lived in extreme poverty (less than USD 1.90 a day)⁴. The country holds a high number of youths, with 62% of the population younger than 25 years. Income and employment opportunities for the youth and women are major challenges.

The VCN project is proposed to be implemented in **9 States (Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara) of the** semi-arid northern Nigeria. These states spread from northeast to the northwest Nigeria. They cover about 338,206km² (about 37% of Nigeria land area)⁵ with about 63.8million people (about 30.2%% of national population)⁶ consisting mostly of the rural poor. The **VCN Project vulnerability to climate impacts, environmental conditions, and social risks are substantial.**

Development objective: The overall **goal** of the VCN is to: *contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.* The **programme development objective** (PDO) *is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.*

The Specific objectives are (i)increase sustainable production and productivity of SHFs and MSMEs in Northern Nigeria, (ii)Strengthen the adaptive capacity and resilience of smallholder farming households, (iii) strengthen value addition, nutrition, and access of project beneficiaries to markets (iv) support the capacity development of existing and new Farmer's Organizations, rural institutions.

The Expected Outcomes of the project are: Improved productivity, climate adaptive capacity and resilience; Improved diet quality and nutrition awareness; Improved post-harvest handling, value addition and access to markets; Improved entrepreneurship and employment opportunities; and Improved policy and institutional framework

¹ World Bank. Data. <https://data.worldbank.org/country/NG>. Accessed 09/12/2023

² Fraym, CASP Smallholder Farmer Assessment 2020

³ FAO. 2020. World Food and Agriculture - Statistical Yearbook 2020. Rome. <https://doi.org/10.4060/cb1329en>

⁴ <https://www.statista.com/statistics/1287811/number-of-people-living-in-extreme-poverty-in-nigeria-by-area>. Accessed 09/12/2023.

⁵ NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

⁶ National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

Targeting: Geographic targeting. VCN targets nine states in northern Nigeria based on the high levels and depth of poverty as well as fragility. The states include those previously covered by CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe), plus Kano State as it offers important market opportunities and Bauchi state based on strategic geographic location vis-à-vis other target states and to leverage on AFD's investments (RAMP and RAAMP). Specific participating LGAs and communities will be selected within these nine participating States.

Direct beneficiary targeting. A total of about 456,000 direct beneficiaries will be targeted by VCN, equivalent to 91,000 households. VCN includes three main target groups: These include **subsistence and semi-subsistence producers (40% of all beneficiaries)** comprising of farmers with less than 3.0 hectares and produce mainly for subsistence and have very limited surplus – if any. **Market oriented producers (30% of all beneficiaries)** comprising of farmers who are market-oriented, cultivating their own or leased land but who are highly susceptible to poverty because of internal or external shocks. **Individuals** not associated to FOs, involved in starting **entrepreneurship**, such as agribusiness or **employment opportunities (30% of all beneficiaries)** consisting of mostly youth not interested in on-farm production, but off-farm innovative income opportunities. **70% of women, youth, PWDs and returning IDPs** targeted will be poor subsistence and semi subsistence producers and poor (aspiring) entrepreneurs. Overall, **women will represent 40 percent of project beneficiaries (half of the women targeted will be WHH); 30 percent project will be youth aged 18-29 and 10% PWDs.**

Value chain crops. The value chain crops were considered based on FMAFS and State crop strategies, field consultations, and mainstreaming themes (climate change, nutrition and women and youth participation), importance to food security and nutrition, market orientation, and potential for inclusion of target groups. The crops basket consists of a mix of: **Staple foods for food security (Sorghum, Maize, Rice, or Millet), Cash crops for incomes (Cowpeas, Sesame, Groundnuts or Soyabean), and Horticulture crops to improve dietary diversity and health (Fruits, Vegetables).** For effectiveness, the VCN will support a maximum of seven crops, with each state prioritizing a maximum of five crops based on its context and comparative advantage.

Project implementation: The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Honourable Minister of Agriculture (and composed of stakeholders' representatives) will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). **State Steering Committee chaired** by the Honourable Commissioner of Agriculture and composed of the other stakeholders will provide oversight function on the project and approve the AWPB at state level. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

Environmental and social Risk categorization and key environmental issues: The VCN's Environmental and Social Category is rated as a '**SUBSTANTIAL**'. VCN is a natural resource dependent value chain project, which include agricultural intensification and/or expansion of crop production clusters in non-sensitive areas as well as the development of medium-sized agro-processing centers. The risk of VCN leading to primary not environmentally sustainable production of living natural resources through the cultivation of annual crops is substantial. Other potential environmental impacts are limited, site-specific and constrained to production and agro-processing facilities. These include unsustainable land management, agrochemical use and management issues, unsustainable draw down of groundwater resources from tubewells irrigation, the use of firewood in processing, waste management, unhealthy working environment, risks from

construction of market infrastructure including market-connected feeder roads, small-scale irrigation structures, and drainage development (including small earth dams, tube-well and watering points). The risks of biodiversity losses and physical and economic displacement is low.

The social risk is also **Substantial** across the states due to insurgency, banditry, and kidnapping by non-state actors, as well as resource conflicts (especially between farmers and pastoralists) and related threats to human security. The VCN will build on existing channels including CAF and the CDAs, as well as LGA conflict resolution committee established by government in some of the states to deepen conflict resolution. Access to land by women also pose a challenge. VCN will prioritize women in targeting and support policy dialogue on land reform as a mitigation strategy for both land access for women and conflict management. As much as possible, VCN will promote framework to discourage child labour and unpaid women labour (within the ambit of the national labour law), minimize migrant labour influx, sensitize on community health and safety, discourage elite capture, and established an open and well publicised grievance reporting channel and redress mechanism.

Climate risk categorization: The VCN's climate risk is **SUBSTANTIAL**. The VCN project area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and market infrastructure. The risk of water scarcity leading to drought for agriculture is substantial. The VCN project area has substantial risk of soil erosion resulting from high intensity rainfall and windstorm and unsustainable land practices. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, as well as unsustainable land management practices and operation of environmentally unfriendly processing machines.

The VCN target group is substantially dependent on climate-sensitive rainfed agricultural plots. Rice, one of the value chain crops for VCN is grown mainly in the Fadamas (inland wetlands) and the fertile alluvial plains of the major river systems. All parts of the project area have been subjected to extreme flooding in the recent past. Climate variability including unexpected dry spells occasioned by unpredictable rainfall and high temperature can affect the sub-projects' impacts, sustainability and return on investment. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability. This suggests the likelihood of increased dry spells and high intensity rainfall leading to pluvial floods, erosion and landslides, and risk of river damage to road infrastructure. Increased local processing (e.g., rice parboiling) further represents a greater risk of use of firewood with concomitant GHG emissions from deforestation.

However, VCN has the potential to integrate climate resilience measures without extensive additional costs through upscaling the achievement of CASP in resilience-enhancing practices including capacity building programmes in climate-smart agricultural production and collaboration with partners for climate risk management.

Environmental management and monitoring plans: Several legal, institutional, and policy frameworks were reviewed to set in context the Environmental, Social and Climate Management Framework (ESCMF) for the VCN. Some of the mitigation and adaptation plans recommended in the ESMP include:

- Improve collaboration with Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological services agency (NIHSA) to ensure production and dissemination of climate and hydrological information to farmers at regular intervals.
- Promote extension services (including e-extension) to disseminate good agric and agronomic practices to farmers.

- Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities.
- Support farmers with improved, climate-resilient seeds.
- Support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spells and droughts.
- Deepen climate-smart and good agricultural practices including soil and water conservation and landscape rehabilitation practices
- Conduct environmental screening for all subprojects.
- Avoidance of areas that infringe on known biodiversity habitats and migration patterns of protected, endangered, or rare species, and known wildlife migration corridor
- Promote resource efficiency and integrated waste management
- Deepen social inclusion by considering all the social actors.
- Continually monitor beneficiaries to ensure compliance with labour and working conditions
- Promote use of appropriate PPE among farmers to safeguard human health.
- Conduct periodic and safety audit to ensure clean production and processing environment
- Promote policy dialogue on land management and resource conflicts
- Encourage production and use of organic manures and organic pesticides
- Develop and implement clear complaints, grievances redress and dispute resolution frameworks and make this known to all stakeholders
- Promote mainstreaming of the GALS strategy

Funding the Environmental and Social monitoring plans: A total of **USD2,630,000** has been estimated for the environmental and social monitoring of the **VCN for the 9 states**. This represents about **2.31%** of estimated **USD114m** VCN commitment basket. A total of **USD1,127,236** is expected to be expended at the base year while the rest is spread across the 2nd and 8th year (end of the project life cycle).

The funds cover monitoring plans including :

- Site specific screening and ESMPs for land development, market infrastructure and processing facilities
- Environmental baseline surveys and monitoring including - biodiversity survey, - land and soil degradation assessment, Monitoring Targeted Adaptation Assessment (TAA), Integrated Pesticide management plan monitoring, and Groundwater monitoring.
- Social monitoring including Labour and working conditions monitoring, Cultural heritage and social inclusion (marginalised peoples) assessment, Community health and safety monitoring, Fragility and Security monitoring, financial intermediaries monitoring, Grievance redress monitoring, Monitoring stakeholders' engagement plan, and Policy engagement on IPDs and Gender and Women Empowerment

A successful mainstreaming of ESCMF into implementation of the VCN project also requires adequate sensitization and capacity strengthening through training. The total training cost to deliver the ESCMF is estimated at **USD 455,625** which represents about **0.4%** of the proposed funding basket. In total, both the Environmental, Climate and Social Monitoring costs and Training cost accounts for **USD 3,085,625 representing 2.71%** of the funding commitment to the VCN project.

1. INTRODUCTION

1.1 Background

Nigeria, with a population of over 218.5 million people, and a GDP of USD 477.39 billion (current USD) in 2022⁷, is both the most populous country and the largest economy in Africa. It is predominantly a rural economy, with about 51% of the population living in rural areas⁸, most of whom are smallholder farmers. The overwhelming majority (33.3 million of the 49.3 million) of households are smallholders farming households⁹ consisting mostly of the rural poor. The agriculture sector contributed 23.24% to overall GDP in real terms in the second quarter of 2022 and grew by 1.20% (year-on-year) in real terms (a decline from 3.16% in Q1) during the period¹⁰. Crop Production remained the major driver and accounts for 91.99% of the overall nominal growth of the agric sector in the second quarter of 2022. According to FAO (2020)¹¹, the share of Agriculture in total employment is about 35.1%. Women in agriculture constitute about 30.2% of the agriculture labour force.

Sustainable agriculture is considered a necessity for Nigeria to guarantee food security. The agric sector now and in the future will be relied on to supply more food to the growing and more prosperous population as a foreign exchange earner. National food consumption expenditure patterns show that about 56.65% of total household expenditure in 2019 was spent on food. By Percent of household that cultivate crops, maize, cassava, sorghum, yam, and bean are the most cultivated crops in Nigeria with 49.7, 46.2, 29.6, 25.6 and 20.9%¹² respectively. Other important crops cultivated include millet, groundnut, rice, cocoyam and sesame/benniseed. Despite efforts to improve the agriculture and food security situation, cereal import dependency ratio from 2015 to 2017 is estimated at 16.1%, and food net trade deficit is estimated at about USD 5.8billion. Food price inflation at 13.7% is higher than the African average of 12.3%, prevalence of undernourishment is about 12.6%, prevalence of severe food insecurity at 9.1%, and children under 5 years who are stunted in 2019 is about 48.5% which is far higher than the African average of 29.1%¹³. The food inflation rate in July 2022 was 22.02% on a year-on-year basis¹⁴.

Nigeria faces significant poverty and inequality challenges with a 2022 GDP per capita of USD 2,184.4. The poverty headcount ratio of the population at USD 2.15 a day (2017 PPP) is 30.9% (2018 estimate), while about 40% lived in extreme poverty (less than USD 1.90 a day)¹⁵. The country holds a high number of youths, with 62% of the population younger than 25 years. Income and employment opportunities for the youth are major challenges; more than 60% of Nigeria's youth are either unemployed or underemployed¹⁶. Real GDP growth fell to 3.3% in 2022 from 3.6% in 2021, mainly due to a decline in oil production¹⁷. The 5% shrinkage in overall industry was offset by a slight expansion in services (7%) and agriculture (2%). Growth in income per capita declined to 0.8% from 1.2% in 2021. The fiscal deficit of 4.9% of GDP in 2022 was financed by borrowing, bringing public debt

⁷ World Bank. Data. <https://data.worldbank.org/country/NG>. Accessed 09/12/2023

⁸ FAO, World Food and Agriculture statistical pocketbook, 2018.

⁹ Fraym, CASP Smallholder Farmer Assessment 2020

¹⁰ NBS (2022) Nigeria GDP Report Q2 2022, August 2022. <https://nigerianstat.gov.ng/download/1241219>

¹¹ FAO. 2020. World Food and Agriculture - Statistical Yearbook 2020. Rome. <https://doi.org/10.4060/cb1329en>

¹² NBS (2019): LSMS Integrated Surveys on Agriculture Nigeria General Household Survey Panel, Wave 4. <https://nigerianstat.gov.ng>

¹³ FAO. 2020. World Food and Agriculture - Statistical Yearbook 2020. Rome. <https://doi.org/10.4060/cb1329en>

¹⁴ NBS (2022): Consumer Price Index, July 2022

¹⁵ <https://www.statista.com/statistics/1287811/number-of-people-living-in-extreme-poverty-in-nigeria-by-area>. Accessed 09/12/2023.

¹⁶ <https://www.nigerianstat.gov.ng/>. Accessed 09/12/2023.

¹⁷ <https://www.afdb.org/en/countries-west-africa-nigeria/nigeria-economic-outlook>. Accessed 09/12/2023.

to USD 103.1 billion (about 22% of GDP) from USD 92.6 billion in 2021. Inflation peaked at a two-decade high of 18.8%, fueled by energy and food price increases and the effect of exchange rate depreciation. Real GDP growth is forecast to remain at an average of 3.3% in 2023–24, with inflation rising to 19.6% in 2023 before declining to 13.6% in 2024.

The VCN project is proposed to be implemented in **9 States (of the 13 states) of the semi-arid northern Nigeria**. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The 9 states of the semi-arid northern Nigeria covered about 338,206km² (about 37% of Nigeria land area)¹⁸ with about 63.8million people (about 30.2%% of national population)¹⁹ consisting mostly of the rural poor. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain²⁰. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc.), coupled with low adaptive capacity result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity. High inter-annual variability of rainfall often results in climatic hazards, especially floods and droughts.

VCN Project vulnerability to both climate impact and environmental conditions are Substantial. The semi-arid northern Nigeria consists of difficult semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts. Unpredictability of rainfall in terms of onset and cessation dates as well as length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the wide dry season. Flooding has also become a problem wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

Fragility and conflicts. Nigeria is listed by the World Bank Group as one of 37 "fragile and conflict-affected" countries²¹. Nigeria has a situation described as a "complex crisis" with a "very high" risk index (at 6.5) by the INFORM Risk Index Report for 2021²². The World Risk Index report for Nigeria also has a very high rating of 12.66²³. Monguno (2021) notes that Nigeria's Global Peace Rating has slid, and poor governance has contributed. For more than a decade the Boko Haram insurgency in the **northeast** and banditry and kidnapping in the **northwest**, have been growing problems. This is also complemented by the increasing farmer-herder conflict as populations have risen and natural resources have become increasing contested. Discussions with stakeholders in Sokoto state suggest that access to a significant proportion of arable lands in the state has been cut-off by Bandits occupation, thus depriving farmers of good arable land for farming. Conflict in the semi-arid northern Nigeria is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, which are in turn exacerbated by population growth and poverty. As in any conflict situation, women (and children) have

¹⁸ NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

¹⁹ National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

²⁰ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--

Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

²¹ <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>

²² Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

²³ World Risk Report, 2021. Bündnis Entwicklung Hilft, Ruhr University Bochum – Institute for International Law of Peace and Conflict 2021. <https://weltrisikobericht.de/weltrisikobericht-2021-e>.

been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps. The conflicts also stem from stake for land ownership, distribution of resources, corruption, proliferation of arms and ethnic and religious tensions.

Mainstreaming alignment: The mainstreaming of climate and environmental considerations into VCN is consistent with Nigeria's national priorities and aspirations to deliver on the 47% GHG emission reduction targets of the Nationally Determined Contributions (NDC) and the targets of the Sustainable Development Goals (SDGs), most especially as it relates to goals 1 (no poverty), 2 (zero hunger) 5 (gender equality), 13 (climate action) and 15 (life on land). On the IFAD side, it is consistent with the core objectives and priorities of the IFAD 2016-2025 Strategic Framework²⁴, IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025²⁵, and IFAD11 Replenishment Consultation agenda for mainstreaming gender, youth, nutrition and climate finance tracking using the multilateral development bank (MDB) methodologies to secure improved and more resilient livelihoods for all rural people, and strengthening national capacity to deliver on the Paris Agreement and SDGs.

The overall **goal** of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The **programme development objective** (PDO) is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
- Improved policy and institutional framework

1.2 Rationale and Objectives of the ESCMF

Smallholder agriculture in the semi-arid northern Nigeria is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity coupled with low adaptive capacity result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.

Literature review and field consultation and stakeholders' discussions in the VCN project area during the project Concept Note and Project Design suggest that agriculture is exposed and sensitive to key climate and environmental risks including low rainfall and high temperature, uncertainty in rainfall onset, cessation, dry spell, and length of the growing season, drought, flood, heat stress/ waves, soil erosion, desertification, and windstorm. Unsustainable land-use practices, poor adaptive capacity, and lack of knowledge on climate-smart agriculture perpetually drive land degradation and soil infertility, and constraint small-holder agricultural productivity. Water shortage for both human and animal watering, rangeland degradation, resource conflict, overdependence

²⁴ IFAD 2016-2025 Strategic Framework. <https://www.ifad.org/documents/38714170/39132730/IFAD+Strategic+Framework+2016-2025/d43eed79-c827-4ae8-b043-09e65977e22d>

²⁵ IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025 <https://webapps.ifad.org/members/eb/125/docs/EB-2018-125-R-12.pdf>

on fuelwood for domestic heating, poor market-connected farm roads, poor access to funding and inputs, and lack of modern farming production and processing skills and lack of understanding of sustainable land management techniques undermine the resilience of the poor smallholder farmers and households. Household income is generally low among the rural poor especially among women. Lack of skills and access to fund and lack of alternative income sources widen inequality and increases poverty and social vulnerability among the women, malnutrition among children and the number of out of school children.

Mean annual rainfall in the Sudan Savanna zone range between about 600-1000 mm and less than 600mm in the Sahel zone²⁶. Dry season in the Sudan savanna is about 4-6 months and exceed 8 months in the Sahel. The inter-annual rainfall variability is high resulting in climatic hazards, especially flood and drought and relative humidity experiences considerable seasonal and diurnal variations²⁷. Analysis of rainfall data from 1981 to 2020 shows a positive trend increasing at about 8.7% in the semi-arid northern Nigeria²⁸. The Sahel savanna is projected to experience an increase in future rainfall by as much as 30%, and Sudan savanna by about 10% under both RCPs 4.5 and 8.5 for the 2050-time step²⁹. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400 mm annual maximum historically over this zone³⁰. However, warming trend is very clear with temperature rising faster over the semi-arid northern Nigeria. The linear warming for a 30-year averages on a decadal slice reveal changes in temperature by an average of 0.2°C with the last decade (2011-2020) emerging as the warmest since 1981. The maximum temperature increases since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig. 6)³¹. Under the RCP4.5 for 2050 and 2070, temperature increase could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline for Nigeria, with the semi-arid northern Nigeria on the high end³².

VCN Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of delicate semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices.

The VCN project areas face the risk of climate uncertainty especially with regards to rainfall and temperature. Unpredictability of rainfall in terms of onset and cessation dates as well as length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the wide dry season. Flooding has also become a problem wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

The main objectives of the ESCMF for VCN is to define the principles, rules, guidelines, and procedures to develop the Environment, Social, Climate Management Plan (ESCMP) and methodologies with adequate budgets to guide the implementation team of VCN in

²⁶ Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months. The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.

²⁷ State of the Nigerian Environment Report, 2008, SEDEC Associates for Federal Ministry of Environment and UNDP

²⁸ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

²⁹ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

³⁰ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

³¹ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

³² Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

implementing mitigation/remediation/considerable reduction of potential risks as appropriate. The ESCMF also identifies opportunities and risks associated with the VCN projects and subprojects and proposes the steps and actions for project implementation units to explore opportunities to strengthening adaptation and resilience and to implement sub-project-specific **Environmental, Social and Climate Management Plan** during project implementation.

This ESCMF is intended to provide options that would inform and thus improve decision making of the VCN project design. The key environmental, climate change and social issues to be addressed include: (i) challenges faced to meet its rural development and food security goals; (ii) the major environmental, climate change and social issues that have a bearing on IFAD operations in the country; (iii) the direct impact and multiplier effect the mentioned issues have on the resilience of ecosystems and productivity of land and crops, natural resource management and rural livelihoods; (iv) the scale of volatility and risks resulting from climate variability and change; and (v) regulatory frameworks which are related to rural development and environmental issues.

The results of the ESMF are: (i) an assessment of the environmental (and social/economic/institutional) issues particularly in the agricultural and rural development sector; (ii) the identification of links with relevant ongoing initiatives; (iii) the provision of specific measures, recommendations including opportunities to optimize adaptation, environmental management, and resource use; in the project area (iv) Link with the agro-processing zones. These results will shed light on the important opportunities available to build resilience and adaptive capacity in the program/project under development.

1.3 Approach and Methodology and Stakeholders Consultation

Stakeholder consultation and engagement are an essential component of the ESCMF. Consultation is necessary for the integration of environmental and social issues into the project. The consultations for both the Concept Note and Project Design captured the views of the project affected persons (including host communities in project area, community members in the project host communities, crop farmers, livestock farmers and pastoralists, community development associations, farmers organizations, women groups, other community associations and groups), as well as other Interested Parties, and Disadvantages and vulnerable persons and groups.

Broad stakeholders including all the above groups were consulted in **Sokoto in the Northwest zone (13-17 March 2023) and Borno and Yobe in the northeast zone (28 November to 7 December 2023)**. In addition, State Government Officials, representatives of Non-Governmental Organizations, Civil Societies Organizations, and other interested parties were also consulted on the field. In Sokoto, Borno and Yobe States, the **Key Climate and Environmental Issues** raised align with the same set of climate and environmental challenges pervasive in semi-arid northern Nigeria, including:

- Erratic rainfall – duration, intensity, late onset, and early cessation
- Heat wave and heat stress - from rising temperature
- Desert encroachment
- Deforestation
- Land degradation – especially soil erosion
- Pests and diseases – including locusts and quelea birds which significant affect grains
- Wrong application of agrochemicals
- Land access for women

The proposed interventions suggested (obviously, many spoke against the backdrop of their experience in past projects, including CASP) include:

- Improved seed varieties- early maturing, drought resistant, flood tolerant

- Dams and small irrigation structures and equipment – borehole, tube well, wash bores, water pumps
- Nature based solutions – agroforestry, soil and water conservation, landscape rehabilitation,
- Climate and weather information dissemination for early warning
- Training in agrochemical applications
- Promote home/backyard gardens – especially for women
- Land acquisition for women
- Timely provision and distribution of input - fertilizer and soil additives
- Training and advocacy

The ESCMF also considers IFAD and AFD policies regarding Climate Change, Environment and Natural Resources Management, Gender Equality and Women's Empowerment, and Targeting policies. It also aligns with Nigeria's Nigeria Climate Change Act 2021, National Climate Change Policy (NCCP), National Policy on the Environment (revised 2016), National Agricultural Technology and Innovation Policy (2022-2027), National Development plan (2021-2025).

1.4 Disclosure of ESMF

IFAD's Policy on the Disclosure of Documents (2010) requires full disclosure to the public 120 days before the board and includes information notes on projects being developed for Board presentation, agreements for approved loans and grants, and project/program design documents. The ESCF will be disclosed on IFAD and AFD websites as well as the websites of the Federal Ministries of Agriculture and Food Security and Environment.

1.5 Challenges and Assumptions

Although IFAD has recently completed the CASP project which covered seven of the proposed VCN nine states, the locations of the VCN beneficiary LGAs, and the specific communities where the subprojects will take place are still not yet known. Hence, the ESCMF has assessed impacts based on likely proposed projects in comparable locations and based on information from stakeholders as well as experience from CASP.

1.6 Report Structure

Section 1 describes the background to VCN, the objectives and rationale and objectives of the ESCMF, approach and methodology and challenges and assumptions for the ESCMF. Section 2 describes the VCN project area and target groups, project objectives and impact indicators, implementation structure, potential partners, and environmental and social category, lesson learned on climate, environment and social risks and key issues identified for environmental and social risk. Section 3 reviews some of the legal, institutional, and regulatory framework for ESCIA and agri-business in Nigeria as well as the IFAD guidelines and how they affect the VCN. Section 4 describes in detail the environmental, climate change and social contexts of the VCN and summary across the states. Section 5 reviews in detail the potential positive and negative environmental, climate and social impacts of the project. Section 6 describes the Environmental, Social and Climate Management Plan for VCN and the Stakeholder Engagement, Community Sensitization, Expectation and Grievances management mechanisms. Section 7 presents a review of Environmental, Climate, Social Impacts of VCN Sub-Projects and the Environmental, Social and Climate Management Framework (ESCMF) for Agricultural Value Chain Stages. Section 8 describes the framework for Environmental, Social and Climate Screening of Sub-Projects. Section 9 presents the Environmental, Climate and Social Impacts monitoring plans and cost, and Section 10 itemizes the capacity building and

training for mainstreaming the Environmental, Climate and Social Management and Monitoring Plans.

2. DESCRIPTION OF THE PROPOSED PROJECT

2.1 Project Area and Target Group

The VCN project is to be implemented in **9 States of the** semi-arid northern Nigeria. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The 9 states of the semi-arid northern Nigeria covered about 338,206km² (about 37% of Nigeria land area)³³ with about 63.8million people (about 30.2%% of national population)³⁴ consisting mostly of the rural poor. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain³⁵. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc. coupled with low adaptive capacity) result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.

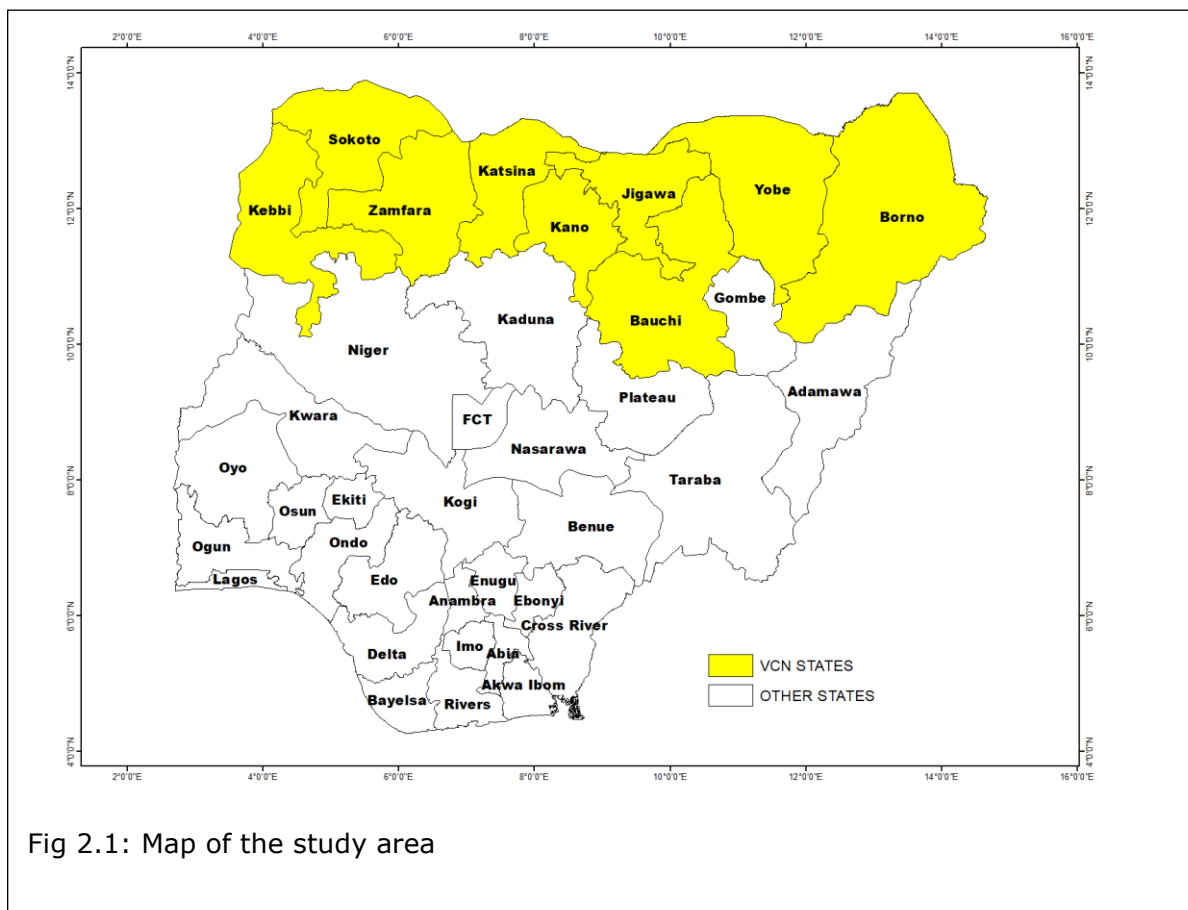


Fig 2.1: Map of the study area

³³ NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

³⁴ National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

³⁵ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

VCN Targeting and Value Chain Crops:

Geographic targeting. VCN will target nine States in northern Nigeria. Based on the high levels and depth of poverty as well as fragility, VCN will target states previously covered by CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe) plus Kano State as it offers important market opportunities and linkages with the IFAD and ADB financed SAPZ project. The northern section of a ninth state, Bauchi, will also be included given consistent poverty levels, strategic geographic location vis-à-vis other target States and to leverage on AFD's investments (RAMP and RAAMP). Specific participating LGAs and communities will be selected within these nine participating States.

Direct beneficiary targeting. A total of about 456,000 direct beneficiaries will be targeted by VCN, equivalent to 91,000 households. VCN includes three main target groups:

Subsistence and semi-subsistence producers (40% of all beneficiaries) - This group comprises farmers with less than 3.0 hectares and produce mainly for subsistence and have very limited surplus – if any. HHs in this category generally earn less than \$1 per day, have no or very few production assets (of low value). Many of these HHs are female headed.

Market oriented producers (30% of all beneficiaries) - This group is constituted by farmers who are market-oriented, cultivating their own or leased land but who are highly susceptible to poverty because of internal or external shocks. Generally, these producers are members of relatively strong and formal FOS which link them to markets. These farmers can also be involved in and post-harvest activities.

Individuals not associated to FOS, involved in starting **entrepreneurship**, such as agribusiness or **employment opportunities (30% of all beneficiaries)**- The rationale for this is the existence of a large portion of the population mostly youth not interested in on-farm production, but off-farm innovative income opportunities. People in this category live under the poverty line and are interested in entrepreneurial activities, that is, opportunities around farming including seed production, provision of services to farmers, processing, transport, trade, etc. in project supported VCs.

Cross cutting interventions will be offered to beneficiaries from all three groups, namely, nutrition and the Gender Action Learning System (GALS), as relevant.

70% of women, youth, PWDs and returning IDPs targeted will be poor subsistence and semi subsistence producers and poor (aspiring) entrepreneurs.

Overall, **women** will represent **40 percent of project beneficiaries (half of the women targeted will be WHH); 30 percent project will be youth aged 18-29 and 10% PWDs.**

Value chain crops. A robust crop selection approach was developed during the design of VCN, with: (i) incorporation of the FMAFS and State crop strategies, field consultations, and mainstreaming themes (women and youth, nutrition, climate and environment); (ii) development of criteria including, importance to food security and nutrition, market orientation, and potential for inclusion of target groups, and weights for scoring of the VC crops; and (iii) development of a potential crops basket with a mix of: **Staple foods for food security (Sorghum, Maize, Rice or Millet), Cash crops for incomes (Cowpeas, Sesame, Groundnuts or Soyabean), and Horticulture crops to improve dietary diversity and health (Fruits, Vegetables).** For effectiveness, the VCN will support a maximum of seven crops, with each state prioritizing a maximum of five crops based on its context and comparative advantage.

2.2 Basic Facts about the project area

Poverty: According to the Nigeria Multidimensional Poverty Index 2022³⁶, 63% of Nigerians (133 million people) are multidimensionally poor with 65% (of the multidimensionally poor) living in the North and 72% in rural areas. The average poverty headcount in the 9 VCN project states 78.29% (about 48.6million people). The poverty headcount is higher than the national average in all the states. Sokoto (90.5%), Jigawa (84.3%), Yobe (83.5%), and Kebbi (82.2%) had the highest poverty headcounts. Kano (66.3%) had the lowest poverty headcount.

Sn	State	Geopolitical region	Estimated Population	Land Area (km2)	Multidimensionally poor	Poverty Headcount (%)	Poverty intensity (%)	Prev of monetary poverty (%)	Average HH size
1	Bauchi	NE	7,700,000	49,119	5,710,000	73.9	40.4	29.8	
2	Borno	NE	3,100,000	72,609	2,250,000	72.5	43.4	31.5	
3	Jigawa	NW	6,800,000	23,287	5,760,000	84.3	45.7	38.5	
4	Kano	NW	15,900,000	20,280	10,510,000	66.3	40.8	27	
5	Katsina	NW	9,500,000	23,561	6,920,000	72.7	41.7	30.4	
6	Kebbi	NW	5,200,000	36,985	4,280,000	82.2	46.8	38.5	
7	Sokoto	NW	6,400,000	27,825	5,810,000	90.5	45.2	40.9	
8	Yobe	NE	3,900,000	46,609	3,230,000	83.5	44.3	37	
9	Zamfara	NW	5,300,000	37,931	4,170,000	78	42.1	32.8	
	Total/Average		63,800,000	338,206	48,640,000	78.2	43.4	34.0	
	National		211,000,000	909,890	133,000,000	62.9	40.9	25.7	
	% of national average		30.2	37	36.6	15.3	2.5	8.3	

Source: NBS (2022): Nigeria Multidimensional Poverty Index (2022).

<https://nigerianstat.gov.ng/elibrary/read/1241254>

NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

Age, gender, education, reliance on rainfed agriculture and shocks are the primary drivers of poverty in Nigeria³⁷. Young people and those with lower levels of education are common among the poor due to lacking capital and not having the means to engage in lower risk or diversified income generating streams. Women with young children are likely to be poorer than their male counterparts due to the combined effects of gender norms, being youth and their multiple responsibilities. External shocks such as the negative effects of climate change, low resilience and conflict have profound effects on HH wellbeing. Also, 65% of people living in the North of the country are multidimensionally poor, that is, affected with deprivations associated to health, education, living standards, employment, and shocks³⁸.

Gender. Women and girls represent half of Nigeria's population with women accounting for about 49,3% of the population. Gender inequalities remain pervasive in Nigeria, fueled by traditions, customs, gender stereotyping and cultural prejudice. According to the OECD's Social Institutions and Gender Index (SIGI), Nigeria is among the top 10% of countries worldwide that exhibit the highest levels of gender discrimination. Nigeria also falls in the group of countries with the highest gender inequality in human development outcomes with a Gender Development Index value of 0.868 and is classified in group 5,

³⁶ NBS (2022): Nigeria Multidimensional Poverty Index (2022). <https://nigerianstat.gov.ng/elibrary/read/1241254>

³⁷ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

³⁸ Ibid.

which includes countries with very low levels of human development³⁹. While the participation of women in agricultural value chains is generally low compared to male participation, women are overrepresented as unpaid family members engaged in farming. Women involved in farming are mostly working in the areas of harvesting, processing, and marketing of farm produce⁴⁰.

Women face the challenge of lack of access to land for production more than their male counterpart. Access to capital/credit, limited access to information on project opportunities and poor literacy also limit women's participation in agricultural development projects and ownership of businesses in agricultural value chains. According to a World Bank study in 2019⁴¹, approximately 28 percent of girls between the ages of 15-19 are already married, and 23 percent in that age group are already mothers or pregnant with their first child. The incidence of early marriage and childbearing is even higher in the states of the semi-arid northern Nigeria with the youngest ages of marriage seen in the Northwest, Northeast, and North Central regions. Early childbearing is strongly correlated with maternal and child mortality. Millions of adolescent girls (10-19 years)⁴² are currently out of school; they have never enrolled or dropped out early. According to the NLSS 2019/2019, approximately 7% of girls ages 15-19 are out-of-school in Northern states. The low proportion of girls attending secondary schools is particularly concerning, given that attaining this level of education is associated with fewer unwanted pregnancies and reduced infant mortality.

Youth. Generally, Nigeria has one of the youngest and largest working-age populations in the world. Youth in Nigeria constitute people aged between 15-29 years according to the new youth policy (2019)⁴³ and make up the largest demographic group after children, accounting for 23 percent of the total population at 41 million, a figure that is set to rise to 84 million by 2050⁴⁴.

The International Labour Organization estimates that some 60% of young people between the ages of 15 - 24 in Nigeria are in working poverty⁴⁵, youth unemployment (15-35 years) 42.5% and underemployment rate 21%⁴⁶. Engagement of youth in agriculture is a priority for the government. Youth have an untapped potential to become the food producers of the present and the future. However, targeting youth often focuses on male youth of different ages because they are more visible than female youth, especially in more conservative communities. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Youth with education are thus a low hanging fruit. Without deliberate efforts rural youth with low education, especially females can often be missed by development interventions.

A large segment of the youth is in northern Nigeria where both youth unemployment and underemployment are higher due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. Not enough jobs are being created for the youth, who are characterized by lower human capital relative to adults.

Fragility and conflicts. Nigeria is listed by the World Bank Group as one of 37 "fragile and conflict-affected" countries⁴⁷. Nigeria has a situation described as a "complex crisis" with a "very high" risk index (at 6.5) by the INFORM Risk Index Report for 2021⁴⁸. The

³⁹ Country Partnership framework Nigeria FY21-FY25 World Bank Group

⁴⁰ Thompson, O. A., and Amos. T. T. (2016): Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June 2016, Aarhus, Denmark

⁴¹ ditto

⁴² Definition: padata.org

⁴³ Federal Republic of Nigeria. National Youth Policy (2019-2023). Enhancing Youth Development and Participation in the context of Sustainable Development.

⁴⁴ World Bank Group, 2019. Nigeria on the Move: A Journey to Inclusive Growth. Nigeria Systematic Country Diagnostic. June 2019.

⁴⁵ Based on ILO estimates (percentage of employed living below US\$1.90 PPP).

⁴⁶ NBS, 2021. Q4 2020 Unemployment Report <http://nigerianstat.gov.ng/elibrary> Accessed 1st January 2024.

⁴⁷ <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>

⁴⁸ Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

World Risk Index report for Nigeria also has a very high rating of 12.66⁴⁹. Monguno (2021) notes that Nigeria's Global Peace Rating has slid, and poor governance has contributed. For more than a decade the Boko Haram insurgency in the **northeast** and banditry and kidnapping in the **northwest**, have been growing problems. This is also complemented by the increasing farmer-herder conflict as populations have risen and natural resources have become increasingly contested. Discussions with stakeholders in Sokoto state suggest that access to a significant proportion of arable lands in the state has been cut-off by Bandits occupation, thus depriving farmers of good arable land for farming. Conflict in the semi-arid northern Nigeria is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, which are in turn exacerbated by population growth and poverty. As in any conflict situation, women (and children) have been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps. The conflicts also stem from stake for land ownership, distribution of resources, corruption, proliferation of arms and ethnic and religious tensions.

Fragility Stressors: Field scoping suggests that resource conflicts linked to climate, environment and natural resource management is a strong stressor of fragility with significant impact on the smallholder farmers. Substantial fragility stressors have been identified to include flood, drought, land degradation, conflicts over land, soil, water, and biodiversity losses. Social-economic stressors including politics, state of the economy, migration, security, and safety also pose considerable stress on fragility.

Fragility Drivers: Poverty, unemployment, lack of youth empowerment, and failed policies are significant fragility drivers across the nation. Others include climate change, resource decline, grazing lands and routes, population, family value, poor infrastructure, ungoverned spaces, political activities, activities of non-state actors, development imbalance, inequality, and corruption. These have significant impacts on the smallholder farmers in multiple ways with resultant low productivity, loss of investments, lack of access to funds and heightened insecurity.

Addressing the issues: Addressing fragility in the country requires multisectoral and cross-cutting policy implementation and across government levels. It is generally believed that policy and institutions to address state fragility are present in Nigeria. These include policies on national security, youth employment and empowerment, agriculture, social development, etc. However, implementation of policies and activation of institutions to address fragility have not been effective. In addition to continuing with mainstreaming environment, natural resource management, climate change, and social inclusion (including community participatory actions) into projects and programs delivery, VCN can contribute to addressing the drivers and causes of fragility through deepened policy dialogue and engagements aimed to strengthen policy implementation and institutional service delivery across sectors.

Nutrition and food security: Despite the robust policy environment for nutrition improvement in Nigeria⁵⁰, the country still grapples with the triple burden of malnutrition⁵¹. According to NDHS (2018)⁵², 37% of all children under five years are stunted which is higher than the Africa average of 30.7%⁵³. Additionally, 7% of children under five years are wasted while 22% are underweight. Children are mostly affected by undernutrition during the first 1000 days of life as evidenced by increase in prevalence of stunting from 19% by 6 months of age to 47% by 24 months of age. High prevalence of malnutrition is

⁴⁹ World Risk Report, 2021. Bündnis Entwicklung Hilft, Ruhr University Bochum - Institute for International Law of Peace and Conflict 2021. <https://weltrisikobericht.de/weltrisikobericht-2021-e>.

⁵⁰ Refer to the Nutrition Technical Annex, VCN PDR, 2023 for detailed description of Policy framework for food and nutrition security

⁵¹ Triple burden of malnutrition comprises under-nutrition, over-nutrition, and micronutrient deficiencies.

⁵² Nigeria Demographic Health Survey, 2018

⁵³ Global Nutrition Report for Nigeria, accessed online in December 2023 at <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

more predominant in the Northern states where stunting rates are higher than country average. Generally, the prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively)⁵⁴.

Anaemia affects children and women in the rural areas more than in urban areas. The NDHS shows that 68% of children below five years and 58% of women of reproductive age (15-49) are anaemic⁵⁵. Dietary diversity is poor among women and children while feeding practices are sub-optimal. Only 11% of all children under five years were fed a minimum acceptable diet. The proportion of women who consumed five or more food groups is lower in the northern zones⁵⁶ than in the southern zones⁵⁷ with the lowest proportion reported in the North Central zone (47%). Children in the northern zones consume fewer foods rich in vitamin A and iron than those in the southern zones.

According to the Integrated food security Phase Classification (IPC) Acute Malnutrition Analysis report, May 2023-April 2024⁵⁸, nearly 4.4 million children under five in northwest and northeast Nigeria are estimated to suffer from acute malnutrition from May 2023 through April 2024. This translates to 1.04 million cases of Severe Acute Malnutrition (SAM), and 3.37 million cases of Moderate Acute Malnutrition (MAM). In addition, nearly 600,000 pregnant and lactating women also face acute malnutrition and require immediate treatment.

Out of the 133 Local Government Areas (LGAs) analyzed by IPC in northern Nigeria, more than half are classified in either IPC Acute Malnutrition Phase 3 (Serious) or IPC Acute Malnutrition Phase 4 (Critical). In the Northeast geopolitical zone, 14 out of 62 analyzed LGAs were classified in Phase 3 while in the Northwest, 12 and 46 LGAs out of the 71 surveyed were found to be in Phase 4 and 3 respectively (Figure 2). The high-risk contributing factors to acute malnutrition in northeast and northwest Nigeria include very poor food consumption (quantity and quality), poor health seeking behaviours, poor health services, sub-optimal feeding practices, food insecurity, poor access to water, sanitation, and hygiene (WASH) services and facilities. In addition, banditry, population displacement and insecurity limits access to vulnerable populations thus amplifying acute malnutrition.

Between May and September 2023, the LGAs in the Northeast classified in IPC AMN Phase 3 were: 10 in Borno (Damboa, Gubio, Jere, Kaga, Konduga, Mafa, Magumeri, Marte, Monguno and Maiduguri) and 4 in Yobe (Machina, Nguru, Yunusari and Yusufari). In the same period, LGAs in Northwest Nigeria classified in phase 4 include: 11 in Sokoto (Bodinga, Dange-Shuni, Sokoto-North, Sokoto-South, Wamakko, Binji, Shagari, Kebbe, Tambuwal, Tureta and Yabo) and 1 in Katsina (Kankia); while those classified in Phase 3 were: 12 in Sokoto (Gudu, Silame and Tangaza, Goronyo, Isa, Rabah, Sabon-Birni, Gada, Gwadabawa, Kware, Illela and Wurno); 30 in Katsina (Batagarawa, Batsari, Jibia, Kaita, Katsina, Kurfi, Rimi, Dutsinma, Danmusa, Safana, Daura, Sandamu, Baure, Mai'aduwa, Zango, Bindawa, Charanchi, Dutsi, Mashi, Mani, Dandume, Faskari, Funtua, Sabuwa, Bakori, Danja, Kafur, Kankara, Malumfashi and Ingawa); and 4 in Zamfara (Gusau, Bukkuyum, Shinkafi and Zurmi).

The projected acute malnutrition situation between October to December 2023 (lean malnutrition season) was expected to remain the same with very few exceptions in Northeast Nigeria: Mafa LGA will improve from IPC AMN Phase 3 (Serious) to IPC AMN Phase 2 (Alert); Mobbar and Nganzai LGAs classified in Phase 2 in the peak malnutrition season, May to September 2024, are likely to deteriorate to Phase 3. In Northwest, no

⁵⁴ Nigeria Demographic Health Survey, 2018

⁵⁵ Ibid

⁵⁶ Northern zones include North Central, North East, and North West

⁵⁷ Southern zones include South East, South South, and South West

⁵⁸ NORTH EAST & NORTH WEST NIGERIA: IPC Acute Malnutrition Analysis Report, May 2023 - April 2024. *Published on October 17, 2023.*
<https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156630/?iso3=NGA>

improvement was expected during the lean malnutrition season. The second projected acute malnutrition situation between January to April 2024 (seasonally the low acute malnutrition season) shows a likely worsening of level of acute malnutrition in the affected LGAs in both Northeast (Mafa (in Borno) and Geidam (in Yobe) are expected to deteriorate from IPC AMN Phase 2 (Alert) to IPC AMN Phase 3 (Serious)) and northwest (8 LGAs will be in Phase 4: Bodinga, Dange Shuni, Sokoto North, Sokoto South, Wamakko, Gwadabawa, Illela, and Kankia) as depicted in figure 2. The major contributing factors are limited access to farmlands during farming season because of insecurity/banditry and the ensuing displacement of people as well as the Niger Republic border closure which has impacted trading and economic activities in the region. This may lead to the displacement of more people into neighboring LGAs in Sokoto, Katsina and Zamfara States. Therefore, the depletion of food reserves during the projection period of January to April 2024 is expected and may contribute to worsening the level of acute malnutrition.

VCN intends to be Nutrition-Sensitive. In keeping with food and nutrition insecurity recommendations from the most recent studies done in Northern Nigeria⁵⁹, VCN will seek to leverage opportunities presented in these multi-sectoral recommendations to define entry points and impact pathways to nutrition.

2.3 Goal, Objectives and Impact indicators

Project Goal and Development Objective:

The overall **goal** of the VCN is to: *contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.*

The **programme development objective** (PDO) is to *improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.*

Specific objectives. The objectives are:

- a. increase sustainable production and productivity of SHFs and MSMEs in Northern Nigeria.
- b. Strengthen the adaptive capacity and resilience of smallholder farming households.
- c. strengthen value addition, nutrition, and access of project beneficiaries to markets.
- d. support the capacity development of existing and new Farmer's Organizations, rural institutions.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and

⁵⁹ NORTH EAST & NORTH WEST NIGERIA: IPC Acute Malnutrition Analysis Report, May 2023 - April 2024. Published on October 17, 2023.

<https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156630/?iso3=NGA>

FEWS NET. Nigeria Key Message Update November 2023: Below-average harvest and poor macroeconomy sustain Crisis (IPC Phase 3) or worse outcomes in north, 2023.

Cadre Harmonize for Identification of Food and Nutrition Insecurity Risk Areas and Vulnerable Populations in 26 States of Nigeria and Federal Capital Territory (FCT), 3rd November, 2023.

- Improved policy and institutional framework

Programme Components: To achieve its objectives, the VCN programme is organized around three operational components with components 1 and 2 supported by subcomponents:

Component 1: Foster climate resilient and nutrition sensitive. This component aims at achieving two outcomes: (i) improved productivity, climate adaptive capacity and resilience of smallholder farmers (SHFs) farming systems in the target VCs; and (ii) improved diet quality and nutrition awareness of target rural HHs. The outcome indicators for Component 1 are: *1.2.4 HHs reporting an increase in production*, and *3.2.2 HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices*. The component consists of three subcomponents.

Component 1 is supported by 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices.*

Subcomponent 1.3: *Improve access to finance and scale access to digital financing*

Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs. This aims at achieving three outcomes: (i) improved post-harvest handling, value addition and access to markets in supported VCs; (ii) increased business and entrepreneurial opportunities for youth and women along the target VCs; and (iii) improved policy/institutional framework for poverty reduction, food and nutrition security, and gender equality. Nutrition will be enhanced by promoting nutrition sensitive VCs, food safety, packaging, and labeling. The outcome indicators for Component 2 are: *2.2.2 Supported rural enterprises reporting an increase in profit*, *2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities*, *2.2.6 HHs reporting improved physical access to markets, processing and storage facilities*; *2.2.1 Persons with new jobs/employment opportunities*; *Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment*. The component comprises four subcomponents.

Component 2 is supported by 4 subcomponents:

Subcomponent 2.1: *Improve post-Harvest and Value addition*

Subcomponent 2.2: *improve market linkages and partnerships with VC actors*

Subcomponent 2.3: *Promote entrepreneurship and employment of Women and Youth*

Subcomponent 2.4: *promote an enabling policy and institutional framework*

Component 3: Programme Coordination & Management. The expected outcome of this component is: an efficiently and effectively managed programme achieving results, with the core mainstreaming themes and M&E and KM integrated in all aspects of operations. This component establishes the guidelines and actions for programme management.

Impact Indicators

The key monitoring indicators to track VCN impacts include the following:

Key indicators	Target (No of Household members)
Outreach: Persons receiving services promoted or supported by the project	2,471,520
Goal: Households reporting improved livelihoods and reduction in poverty	1,359,336
Development Objective: CI 1.2.8: Women reporting minimum dietary diversity (MDDW)	519,019
CI 1.2.2: Households reporting adoption of new/improved inputs, technologies, or practices	1,482,912
CI 3.2.2: Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices	1,482,912
CI 1.2.5: Households reporting using rural financial services	81,300
CI 1.1.3: Rural producers accessing production inputs and/or technological packages	456,000
CI 3.1.2: Number of persons provided with climate information services	456,000
CI 3.1.4: land brought under climate-resilient management (Ha)	17,500
CI 1.1.2 Farmland under water-related infrastructure constructed/rehabilitated (Ha)	7,756
CI 1.1.5: Number of persons in rural areas accessing financial services	15 000
CI 1.1.8: Households provided with targeted support to improve their nutrition	1,730,064
CI 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities (Number)	5,400
CI 2.2.6: Households reporting improved physical access to markets, processing and storage facilities	1 730 064
CI 2.1.3: Rural producers' organizations supported	456,000
CI 2.1.6: Market, processing, or storage facilities constructed or rehabilitated (Number)	218

2.4 Project implementation structure

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Honourable Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year. At the state level, a **State Project Steering Committee chaired** by the Honourable Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

2.5 Other potential partnerships and co-financing plan

The VCN project is co-financed the France Development Agency (AFD), as well as contributions from the Federal and State Governments as well as beneficiaries' contributions.

VCN will be implemented over an 8-year period. Preliminary costs are estimated at US\$ 114 million, with IFAD contributing US\$ 56 million, AFD co-financing US\$ 50 million, Government, US\$ 6 million and project beneficiaries through in-kind US\$ 2 million. A preliminary costing is outlined in the Table below.

Components	Budget Allocation in US\$ (million)	IFAD (million)	AFD (million)	Govt/Ben (million)	%
Component 1: Foster climate-resilient and nutrition-sensitive agriculture for food security.	27.1				23.8
Subcomponent 1.1: Promoting sustainable agricultural systems, improved technology and climate-resilient agricultural practices	18.1	11.6	5	1.5	15.9
Subcomponent 1.2: Improving access to finance and digital financing solutions	9	6	2.5	0.5	7.9
Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs.	69.8				61.2
Subcomponent 2.1: Improving the marketing of the selected agricultural products.	26.5	15	10	1.5	23.2
Subcomponent 2.2: Reducing post-harvest losses and promoting processing agricultural products.	32.3	10	20	2.3	28.3
Subcomponent 2.3: Enabling environment and Policy Support.	11	5	5	1	9.7
Component 3: Programme Coordination & Management	17.1	8.4	7.5	1.2	15
Total	114	56	50	8	100

2.6 Lesson Learned on Social, Environment and Climate Risk

Climate and Environment: VCDP and CASP experience shows that partnership with the Nigerian Meteorological Agency for climate information works. VCN will partner with the insurance organizations and NIMET to buffer against crop failure arising from weather uncertainty/climate change including flooding. It will also ensure that market infrastructure is climate smart. The use of climate resilient planting materials and environmental sustainability initiatives will be promoted.

Fragility and Conflicts: The rising farmers and herdsman conflict for land resources is increasing risk of production. The VCN will provide resources to study and analyze the features of the conflict to proffer solution. It will also deepen policy dialogue on conflicts and facilitate government engagement with key partners including the farmers, herders, and other actors.

Gender mainstreaming: VCN will strive to be gender transformative and ensure that the Gender Action Learning System (GALS) is promoted to provide a community-led empowerment methodology that strengthens communication and win-win collaboration

between vulnerable and more powerful value chain actors and scale-up initiatives of targeting women's only groups to create balance in gender involvement.

Enhance youth in agriculture: VCN is youth sensitive and will help scale-up the youth-in-agriculture model and create decent job opportunities for the rural youth and continue to earmark a percentage of the matching grants to stimulate youth participation (both female and male) in entrepreneurial activities for the VCs.

Nutrition: VCN is nutrition sensitive and in line with the dietary objectives, activities to mainstream nutrition along the different stages of selected value chains will be strengthened. Sensitization and change communication campaigns including on nutritional value of different crops; bio-fortification, aflatoxin control for production of safe foods, post-harvest, safe use of chemicals, labor-saving processing for women, etc. will be mainstreamed.

2.7 Key issues identified on climate, social and environmental management

The ESCMF risks focus mainly from: farm production and agro-processing, market infrastructure, water supply and irrigation development, and market infrastructure.

Some specific risks identified during the design mission and in the VCDP ESMF targets include:

- climate shocks -including flood and drought
- deforestation and excessive reliance on fuel wood and charcoal
- security and conflicts - including insurgency, communal clashes, farmers-herdsmen conflicts, and armed robbery, banditry, and kidnapping.
- inadequate participation of women especially in leadership positions in VCs
- farmers unwillingness to participate in the learning workshops.
- inadequate adoption of improved agricultural practices.
- market infrastructure - access impeded by poor roads.
- Hijacks - elite hijacks of project infrastructure; pressure from the government and/or local elites on the PMU/SPMU to locate roads to non-VC linked or priority areas
- Exclusions - Unemployed youth group and poor women unable to contribute matching grants.
- Grievances - intra-group disputes and protecting women from GBV, SEA/SH
- Others - theft/ pilfering, fire outbreak

The major identified environmental risks/impacts include:

- Market infrastructure construction - noise and vibrations, surface and ground water quality including rivers siltation , occupational hazard and safety, traffic, damage to infrastructure
- Production - degradation of arable lands, biodiversity loss, visual effects, waste management, soil erosion and flooding vulnerability and landscape change.
- Social – displacement, isolation of settlements, seasonal migration/influx, gender inequality, damage to physical cultural resources (PCR).

2.8 Environmental and Social category

The **VCN's** Environmental and Social Category is rated as a '**SUBSTANTIAL**' based on the IFAD Environmental and Social Safeguards Screening Checklist in the ORMS (the details are contained in the SECAP on Annex 5 and in the PIM). VCN is a natural resource dependent value chain project, which include agricultural intensification and/or expansion of crop production clusters in non-sensitive areas as well as the

development of medium-sized agro-processing centres. The risk of VCN leading to primary not environmentally sustainable production of living natural resources through the cultivation of annual crops is substantial. Other potential environmental impacts are limited, site-specific and constrained to production and agro-processing facilities. These include unsustainable land management, agrochemical use and management issues, unsustainable draw down of groundwater resources from tubewells irrigation, the use of firewood in processing, waste management, unhealthy working environment, risks from construction of market infrastructure including market-connected feeder roads, small-scale irrigation structures, and drainage development (including small earth dams, tube-well and watering points). The risks of biodiversity losses and physical and economic displacement is low.

The **Environmental, Social and Climate Management Framework (ESCMF)** and **Environmental, Social and Climate Mitigation Plans (ESCMP)** will guide mitigation/remediation/considerable reduction of potential risks as appropriate. Sub-project-specific **Environmental and Social Management Plan** will be required for land development and development of market Infrastructure on case-by-case basis. VCN is not likely to have any severe negative impacts on the livelihoods of other peoples including involuntary taking or restriction on the use of land resulting in physical or economic displacement. The project is not envisaged to negatively affect indigenous peoples or sites of historic, religious, or cultural significance. VCN will not support the opening of lands in virgin forests, sensitive areas, and protected areas (including national parks, forest reserves, important bird areas and wetlands of significance). It will not support clearing of contiguous areas of above 100 ha in a single location. The mitigation options proposed for environmental concerns will provide opportunities to mainstream environment and climate-resilient production and processing systems and creating additional value chains (such as making use of waste) within the existing system without extensive additional costs.

The social risk is also **Substantial** across the states due to insurgency, banditry, and kidnapping by non-state actors, as well as resource conflicts (especially between farmers and pastoralists) and related threats to human security. The VCN will build on existing channels including CAF and the CDAs, as well as LGA conflict resolution committee established by government in some of the states to deepen conflict resolution. It will also support mechanism to compensate farmers and processor for conflict-related damages. Access to land by women also pose a challenge. VCN will prioritize women in targeting and support policy dialogue on land reform as a mitigation strategy for both land access for women and conflict management. As much as possible, VCN will promote framework to discourage child labour and unpaid women labour (within the ambit of the national labour law), minimize migrant labour influx, sensitize on community health and safety, discourage elite capture, and established an open and well publicised grievance reporting channel and redress mechanism.

VCN will also develop an Integrated Pest Management Plan (IPMP), and Labour Assessment and Management Plan (LAMP) at the early stage of implementation of the project.

The Financial Intermediaries (including the Central Bank of Nigeria and some local money deposit banks) will be required to submit their environmental and social governance (ESG) framework at the early stage of implementation of the project. The Co-financier (AFD) will also be required to disclose their ESG framework to ensure compliance with IFAD's SECAP framework.

3. LEGAL, INSTITUTIONAL AND REGULATORY FRAMEWORK FOR ENVIRONMENTAL, SOCIAL AND CLIMATE ASSESSMENT AND AGRIBUSINESS IN NIGERIA

3.1 Legal Framework

3.1.1 Constitution of the Federal Republic of Nigeria (1999)

The **1999 constitution of the Federal Republic of Nigeria**⁶⁰ (as amended) clearly stipulates states that “the State shall protect and improve the environment and safeguard the water, air and land, forest, and wildlife of Nigeria, as well as protects, preserve, and promote the Nigerian cultures and values. The **Landuse Act 1978**⁶¹ vested all land in the territory of each State of the Federation in the Governor of that State to be held in trust and administered for the use and common benefit of all Nigerians. The LGA is vested with the power to administer lands in rural areas and to grant customary rights of occupancy for the use for agricultural (no more than 500ha), grazing (no more than 5,000ha), residential and other purposes.

3.1.2 The Land Use Act (1978)

Subject to the provisions of this Act, all land comprised in the territory of each State in the Federation is vested in the Governor of that State and such land shall be held in trust and administered for the use and common benefit of all Nigerians. The Act also states in section 6 that “it shall be lawful for a Local Government in respect of land not in an urban area:

- a. to grant customary rights of occupancy to any person or organization for the use of land in the Local Government areas for agricultural, residential, and other purposes.
- b. to grant customary right of occupancy to any person or organization for the use of land for grazing purposes and such other purposes ancillary to agricultural purposes as may be customary in the Local Government area concerned.

However, no single customary right of occupancy shall be granted in respect of an area of land more than 500 hectares if granted for agricultural purposes, or 5,000 hectares if granted for grazing purposes, except with the consent of the Governor.”⁶²

3.1.3 Environmental Impact Assessment (EIA) Act (1992)

The **Environmental Impact Assessment (EIA) Act 1992**⁶³ provides mandatory EIA study for all developmental projects to determine the possible environmental effects of the proposed project. Mandatory study is required for land development schemes covering an area of 500ha or more, agricultural estates covering an area of 500ha or more, drainage of wetland, wild-life habitat or of virgin forest covering an area of 100ha or more, land based aquaculture projects accompanied by clearing of mangrove swamp forests covering an area of 50ha or more, irrigation schemes covering an area of 5,000 ha or more, conversion of hill forest land to other land use covering an area of 50 hectares or more, and conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 ha or more.

⁶⁰ Constitution of the Federal Republic of Nigeria, LFN 1999. <http://www.lawnigeria.com/CONSTITUTIONHUB/Constitution.html>

⁶¹ Land Use Act Cap L.5, 2004, upheld by Chapter VIII, Section 315(5) of the Constitution (1999).

⁶² Land Use Act Cap L.5, 2004, upheld by Chapter VIII, Section 315(5) of the Constitution (1999).

⁶³ Environmental Impact Assessment (EIA) Act (1992), Section 12.

An environmental impact assessment shall be required where a Federal, State or Local Government Agency Authority established by the Federal, State or Local Government Council -

- is the proponent of the project and does any act or thing which commits the Federal, State or Local Government authority to carrying out the project in whole or, impact.
- makes or authorizes payment or provides a guarantee for a loan or any other form of financial assistance to the proponent for the purpose of enabling the project to be carried out in whole or in part.⁶⁴

Any person who fails to comply with the provisions of this Decree shall be guilty of an offence under this Decree and on conviction in the case of an individual to N 100,000 fine or to five years' imprisonment and in the case of a firm or corporation to a fine of not less than N50, 000 and not more than N 1,000,000.

3.1.4 Nigeria Climate Change Act 2021

The Nigeria Climate Change Act 2021⁶⁵ provides a framework for mainstreaming of climate change actions, a system of carbon budgeting, and the establishment of the National Council on Climate Change as well as framework for achieving low GHG emission objectives.

3.1.5 Water Resources Act (2004)

The Water Resources Act is targeted at developing and improving the quantity and quality of water resources. **Sections 5 and 6** provides authority to make pollution prevention plans and regulations for the protection of fisheries, flora, and fauna.⁶⁶

3.1.6 Nigeria Labour Law (1990)

The use of child labourers on farms by smallholder farmers is permitted by the Nigeria Labour Act 1990⁶⁷. Section 59(1a) of the Nigerian Labour Law 1990 states that: *No child shall be employed or work in any capacity except where he is employed by a member of his family on **light work of an agricultural, horticultural, or domestic character.*** Section 59 (3) further states: **A young person under the age of fourteen years may be employed only- (a) on a daily wage; (b) on a day-to-day basis; and (c) so long as he returns each night to the place of residence of his parents or guardian, or a person approved by his parents or guardian.**

3.1.7 Nigerian Child Rights Act 2003

Section 28(1b) of the Child Rights Act 2003⁶⁸ is in concurrence with the Nigerian Labour Act 1990 on use of child labourers on farms by smallholder farmers.

⁶⁴ Environmental Impact Assessment (EIA) Act (1992), Section 13. <http://www.lawnigeria.com/Federationlaws-ALL.html>

⁶⁵ Climate Change Act 2021

⁶⁶ **Water Resources Act, CAP W2, LFN 2004.**

⁶⁷ Labour Act. Chapter 198, Laws of the Federation of Nigeria 1990

⁶⁸ Child Rights Act 2003. Act No. 26

3.2 Institutional Framework

3.2.1 The Federal Ministry of Environment⁶⁹

The Mission of the Federal Ministry of Environment is to ensure environmental protection, natural resources conservation and sustainable development in Nigeria. The ministry has the mandate to secure a quality environment conducive to good health and well-being of fauna and flora; promote sustainable use of natural resources; restore and maintain the ecosystem, ecological process and preserve biodiversity; raise public awareness and promote understanding of linkages of the environment; and cooperate with relevant Ministries/ Departments/ Agencies, the private sector, NGOs, and international organizations on environmental matters.

The main function of the Ministry revolves around the following environmental areas of policy awareness, enforcement, and intervention:

- a. desertification and deforestation.
- b. pollution and waste management.
- c. climate change and clean energy.
- d. flood, erosion, and coastal management (shoreline protection)
- e. environmental standards & regulations.

The Ministry's focus areas are:

- reclamation and rehabilitation of degraded land.
- biodiversity conservation and eco- tourism.
- effective waste management.
- mitigating the effects of climate change.
- effective environmental governance.

The Environment Assessment (EA) Department is the department most relevant to ESIA issues. The EA Department is divided into the Environmental Impact Assessment (EIA) Division, the Standards and Monitoring (S&M) Division and the Oil and Gas (O&G) Division.

Environmental Impact Assessment (EIA) Division

The EIA Division is charged with the mandate of implementing the provisions of the EIA Act No. 86 of 1992. The Act requires that proponents (public or private) of major development projects should subject their projects to the provisions of the EIA Act. The EIA Division is made up of three branches and their activities are as follows:

- the Planning, Policy, and Registry (PPR) Branch is responsible for the registration of new projects, EIA revenue recording, co-ordination of training, workshops, conferences, seminars, EIA budget and the site verification of new projects.
- the Evaluation and Analysis Branch (EA) is responsible for EIA scoping, risk assessment and the review/evaluation of terms of references and EIA reports.
- the Impact Mitigation Monitoring (IMM) Branch is responsible for monitoring impact mitigation of approved projects, EIA auditing, and the post-impact assessment of projects.

Standards and Monitoring Division

This Division has three branches, including Environmental Standards and Audit, Laboratory Services and Environmental Research Studies and Ecotoxicology with the following mandate:

- development and review of national guidelines and standards for air, water, and soil.
- development and review of national guidelines on environmental management systems and environmental audit.

⁶⁹ <http://www.environment.gov.ng/about.html>

- accreditation of environmental laboratories.
- provision of laboratory services to other technical departments within the ministry.
- review and certification of environmental audit reports of industries and corporate organizations.

Oil and Gas Division

The activities of the Oil and Gas Division include monitoring, evaluation, and enforcement of environmental regulations in the oil and gas sector.

3.2.2 National Agricultural Land Development Authority (NALDA)

The objectives of the National Agricultural Land Development Authority (NALDA)⁷⁰ are to:

- provide strategic public support for land development which presently constitutes a major infrastructural development bottleneck hindering the development of viable economic farm holdings.
- promote and support optimum utilization of Nigeria's rural land resources for accelerated production of food and fiber.
- encourage and support economic-size farm holdings and promote consolidation of scattered fragment holdings to generate net income from agriculture which is aimed at sustaining living standards above the poverty line and thereby narrow rural-urban income inequalities.
- encourage the evolution of economic-size rural settlements that will reap the economies of scale in the provision of social infrastructures.
- provide gainful employment opportunities for rural people, raise rural incomes, and improve on the general living standards in rural areas.
- expand productive capacity in agriculture and regain export capability in traditional and non-traditional crops.
- contribute significantly towards the attainment of a national food and fiber self-reliance, self-sufficiency, and national food security through optimum utilization of available abundant land resources which ensures minimum soil and environmental degradation, while simultaneously promoting sustainable agriculture.
- facilitate appropriate cost-effective mechanization of agriculture; and
- institute strategic land use planning schemes to deal with major allocation problems including the creation and location of forest and grazing reserves and other areas with restricted use, and the re-location of population, should this be necessitated by localized population explosion, pressure, or national disasters.

3.2.3 National Environmental Standards and Regulation Enforcement Agency (NESREA)

Administered by the Federal Ministry of Environment, the National Environmental Standards and Regulation Enforcement Agency (NESREA) Act of 2007 replaced the Federal Environmental Protection Agency (FEPA) Act.⁷¹ It is the embodiment of laws and regulations focused on the protection and sustainable development of the environment and its natural resources.

The objectives of the Agency are to:

- enforce compliance with laws, guidelines, policies, and standards on environmental matters.
- coordinate and liaise with stakeholders, within and outside Nigeria, on matters of environmental standards, regulations, and enforcement.
- enforce compliance with the provisions of international agreements, protocols, conventions, and treaties on the environment, including climate change, biodiversity, conservation, desertification, forestry, oil and gas, chemicals, hazardous wastes, ozone

⁷⁰ National Agricultural Land Development Authority (NALDA) Act, CAP N4, LFN 2004.

⁷¹ **National Environmental Standards and Regulation Enforcement Agency (NESREA) Act. LFN 2007.**

depletion, marine and wildlife, pollution, sanitation, and such other environmental agreements as may from time to time come into force.

- enforce compliance with policies, standards, legislation and guidelines on water quality, environmental health, and sanitation, including pollution abatement.
- enforce compliance with guidelines and legislations on sustainable management of the ecosystem, biodiversity conservation and the development of Nigeria's natural resources.
- enforce compliance with any legislation on sound chemical management, safe use of pesticides and disposal of spent packages thereof.
- enforce compliance with regulations on the importation, exportation, production, distribution, storage, sale, use, handling and disposal of hazardous chemicals and waste other than in the oil and gas sector.
- enforce through compliance monitoring, the environmental regulations and standards on noise, air, land, seas, oceans, and other water bodies other than in the oil and gas sector.
- ensure that environmental projects funded by donor organizations and external support agencies adhere to regulations in environmental safety and protection.
- enforce environmental control measures through registration, licensing and permitting systems other than in the oil and gas sector.
- conduct environmental audit and establish a data bank on regulatory and enforcement mechanisms of environmental standards other than in the oil and gas sector.
- create public awareness and provide environmental education on sustainable environmental management, promote private sector compliance with environmental regulations other than in the oil and gas sector and publish general scientific or other data resulting from the performance of its functions.
- carry out such activities as are necessary or expedient for the performance of its functions.

3.3 Regulations

3.3.1 National Environmental (construction sector) Regulations (2011)

The purpose of these Regulations is to prevent and minimize pollution from Construction, Decommissioning and Demolition Activities to the Nigerian Environment. It states that:⁷²

1. New projects in the construction sector shall apply cost-effective, up-to-date, efficient, best available technology (BAT) to minimize pollution to the barest degree practicable.
2. Any operator applying new design techniques shall evaluate the proposed installations and ensure that control measures are sufficient to prevent risks of pollution or accident.
3. Every operator or facility shall: (a) carry out an Environmental Impact Assessment (EIA) for new projects or modification including expansion of existing ones before commencement of activity; (b) submit an Environmental Audit Report (EAR) of its project/ operational base on a three (3) yearly basis or as may be required by the Agency; and (c) submit an Environmental Management Plan (EMP) as contained in Schedule III.

3.3.2 National Environmental (Wetlands, River Banks and Lake Shores Protection) Regulations (2009)

The regulations state that the following principles shall be observed in regulating all wetlands:⁷³

- wetland resources shall be utilized in a sustainable manner compatible with the continued presence of wetlands and their hydrological functions and services.

⁷² National Environmental (construction sector) Regulations (2011).

⁷³ National Environmental (Wetlands, River Banks and Lake Shores Protection) Regulations (2009).

- the Environmental Impact Assessment (EIA), shall be conducted in accordance with the relevant laws on all activities in wetlands likely to have adverse effects on the wetlands.
- best practices shall be applied for the conservation of wetlands of international, national, and local importance as ecological systems and habitats for fauna and flora species, cultural and aesthetic purposes, as well as their hydrological functions, etc.
- wise use of wetlands shall be incorporated into the national and local approaches for the regulation of their resources through awareness campaigns and dissemination of information.

3.3.3 National Environmental (Protection of Watershed, Mountainous, Hilly and Catchment Areas) Regulations (2009)

The regulations states that:⁷⁴

- 1) Every land owner or occupier, while utilizing land in a watershed, mountainous, hilly or catchment area shall:
 - a. observe and respect the carrying capacity of the land.
 - b. carry out soil conservation measures.
 - c. carry out measures for the protection of water catchment areas.
 - d. use the best available environmentally friendly technologies to minimize significant risks and damage to ecological and landscape aspects; and
 - e. maintain adequate vegetation cover.
- 2) The Agency shall, with respect to watersheds, mountainous, hilly and catchment areas in a particular environment, control activities which are inconsistent with good land management practices especially in areas prone to landslides, floods, drought, desertification, siltation, heavy sediment loads, falling rocks, fires, and damage by wind.

3.3 Policies

3.4.1 National Agricultural Technology and Innovation Policy (2022-2027)⁷⁵

The National Agricultural Technology and Innovation Plan (NATIP) 2022-2027 replaces Nigeria’s Agriculture Promotion Policy 2016-2020. The NATIP aims to adopt technology-driven agriculture for sustainable national food security and nutrition, diversification, jobs creation and resilience. Ultimately, the plan generates innovative systems and processes for the development of high potential value chains and an improved agricultural investment climate.

NATIP noted that the Nigerian agriculture sector is largely subsistent with limited technology adoption, low application of good agronomic practices and limited access to quality inputs, finance and market, threat of climate change, poor nutrition, insecurity of agricultural land and investments and insufficient value addition and agro-industrial processing facilities. NATIP envisioned significant increase in Nigeria’s agricultural productivity through massive public and private investments in technology, innovation, and adaption of climate-smart practices. This is consistent with Nigeria’s commitment to developing agriculture by promoting private sector investments and a demonstrable path towards attaining the Sustainable Development Goals (SDGs) of eliminating poverty and zero hunger through inclusive growth, among others.

⁷⁴ National Environmental (Protection of Watershed, Mountainous, Hilly and Catchment Areas) Regulations (2009).

⁷⁵ Federal Ministry of Agriculture and Rural Development (2022): National Agricultural Technology and Innovation Policy 2022-2017.

NATIP is also designed to, among other things, accelerate the deployment of appropriate technologies and innovative techniques in agricultural production and processing. As part of the intervention, NATIP aims to pursue the establishment of Agricultural Development Fund (ADF) for sustainable funding for the agricultural sector. The ADF will act as a mega-funding agency that will channel the required funds into agricultural research and training institutions, technology adoption, innovation, critical value-chains development, rural agricultural development, and other key investments in the sector. To strengthen agricultural lending and insurance, NATIP will harmonize the programs and activities of Central Bank of Nigeria (CBN) and the Nigeria Incentive-based Risk Sharing Agricultural Lending (NIRSAL) with that of the Bank of Agriculture (BoA), Nigerian Agricultural Insurance Corporation (NAIC), commercial banks and other lending institutions to overcome the present operational and financing challenges facing the agricultural sector. Financing for smallholder farmers' adaptation and mitigation activities was not specifically mentioned.

3.4.2 National Policy on the Environment (Revised 2016)⁷⁶

The goal of the National Policy on the Environment is to “*ensure environmental protection and the conservation of natural resources for sustainable development*”. Its strategic objective is to coordinate environmental protection and natural resources conservation for sustainable development. This goal will be achieved by the following strategic objectives:

- a. securing a quality of environment adequate for good health and well-being.
- b. promoting sustainable use of natural resources and the restoration and maintenance of the biological diversity of ecosystems.
- c. promoting an understanding of the essential linkages between the environment, social and economic development issues.
- d. encouraging individual and community participation in environmental improvement initiatives.
- e. raising public awareness and engendering a national culture of environmental preservation; and building partnership among all stakeholders, including government at all levels, international institutions and governments, non-governmental agencies, and communities on environmental matters.

3.4.3 National Climate Change Policy

National Climate Change Policy (NCCP) for Nigeria 2021-2030⁷⁷ - the objectives of the policy include enhancing national capacity to mobilize international and national resources, both technical and financial, for investment in climate change. In terms of climate finance and finance mobilization, the policy recognizes that strengthening the frameworks for attracting domestic and international financing for low carbon and climate resilient development is critical to achieving the NDCs. The government of Nigeria has issued Green Bonds as innovative means and alternative way of raising climate finance, and has released the guidelines for the Green Bonds that target about \$248 million in climate finance to support national projects over the next decade in key areas that include: renewable energy (solar, wind, hydropower), energy efficiency (efficient building energy management), sustainable waste management (pollution prevention and control), sustainable land use (forestry, agriculture and aquaculture), conservation (biodiversity and natural systems), clean transportation (rail, mass transit system, bus rapid transit (BRT) schemes), and sustainable water (water treatment plants, water distribution infrastructure, water capture and storage infrastructure).

⁷⁶ <http://www.environment.gov.ng/publications/REVISED-NATIONAL-POLICY-ON-THE-ENVIRONMENT-FINAL-DRAFT.pdf>

⁷⁷ Federal Ministry of Environment, Department of Climate Change National Climate Change Policy (NCCP) for NIGERIA 2021-2030⁷⁷. https://climatechange.gov.ng/wp-content/uploads/2021/08/NCCP_NIGERIA_REVISED_2-JUNE-2021.pdf

3.4.4 National Gender Policy

The National Gender Policy (approved in 2022) aims to advance gender equality and reduce poverty levels, economically empowering women through income earnings and ownership of production assets. A national gender strategic framework (NGSF) was developed for effective implementation of this policy.

3.4.5 National Youth Policy

National Youth Policy (2009) was designed to advocate for youth development and promote the enjoyment of fundamental human rights and protect the health, social, economic, and political well-being of all young men and women to enhance their participation in the overall development process and improve their quality of life.

3.4.6 National Forest Policy⁷⁸

The overall objective of the national forest policy is to achieve sustainable forest management that would ensure sustainable increases in the economic, social, and environmental benefits from forests and trees for the present and future generation including the poor and the vulnerable groups.

Non-Timber Forest Products: The concern for Non-Timber Forest Products (NTFP) in the Forestry policy is to promote the development and conservation of NTFPs in all the ecological zones for the benefits of the present and future generations and to increase NTFP's contribution to the national economy. The specific objectives are to: promote community partnership in NTFPs management; and mobilize the community for sustainable management and multiplication, packaging, and marketing of NTFPs.

3.5 Action Plans and Strategies

3.5.1 Nationally Determined Contributions

Nigeria's 2021 updated NDC⁷⁹ estimated Nigeria's total GHG emission between 247MtCO₂e in 2010 and 347 MtCO₂e in 2018. The energy sector contributed 60% and the Agriculture, Forestry and Other Land Use (AFOLU) sector contributed 25%. Waste and Industrial Processes and Other Product Use (IPPU) contributed 9% and 5% respectively. GHG emissions in 2030 are estimated to be 453 MtCO₂e (about 31% increase in total GHG emissions between 2018 and 2030, or a 2.6% per year increase in total GHG emissions). The Energy and AFOLU sectors are projected to continue to contribute the largest amount of GHG emissions at 51% and 33% respectively by 2030. Nigeria commits to **unconditional contribution of 20%** below business-as-usual by 2030 and **a 47% conditional contribution** below business-as-usual by 2030, provided that sufficient international support is forthcoming. New specific policy commitments related to the AFOLU sector include a 50% reduction in the fraction of crop residues burnt by 2030, and implementation of forest programmes and initiatives to deliver 20% GHG emission reductions and enhanced removals equivalent to approximately 74.2 MtCO₂e by 2030. The estimated cost of implementing Nigeria's NDC is estimated at about **USD178billion**⁸⁰

⁷⁸ <http://www.fao.org/forestry/15148-0c4acebeb8e7e45af360ec63fcc4c1678.pdf>

⁷⁹ Federal Government of Nigeria (2021). Nigeria's Nationally Determined Contributions – 2021 update. Available at https://climatechange.gov.ng/wp-content/uploads/2021/08/NDC_File-Amended-11222.pdf.

⁸⁰ Unlocking Climate Finance for Nigeria: Between Aspirations and Realities. Heinrich Boll Stiftung. 16 June 2022. <https://ng.boell.org/sites/default/files/2022-08/Unlocking%20Climate%20Finance%20for%20Nigeria.pdf>

and climate finance to address mitigation and adaptation in the agriculture sector is a significant part of this.

3.5.2 Action Plan on Gender and Climate Change for Nigeria (2020-2025)

The National **Action Plan on Gender and Climate Change for Nigeria (2020-2025)**⁸¹ recognizes that gender inequalities worsen the coping and adaptive capacities of vulnerable groups especially women, children, youth, persons with disability, elderly people, farmers, and grassroots communities.

3.5.3 National Action Plan to Reduce Short-lived Climate Pollutants

The **National Action Plan to Reduce Short-lived Climate Pollutants**⁸² noted that reducing short-lived climate pollutants could contribute to meeting Nigeria's emission reduction obligation. The planned measures in the agriculture sector include increased adoption of intermittent aeration of rice paddy fields, reduce open field burning of crop residues, anaerobic digestion, and reduce methane emissions from enteric fermentation.

3.5.4 2050 Long-Term Vision for Nigeria (LTV-2050)

The **2050 Long-Term Vision for Nigeria (LTV-2050)**⁸³ towards the development of Nigeria's long-term low emissions development strategy (LT-LEDS) expect increasing resilience to climate change and effectively reducing GHG emissions in the AFOLU sector by 2050 through sustainable land use and CSA practices adopted by over 75% of smallholder farmers.

3.5.5 National Biodiversity Strategy and Action Plan (2016-2020)

The goals and objectives of the **National Biodiversity Strategy and Action Plan (2016-2020)**⁸⁴ are to conserve and enhance the sustainable use of the nation's biodiversity resources and to integrate biodiversity-planning considerations into national policy and decision making. It highlighted various measures at national, state and LGA levels as well as roles for the private sector in combating desertification and other environmental problems and mainstream sustainable developmental issues into national plans and programmes.

3.5.6 The National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN) (2011)

The National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN) (2011)⁸⁵ seeks to take action to adapt, reduce vulnerability and improve resilience while leveraging new opportunities, and facilitating collaboration inside Nigeria and with the global community. NASPA-CCN outlines recommended strategies for 13 priority sectors/ thematic areas including Agriculture, forests, biodiversity, livelihoods, vulnerable groups, among others. **The 3-year project** being funded by the GCF and UNEP

⁸¹ DEPARTMENT OF CLIMATE CHANGE, FEDERAL MINISTRY OF ENVIRONMENT. (2020). National Action Plan on Gender and Climate Change for Nigeria. <http://dhq.climatechange.gov.ng/Documents/climate-change-and-gender-action-plan.pdf>

⁸² Nigeria's National Action Plan to reduce Short-Lived Climate Pollutants (SLCPs), 2018. <https://climatechange.gov.ng/wp-content/uploads/2020/09/nigeria-s-national-action-plan-nap-to-reduce-short-lived-climate-pollutants-slcps-.pdf>

⁸³ Department of Climate Change (2021): The 2050 Long-Term Vision for Nigeria (LTV-2050) - Towards the Development of Nigeria's Long-Term Low Emissions Development Strategy (LT-LEDS). <https://climatechange.gov.ng/resource/2050-long-term-vision-for-nigeria-ltv-2050/>

⁸⁴ <https://www.cbd.int/doc/world/ng/ng-nbsap-01-en.doc>

⁸⁵ National Adaptation Strategy and Plan of Action On Climate Change For Nigeria (NASPA-CCN) (2011). <https://csdevnet.org/wp-content/uploads/NATIONAL-ADAPTATION-STRATEGY-AND-PLAN-OF-ACTION.pdf>

to **strengthen Nigeria's Capacity to Advance the National Adaptation Plan Process** (based on the priorities identified in the **NASPA-CCN**) is still ongoing⁸⁶.

3.5.7 Nigeria's National Adaptation Plan Framework (2020)

The **Nigeria's National Adaptation Plan Framework (2020)**⁸⁷ provide a framework to guide development, coordination, and implementation of the various policies, plans, strategies, and legislation and align the NAP process with existing policies that will enable it to address its adaptation needs.

3.5.8 Nigeria's Adaptation Communication to the United Nations Framework Convention on Climate Change-ADCOM

The **Nigeria's Adaptation Communication to the United Nations Framework Convention on Climate Change-ADCOM** (2021)⁸⁸ provides information on the country's national circumstances concerning adaptation, its plans and priorities, implementation challenges, achievements as well as support needs. It noted that adaptation cost in priority sectors (agriculture, water resources, health, and transport) at USD 3.06 billion per year from 2020 (and expected to rise to about USD 5.50 billion in 2050) which strengthen the case for leveraging adaptation financing.

3.5.9 The Nigerian National Pathways to Food Systems Transformation dialogue

It noted that the current food systems are delivering large amounts of expensive, unsafe, and unhealthy foods, which are produced in environmentally damaging and unsustainable ways. More land is being converted to agricultural use instead of scaling up more sustainable intensification and environmentally friendly practices such as increasing the number of cropping cycles in a year and increasing yields. Households with food system related livelihoods remain some of the chronically poor and vulnerable to shocks and stresses. As part of the ways to promote peace-building initiatives, early warning systems, food marketing and regulation standards and an enabling environment for food systems activities, the dialogue recommended creation of index of financial institutions that provide funding to smallholder farmers and SMEs.

3.5.10 Nigerian National Environmental Action Plan (NEAP)

The NEAP which was supported by the World Bank was developed as a framework to assist in the analysis, evaluation, and discussion of the interdependence between the environment and the economy. It also seeks to provide an assessment of Nigeria's environmental priorities and an identification of options for mitigating the impact of environmental degradation. Its implementation gave rise to the World Bank assisted Environmental Management Project (EMP) and helped in strengthening Environmental Agencies at Federal and State levels. It also helped to catalyze the study on costs/benefits of biodiversity conservation, enactment of Environmental Impact Assessment (EIA) legislations and the setting up of environmental standards. The implementation of NEAP was also supported by United Nations Development Programme (UNDP) through the Environment and Natural Resources Management Programme for Nigeria in the form of capacity building and institutional strengthening of Federal and State Environmental Protection Agencies.

⁸⁶ <https://www.unep.org/gan/news/press-release/nigeria-launches-national-adaptation-plan-project>

⁸⁷ Nigeria's National Adaptation Plan Framework (2020). <https://napglobalnetwork.org/wp-content/uploads/2021/06/napgn-en-2020-Nigeria-National-Adaptation-Plan-NAP-Framework.pdf>

⁸⁸ Nigeria's Adaptation Communication to the United Nations Framework Convention on Climate Change (2021): <https://unfccc.int/sites/default/files/resource/Nigeria%20Final%20ADCOM%20Report.pdf>

3.5.11 National Conservation Strategy (NCS)⁸⁹

The NCS is to ensure strategic approach to address environmental and natural resources issues to guarantee sustainable benefits to the greatest number of people. The aim is to manage the ecosystems in such a way that they yield greatest sustainable benefit to present generations while maintaining the potential to meet the needs and aspirations of future generations in such a way that essential ecological processes and life support systems are maintained. The strategy focuses on the main biological resources including vegetation and forage, water, marine and fisheries, wild animals, and soil.

3.5.12 Nigerian Agriculture and Resilience Framework (NARF)⁹⁰

The NARF noted that agriculture is inherently an ecological enterprise that depends almost entirely on ecosystem processes and functions for its success. It is possible to build agro ecosystems that generate wealth from food and fiber and have the flows of water, nutrient and carbon matched to the hydro-geochemical cycles of this ancient continent. Agro ecological zones (AEZs) are the spatial units most relevant when considering the impact of climate variability or climate change on agriculture. The variations that occur in rainfall govern types of indigenous plants that grow, or the exotic types that can be introduced successfully into the country. For instance, in the humid tropical forest zone of the south, the longer rainy season support plantation crops such as cocoa, oil palm, rubber, coffee, and staple crops like, yam, cassava, cocoyam, and sweet potatoes. The knowledge of spatial variability due to climate and soil differences is fundamental at country and regional levels to plan crop choice, crop management and to forecast yield and crop requirements. Ecological buffer capacity relates to growing crops that are tolerant to the prevailing climatic conditions, adopting better agronomic practices that increase soil moisture holding capacity (e.g., conservation tillage), and soil erosion protection measures, such as terraces and bunds. Enhancing farmers' socioeconomic buffer capacities would entail increasing their livelihood assets in ways that provide them with necessary human, financial, social, physical, and natural capitals by improving their access to markets, information and new technology. Improving self-organization refers to how well farmers are organized by themselves to be able to address the problems they encounter with little external help.

3.6. IFAD Safeguard Policies

The IFAD'S ten Environmental and Social Values and Principles are relevant to the VCN project.⁹¹ These social values and principles are:

- Address the vulnerability and adaptation needs for the rural poor
- Promote the sustainable use of natural resources and protection of key ecosystems.
- Focus on partnership-oriented initiatives for improved social and environmental quality.
- Address environmental and social impact assessments of agricultural and non-agricultural activities in an integrated manner.
- Incorporate externalities and minimize social costs.
- Implement participatory approaches, with special emphasis on the role of women.
- Promote the development of Indigenous Peoples and other marginalized groups (pastoralists, hunters, and gatherers).
- Promote environmentally sound agricultural and manufacturing processes.
- Ensure systematic environmental and social monitoring.
- Undertake Strategic Environmental Assessments

The objectives of the ESCMF Study in the IFAD's SECAP procedure are to:

⁸⁹ Federal Department of Forestry (1986) *National Conservation Strategy*.

⁹⁰ <http://hedang.org/nigeria.pdf>

⁹¹ <https://www.ifad.org/documents/10180/a5e3ffcc-0ed7-4bc6-b523-39c25dc1edd8>

- identify key linkages between rural poverty and environmental management and assess the potential environmental and social impacts of the proposed project on the natural resource base and livelihoods of communities in the target areas.
- explore and identify key options for advancing environmental and social sustainability; and
- recommend key opportunities to influence IFAD support towards environmental sustainability and climate smart development.

Climate mainstreaming in IFAD investment programmes is driven by some strategic objectives captured in guideline and policy documents including:

- IFAD Strategic Framework 2016-2025: Enabling inclusive and sustainable rural transformation (2016)
- IFAD climate change strategy (2010)
- IFAD Environment and Natural Resource Management (2011)
- IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025
- IFAD SECAP Procedure (2021)
- IFAD Climate mainstreaming in IFAD-funded programmes (2016)

3.6.1 IFAD Strategic Framework 2016-2025: Enabling inclusive and sustainable rural transformation (2016)⁹² :

It situates IFAD in the evolving global context and articulates its contribution to the 2030 Agenda for Sustainable Development especially with regards to reducing poverty and food insecurity in rural areas through agriculture and rural development. It has three closely interlinked and mutually reinforcing strategic objectives (SOs) which are: SO1: Increase poor rural people's productive capacities, SO2: Increase poor rural people's benefits from market participation; and SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities. In particular, the SO3 recognizes that rural livelihoods are affected by a variety of risks and shocks, resulting from environmental factors and climate change (as well as market and policy failures, and conflict). Making sustainable progress in building the asset base, capabilities, and market opportunities for poor rural people requires that risks and shocks are addressed in a comprehensive manner, thereby building resilience in rural people's livelihoods. In this context special attention needs to be paid to environmental sustainability and climate resilience in agriculture while also promoting a reduction of GHG emissions from agriculture and agri-food value chains and harnessing underutilized synergies that exist between adaptation and mitigation.

3.6.2 The IFAD Climate Change Strategy (2010)⁹³:

It calls for the IFAD to respond more systematically to increasing demands from clients for technical support and innovation to better respond to climate change. This means analyzing and addressing climate change challenges during the early stages of program and project design to build resilience and adaptive capacity. The strategy is to support innovative approaches to helping smallholder farmers build their resilience to climate change, help smallholder farmers take advantage of available mitigation incentives and funding, and inform a more coherent dialogue on climate change, rural development, agriculture, and food security. The main strategy output is a more 'climate-smart' IFAD, where climate change (alongside other risks and opportunities) – is systematically integrated into core programmes, policies and activities including operations, knowledge, innovation and advocacy, resource mobilization, and internal organization.

⁹² IFAD Strategic Framework 2016-2025: Enabling inclusive and sustainable rural transformation (2016): <https://webapps.ifad.org/members/eb/116/docs/EB-2015-116-R-4-C-R-P-1.pdf>

⁹³ https://www.ifad.org/topic/tags/climate_change/2154532

3.6.3 IFAD Environment and Natural Resource Management Policy (2011)⁹⁴:

It acknowledges that sustainable environment and natural resource management (ENRM) lies at the heart of delivering poverty reduction for rural people. Poor rural people face a series of interconnected natural resource management challenges. They are in the front line of climate change impacts, ecosystems and biodiversity degradation, declining access to suitable agricultural land, increasingly degraded and restricted forest resources, dependence on rainfed marginal lands, increasing water scarcity, rising energy and agricultural input prices, and declining fish and marine resources that threatens essential income and nutrition sources. Environmentally damaging agricultural practices, weak governance, damaging policies and changing consumption patterns are major drivers of these challenges.

The response requires an 'evergreen revolution', powered by sustainable agriculture that balances crop/livestock, fisheries, and agroforestry systems, so that surplus inputs are avoided, and soil fertility and ecosystem services are not compromised, while production and income are increased, and opportunity to scale up multiple benefits are taken. IFAD's ENRM stresses that project designs present new opportunities to improve systematic integration and scaling up of ENRM of the portfolio by engaging in new and strengthened partnerships with specialized entities for enhanced and effective responses to issues associated with natural resources and climate variability and change.

3.6.4 IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025⁹⁵:

It aligns with IFAD's Strategic Framework (2016-2025) and responds to commitments to the Eleventh Replenishment of IFAD's Resources (IFAD11). It consolidates and updates IFAD's strategy and policy frameworks on environment and climate change considering internal and global policy changes over the last several years.

The main objective of the strategy is enhanced resilience of smallholder farmers and rural communities to environmental degradation and climate change impacts. The expected outcomes of the environment and climate change strategy and action plan include:

- Governments are increasingly effective in integrating environment and climate change objectives and considerations into smallholder agriculture and other rural development policies and programmes.
- IFAD has the skills, capacity, partnerships, systems, and resources needed to fully support governments in integrating environment and climate change into rural development policies and programmes.
- IFAD investments contribute to the generation of environmental assets and services, and global public goods that make the livelihoods of poor rural people more prosperous and resilient, and IFAD's own operations more environmentally sustainable.
- IFAD becomes a global leader in generating knowledge on managing sustainable rural livelihoods – enabling IFAD to play a greater advocacy role in supporting global efforts to build a healthy planet.

3.6.5 IFAD Social, Environmental and Climate Assessment Procedure (SECAP Procedure 2021)⁹⁶:

IFAD is committed to promoting the conservation, rehabilitation and sustainable use of natural resources and ecosystems in an integrated manner, recognizing the importance of addressing both the causes and the consequences of climate change in countries of

⁹⁴ https://www.ifad.org/topic/resource/tags/climate_change/2096936

⁹⁵ IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025. <https://www.ifad.org/en/-/ifad-strategy-and-action-plan-on-environment-and-climate-change-2019-2025>

⁹⁶ IFAD Social, Environmental and Climate Assessment Procedures (2021). <https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures>

operation, minimizing adverse social and environmental impacts, and mainstreaming social, environmental and climate sustainability into IFAD's project cycle.

The SECAP helps IFAD to identify social, environmental and climate risks and impacts, and their significance, and determine the level of risk management required to address the risks and impacts associated with IFAD-supported investments and global and regional grant-funded programmes, identify opportunities to mainstream climate resilience, environmental sustainability, nutrition, gender equality and the empowerment of women, youth and other vulnerable groups into IFAD strategies and programming, support borrowers/recipients/partners and IFAD in improving decision-making and promoting the sustainability of project and programme outcomes through ongoing stakeholder engagement, assist borrowers/recipients/partners in fulfilling their own international and national social, environmental and climate commitments, ensure that IFAD's practices are aligned with its own policies and the procedures of other multilateral financial institutions, and enable IFAD to continue accessing environmental and climate financing. In addition to climate, environmental and social risk identification, SECAP helps to identify opportunities for maximizing development gains by mainstreaming environmental, social and climate issues throughout the project cycle.

3.6.6 Climate mainstreaming in IFAD-funded programmes (2016)⁹⁷:

the document identifies that smallholder farmers are especially hard-hit by the effects of the changing climate. Thus, it presents 10-point climate mainstreaming plan to enhance climate resilience and environmental sustainability across all IFAD country strategies and investments. These include:

- integration of climate risk screening into the review process of all IFAD-funded projects and country strategies.
- enhanced IFAD internal training on climate integration.
- designation of an IFAD climate champion within Senior Management to help guide and promote the mainstreaming agenda.
- increased technical support to staff and country teams for climate mainstreaming.
- expanded use of GEF and other co-financing resources.
- enhanced use of IFAD grants as tool for climate mainstreaming.
- scaled-up use by IFAD of satellite/global information systems tools.
- climate vulnerability index analysed for possible inclusion in the performance-based allocation system (PBAS) formula.
- expanded communication and knowledge-sharing on results and lessons from IFAD's climate-related work.
- expanded role for IFAD in managing climate finance.

Through implementation of the 10-point plan, IFAD is supporting its Member States in following through on their national climate plans and NDCs especially with regards to mitigation and adaptation targets from agriculture. IFAD remains well placed to assist developing countries in implementing the adaptation commitments in their NDCs and generate verifiable mitigation side benefits.

3.6.7 Country strategic opportunities programme (COSOP), Nigeria- 2023⁹⁸

The results-based country strategic opportunities programme (COSOP) noted that several environmental trends threaten Nigeria's natural resources. Poor agricultural practices, the clearing of pastureland and pollution in oil-producing areas exacerbate the deterioration of the natural environment. Pressure on basic resources has increased and the carrying capacity in some ecological zones has been exceeded. These pressures have led to conflict

⁹⁷ Climate mainstreaming in IFAD-funded programmes <https://webapps.ifad.org/members/eb/118/docs/EB-2016-118-R-16.pdf>

⁹⁸ <https://webapps.ifad.org/members/eb/119/docs/EB-2016-119-R-17.pdf>

among herders and farmers in the northern and north-central regions. Changes in rainfall and increasing temperatures drive major climate change risks. Climate change vulnerability is highest in the north-east and south-east, followed by the north-west and south-central regions. Temperatures could increase by up to 2.5° C by the 2060s. Droughts are likely to become more severe, affecting rainfed agriculture in the northern regions. Heavy rainfall events expected in the southern part of the country will likely exacerbate soil erosion.

Policies developed to address these risks – including Nigeria’s Intended Nationally Determined Contribution under the United Nations Framework Convention on Climate Change and the National Agriculture Resilience Framework of 2014 – Provide some development opportunities, such as improving agricultural systems for crops and livestock, and improving resource management. IFAD's proposed approach will: (i) build beneficiary capacity to sustainably manage land and water resources; (ii) train extension officers at the state and local levels in evidence-based assessment and management of climate risks for resilience; (iii) re-vegetate degraded areas to improve livelihoods and increase productivity; and (iv) strengthen the environment and climate change unit within Federal Ministry of Agriculture and Rural Development.

4. DESCRIPTION OF THE ENVIRONMENTAL, CLIMATE AND SOCIAL CONTEXT

4.1 Environmental Context

4.1.1 Location

The VCN project is to be implemented in **9 States of the** semi-arid northern Nigeria. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The 9 states of the semi-arid northern Nigeria covered about 338,206km² (about 37% of Nigeria land area)⁹⁹ with about 63.8million people (about 30.2%% of national population)¹⁰⁰ consisting mostly of the rural poor. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain¹⁰¹. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc. coupled with low adaptive capacity) result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.

4.1.2 Drainage

The semi-arid northern Nigeria spans four of the eight hydrological areas/regions (HAs) of Nigeria. These include HA 1 (Sokoto-Rima basin), HA 2 (Upper Niger – Kaduna River basin), HA 3 (Upper Benue – Gongola and Taraba River basins) and HA 8 (Chad basin – Kano-Hadejia River basins). With several river basins in the HAs, the project area has abundant surface and groundwater resources (Fig 3). These water regions are managed by River Basins Development Authorities (RBDA) responsible principally to undertake comprehensive development of both surface and ground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management, among others¹⁰². Future changes in the average water flows of the sub-basins within the semi-arid northern Nigeria are substantially uncertain¹⁰³.

4.1.3 Relief and Topography

Nigeria has extensive geodiversity and physiographic regions. The northern Nigeria consists of the inland basins, north-eastern Highlands, the great plains of northern Nigeria and the North central Plateau and Highlands¹⁰⁴. The inland basins include the Niger-Benue trough and the Sokoto and Chad basins. Average elevation lies below 1000ft (305m). The north-eastern highlands (Adamawa-Bamenda highlands) of undifferentiated basement complex lie between 1000 and 2000ft (305-610m). The great plain of northern Nigeria substantially underlain by undifferentiated basement complex lies between 1000 and

⁹⁹ NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

¹⁰⁰ National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

¹⁰¹ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

¹⁰² River Basins Development Authorities Act, 1987, No35. <http://lawsofnigeria.placng.org/laws/R9.pdf>

¹⁰³ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

¹⁰⁴ Udo, R. K. (1970). *Geographical Regions of Nigeria*. Ibadan, Nigeria: Heinemann Educational Books Ltd

2000ft (305-610m) and covers extensive area between the Sokoto basin in the northwest and the Chad basin in the northeast. The north central plateau and highlands underlain by sandstone on undifferentiated basement complex lie between 2000 to 300ft (610-915m) and consists of bold relief and rocky outcrops and inselbergs found around the Kaduna-Jos-Bauchi axis, northern Adamawa and south-eastern Borno and southern Taraba states. The highest elevation ranging from 3000ft to above 5000ft (915-1525m+) are found in the Jos Plateau and the Mandara mountains in the Adamawa-Bamenda ranges along the Nigeria-Cameroonian border.

4.1.4 Ecology

The major ecological region of northern Nigeria consists of the savanna vegetation - northern guinea, Sudan, and Sahel savannas (Fig 4). The **savanna** ecosystems cover about 48.5% of Nigeria's land area. The **northern guinea savanna** consists of shorter trees (compared to southern guinea). It covers part of Kaduna and Bauchi states as well as northern Taraba state in the northeast. It is typified by open woodland with tall grasses and fire-resistant trees. Tree cover here varies between 15 to 25% in undisturbed areas. The **Sudan savanna** is extensive from the Sokoto basin to the lower part of the Chad basin and covers much of the northern (semi-arid) frontline. The ecology consists of a greater frequency of *Acacia albida*, *Tamarindus indica*, and *Schelocarya birrea* and forest cover of up to 20% of the land area. The **Sahel savanna** is found mainly in the Chad basin and along the northern fringes with Niger Republic. In addition to grasses, shrub species (*Combretum spp.*) and acacias predominate. Forest cover rarely exceeds 10% except along seasonal watercourses

Protected areas. The variable climatic conditions and geodiversity of Nigeria support a diverse assemblage of terrestrial and aquatic organisms. However, the remaining natural forests and diverse species of international importance exist only in protected areas or otherwise inaccessible (swamp, montane, and culturally protected) sites¹⁰⁵. Protected areas cover about 117,441 km² (12.84%) of Nigeria's land area¹⁰⁶. Nigeria's present network of protected areas includes seven national parks, 994 forest reserves, 5 strict nature reserves, 32 game reserves, 27 Important Bird Areas, 11 Ramsar Sites, 2 World Heritage Sites, 1 biosphere reserve, and many sacred groves at varied level of protection^{107, 108}. The total area covered by Forest Reserves in the semi-arid northern Nigeria is about 56,824.76¹⁰⁹ as shown on 4.1.

Gashaka-Gumti (6,731km²), Chad Basin (2,258km²) and Kamuku (1,121km²) national parks fall within the semi-arid northern Nigeria. In alignment with Nigeria's NDC, the Federal Government in December 2020 designates 10 forest reserves as new National Parks. Four of these, Falgore Forest Reserve (Kano State), Hadejia Wetlands Games Reserve (Jigawa State), Kogo Forest Reserve (Katsina State), and Marai Forest Reserve (Jigawa State)¹¹⁰ are within the VCN project area.

Nigeria experienced the world's highest deforestation rate of 5% net forest loss annually from 2010-2015¹¹¹. Table 4.2 shows the summary of landcover trends in the seven CASP states (Borno, Jigawa, Katsina, Kebbi, Sokoto, Yobe, and Zamfara) between 1990 and 2020.

¹⁰⁵ USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.

¹⁰⁶ USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.

¹⁰⁷ <http://www.un.org/esa/agenda21/natlinfo/countr/nigeria/inst.htm>

¹⁰⁸ USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.

¹⁰⁹ Oyebo, M, Bisong, F and Morakinyo, T (2010): A Preliminary Assessment of the Context for REDD in Nigeria. Commissioned by the Federal Ministry of Environment, the Cross River State's Forestry Commission and UNDP.

¹¹⁰ <https://guardian.ng/property/fq-designates-10-forest-reserves-as-national-parks/>

¹¹¹ FAO (2016). Global Forest Resources Assessment 2015: How are the world's forests changing? Second edition. FAO, Rome. 54pages

Land cover classes that recorded decline include areas covered by dominantly shrubs and dense grasses with a minor tree component (-3.54%), dominantly trees/woodlands/shrubs with a subdominant grass component (- 0.41%), extensive (grazing, minor row crops) small Holder Rainfed Agriculture (-5.27%), and Floodplain (Alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp) (-0.14%), natural waterbodies (-0.04%), and reservoirs (-0.01%). On the other hand, land cover categories that recorded increase during the period include Intensive (row crops, minor grazing) Small Holder Rainfed Agriculture (9.7%), built up area (0.27%), dry river channel (0.03%), floodplain agriculture (0.47%), gully (0.18%), irrigation project (0.15%), and riparian forest (1.1%).

Figure 4.1: Projected changes in average water flows by Sub-basin, 2050 Compared to 1990¹¹²

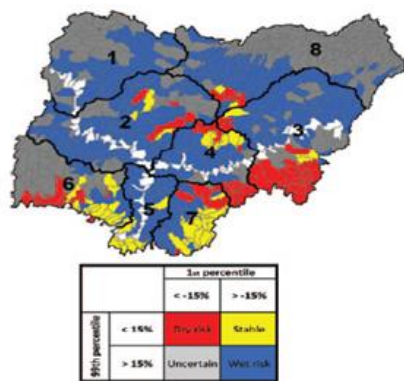


Figure 4.2: Nigeria's agro-ecological zones (NASPA-CCN 2011)

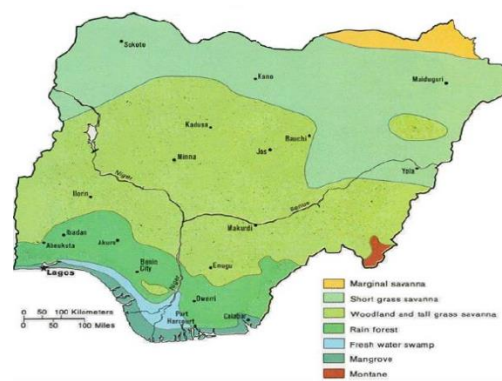


Table 4.1: Area covered by Forest Reserves in the semi-arid northern Nigeria states.

Sn	State	Derived Savanna (km ²)	Guinea Savanna (km ²)	Sudan/Sahel Savanna (km ²)	Total area (km ²)
1	Adamawa*	328.83	1,188.04	0.00	1,516.87
2	Bauchi			8,175.80	8,175.80
3	Borno		1,346.37	1,795.17	3,141.54
4	Gombe*				
5	Jigawa			977.32	977.32
6	Kaduna*		864.17	5,743.91	6,608.08
7	Kano			723.67	723.67
8	Katsina			326.67	326.67
9	Kebbi			3,076.76	3,076.76
10	Sokoto			16,943.71	16,943.71
11	Taraba*		7,094.22	4,373.02	11,467.24
12	Yobe			3,867.10	3,867.10
13	Zamfara				
		328.83	10,492.80	46,003.13	56,824.76

Source: Adapted from Oyebo et al. (2010)

* States outside VCN project area

As indicators of deforestation, the dominantly trees/woodlands/shrubs with a subdominant grass component landcover has been declining at around 1.55% and Floodplain (alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp) at -0.17% annually. Land degradation pointers in the area include decrease in Dominantly shrubs and dense grasses with a minor tree component (0.63% annually), Extensive (grazing, minor row crops) Small Holder Rainfed Agriculture (0.64% annually), Grassland (0.8% annually), Natural Waterbodies (0.33% annually) and reservoir (0.09% annually), as well as increase in gully (0.17% annually).

¹¹² Source : Cervigni et al. 2013

Table 4.2: Land use and land cover change in the seven CASP states¹¹³

Landuse and landcover type	Area_1990 (km2)	Percent	Area_2020 (km2)	Percent	diff_%	diff_GR
Agricultural Tree Crop Plantation	21.5	0.0	35.3	0.0	0.00	2.14
Built-up Area (Major and Minor Urban)	569.9	0.2	1,329.5	0.5	0.27	4.44
Canal	28.0	0.0	31.9	0.0	0.00	0.47
Dominantly shrubs and dense grasses with a minor tree component	52,026.5	18.7	42,177.8	15.1	-3.54	-0.63
Dominantly trees/woodlands/shrubs with a subdominant grass component	2,447.4	0.9	1,310.5	0.5	-0.41	-1.55
Dry River Channel	0.0	0.0	89.0	0.0	0.03	
Extensive (grazing, minor row crops) Small Holder Rainfed Agriculture	76,650.7	27.5	61,977.2	22.3	-5.27	-0.64
Floodplain (Alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp)	7,429.2	2.7	7,051.1	2.5	-0.14	-0.17
Floodplain Agriculture	9,151.7	3.3	10,447.8	3.8	0.47	0.47
Forest Plantation	409.2	0.1	453.6	0.2	0.02	0.36
Grassland	25,182.4	9.0	19,146.2	6.9	-2.17	-0.80
Gully	9,877.4	3.5	10,387.3	3.7	0.18	0.17
Intensive (row crops, minor grazing) Small Holder Rainfed Agriculture	85,413.7	30.7	112,420.7	40.4	9.70	1.05
Irrigation Project	662.1	0.2	1,081.9	0.4	0.15	2.11
Livestock Project	45.8	0.0	40.4	0.0	0.00	-0.39
Natural Waterbodies: Rivers, Lakes, and ponds	1,072.6	0.4	966.7	0.3	-0.04	-0.33
Reservoir	969.8	0.3	943.5	0.3	-0.01	-0.09
Riparian Forest	256.6	0.1	3,360.2	1.2	1.11	40.31
Rock Outcrop	1,144.2	0.4	1,144.1	0.4	0.00	0.00
Sand Dunes/Aeolian	5,053.1	1.8	4,035.0	1.4	-0.37	-0.67
	278,411.8	100.0	278,429.6	100.0		

4.2 Climate Change Context

4.2.1 Present climate Trend

Rainfall. Like the rest of Nigeria, the climate of the VCN states is controlled by the two dominant air masses – the moist tropical maritime air mass (south westerlies) driven mainly by the West Africa monsoon system from April through October; and the dry, dust-laden north-easterly tropical continental air mass. The interaction between these two contrasting air masses is controlled by the movement of the inter-tropical discontinuity (ITD). Mean annual rainfall in the northern Sudan Savanna zone range between about 600-1000 mm and less than 600mm (received over 3 months -July to September)¹¹⁴ in the Sahel zone. Relative humidity is constantly below 40%, except for the few rainy months when it goes up to 60% or more. Dry season in the Sudan savanna is about 4-6 months and exceed 8 months in the Sahel. The inter-annual rainfall variability is high in northern Nigeria resulting in climatic hazards, especially flood and drought. The relative humidity in the north experiences considerable seasonal and diurnal variations¹¹⁵. Since the 1990s, rainfall has recovered across Nigeria. Analysis of rainfall data from 1981 to 2020 across Nigeria shows that the general trend in rainfall amount has been positive, increasing at about 8.2% annually. The increase is higher in the north at 8.7%¹¹⁶. The standardized rainfall anomaly over Nigeria shows that the years 1981 to 1990 (except 1988) received

¹¹³ Participatory Climate Change Vulnerability Mapping and Training in CASP Areas. March 2021

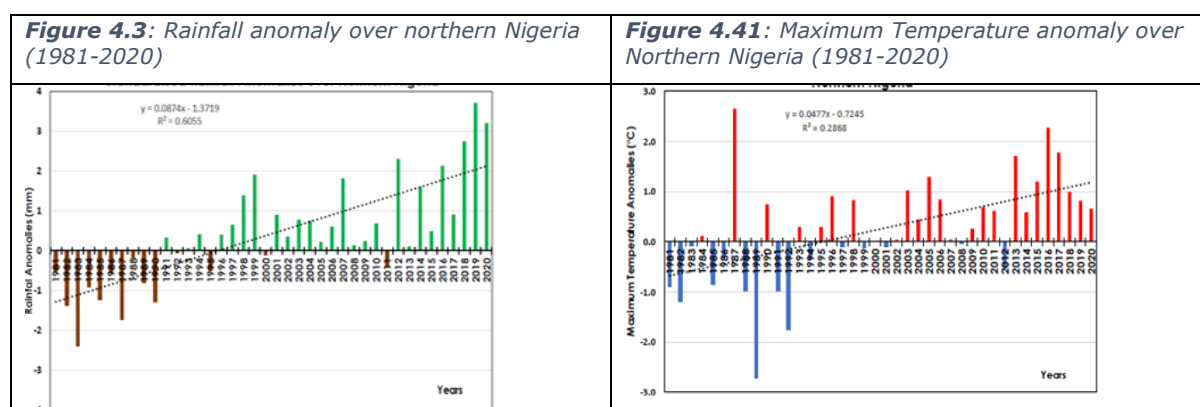
¹¹⁴ Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months. The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.

¹¹⁵ State of the Nigerian Environment Report, 2008, SEDEC Associates for Federal Ministry of Environment and UNDP

¹¹⁶ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

below normal rainfall. Rainfall recovery started in 1991; and except for 1992, 1993 and 2001, the years from 1991 to 2020 received above normal rainfall with 2019 and 2012 recording positive anomalies above 2SD. The rainfall anomalies over northern Nigeria are consistent with the signal over Nigeria (Fig. 4.3).

Temperature. Warming trend over Nigeria is very clear and the signal is consistent over both northern and southern Nigeria. However, temperature is rising faster over the semi-arid northern Nigeria. In essence, exposure to rising temperature and high sensitivity (coupled with low adaptive capacity), leading to high vulnerability to climate and environmental change is greater over northern Nigeria. The observed climate indicates that temperatures over Nigeria has been rising in the last five decades and has been very significant since 1980s. The linear warming for a 30-year averages on a decadal slice reveal changes in temperature by an average of 0.2°C; and has been above normal by as much as 2°C in 1998¹¹⁷. Nigeria transited from cold period to warm since 1981 with a general warming trend increasing at about 6.1% per annum. The last decade (2011-2020) remains the warmest since 1981 with only 2012 recording below normal maximum temperature. The years 2013 to 2020 have been consistently warm with positive anomalies exceeding 2SD in 2016, 2017 and 2020. The maximum temperature increases since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig.4.4)¹¹⁸.



4.2.2 Future Climate Trend

Rainfall: Rainfall is projected to increase across Nigeria. The Sahel savanna is projected to have the highest increase of around 30% under both RCPs 4.5 and 8.5 for the 2050-time step followed by the Sudan savanna with about 10% while the remaining zone are at less than 5%. The projections follow the same trend for the 2070-time horizon, with higher increases under RCP8.5 and even a 45% peak for the Sahel savanna. For aggregate mean annual precipitation, the northern Sahel and Sudan savannas could experience an increase of 29% to 45.8% and 9% to 14.2%, respectively. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400 mm annual maximum historically over this zone (Fig 4.5)¹¹⁹.

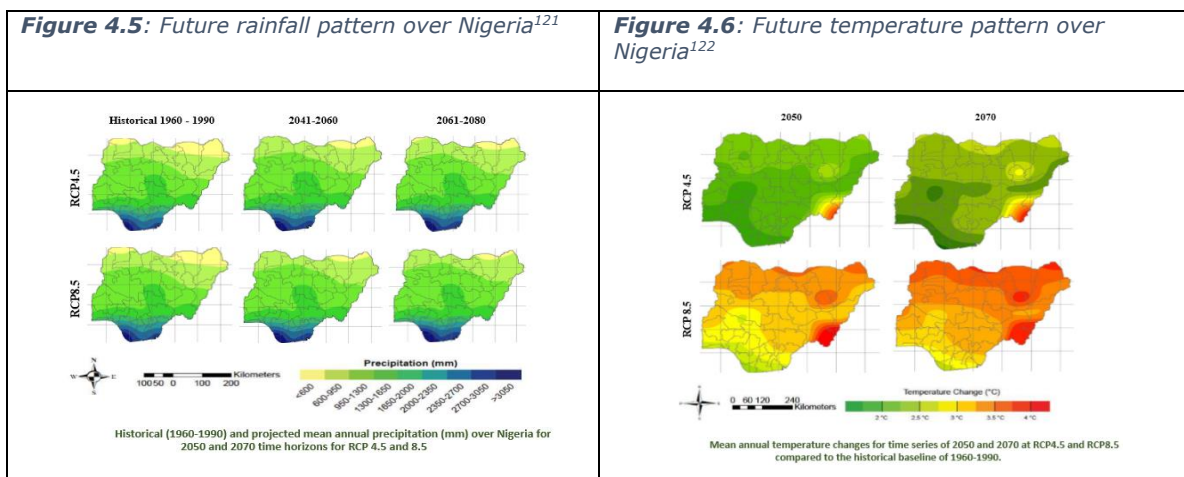
Temperature: Under the RCP4.5 for 2050 and 2070, temperature increase could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline.

¹¹⁷ Federal Government of Nigeria (2014): Nigeria's Second National Communication under The United Nations Framework Convention on Climate Change. The Federal Ministry of Environment of the Federal Republic of Nigeria Abuja. Retrieved from www.unfccc.int/resource/docs/natc/nganc2.pdf.

¹¹⁸ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

¹¹⁹ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%202018-04-2020%20-%20FINAL.pdf

On average, the temperature increase is projected to vary between 1.95 to 2.31°C under the RCP 4.5 scenario increasing to the range 3.15 to 3.54°C for the RCP 8.5 across the country. The lower increase is predicted for the southern part of the country and the magnitude increases northward. Under the RCP 8.5 scenario for 2050 and 2070, the low range temperature increase is from +2.41°C to +2.68°C and the highest ranges from +4.25°C to +4.63°C compared to the baseline. Under RCP 8.5 almost all parts of Nigeria could experience an increase of a minimum of 2°C and a maximum of 4°C or higher, with the highest increase being felt in the northern Nigeria. In essence, temperature is likely to continue to rise across Nigeria, but faster in the north (Fig 4.6)¹²⁰.



4.2.3 VCN Climate Risk Category

The VCN’s climate risk is **SUBSTANTIAL** based on the IFAD Climate **Screening Checklist in the ORMS**. The VCN project area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and market infrastructure. The risk of water scarcity leading to drought for agriculture is substantial. The VCN project area has substantial risk of soil erosion resulting from high intensity rainfall and windstorm and unsustainable land practices. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, as well as unsustainable land management practices and operation of environmentally unfriendly processing machines.

The VCN target group is substantially dependent on climate-sensitive rainfed agricultural plots. Rice, one of the value chain crops for VCN is grown mainly in the Fadamas (inland wetlands) and the fertile alluvial plains of the major river systems. All parts of the project area have been subjected to extreme flooding in the recent past. Climate variability including unexpected dry spells occasioned by unpredictable rainfall and high temperature can affect the sub-projects’ impacts, sustainability and return on investment. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability. This suggests the likelihood of increased dry spells and high intensity rainfall leading to pluvial floods, erosion and landslides, and risk of river damage to road infrastructure. Increased local processing (e.g., rice parboiling) further represents a greater risk of use of firewood with concomitant GHG emissions from deforestation.

¹²⁰ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%202018-04-2020%20-%20FINAL.pdf

¹²¹ FGN. 2020

¹²² FGN. 2020

VCN has the potential to integrate climate resilience measures without extensive additional costs. This will be done through upscaling the achievement of CASP in resilience-enhancing practices including capacity building programmes in climate-smart agricultural production and collaboration with extension services and the Nigerian Meteorological Agency to promote weather/climate monitoring and agro-climatic information and use of climate resilient (drought tolerant and flood resistant) seed varieties. VCN will also pursue partnerships to enable farmers to get access to market linkages and information. VCN will invest in market infrastructure (including market-connected farm roads and solar powered small irrigation structures) to strengthen resilience of small-holder farmers. In addition, GHG emissions resulting from deforestation through fuelwood usage for processing will be reduced. VCN will invest in rural renewable energy technologies including conversion of rice, millet, and sorghum husks into briquettes and biochar. Micro-insurance to cover losses to floods will be promoted through linkage with NAIC and other private Insurance Institutions.

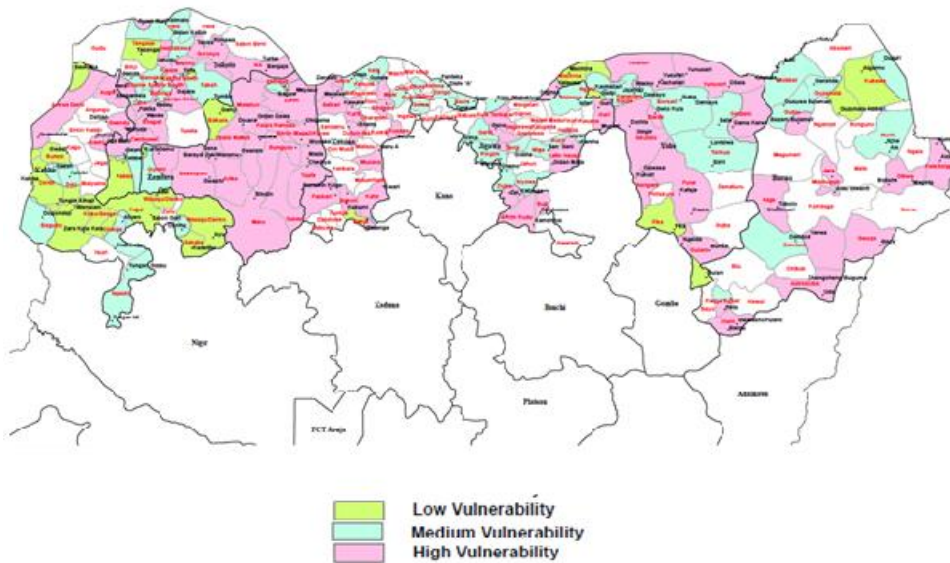
VCN will promote the critical adaptation options indicated by the Targeted Adaptation Assessment to strengthen the resilience of the beneficiaries across the target states. These include: improved seed varieties, dams and small irrigation structures and equipment, nature based solutions including agroforestry, soil and water conservation and landscape rehabilitation, compost and farm yard manure (use of inorganic fertilizers is significantly restricted in some of the states due to insurgency), crop calendars and climate information for early warning, home/backyard gardens for women, timely provision and distribution of inputs and sensitization, advocacy and capacity building.

4.2.4 Climate Change Vulnerability and Impacts on Agriculture

According to the Participatory Climate Change Vulnerability Mapping in CASP Areas conducted in March 2021, flood, drought, dry spell, soil erosion, high temperature, windstorm, desertification, soil infertility, and pest and diseases are the most important climate risks in northern Nigeria. Based on the report, in Kebbi state, Suru, Bagudo, Shanga, and Ngaski LGAs are considered areas of highest vulnerability to climate change. In Sokoto state, Goronyo, Isa, Kware, Wurno, Dange-Shuni, Silame, Shagari, and Tambuwal LGAs are considered areas of highest vulnerability.

In Zamfara state, Shinkafi, Maradun, Zurmi, Talata Mafara, Kaura Namoda, Birnin Magaji, Bungudu, Anka, Tsafe, Maru, Gasau and Bukkuyum LGAs are considered areas of highest vulnerability to climate change. In Katsina State, Jibia, Batsari, Kurfi, Dutsin Ma, Mani, Bindawa, Kusada, Musawa, Kafur, Bakori and Faskari LGAs are considered areas of highest vulnerability to climate change. In Jigawa State, Sule Tankakar, Kafin Hausa, Birnin Kudu, Buji, and Guri, LGAs are considered areas of highest vulnerability to climate change. In Yobe State, Yusufari, Yunusari, Geldam, Jakusko, Nangere, Fune and Gulani LGAs are considered areas of highest vulnerability to climate change. In Borno State, Kala/Balge, Dikwa, Kaga, Gwoza, Askira/Uba, Shani and Kwaya Kusar LGAs are considered areas of highest vulnerability to climate change (Figure 4.7).

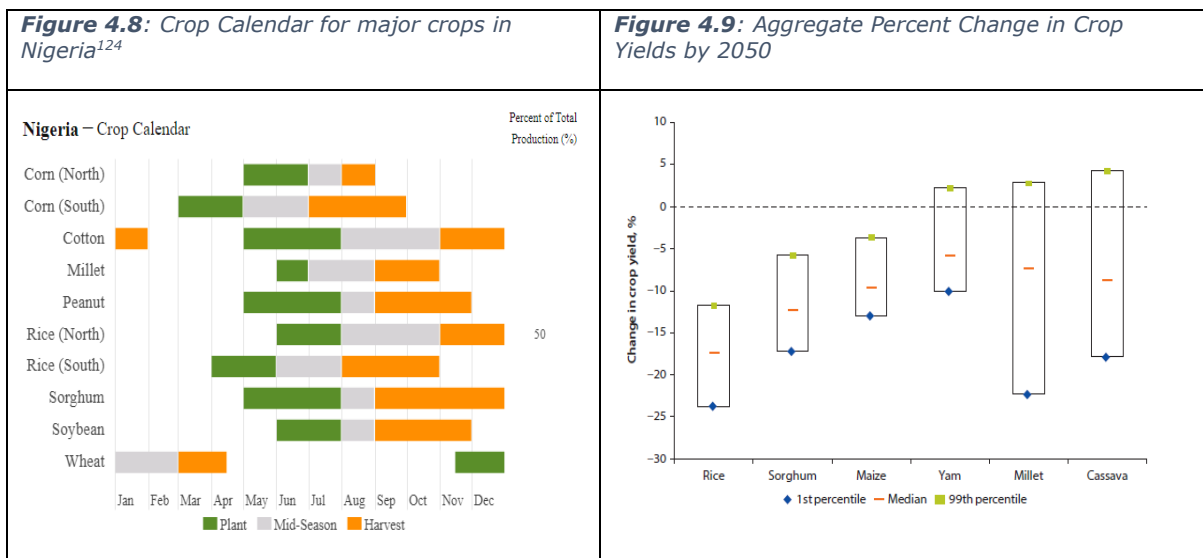
Figure 4.7: Climate Change vulnerability in CASP states



Annual fluvial flooding especially from the Niger and Benue and its tributaries (Sokoto/Rima, Kaduna, Gongola, Taraba, etc.) and other rivers including the Hadejia-Jamaare, as well as pluvial floods from high intensity rainfall result in the loss of farmlands and investments across the semi-arid northern states and continues to be an increasing challenge. In 2012, 2018, and 2022 devastating floods have occurred across the states resulting in substantial losses. Majority of the farmers are not signed to any form of insurance and compensation, while access to weather advisory services established during CASP needs to be strengthened. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to the increased climate variability with possibility of increased dry spells and droughts. Increased rainfall intensity, coupled with land clearing means a greater risk of surface runoff, topsoil erosion, flooding, and risk of river damage to road infrastructure.

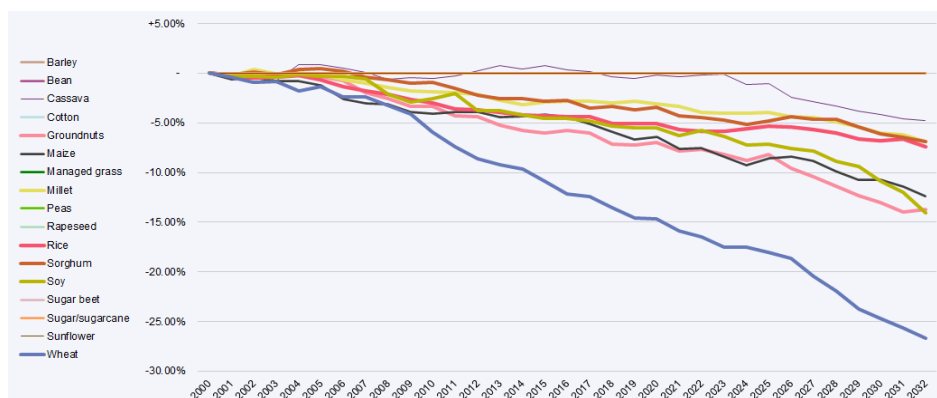
Flooding in northern Nigeria often occurs between September and October which coincides with the harvest season for the most important value chain crops including millet, peanut, rice, sorghum, and soybean (Fig. 4.8). This often exacerbates investment losses, poverty, and food insecurity and nutrition issues. Cervigni et al (2013)¹²³ have shown that there will be decrease in the yield of major crops including Rice, Sorghum, Maize, and Millet, which are value chain crops in northern Nigeria by 2050. This could be as high as almost 25% for Rice and Millet (Fig. 4.9).

¹²³ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> .”



6. The IFAD Climate Adaptation in Rural Development Assessment Tool was used to look at the trend in crop yield for northern Nigeria. Using AEZ: dry, moderate soil (which is the common agroecological zone of northern Nigeria) under no irrigation, and median risk and year 2000 as the base year, yield for all the major value chain crops continues to decrease with as much as 27% for wheat, 14% for groundnut and soybean, 12% for maize, and 7% for sorghum, millet, and rice by 2030 (Fig. 4.10).

Figure 4.10: Crop yield in Northern Nigeria 2000-2032¹²⁵



4.2.5 Strengthening resilience and improving adaptation to climate change.

- Climate change and variability is perhaps the greatest problem of smallholder agriculture in northern Nigeria. The short rainfall duration leading to short growing season is a limitation to production and by extension other agricultural value chains. Thus, availability of water through irrigation is critical to strengthening resilience and improving adaptative capacity of the smallholder farmers. Desertification and land degradation also undermine the resilience of farmers.
- The **interaction with stakeholders during the concept note and project design** missions shows other issues to include access to inputs -lack of improved seeds and high cost of fertilizer, lack of labour-saving technologies, insecurity, banditry, and

¹²⁴ Source: USDA, 2022. https://ipad.fas.usda.gov/countrysummary/images/NI/cropcalendar/wafrica_ni_calendar.png

¹²⁵ IFAD Climate Adaptation in Rural Development Assessment Tool

farmers herders conflicts, and innovation (especially in storage, processing and value additions, packaging, seed improvement, etc.). Others include limited access to market and market information, access to finance, low private sector (off takers, financial institutions, etc.) interface with smallholder farmers, unfavorable cross border trade (smuggling makes imported rice cheaper), challenge of storage facilities, low (local) technology for processing and lack of support for value additions.

9. VCN will have to strengthen resilience to climate change in northern Nigeria through building on the resilience-enhancing activities of CASP. This includes supporting farmers with tube wells, wash bores, water pumps and other small irrigation structures. CASP (in partnership with ICARDA) demonstrated and trained smallholder farmers on soil and water conservation and landscape rehabilitation techniques including planting pits (zai), half-moon, tie ridges, bunding, contour ploughing, and runoff diversion. It also trained farmers on soil management practices through crop rotation, cover cropping, strip cropping, mulching, fertilizer tree agroforestry with *Faidherbia Albida* and composting and farmyard manure production. Promoting mass adopting of these simple techniques and technologies and innovation for sustainable land management is critical to improving the adaptive capacity of the smallholder farmers. VCN will also improve access to climate information for planning production and processing cycles and on-farm activities for efficient agricultural value chain systems. Both the CASP impact study and responses from stakeholders for the VCN concept note agreed that farmers output has increased.
10. VCN will also need to improve on human resilience-enhancing infrastructure provided by CASP. This includes construction of water infrastructure for human and animal watering (which also provides water for animal watering for the pastoralists and reduces conflicts), and construction/rehabilitation of market connected farm roads to improve physical access to markets and reduce post-harvest losses. CASP mainstreamed conflict management in the FOs and CDA structure. Field consultations in Sokoto States suggest that there is conflict management committee in each LGA that handle conflict between Fulani and Farmers. VCN will improve innovation in several areas including storage, value additions, access to finance (including insurance), market information, packaging, seed improvement, land management, conflict management and use of digital agric technologies. Resistance to innovation due to social, cultural, and religious biases could undermine resilience. Thus, education and sensitization are key improve innovation adoption.

4.3 Social-economic and cultural context

4.3.1 Economic poverty

40.1% of Nigerian’s are poor according to the national poverty line (137,430 naira per person per year). Sharp spatial differences in poverty are found between southern and northern Nigeria and even across States within regions. Also, poverty levels are higher and deeper in rural areas; 52% of the rural Nigerians live under the poverty line (against 18% in urban areas)¹²⁶. Over 72% of the extreme poor live in Northern Nigeria¹²⁷.

Table 4.3: Key demographic and poverty data in VCN target States, Nigeria

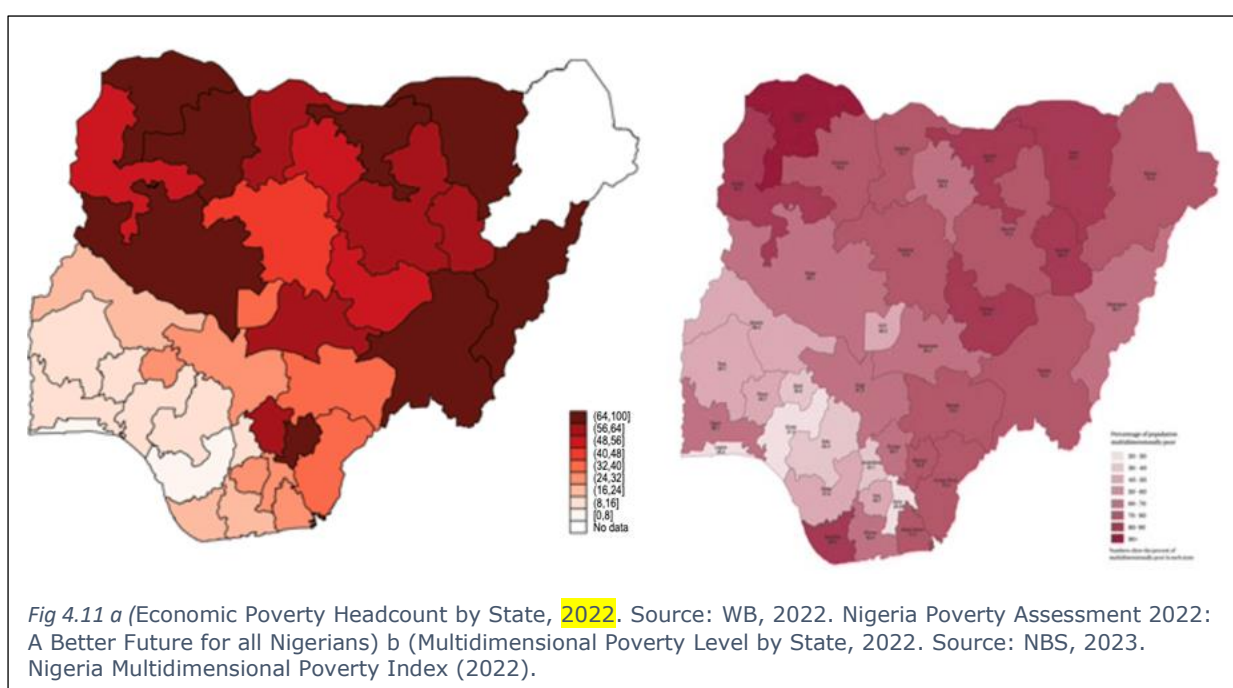
State	Population / # people (xxx)	Economic poverty level / % (2018)	Average HH size / # people (2018)
Kebbi	5,200,000	50.2	6.39

¹²⁶ WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.

¹²⁷ FGN, 2021. National Poverty Reduction with Growth Strategy (NPRGS).

Sokoto	6,400,000	87.7	5.93
Zamfara	5,300,000	74.0	6.54
Katsina	9,500,000	56.4	6.80
Jigawa	6,800,000	87.0	8.15
Kano	15,900,000	55.1	7.10
Bauchi	7,700,000	61.5	6.79
Yobe	3,900,000	73.3	6.87
Borno	3,100,000	Information not available	Information not available

Sources:
Poverty headcount: WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.
HH size: NBS, July 2020. Nigeria Living Standards Survey (2018/2019).



Age, gender, education, reliance on rainfed agriculture and shocks are the primary drivers of poverty in Nigeria¹²⁸. Young people and those with lower levels of education are common among the poor due to lacking capital and not having the means to engage in lower risk or diversified income generating streams. Women with young children are likely to be poorer than their male counterparts due to the combined effects of gender norms, being youth and their multiple responsibilities. External shocks such as the negative effects of climate change, low resilience and conflict have profound effects on HH wellbeing.

4.3.2 Multidimensional poverty

Multidimensional poverty, that is, poverty associated to deprivations related to health, education, living standards, employment, and shocks¹²⁹ are widespread in Nigeria. 63% of the population is multidimensionally poor; 72% of people living in rural areas encounter

¹²⁸ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

¹²⁹ Ibid.

this type of poverty. Like economic poverty, multidimensional poverty is also greater in northern Nigeria than the southern regions of the country; 65% of people living in the North of the country are multidimensionally poor. Even within northern States multidimensional poverty levels vary considerably; the same variations occur within States.

4.3.3 Conflict and insurgency

In 2023, Nigeria ranked 144 / 163 countries in the Global Peace Index according to the Institute for Economics and Peace, pointing to very weak foundations for potential future peace¹³⁰.

Since 2011, the North Central and West Regions of Nigeria have been affected by competition over natural resources materialized as violent conflict between farming and herder communities. Armed groups and gangs (“bandits”) have emerged in the context of tension perpetrating abuses such as organized cattle rustling, kidnappings, sexual violence and causing innumerable casualties. Since 2021 the government has intensified its military response to banditry in these areas. At the same time, the North-Eastern States have been affected by atrocities inflicted by extremist terrorist groups (Boko Haram and the Islamic State in West Africa) tackled by counterterrorism operations led by the Nigerian Security Forces. Affected States have faced a humanitarian emergency affecting at least 8.3 million people – 80% of these are women and children¹³¹.

In November 2023, a total of 2,295,534 people were internally displaced in Nigeria’s Northeastern Region of which 94% because of insurgency; and 1,190,293 in the North West and North Central Regions. In addition, over 240,000 Nigerians from Sokoto, Yobe and Borno and have sought refuge in Chad and Niger¹³². Formal and informal IDP camps and host communities have received those internally displaced by conflict and violence in northern Nigeria.

Table 4.4: IDPs per VCN Target State, September 2023.

State	# IDPs	State	# IDPs	State	# IDPs
Kebbi	-	Katsina	174,000	Bauchi	68,400
Sokoto	72,000	Kano	25,000	Borno	1,800,000
Zamfara	156,400	Jigawa		Yobe	172,300

Source: UNHCR, September 2023. Nigeria: Education Dashboard 2022-2023 Schoolyear.

4.3.4 Socio-economic stratification of the population

Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

The table below offers brief description of the socio-economic characterization of the population and the estimated proportion of the population that is in each group. The table

¹³⁰ IEP, 2023. Global Peace Index 2023: Measuring Peace in a Complex World.

¹³¹ Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.global2p.org/countries/nigeria/> Accessed 30th December 2023.

¹³² UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.

was produced based on interactions with stakeholders during the design mission and observation. While the information does not mirror the reality in every community, it provides indicative information on the most common characteristics of the different socio-economic strata.

Table 4.5: Socio-economic characterisation of the rural population in VCN ´s rural target communities.

Very poor 50%	Poor 30%	Non-poor but vulnerable to poverty 15%	Rich 5%
Varying family size.	Large families.	Ratio of working adults vs. dependants is favourable.	Small families.
Low education / illiteracy.	High levels of illiteracy.	Usually have some education.	The head of HH often have higher education.
Low social capital.	Low social capital.	Have some connections with powerholders.	Have connections, influence, and power.
No assets or depletion of all assets due to conflict.	Have some access to land.	Have access to land and still have some assets (house, equipment, machines, etc.).	Have assets of economic value.
Beg for food or receive food from neighbours and relatives. Obtain food from transactional exchanges. In some cases, HHs can go 1-2 days without eating.	At least 1 meal a day is secured.	2 meals a day secured.	Dietary diversity and 3 meals a day.
A vast proportion of those in this category are WHH, child headed HHs, HHs with a member with a disability, and people who have due to insurgency or banditry lost all their assets but can easily re-establish their socio-economic status.	WHH also present in this group.		
Work for others as farm labourers, servants, and even petty traders <u>for others</u> .	Work for others but also farm to meet some HH consumption needs and sell some produce at times.	Good farming and / or commercial activities. These HHs can fall back into poverty in when	Diversified income stream. Usually involving salaries, assets generating income and business.

		they face external or internal shocks.	
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Not all HHs in the very poor category have always been very poor but fell into this situation because of the conflict and have not been able to recuperate due to intrinsic characteristics that in the context limits their progress (for example, not having a male head of HH, having a disability, illness, etc.).

4.3.5 Women and gender

Women and girls represent half of Nigeria’s population with women accounting for about 49,3% of the population. Nigeria has developed several policy instruments to promote and protect gender equality and women’s empowerment (GEWE), including the National Gender Policy 2021 – 2026. The policy is based on the premise that GEWE is paramount for the country’s economic and political development. The policy is consistent with the equality principles of the country’s constitution and several international conventions on GEWE ratified by the country¹³³. Other national instruments upholding the principles of GEWE include the National Gender Policy in Agriculture is the main instrument for sectoral gender mainstreaming which seeks to meet the gender gap in Nigeria’s agricultural sector¹³⁴.

Gender inequalities remain pervasive in Nigeria, fueled by norms limiting women’s access to services, productive assets, affecting participation and decision making, and mobility, among others. Forty-seven percent of adult women over 15 are illiterate (against 29% of men)¹³⁵. Nigeria falls in the group of countries with the highest gender inequality in human development outcomes with a Gender Development Index value of 0.868. Nigeria is among the top 10% of countries worldwide that exhibit the highest levels of gender discrimination¹³⁶.

While the participation of women in agricultural value chains is generally low compared to that of men, women are overrepresented as unpaid family members engaged in farming. Women involved in farming are mostly working in the areas of harvesting, processing, and marketing of farm produce¹³⁷. In fact, women represent between 60-79% of the country’s rural labor force, yet men are five times more likely to own land than women. Women have limited decision-making power at HH in relation to the use of assets and money. Women generally own assets of low economic value which are easily disposed of to meet daily family needs. Women’s influence in mixed gender FOs is also low. Trainings are often conducted in the location and time of convenience of trainers and men because of not accounting for women’s productive and reproductive responsibilities. Access to capital/credit, limited access to information on project opportunities and poor literacy also limit women’s participation in agricultural development projects and ownership of businesses in agricultural value chains¹³⁸.

¹³³ International conventions and instruments Nigeria is a signatory of include: the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Convention on the Rights of the Child (CRC), the Vienna Conference on Human Rights, and the Beijing Platform for Action (BpFA), New Partnership for African Development (NEPAD), AU Solemn Declaration for Gender Equality, African Protocol on People’s Rights, and the Rights of Women (APPRRW), International Conference on Population Development Plan of Action (ICPD PoA), the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs).

¹³⁴ FMARD, 2019. National Gender Policy in Agriculture.

¹³⁵ <https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?locations=NG> Accessed 1st of January 2024.

¹³⁶ Country Partnership framework Nigeria FY21-FY25 World Bank Group.

¹³⁷ Thompson, O. A., and Amos. T. T., 2016. Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark.

¹³⁸ FMARD, 2019. National Gender Policy in Agriculture.

Approximately 28% of girls aged 15-19 are already married, and 23% in that age group are already mothers or pregnant with their first child. The incidence of early marriage and childbearing is even higher in the states of the semi-arid northern Nigeria with the youngest ages of marriage seen in the Northwest, Northeast, and North Central regions¹³⁹. Early childbearing is strongly correlated with maternal and child mortality. Millions of adolescent girls (10-19 years)¹⁴⁰ are currently out of school; they have never enrolled or dropped out early. The low proportion of girls attending secondary schools is particularly concerning, given that attaining this level of education is associated with fewer unwanted pregnancies and reduced infant mortality.

Anecdotal evidence collected during the design mission indicates that poor women, especially poor women headed HHs provide cheap labor to others. In some locations the surplus of supply of cheap labor by poor women could be resulting in women receiving less than they would in situations without conflict and / or instability.

4.3.6 Youth

Generally, Nigeria has one of the youngest and largest working-age populations in the world. Youth in Nigeria constitute people aged between 15-29 years according to the new youth policy (2019)¹⁴¹ and make up the largest demographic group after children, accounting for 23 percent of the total population at 41 million, a figure that is set to rise to 84 million by 2050¹⁴².

The International Labour Organization estimates that some 60% of young people between the ages of 15 - 24 in Nigeria are in working poverty¹⁴³, youth unemployment (15-35 years) 42.5% and underemployment rate 21%¹⁴⁴. Engagement of youth in agriculture is a priority for the government. Youth have an untapped potential to become the food producers of the present and the future. However, targeting youth often focuses on male youth of different ages because they are more visible than female youth, especially in more conservative communities. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Youth with education are thus a low hanging fruit. Without deliberate efforts rural youth with low education, especially females can often be missed by development interventions.

A large segment of the youth is in northern Nigeria where both youth unemployment and underemployment are higher due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. Not enough jobs are being created for the youth, who are characterized by lower human capital relative to adults.

4.3.7 PWDs

In Nigeria, it is estimated that approximately 15% of the population of Nigeria lives with at least one disability¹⁴⁵. Yet, anecdotal evidence in States affected by insurgency indicates that many people have acquired a disability because of terrorist attacks. As such,

¹³⁹ Thompson, O. A., and Amos. T. T., 2016. Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark.

¹⁴⁰ Definition: padata.org

¹⁴¹ Federal Republic of Nigeria. National Youth Policy (2019-2023). Enhancing Youth Development and Participation in the context of Sustainable Development.

¹⁴² World Bank Group, 2019. Nigeria on the Move: A Journey to Inclusive Growth. Nigeria Systematic Country Diagnostic. June 2019.

¹⁴³ Based on ILO estimates (percentage of employed living below US\$1.90 PPP).

¹⁴⁴ NBS, 2021. Q4 2020 Unemployment Report <http://nigerianstat.gov.ng/elibrary> Accessed 1st January 2024.

¹⁴⁵ <https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law> Accessed 1st January 2024.

many more PWD are likely to be present in northern States than documented in recent population data.

71% of people living in HHs with at least one member living with a disability are multidimensionally poor¹⁴⁶. PWDs in Nigeria receive limited support from the government and rely strongly on family members and non-governmental organizations and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their households or can be abandoned leaving PWDs in a situation of using begging to survive¹⁴⁷.

The Joint National Association of People with Disabilities (JONAPWD) created in 1992 is an umbrella organization of PWDs established in Nigeria to promote the rights and development of Nigerians with disabilities. The organization represents the interests of the teeming population of PWDs at the local and international level. JONAPWD is a full-fledged member of the international body called Disabled People's International (DPI). Also, in 2019, Nigeria passed the Discrimination Against Persons with Disabilities (Prohibition) Act in 2019¹⁴⁸ and created the National Commission for Persons with Disabilities (NCPWD) pursuant to section (31) of the Discrimination Against Persons with Disability (Prohibition) Act 2018¹⁴⁹.

4.3.8 Nutrition situation analysis

Nigeria has the highest population in Africa with an estimated 223.8 million people by the year 2023 according to UN data (UNFPA,2023)¹⁵⁰. The country has one of the highest fertility rates, currently estimated at 5.1 children per woman resulting in a rapid population surge with an annual growth rate of 2.6 percent¹⁵¹. The population is projected to reach approximately 440 million by the year 2050 but the human development index (HDI) remains low at 0.534 ranking it 158th out of 189 countries and territories¹⁵².

There is recent evidence to show that malnutrition and nutrition related issues remain a major public health concern in Nigeria¹⁵³. The country recognizes that reducing malnutrition is an important goal of development as spelt out in the National Development Plan (NDP,2021-2025) which aims at improving food and nutrition security, achieving dietary diversity and access to quality food with an emphasis on food safety practices. Among key efforts of the Federal Government of Nigeria to fight against malnutrition in all its forms, is the provision of the National Policy on Food and Nutrition which guides all investments by government and partners on nutrition. Moreover, the National Multi-Sectoral Plan of Action for Food and Nutrition (NMPFAN) sets out strategies and interventions for improving the nutritional status of all Nigerians with specific emphasis on the most vulnerable groups. Further, Nigeria is in a quest to accelerate the achievement of the Sustainable Development Goals (SDGs) on nutrition by the year 2030 as demonstrated by the government's commitment to the implementation of priority actions spelt out in the Food Systems Transformation Pathways Implementation Plan¹⁵⁴. The overarching goals of this plan is reduction of poverty, hunger, food insecurity, malnutrition, unemployment among the youth and to increase Women's Empowerment in Agriculture Index as well as increase Environmental Performance Index score.

¹⁴⁶ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

¹⁴⁷ <https://borgenproject.org/disabilities-in-nigeria/> Accessed 1st January 2024.

¹⁴⁸ <https://drive.google.com/file/d/12459t6medwblvSunXgk6o9x9nnpnXG6W4/view> Accessed 1st January 2024.

¹⁴⁹ <https://ncpwd.gov.ng> Accessed 1st January 2024.

¹⁵⁰ United Nations Population Fund, World population dashboard. <https://www.unfpa.org/data/world-population/NG>

¹⁵¹ National Population Commission. <https://www.nationalpopulation.gov.ng/>

¹⁵² National Multi-sectoral plan of action for food and nutrition (2021-2025)

¹⁵³ Preliminary report (September 2022) of the National Food Consumption and Micronutrient Survey, 2021

¹⁵⁴ National Action and Communication Plan for Implementation of the Food Systems Transformation Pathways in Nigeria, 2023.

Despite the robust policy environment for nutrition improvement in Nigeria, the country still grapples with the triple burden of malnutrition¹⁵⁵. According to NDHS (2018)¹⁵⁶, 37% of all children under five years are stunted which is higher than the Africa average of 30.7%¹⁵⁷. Additionally, 7% of children under five years are wasted while 22% are underweight. Children are mostly affected by undernutrition during the first 1000 days of life as evidenced by increase in prevalence of stunting from 19% by 6 months of age to 47% by 24 months of age. High prevalence of malnutrition is more predominant in the Northern states where stunting rates are higher than country average (figure 1). Generally, the prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively)¹⁵⁸.

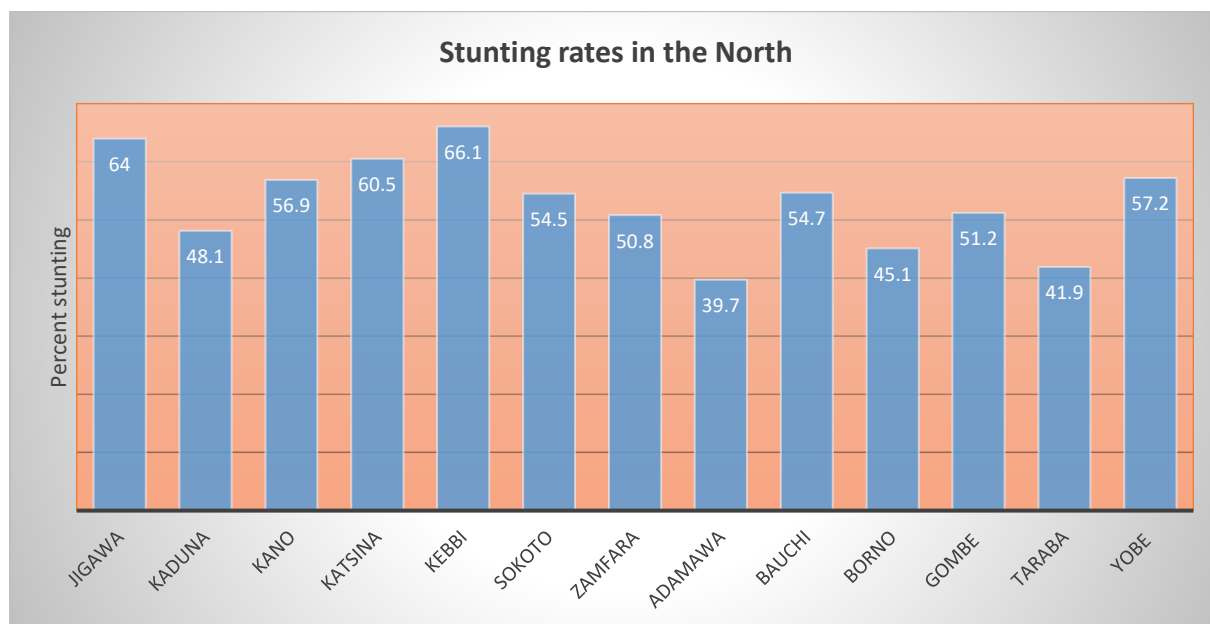


Figure 4.12: Prevalence of stunting among children under five years in the Northern states (source: NDHS, 2018)

Anaemia affects children and women in the rural areas more than in urban areas. The NDHS shows that 68% of children below five years and 58% of women of reproductive age (15-49) are anaemic¹⁵⁹. The report confirms that children in rural areas (73%) are more likely to be anaemic than those in urban areas (62%). The northwestern states (Zamfara, Kebbi and Sokoto) are the most affected by anaemia in the country with very high prevalence rates (78%-84%). Dietary diversity is poor among women and children while feeding practices are sub-optimal. Only 11% of all children under five years were fed a minimum acceptable diet. The proportion of women who consumed five or more food groups is lower in the northern zones¹⁶⁰ than in the southern zones¹⁶¹ with the lowest proportion reported in the North Central zone (47%). Children in the northern zones consume fewer foods rich in vitamin A and iron than those in the southern zones.

¹⁵⁵ Triple burden of malnutrition comprises under-nutrition, over-nutrition, and micronutrient deficiencies.

¹⁵⁶ Nigeria Demographic Health Survey, 2018

¹⁵⁷ Global Nutrition Report for Nigeria, accessed online in December 2023 at <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

¹⁵⁸ Nigeria Demographic Health Survey, 2018

¹⁵⁹ Ibid

¹⁶⁰ Northern zones include North Central, North East, and North West

¹⁶¹ Southern zones include South East, South South, and South West

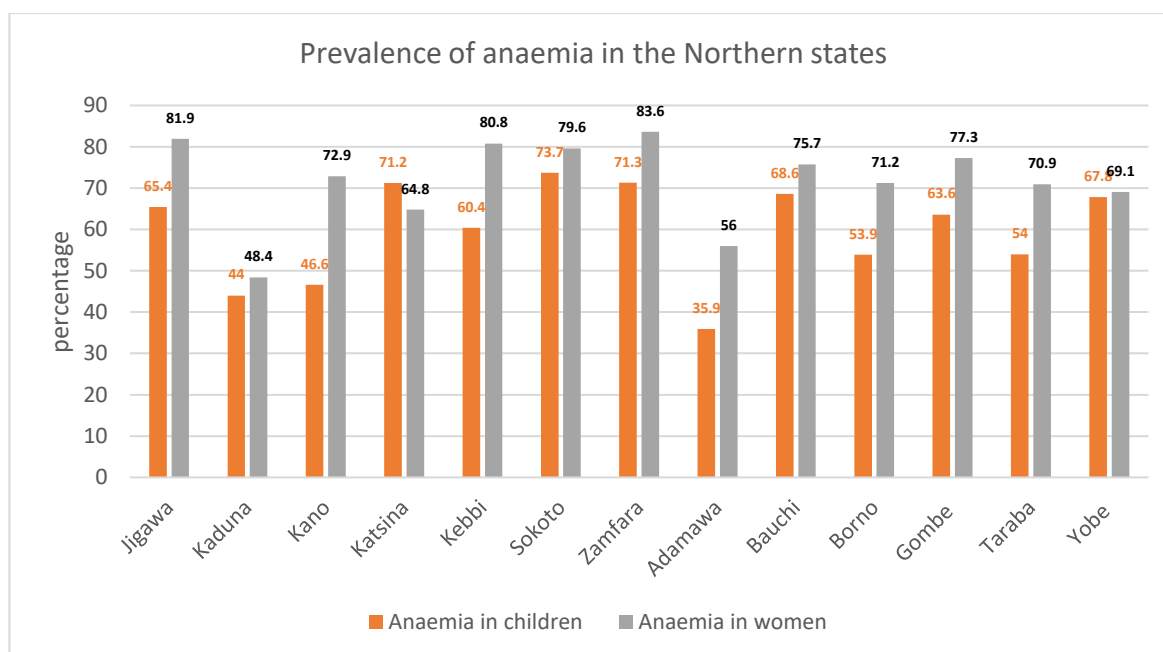


Figure 4.13: Prevalence of anaemia in Children under five years and women 15-49 years in the Northern states (source: NDHS, 2018)

Seventy-nine percent of households in Nigeria are food insecure. More than half of households in the North East (57.3%) and North west (51.5%) zones experience stressed food consumption whereas a significant proportion of households in the North are considered to be in a crisis food consumption state¹⁶².

A complex web of factors contributes to food insecurity and malnutrition in Nigeria. Inadequate care for infants and young children leaves them vulnerable to illness and poor nutrition, especially before their second birthday. Access to healthcare, clean water, and proper sanitation remains limited, further hindering basic health and wellbeing. For instance, sanitation and hygiene practices are poor with less than standard toilets and open defecation still common. Usage of unimproved toilets is more prevalent in the Northern zones¹⁶³ with 21.5 per cent of households practicing open defecation system. The practice is more prominent in the rural areas (34.5 percent) than in the urban areas (7.4 percent)¹⁶⁴. Anecdotal evidence from field visits in the North revealed frequent occurrence of water borne diseases because of water contamination.

Armed conflict, primarily in the north, disrupts food production and access, while erratic rainfall patterns wreak havoc on harvests. Widespread unemployment and poverty trap many in a cycle of food insecurity. While chronic and seasonal food shortages plague the entire country, volatile food prices exacerbate the situation. In the northeastern zone, frequent conflicts further worsen these pre-existing vulnerabilities, pushing food insecurity to acute levels. In most instances, food insecurity is inversely related to the level of education of women at household level¹⁶⁵. There is generally poor implementation of nutrition and food security related policies at State and Local Government levels.

Women in urban areas are substantially more likely than those in rural areas to consume meat, fish, and poultry (84% versus 59%); eggs (22% versus 11%); sugary foods (19%

¹⁶² Households in crisis food consumption in North west (42.3%) and North East (36.7%) zones (NFCMS, 2021)

¹⁶³ 40 per cent in North West zone and 20 per cent in North East zone.

¹⁶⁴ National Food Consumption and Micronutrient Survey (NFCMS), 2021

¹⁶⁵ Ibid

versus 13%); and sugar-sweetened (32% versus 13%). Consumption of biofortified crops (yellow cassava, orange fleshed sweet potatoes and orange maize) by women of reproductive age is generally low¹⁶⁶. Nigerian rural households consume much less than 20% of fortified foods compared to urban households¹⁶⁷. The proportion of women who consumed five or more food groups generally increases with increasing education and wealth. For example, 48% of women with no education consumed five or more food groups, as compared with 70% of women with more than a secondary education.

Complementary feeding is mainly characterized by consumption of foods made from grains (78% and 90% among breastfeeding and non-breastfeeding children aged 6 to 23 months respectively). There is low consumption (27%) of meat, fish, and poultry among breastfeeding children as well as fruits and vegetables rich in vitamin A (37%) and eggs (13%). (source: NDHS 2018).

¹⁶⁶ According to the NFCMS 2021, only three percent of women consumed yellow cassava, five percent consumed orange-fleshed sweet potato and 13 percent consumed orange maize

¹⁶⁷ Rural versus urban consumption of: vegetable oil (20 percent vs. 48 percent), wheat flour (8 percent vs. 27 percent), semolina flour (7 percent vs. 40 percent), sugar (15 percent vs. 31 percent), NFCMS 2021

5. REVIEW OF ENVIRONMENTAL, CLIMATE AND SOCIAL IMPACTS

5.1 Potential Environmental Benefits

The major value chains pre-identified for the VCN Project include **Sorghum, Maize, Rice, or Millet (staple food for food security), Cowpeas, Sesame, Groundnuts or Soyabean (Cash crops for incomes) and Fruits, Vegetables (Horticulture crops to improve dietary diversity and health)**. For effectiveness, the VCN will support a maximum of seven crops, with each state prioritizing a maximum of five crops based on its context and comparative advantage. These commodities are prioritized given their potential for import substitution, commercial or export prospects through value addition and potential for income and employment generation for smallholders, women, and youth, as well as improving local nutrition. The greatest overall positive benefits from Rice, Sorghum, Maize, and Millet which are the core value chain crops cultivation perhaps lies in the ability to convert their waste to useful products. Rice, Sorghum, Maize, and Millet wastes are excellent for briquette making which can serve as alternative source of fuel for heating in rural households. This will reduce the pressure on firewood and forest degradation.

They can also be converted into biochar which are excellent soil additives. Since the Russia-Ukraine war, the price of inorganic fertilizers and other soil additives have increased dramatically. The price increase was also compounded by rising price inflation and problematic access due to the fragility and insecurity across the project area. Inorganic fertilizers are being hijacked from farmers by bandits and insurgents to produce improved explosive devices (IED). Farmers are increasingly shifting to the use of organic fertilizers and farmyard manure and waste from these crops would contribute significantly.

The harvested stems and dried leaves from these crops could also be excellent for hay/silage to feed animals. The insecurity, especially herders-farmers clashes are significantly driven by lack of access to grasses by herders which make their animals graze on farms. Thus, the farm-wastes can serve as alternative food for pastoralists animals, and this will reduce conflicts.

The range of activities that will be designed to protect and improve the environment and the natural resource base, remediate gullies and eroded sites, and reclaim degraded lands will improve resilience and enhance assets at farm level. The adoption and utilization of environment and natural resources improvement technologies and innovation activities will diffuse to non-participating villages/communities leading to stronger overall environmental benefits.

Production, dissemination, and uptake of climate information services to farmers at local levels coupled with empowerment of farmers with small irrigation structures will enhance the adaptive capacity of beneficiaries. New opportunities for dry seasons farming and fairer certainty of planting season and dry spell period will generate shared-benefits and improved human development and environmental management. Access to basic services including market-connected farm roads small irrigation structures as well as human and animal watering points will significant produce environmental and social benefits that improve resilience.

5.2 Potential negative Climate and Risks

5.2.1 Climate risk

Project vulnerability to climate change impacts: The inherent and residual risks of project vulnerability to climate change impacts are both **Substantial**. The VCN project areas face the risk of climate uncertainty especially with regards to rainfall and temperature. Unpredictability of rainfall in terms of onset and cessation dates as well as length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the wide dry season. Flooding has also become a problem wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

Mitigation: VCN will promote climate-smart and good agricultural practices, strengthen access to climate information services and sensitize agro-entrepreneurs on climate risk insurance and link them to NAIC and other insurance services providers. The project will also support farmers with climate-tolerant and high yield seeds, promote clean and energy-efficient processing systems, provide capacity building on soil and water conservation and landscape rehabilitation techniques, and strengthen extensions services to disseminate innovations and digital agriculture technologies that improve climate resilience.

High temperature and extreme heat. The risk of high temperature and extreme heat in semi-arid northern Nigeria is **Substantial**. This means that prolonged exposure to extreme heat, resulting in heat stress, is expected to occur at least once in the next five years¹⁶⁸. Future projections have shown the likelihood of increase in temperature across Nigeria and with higher value expected for northern Nigeria. This increases the risk of heatwaves, water scarcity, dry spells, and agricultural droughts.

Mitigation: VCN will promote access to climate information by farmers to reduce losses to dry spells. It will also invest in smallholder irrigation structures to reduce losses to dry and drought conditions. It will promote e-extension to disseminate good agric and agronomic practices to farmer. It will sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. VCN will promote use of improved and drought and heat tolerant seeds/seedlings and soil and water conservation practices and deepen climate-smart and good agricultural practices.

Flooding. River flood hazard is classified as **Substantial** based on modelled flood information currently available on ThinkHard¹⁶⁹. This means that potentially damaging river floods are expected to occur at least once in the next 10 years. There is also the risk of pluvial flood from heavy rainfall submerging farmlands in the project area and this may be aggravated by unsustainable land use and management practices, which influence how localized river flood hazard evolves into the future and alter future hazard level.

Mitigation: VCN will strengthen collaboration with the Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological Service Agency (NIHSA) to improve climate services - capacity to generate forecast of extreme rainfall events and river flows and production and dissemination of weather information to farmers in local languages at regular interval. It will support deployment of e-climate services app to improve dissemination of weather information to farmers. It will promote e-extension to disseminate good agric and agronomic practices to farmers. VCN will also sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities.

¹⁶⁸ <https://thinkhazard.org/en/report/182-nigeria/>

¹⁶⁹ <https://thinkhazard.org/en/report/182-nigeria/>

Water scarcity. The risk of water scarcity for agriculture is **Substantial**. This means that droughts are expected to occur on average every 5 years. Although model projections are inconsistent in their estimates of change in drought hazard, which influences water scarcity, the present hazard level may increase in the future due to climate change. It would be prudent for the VCN to be robust in addressing increased drought hazard and water scarcity. This makes irrigation very important.

Mitigation: VCN will support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spell. In addition to agric extension officers, VCN will promote climate information advocacy through radios and text messages to disseminate weather and climate information to farmers in local languages. It will promote integration of traditional forecasting knowledge with science knowledge through regular feedback from farmers.

Soil Erosion (water and wind). A **substantial** risk - Soil erosion resulting from high intensity rainstorm and windstorm, unsustainable land practices and road construction without drainage and poorly terminated road edges and unsustainable land development mechanisms. This is likely across all states.

Mitigation: VCN will promote landscape rehabilitation and agronomic practices such as contour ploughing, terraces, and contour bunds, etc. to control soil erosion. It will encourage the planting of cover crops and anchor crops with the main crop. It will also ensure that all farm to market roads constructed/rehabilitated must have drainage to prevent erosion. Design and construction of roads, bridges and culverts will be climate-smart and properly monitored to prevent inappropriate termination that can lead to erosion.

Greenhouse gas emissions: The inherent and residual risks of Greenhouse gases emissions are moderate. The likelihood of some activities (e.g., rice cropping) as well as unsustainable land management practices and operation of environmentally unfriendly processing machines leading to emission of GHGs is real. In addition, the reliance of processing facilities on fuelwood and charcoal as energy sources poses the risk of GHG emissions.

Mitigation: The VCN project will promote climate-smart agriculture and the use of climate information to guide on and off farm activities. Safeguard guidelines developed to guide and promote sustainable agriculture will be followed through. Use of clean and renewable energy technology and use of climate information and advisory services will also be promoted.

5.2.2 Environmental risk

Project vulnerability to environmental conditions: The inherent and residual project vulnerability to environmental conditions risks is both Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of difficult semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts.

Mitigation: VCN has developed SECAP safeguard documents (SRN, ESCMF, ESCMP) which will guide environment and climate mainstreaming and natural resource management in the project. VCN will build on the achievement of CASP by integrating activities that deepen the capacity of farmers in soil and water conservation and landscape rehabilitation to improve the environment and natural resource management. It will also promote

extension services to promote good agricultural practices and adoption of good agronomic practices.

Biodiversity losses. This is a **low** risk. The VCN Project area harbours some protected areas, forest reserves, and delicate wetland areas (such as the Hadejia-Nguru wetlands) that also serve as important habitats for birds during the winter in the northern hemisphere. Desertification, land degradation and biodiversity losses are already serious issues in northern Nigeria because of unsustainable land management practices and significantly contribute to climate impacts and resource conflicts. However, no subproject is expected around the protected areas.

Mitigation: VCN will conduct environmental screening for all subprojects. It will discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. It will Follow through activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc.). in addition, the project will avoidance areas that infringe on known habitats and migration patterns of protected, endangered, or rare species, and maintain known wildlife migration corridor.

Resource efficiency and pollution: This is a **substantial** risk. The VCN is a natural resource-dependent project that may involve or lead to primary environmentally unsustainable production of living natural resources including arable cropping of value chain crops. Other inherent risks include waste proliferation from production and processing sites as well as excessive and inappropriate use (including adulteration) of agrochemicals including inorganic fertilizers and pesticides. The cluster farming to be adopted possess the risk of agrochemical pollutions as well as massive groundwater drawdown around clusters through tubewell irrigation by several farmers.

Mitigation: the project will promote resource efficiency and integrated waste management – e.g., conversion of rice waste at processing sites to briquettes. It will conduct periodic monitoring of the groundwater around farm clusters. It will train farmers on appropriate use of fertilizers and pesticides and promote farmers production and use of on-farm organic manure. It will also promote livelihood opportunities in waste valorization and agrochemicals application through appropriate training and capacity building. An Integrated Pest Management Plan (IPMP) will be developed for the VCN.

Cultural heritage. This is a **low** risk. Some of the communities in northern Nigeria has invaluable physical and non-physical-cultural heritages (mountains, ruins and buried monuments), geodiversity and geoheritage. Some communities have a long history of culture, traditions, values, and festivals that enrich their heritages. The projected is not expected to impact any of that.

Mitigation: VCN will activate the procedure for chance finds and other protection and handling of cultural heritage throughout all stages and activities of the project. It will discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values.

Indigenous people. This is a **low** risk. There are no indigenous people according to the UN classification whose existence is threatened by the project. However, there are several distinct tribes and cultures spread across the project area. The risk of exclusion of marginalized and itinerant tribes such as the nomadic Fulanis) and those with weak political representation is real.

Mitigation: VCN will deepen social inclusion by considering all the social actors and mainstream inclusion and equity through the targeting, stakeholders' engagement, and grievance redress strategies.

5.3 Potential social benefits

VCN is expected to reduce unemployment especially among the youth, reduce poverty and create wealth and income, improve the food security situation, improve access to social and financial services and reduce travel time especially among the teeming rural population. Rehabilitation of rural feeder roads and farm tracks will improve the life and livelihoods of more indirect beneficiaries of the project through savings in transport cost, post-harvest losses and access to the market. Hundreds more will directly benefit through short term labour, as contractors, and as construction supervisors. All these will improve adaptive capacity and strengthen resilience. The VCN will give special considerations to women, youth, people with disability, internally displaced persons (IDPs) and returning IDPs. It will assist those that have lost their hope and livelihoods to begin to rebuild their lives. Overall, **women will represent 40 percent of project beneficiaries (half of the women targeted will be WHH); 30 percent project will be youth aged 18-29 and 10% PWDs.**

5.4 Potential negative Social Risks

Labour and working conditions. This is a **substantial** risk. The total fertility rate, family size and number of children out of school is high in northern Nigeria. Poverty is also very high and literacy level is low. Although the risk of forced labour is low, the risk of using child labourers on the farm is substantial (but consistent with the National Labour Law and Child's Right Act). Some migrant labour influx may also be expected. The risk of women also carrying out unpaid labour in their husbands' farms is also substantial.

Mitigation: Gender Action Learning System (GALS) to support collaboration and cooperation between men and women for common goal. VCN will continue to sensitize project beneficiaries on the danger of using child labourers beyond the situated thresholds. It will continually monitor beneficiaries to ensure compliance with labour and working conditions.

Community health and safety. This is a **moderate** risk. Productivity of the rural population is hampered by ill-health, particularly HIV/AIDS, tuberculosis, and malaria. There is the risk of surface water pollution because of the project activities that can impact the health of poor people that depend on surface water sources in the project area. This includes risk of improper application of agrochemicals and water eutrophication. Lack of personal protective equipment (PPE) on farm poses the risk of exposure to schistosomiasis and other water-associated neglected tropical diseases. Child malnutrition is also high in northern Nigeria, and this poses risk of increased childhood mortality.

Mitigation: VCN will promote nutrition-sensitive interventions and livelihood opportunities in agrochemicals and application and waste valorization by training youths to become experts in agrochemical applications. It will promote use of appropriate PPE among farmers to safeguard human health. It will conduct periodic and safety audit to ensure clean production and processing environment.

Physical and economic displacement. This is a **low** risk. The risk of physical and economic displacement is low as the VCN will not support enterprises on disputed lands. The banditry, Boko Haram crisis and farmers-herders crisis has precipitated significant physical and economic displacement.

Mitigation: VCN will screen subprojects to ensure no physical and economic displacement. It will support the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. It will advise farmers to avoid lands in designated grazing reserves and around known grazing routes. It will also promote compulsory agric insurance for producers and processors as a 'no regret' strategy and policy dialogue on land and resource conflicts.

Financial intermediaries. This is a **moderate** risk. In the process of deepening financial inclusion, VCN will encourage and work with financial intermediaries including deposit money banks, development banks, and microfinance organizations to link them to farmers. There is a risk many of these organizations may not have environmental, social and governance systems that matches IFAD commitments to environmental, climate and social commitments.

Mitigation: VCN will require from all Financial Intermediaries and Partners their ESG system that matches IFAD commitments. Where such does not exist, VCN will request the Financial Intermediaries to adopt IFAD's SECAP procedure.

Fragility and Security: The inherent and residual fragility and security risks are both **High**. The semi-arid northern Nigeria faces complex fragility problems. This includes the insurgency in the northeast and the banditry and kidnapping crisis in the northwest. In both regions, natural resource induced crisis by different social actors including between farmers and pastoralists have elevated human insecurity risks. There are pockets of communal clashes and armed robbery cases across communities. This security and fragility problems can wipe-off investments due to farmers abandoning their fields, constrain effective project management, increase project management cost, and undermine the achievement of the PDO.

Mitigation: The VCN will support policy dialogue and engagements aimed to strengthen policy implementation and institutional service delivery across sectors. It will also contribute to addressing fragility drivers including poverty, unemployment, lack of youth empowerment, climate change, and resource decline. VCN will deepen the use of ICT and digital tools for project monitoring. It will promote climate resilient practices and sustainable land management practices to improve the natural resource base. VCN will strengthen activities that promote social inclusion and shared benefits to reduce conflicts, maintain robust grievance redress mechanisms, and build synergy and partnership with other development partners operating in the regions for shared project management in conflict experience and learning. VCN will also consider integrating a RED component (component 0) to increase the project its responsiveness to potential natural disasters.

Elite capture. This is a **moderate** risk. The chances of some 'city people' that are more exposed and financially endowed than the 'village people' coming back home to try and hijack the whole process exist. Politicians may also try to hijack and manipulate the selection processes to favour their supporters. The process of recruitment of project staff also faces the risk of hijack leading to recruitment of incompetent technical staff into the project management with its concomitant capacity issues in performance and sustainability.

Mitigation: VCN will conduct detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption. Ensure compliance with pre-approved, objective selection criteria and transparent information-sharing and decision-making. It will Sensitize communities on project objectives, target groups, beneficiary selection criteria, and risk of elite capture. It will involve all stakeholders in the process of beneficiary selection to adhere to representative and transparent decision-making related to the project.

Grievance redress. This is a **moderate** risk. The risk that the project has ineffective grievance/complaint redress processes (including with respect to allegations of non-compliance with IFAD's SECAP standards, fraud, corruption, or SEA), leading to unaddressed stakeholder complaints that may undermine project implementation and achievement of project development objectives.

Mitigation: VCN will maintain robust knowledge management, information dissemination and community engagements to keep everybody informed. It will implement simple and clear stakeholder engagement plan (SEP) with a clear complaint, grievances redress and dispute resolution framework and make this known to all stakeholders. Relevant stakeholders will be kept informed about project progress on a regular basis.

6. ENVIRONMENTAL, CLIMATE AND SOCIAL MANAGEMENT PLAN FOR VCN

6.1 Introduction

The environmental, climate and social management plans (ESCMPs) presented below are relevant to the entire VCN project value chains including production, processing, and marketing, as well as all enterprises, market infrastructure, and sub-projects whose locations are not yet known. However, for these subprojects, a separate screening as outlined in chapter 8 is still required. The outcome of subproject screening and subsequent review may lead to the development of more detailed, location- and subproject-specific ESCMPs.

6.2 Responsibilities

The Federal Ministry of Agriculture and Food Security (FMAFS) through the Project Coordinating Unit (PCU) will steer programme planning and implementation including the implementation of the ESCMF. The VCN National Programme Management Unit (NPMU) will continue to manage the implementation of activities and provide technical support to and undertake coordination of programme activities, including the implementation of the ESCMF, in each State. The NPMU and the SPMU will implement the programme in partnership with State and Local Governments and private sector partners. In the designation of responsibility both the NPMU and SPMU Officers, Ministries of Agriculture, Environment, Women Affairs, Youth, Service providers, Farmers' Organization and individual farmers are involved in the implementation of the ESMF.

6.3 Outline of the Management Plans

Tables 6.1 and 6.2 present the environment and climate and social management plans. For each of the potential overall impacts described in section 5, the plans indicate a significance rating and (geographical) extent/prevalence of each risk/impact, recommend mitigation measures, identify who is responsible for implementation of the mitigation measures, how implementation can be verified, and how frequently. The plans have been developed with the broad experience from other IFAD projects in Nigeria especially the closed out CASP which shares the same agroecological zone with VCN.

The recommended mitigation measures apply across the states. A copy of the environmental and management plans should be made available to all program staff, implementation partners, and other key stakeholder representatives. The ESCMP should also be used during pre-project community sensitization (i.e. awareness - raising and training) and during the project activities implementation.

Table 6.1: Environmental, Social and Climate Change Management Plan (ESCMP)

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
CLIMATE MITIGATION PLAN						
Flooding	Substantial	The project area is exposed to pluvial and fluvial flood runoff from high intensity and short duration rainfalls and high floods from the major rivers and their local tributaries in the project area	<ul style="list-style-type: none"> ▪ Strengthen collaboration with the Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological Service Agency (NIHSA) to improve climate services - capacity to generate forecast of extreme rainfall events and river flows and production and dissemination of weather information to farmers in local languages at regular interval. ▪ Support deployment of e-climate services app to improve dissemination of weather information to farmers. ▪ Promote e-extension to disseminate good agric and agronomic practices to farmers. ▪ Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. ▪ As much as possible discourage production around the river floodplain during the wet season. ▪ Ensure that input supports are provided to farmers ahead of time to enable them stave off the flood season. ▪ Support farmers with improved, flood-tolerant seeds ▪ Promote farmers adoption of climate-smart and good agricultural practices. ▪ strengthen extensions services to disseminate innovations and digital agriculture technologies that improve flood resilience. 	NPMU and SPU	<ul style="list-style-type: none"> ▪ Ability of NIMET and NIHSA to issue and deliver regular forecasts. ▪ Number of agro-entrepreneurs receiving and using agro-climatic information to guide farming operations. ▪ Number of farmers that signed unto agricultural insurance. ▪ Reduction in Number of farmers that lost crops to flooding. ▪ Number of farmers cultivating improved flood resistant crop varieties 	Quarterly
						Quarterly
						Annual
						Annual
Heat/Heatwaves	Substantial	All States	<ul style="list-style-type: none"> ▪ Strengthen collaboration with the Nigerian Meteorological Agency to improve climate services - to generate 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Ability of NIMET to issue and deliver climate services and forecasts. 	Quarterly

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Extreme Heat, Drought spell and Drought			<ul style="list-style-type: none"> seasonal forecast of droughts and heatwaves, dry spells and disseminate information to farmers. ▪ Support deployment of e-climate services app to improve dissemination of weather information to farmers. ▪ Promote e-extension to disseminate good agric and agronomic practices to farmer. ▪ Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. ▪ Support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spell. ▪ In addition to agric extension officers, promote climate information advocacy through radios and text messages to disseminate weather and climate information to farmers in local languages. ▪ Promote integration of traditional forecasting knowledge with science knowledge through regular feedback from farmers ▪ Promote use of improved and drought and heat tolerant seeds/seedlings ▪ Promote soil and water conservation practices ▪ Deepen climate-smart and good agricultural practices 		<ul style="list-style-type: none"> ▪ Number of farmers receiving and using agro-climatic information to guide farming operations. ▪ Number of farmers that sign on to agricultural insurance. ▪ Number of farmers using improved drought and heat/dry spell tolerant varieties <p>Number of farmers engaged in soil and water conservation practices.</p>	<p>Quarterly</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>
Wildfires	Low	All States	<ul style="list-style-type: none"> ▪ Ensure that existing regulations against bush burning are adhered to. ▪ Promote GAP to discourage slash and burn agriculture and land clearing with fire. 	NPMU, SPMU	<ul style="list-style-type: none"> ▪ Number of farmers adopting GAP to discourage slash and burn agriculture and land clearing with fire. 	Annual
GHG emissions (especially from	Moderate	All States	<ul style="list-style-type: none"> • Promote and Train farmers on draining rice paddies in mid-season to reduce methane emission and improvement in 	NPMU, SPU,	<ul style="list-style-type: none"> ▪ Number of farmers trained. 	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
rice paddies and use of firewood for processing)			nutrient management including the retention of rice residues. <ul style="list-style-type: none"> • Encourage use of clean energy in processing activities • Promote conversion of production waste into sustainable energy e.g. briquettes from rice husks, biogas from cassava effluents, etc. 		in sustainable rice paddy management <ul style="list-style-type: none"> ▪ Number of processing units using sustainable energy ▪ Number of successful demonstrations of briquette and biodigester production, and other waste to energy initiative 	Annual Mid-term, End-Term
ENVIRONMENTAL MITIGATION PLAN						
Biodiversity conservation	Low	All States	<ul style="list-style-type: none"> • Conduct environmental screening for all subprojects. Discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. • Follow through activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc.) • Avoidance of areas that infringe on known habitats and migration patterns of protected, endangered, or rare species, and maintain known wildlife migration corridor • Use nets and modern bird scaring equipment on rice field 	NPMU, SPU,	<ul style="list-style-type: none"> ▪ Number of subprojects screened for biodiversity conservation. 	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Resource Efficiency and Pollution Prevention	Substantial	All States	<ul style="list-style-type: none"> Promote resource efficiency and integrated waste management – e.g., conversion of rice waste at processing sites to briquettes. Conduct periodic monitoring of the groundwater around farm clusters. Train farmers on appropriate use of fertilizers and pesticides. Promote farmers production and use of on-farm organic manure. Promote livelihood opportunities in waste valorization. 	NPMU, SPU	<ul style="list-style-type: none"> Number of livelihood opportunities created in waste valorization. Number of periodic monitoring conducted. Number of farmers trained on appropriate use of pesticide and insecticides. Number of farmers using organic manure 	Annual Annual Annual
Cultural Heritage	Low	All States	<ul style="list-style-type: none"> Activate the procedure for chance finds and other protection and handling of cultural heritage. Discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values. 	NPMU, SPU	State of the cultural heritage at baseline and project completion	Inception and project completion
Indigenous peoples	Low	All States	<ul style="list-style-type: none"> Deepen social inclusion by considering all the social actors. Mainstream inclusion and equity through the targeting strategy. 	NPMU, SPU	Number of project beneficiaries from indigenous communities	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Labour and Working Conditions	¹⁷⁰ Substantial	All States	<ul style="list-style-type: none"> promote the implementation of the Gender Action Learning System (GALS) to support collaboration and cooperation between men and women for common goal sensitize project beneficiaries on the danger of using children labourers continually monitor beneficiaries to ensure compliance with labour and working conditions 	NPMU, SPU	<ul style="list-style-type: none"> State of the cultural heritage a baseline and project completion 	Inception and project completion
Community Health, Safety and Security	Moderate	All States	<ul style="list-style-type: none"> Promote nutrition-sensitive interventions. Promote livelihood opportunities in agrochemicals and application and waste valorisation by training youths to become experts in agrochemical applications. Promote use of appropriate PPE among farmers to safeguard human health. Conduct periodic and safety audit to ensure clean production and processing environment 	NPMU, SPU	<ul style="list-style-type: none"> Number of farmers and processors using PPE Number of people trained in fertilizers and agrochemicals applications. Number of production and processing units maintaining clean and safe environment 	Annual Annual Annual
Physical and economic resettlement	Low	All States	<ul style="list-style-type: none"> Screen subprojects to ensure no physical and economic displacement. Support the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. Advise farmers to avoid lands in designated grazing reserves and around known grazing routes. Promote compulsory agric insurance for producers and processors as a 'no regret' strategy. 	NPMU, SPU	<ul style="list-style-type: none"> Number of subproject screening conducted. Number of policy dialogue on land and resource conflicts 	Annual Annual

¹⁷⁰ Employment of children on farm by parents/guardians or for daily paid labour is consistent with Nigeria's labour law (1990) and the Child Right Act (2003)

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> Promote policy dialogue on land and resource conflicts 			
Financial intermediaries and direct investment	Low	All States	<ul style="list-style-type: none"> Request all Financial Intermediaries to show evidence of an ESG system that matches IFAD commitments. Where such does not exist, request the Financial Intermediaries to adopt IFAD's SECAP procedure 	NPMU, SPU	<ul style="list-style-type: none"> Number of FI with ESG systems 	Inception and project completion
Agrochemical Waste proliferation and water pollution	Moderate	All States	<ul style="list-style-type: none"> Support the use of improved and disease resilient crop varieties to reduce pest incidence and use of agrochemical. Promote training and certification of the 'spraying groups' in sustainable application of agrochemicals. Encourage use of organic manures Encourage service providers and agrochemical input suppliers to follow high standard of security and safety precautions in storage and transport of agrochemicals. Collaborate with NAFDAC and SON in training of 'spraying groups' and elimination of fake and expired agrochemicals Promote waste valorization to reduce waste proliferation 	NPMU, SPU	<ul style="list-style-type: none"> Number of farmers using improved and disease resistant crop varieties Number of youth trained and certified in integrated pesticide and agrochemical management 	Annual Annual
Erosion and landslide	Substantial	All States	<ul style="list-style-type: none"> Promote landscape rehabilitation and agronomic practices such as contour ploughing, terraces, and contour bunds, etc. to control soil erosion. Encourage the planting of cover crops and anchor crops with the main crop. Ensure that all farm to market roads constructed/rehabilitated must have drainage to prevent erosion. Design and construction of roads, bridges, and culverts to be climate-smart and properly monitored to prevent inappropriate termination that can lead to erosion. 	NPMU, SPU and Service Providers	<ul style="list-style-type: none"> No of farmers adopting soil and water conservation strategies and sustainable agronomic practices including nature-based solutions. Kilometer of road constructed/rehabilitated with drainages. 	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> ▪ Collaborate with other projects such as ACRESAL for synergy on erosion control. ▪ Support farmers with capacity building on soil and water conservation and landscape rehabilitation techniques ▪ Strengthen extension services to disseminate innovations and digital agriculture technologies that improve climate resilience. ▪ Promote nature-based solutions shrubs/grasses – e.g., Vetiver and Datura arboreal (Mahukachi) planting to check active erosion. 		<ul style="list-style-type: none"> ▪ Kilometer of road constructed/rehabilitated that are climate-smart and with proper termination. 	<p>Mid-term, End-Term</p> <p>Mid-term, End-Term</p>
Land/soil degradation and forest degradation	Substantial	All States	<ul style="list-style-type: none"> ▪ Require production of project specific ESMP by contractors for all feeder roads, small dams, and other market infrastructure construction ▪ Train farmers and service providers on sustainable land development and preparation methods including zero or minimum tillage. ▪ As much as practicable, encourage mixed cropping of target crops with cover crops and anchor crops where applicable. ▪ involve partners from the Ministry and research institutes in training of farmers on soil conservation techniques. ▪ promote agroforestry and farmers managed regeneration with economic and fertilizer trees 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of ESMP produced for market infrastructures ▪ Number of farmers that received training on GAP, sustainable land management and integrated soil and water management. 	<p>Annual</p> <p>Annual</p>

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Pest and diseases Infestation	Moderate	All States	<ul style="list-style-type: none"> Synchronized planting for all farmers to enable synergy in bird control. Promote use of pest resistant crop variety. Strengthen partnership with research institutes and universities to improve capacity to predict pest infestation. 	NPMU, SPU,	<ul style="list-style-type: none"> Number of farmers that received training on integrate past management. Number of farmers using disease and pest resistant see varieties 	Annual Annual

Social Management Plan

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
SOCIAL MITIGATION PLAN						
Fragility and Resource conflicts especially farmers-pastoralists clashes	High	All States	<ul style="list-style-type: none"> Set up the CAF (to include traditional council and social and livelihood groups) to strengthen conflict resolution especially between farmers and pastoralists Facilitate regular dialogue meeting of the stakeholders to review conflict resolution issues. Outline clear grievance or complaint channels. Avoid investments along known stock grazing routes and in known grazing reserves. 	State Government, communities, NPMU, SPU	<p>A functional CAF in each state</p> <p>Number of agro entrepreneur that signed on to insurance</p> <p>Number of conflict dialogue convened.</p>	Annual Annual Mid Term

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> ▪ Promote policy dialogue on conflict resolution. ▪ Support compulsory agro-insurance for beneficiaries ▪ As much as possible, avoid investment in conflict hotspots. ▪ Deepen the use of digital tools for project monitoring. ▪ promote sustainable land management practices to make more arable lands available. ▪ 			
Grievance Redress among group members	Moderate	All states	<ul style="list-style-type: none"> ▪ Maintain robust knowledge management, information dissemination and community engagements to keep everybody informed. ▪ Develop a clear complaint, grievances redress and dispute resolution framework and make this known to all stakeholders ▪ Develop a clear and simple stakeholder engagement plan (SEP) ▪ Keep relevant stakeholders informed about project progress on a regular basis. ▪ Involve youth and women leaders as well as respected elders in key project decisions and sensitization activities. ▪ Publicly disclose relevant information on contracts and payments. ▪ Encourage contractors / service providers to give employment preference to local community members. ▪ Develop a code of conduct for all stakeholders. ▪ Sensitize women and particularly youth on what it's like to be an agri-entrepreneur (give a realistic picture of economic, social, and 	NPMU, SPU,	<p>Stakeholder engagement plan (SEP)</p> <p>Stakeholder meeting reports, project flyers</p> <p>Complaints register.</p> <p>Meeting records, observation</p> <p>Service provision contract and employment lists</p> <p>Code of conduct</p>	<p>Inception</p> <p>Quarterly</p> <p>Quarterly</p> <p>At every project activity</p> <p>Upon award of contracts and after payments</p>

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<p>environmental benefits but also challenges and responsibilities).</p> <ul style="list-style-type: none"> Where feasible, involve locally trusted CSOs in community sensitization. 		Knowledge management materials	Quarterly
Land tenure and land access for women and youth	Substantial	All States	<ul style="list-style-type: none"> Support policy dialogue for land policy and land reform Deepen sensitization and advocacy across the states and participating communities on land tenure and access to land for intended beneficiaries. Make access to land by women and youth one of the preconditions for a community to participate in the project. 	NPMU, SPU	<p>Land reform promotion document and Policy dialogues</p> <p>Number of women and youth participating in the project</p> <p>Number of people without access to land participating in the project</p> <p>Number of secure land access agreement signed.</p>	<p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>
Gender inequality	Substantial	All States	<ul style="list-style-type: none"> Engage women organizations and advocacy groups to mobilize women to participate Provide concessions/incentives to women farmers to enable them participate. Encourage men through advocacy to support women participation through guarantee of land and other resources required promote mainstreaming of the GALS strategy pursue implementation of the project targeting strategy promote more women-friendly (especially young married and unmarried women) activities including processing, 	NPMU, SPU	Number of women and youth participants	Quarterly

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<p>waste to wealth, home gardens, home poultry and goat rearing, etc.</p> <ul style="list-style-type: none"> ▪ promote activities that appeal to the youth, including opportunities in use of digital agriculture technology and labour savings technology 			
<p>Social exclusion of women, youth and people living with disability due to limited access to land/or fund</p>	<p>Substantial</p>	<p>All states</p>	<ul style="list-style-type: none"> ▪ Stick to the project targeting strategy ▪ Actively involve women and youth in all components and levels of decision-making within the project. ▪ Promote mainstreaming of the GALS strategy ▪ Encourage and support the submission of business proposals from more women-only groups. ▪ Ensure women hold at least 30-40% of leadership posts in the farmer apex organizations and project management team. ▪ When organizing meetings or events, ensure they are appropriate to women's time and venue constraints. ▪ Access to land for women and youth should be a precondition for community selection/participation. ▪ Ensure that people living with disability (PLWD) are allocated certain percentages and given priority in the businesses that suit their condition (especially in processing and marketing) ▪ To avoid obstructionism, ensure men are 'carried along' in sensitization activities. 	<p>NPMU, SPU,</p>	<p>Attendance lists</p> <p>Lists of approved projects and their beneficiaries</p> <p>Membership and staff list</p> <p>Attendance lists at sensitization workshops and beneficiary / community feedback during site visits</p> <p>Community agreement on land access for women and youth</p> <p>Number of PLWD beneficiaries</p>	<p>At every project activity</p> <p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Managing expectations	Moderate	All States	<ul style="list-style-type: none"> ▪ The project targeting should be explicitly and transparently explained in the project implement manual (PIM) ▪ Selection criteria, what the project offers and expectations from intended beneficiaries should be explicit and unambiguous (and translated into the local languages so that everybody will be carried along) ▪ Carry the community and beneficiaries' representatives along in the project implementation (and possibly the traditional leaders or their representatives) in every stage of project implementation ▪ Maintain robust knowledge management and information dissemination to keep everybody abreast of happenings 	NPMU, SPU,	<p>Project implementation manual</p> <p>Project selection criteria in local languages</p> <p>Knowledge management and communication material</p>	<p>Before project commencement</p> <p>s</p> <p>6months into project</p> <p>Quarterly</p>
Unsafe and non healthy working conditions and Health challenges	Substantial	All States	<ul style="list-style-type: none"> ▪ Incorporate environmental and social guidelines in contracts with service providers and ensure compliance. ▪ Sensitize project beneficiaries and their wider communities on health & safety standards, including safe use of production, processing and transport machinery, agro-chemicals 	NPMU, SPU	Contractor Guidelines	<p>Within 6 months of project start and half-yearly review thereafter</p> <p>Within 6 months of project</p>

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<p>and production machinery.</p> <ul style="list-style-type: none"> ▪ Sensitization of selected communities on child rights and ensure that there is no child labour ▪ Train the 'spraying groups' on safe and healthy handling of agrochemicals ▪ Compulsory periodical health check for farmers and spraying gangs ▪ improve nutrition-sensitive interventions. ▪ create livelihood opportunities for youth in agrochemicals application and waste valorisation. ▪ promote use of appropriate PPE among farmers to safeguard human health. ▪ continually monitor beneficiaries to ensure compliance 		<p>Health & Safety flyer or poster</p> <p>Community meeting</p> <p>Number of spray groups that have undergone training.</p>	<p>start, half-yearly thereafter</p> <p>Within 6 months of project start and half-yearly review thereafter</p> <p>Annual</p>
Elite and Political Hijack	Moderate	All States	<ul style="list-style-type: none"> ▪ Detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption. ▪ Ensure compliance with pre-approved, objective selection criteria and transparent information-sharing and decision-making ▪ Sensitize communities on project objectives, target groups, beneficiary selection criteria, and risk of elite capture ▪ Agreement with traditional rulers and council of elders on community and beneficiary selection, and adherence to representative and transparent decision-making related to the project 	NPMU, SPU,	Completed proposal screening forms	Annual
Loss and Disturbance of Cultural Resources	Low	All States	<ul style="list-style-type: none"> ▪ Do not approve projects to be sited in or around sacred forests and community groves and archaeological sites or that will impact biocultural resources of 	NPMU, SPU,	Report on Inventory of cultural resources	Project Inception

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
such as sacred forest and archaeological site			importance ▪ the procedure for chance finds and other protection and handling of cultural heritage should always apply			

6.4 Stakeholder Engagement, Community Sensitization and Expectation Management

Experiences with previous IFAD projects has shown that engagement of stakeholders and target groups are critical to success. In the absence of clear communication with relevant stakeholders and appropriate sensitization of local communities, rumors, misinformation, and speculation thrive, and accusations and tensions easily boil over into conflicts. Therefore, the VCN has developed a stakeholder engagement plan with a clear communication strategy. The stakeholder engagement plan encapsulates the (i) principles, objectives, and scope of engagement (ii) regulations and (institutional) requirements, (iii) summary of previous stakeholder engagement activities carried out during the concept note and project design stages (iv) stakeholder mapping and analysis (v) strategies of engagement (vi) key messages and communication channels (vii) grievance mechanism, (viii) resources and responsibilities, and (ix) monitoring and evaluation.

The stakeholder engagement plan has identified the key stakeholders including Project Affected Parties (PAP), Interested Parties, and Disadvantages and vulnerable persons and groups. In addition, it also identified their levels of influence and interests.

The identified PAP include host communities in project area, community members in the project host communities, crop farmers, livestock farmers and pastoralists (who will benefit from water source provision), community development associations, farmers organizations, women groups, other community associations and groups, etc. This group have low influence, but high interest in the VCN project. They are mainly potential project beneficiaries.

The vulnerable or disadvantaged groups classified in the context of this project, include elderly people above the age of 65, female headed households, persons with disabilities, people living in extreme poverty (e.g., unemployed youths), internally displaced people (IDPs), victims of gender-based violence and sexual exploitation and abuse and sexual harassment, orphans, migrant laborers, etc. This group of people also have high interest but low influence on the project. They are directly impacted by the project and are also potential beneficiaries.

The project affected parties and vulnerable or disadvantaged groups are at the grass root level. Without focused assistance, they may not be able to participate in the decision-making process of the project. The plan is to focus efforts on these groups of stakeholders throughout the project cycle, involving them in regular consultations throughout the project cycle, ensuring adequate use of the grievance redress and feedback channels to engage and keep them satisfied, and keeping them in the loop on decisions that will influence project design and implementation.

The Interested Parties is made up of stakeholders who may not be directly or indirectly impacted by the project, but who have the potential interest to influence the project outcomes through their statutory functions and mandates or other factors. They include Ministries, Departments and Agencies with statutory roles in the implementation of VCN in the various participating states. They include the Federal Ministries of Agriculture and Food Security and Finance and other interested MDAs at Federal levels. At the states level, they include Office of the State Governor and MDAs related to Agriculture, Finance, Environment, Water Resources, Women Affairs, Humanitarian, etc. This group also include NGOs, CSOs, CBOs, Traditional/Community Leaders, etc. They have high influence and high interest on the project. They provide implementation support, governance, and oversight, both technical and financial support for the project.

6.5 Grievance Management

Having a good overall stakeholders and target group engagement process in place and providing access to information on a regular basis can substantially help to prevent grievances from arising in the first place, or from escalating to a level that can potentially undermine project performance. To reduce conflicts, VCN will institute a robust grievance / complaints mechanism that meets the following criteria.¹⁷¹:

- a) *Legitimate*: enabling trust from the stakeholder groups for whose use they are intended and being accountable for the fair conduct of grievance processes.
- b) *Accessible*: being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face barriers to access.
- c) *Predictable*: providing a clear and known procedure with an indicative time frame for each stage, and clarity on the types of process and outcome available and means of monitoring implementation.
- d) *Equitable*: seeking to ensure that aggrieved parties have reasonable access to sources of information, advice, and expertise necessary to engage in a grievance process on fair, informed and respectful terms.
- e) *Transparent*: keeping parties to a grievance informed about its progress and providing sufficient information about the mechanism's performance to build confidence in its effectiveness and meet any public interest at stake.
- f) *Rights-compatible*: ensuring that outcomes and remedies accord with internationally recognized human rights.
- g) A source of *continuous learning*: drawing on relevant measures to identify lessons for improving the mechanism and preventing future grievances and harms; and
- h) Based on *engagement and dialogue*: consulting the stakeholder groups for whose use they are intended on their design and performance and focusing on dialogue as the means to address and resolve grievances.

The GRM identifies potential issues that may necessitate GRM and require mitigation. These include community member not adhering to cut-off date as announced during consultation, dispute about ownership of assets, delay in disbursement and improper distribution of assistance, land acquisition, restriction of access and displacement, non-inclusion of community members in project beneficiary and paid labour/workforce; unclear beneficiary inclusion/exclusion criteria, unrealistic corporate social responsibility (CSR) expectations from the client or contractors by community members, omission of eligible PAPs, delay in execution of sub-projects leading to breakdown of trust, non-implementation or discrepancies in the implementation of safeguard documents, and potential risk of GBV, SH and SEA of vulnerable people as a result of project implementation, among others.

VCN will activate IFAD's procedure that allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. The Project implementation unit and IFAD will be committed to: (i) working proactively with the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions¹⁷².

Information Disclosure: VCN SEP will make provision for disclosure of safeguard documents to project-affected and other interested stakeholder mapped during stakeholder's identification exercise. Appropriate project information, particularly on

¹⁷¹ Office of the High Commissioner on Human Rights (OHCHR) (2011), *UN Guiding Principles on Business and Human Rights* (OHCHR: Geneva), pp.33-34

¹⁷² IFAD (2016) *Managing Risks to Create Opportunities. IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)* (IFAD: Rome), p.12

environmental, climate and social risks and impacts, shall be disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format. Disclosed materials/documents shall be made available at venues and locations convenient for the stakeholders and places to which the public have unhindered access.

7. REVIEW OF ENVIRONMENTAL, CLIMATE, SOCIAL IMPACTS OF VCN SUB-PROJECTS

7.1 Potential Impacts and Recommended Mitigation for Agri-Enterprise Projects

The major value chains pre-identified for the VCN Project include **Sorghum, Maize, Rice, or Millet (staple food for food security), Cowpeas, Sesame, Groundnuts or Soyabean (Cash crops for incomes) and Fruits, Vegetables (Horticulture crops to improve dietary diversity and health)**. For effectiveness, the VCN will support a maximum of seven crops, with each state prioritizing a maximum of five crops based on its context and comparative advantage. Their production, processing and marketing will support additional value chains including transportation, agrochemical applications, and waste valorization and resource efficiency.

7.1.1 Cereals (Rice, Sorghum, Maize, and Millet Cultivation) and Processing

Cereals (including Rice, Sorghum, Maize, and Millet) are the most important staple food in northern Nigeria. They are suited to the flood plains, major river valleys and upland areas. Flooding is the major environmental and climate impact on cereals. In recent past, several cereal farms have been lost to floods. In some cases, droughts and dry spells have also been responsible for additional replanting costs as the plants wilted from low water and high temperature. Both floods and dry spells effects are often aggravated by lack of agroclimatic information on key parameters including onset and cessation of the rains and duration and time of dry spells and lack of irrigation. These impacts can be mitigated through strong collaboration with the Nigerian Meteorological Agency to prepare and disseminate place-specific forecasts for farmers and provision of small irrigation structures and facilities including boreholes and tube wells, pumping machines, etc.

Cereal production may also impact on biodiversity, especially birds and rodents' population that feed on grains. They also lead to forest and woodland degradation through selective cutting of trees for rice parboiling by local rice processors. Cereal waste, which can constitute a nuisance to the environment, has the potential of being converted into briquette for parboiling and household cooking and heating purposes. The harvested stems can also be used for feeding cattle. Cereal cultivation requires agrochemicals and pesticides that can easily pollute surface and ground water bodies and environment. They are also vulnerable to pest infestations which may lead to considerable loss of investment if not checked on time. The planted seeds varieties and agronomic practices applied are also important to the expected yield per hectare. Bad seeds can lead to substantial loss of investments. Thus, seed quality control is imperative to maintain the expected return on investment.

Enteric fermentation leading to emission of greenhouse gases (especially methane) from rice paddies remains a strong impact on climate which is yet to be addressed. Although GHG emissions from rice fields can be reduced by periodically draining the rice paddies, farmers need to be trained in doing this. Higher temperatures can make rice sterile with low productivity.

Resource conflicts between farmers and pastoralists driven by climate change and poor land governance regimes poses significant threats to investments and human security. These can be reduced by building mutual understanding and confidence between the two social groups – farmers and pastoralists. VCN will learn from the Commodity Alliance Forum (CAF) conflict reduction strategy applied by VCDP.

Some of the recommended mitigation measures for cereal farming include:

- Encourage the farmers to take risk transfer as loss mitigation measures – encourage and assist farmers to sign on to climate risk (including flood and

drought) insurance with the National Agriculture Insurance Corporation (NAIC). This will also mitigate possible losses from farm destruction occasioned by grazing livestock.

- Improve collaboration with NIMET to ensure production and dissemination (using existing extension vehicles and on smart android devices) of key agroclimatic information to farmers in local languages and at frequent intervals. VCN can learn from VCDP (and the completed CASP) in this regard.
- As much as is possible, discourage cultivation in areas that are very close to the major river systems to minimize overflow during normal flow seasons
- Improve collaboration with research institutes (such as Africa Rice, Nigerian Cereal Research Institute, etc.) to introduce flood and drought tolerant and early maturing/short duration varieties to the farmers. This may make the peak flooding season coincides with post-harvest season rather than pre-harvest season as have witnessed in recent times
- Support for Seed lab - Strengthen the seed labs to be able to carry out rigorous tests on seeds to ensure that only genuine foundation seeds are used by farmers to reduce loss or poor return on investment
- Ensure training and certification of 'spraying groups' on what to apply, at what stage, and in what density, and human impacts (including need to wear protection gear) to safeguard the health of crops, soils, water, and the people
- Collaborate with chemicals regulatory agencies (National Agency for Food Drug Administration and Control (NAFDAC) and Standard Organization of Nigeria (SON)) to ensure that agrochemicals are genuine (eliminate expired and banned chemicals) and in training of spraying gangs and farmers
- Encourage the use of organic manure in farms as much as possible
- Make provision for conversion of cereal wastes to briquette and biochar
- Train-of trainers (TOT) for extension workers to step down training of farmers on methods for draining rice paddies in mid-season to reduce GHG emission.
- Make provision for improved modern bird scaring-equipment on farms to reduce birds' impact on cereals farms and maintain birds' population viability
- Synchronized production timing for efficiency in bird management
- Improve community and neighborhood security arrangements by supporting dialogue and understanding between farmers and pastoralists to reduce resource conflicts
- Avoid farming along recognized grazing routes and demarcated grazing reserves
- Promote efficient land management as adaptation.

7.2 Potential Impacts and Recommended Mitigation for Market Infrastructure Projects

The following are some of the (market) infrastructure projects likely to be embarked upon by VCN Project

1. Construction and rehabilitation of market connected farm roads and farm tracks
2. Construction and rehabilitation of culverts and bridges
3. Construction and rehabilitation of processing facilities
4. Land development activities
5. Construction/rehabilitation of small earthen dams and irrigation schemes for dry season farming
6. Construction/Rehabilitation of drinking water systems for people and animals

Some of the potential impacts of market infrastructure development include:

7.2.1 Land Access

Market infrastructure will require the availability of land resource for their provision. The arrangement made for land will go a long way in determining sustainability of market infrastructure. Land development, irrigation activities and road construction all require large expanse of land. Some preconditions for market infrastructure include assurance that government or the community has guaranteed the lease of land to the beneficiaries during the program life, and the development of strategies for the maintenance and sustainability of the infrastructure by the concerned parties. This include setting up, training, and empowering of the community O&M committees.

7.2.2 Dust, Vibration and Noise

The degree to which individuals perceive dust to be a nuisance depends on the frequency, intensity, and duration of a dust-generating event. Farmers usually engage in a variety of activities that uses equipment or practices that create dust. Most land clearing equipment generates some dust. Dust may also be generated as fugitive dust when fine particulates are lifted from fields, roads, buildings, and yards via air turbulence. The main mitigation measures recommended for mitigating dust including dust protection masks for machine operators and the spraying of water to reduce the level of dust during construction and/or transport activities.

Heavy equipment used for road construction create ground vibrations such that cracks can occur in adjacent buildings. These can also create some form of discomfort to inhabitants of the surroundings. An assessment of surrounding buildings would be carried out to ascertain the level of susceptibility to cracks because of ground movement. The buildings are to be strengthened and compensation paid for damages where it is unavoidable. Noise from the use of equipment is also a major concern. Operators should only use construction equipment that produces a moderate decibel level and consider the times when people will experience less discomfort (i.e. daytime only). Road construction and rehabilitation contractors will be expected to produce Environmental Management Plans for road construction and conduct environmental screening for the construction of farm tracks.

7.2.3 Deforestation

The removal of vegetation cover and trees during construction can lead to deforestation and should therefore be avoided as much as possible. Where tree removal is unavoidable, this should be compensated by tree and vegetation replanting along the constructed roads. Trees removed from farm during land preparations should be compensated by planting trees in addition to hedges along the farm boundaries. Agroforestry should be encouraged for both cereals and vegetables to improve the environment and natural resources. An average of 15 trees per hectare is recommended in land development sites. In Madhya Pradesh (Central India) and average of 20 Acacia Nilotica (locally called Babul) trees are found per hectare of upland rice fields. The fertilizer tree (*faidherbia albida*) agroforestry promoted by CASP should be adopted for sustainability.

7.2.4 Surface and Ground Water Contamination

Unchecked and unmonitored surface and underground exploration, for example during dams' construction, can lead to ground water contamination. Appropriate impact studies/assessments will be conducted to determine the surface and groundwater potentials and water withdraw and drawdown in the VCN project area.

7.2.5 Flooding/ Erosion

The VCN project area is generally vulnerable to both flooding and erosion. Flooding and erosion can also be triggered by poor judgment and poor design and construction practices. Adequate drainage should be provided for surface water run-off in all the roads to be constructed or rehabilitated. Vegetation cover should be provided for slopes and indigenous grasses and shrubs with proven ability to stop erosion (e.g. Mahukachi) should be planted in areas undergoing erosion. Unnecessary dugouts, burrow pits, and/or excavation of soil from its natural terrain should be avoided to reduce flooding. Replacement of dug out soils should be carried out when necessary.

7.3 Environmental, Social and Climate Management Framework (ESCMF)

Table 7.1 provides a framework for managing the likely impacts of the various activities expected to be implemented during the key stages in the value chain, i.e. production, processing, marketing, transport (and supply). It is important to emphasize that these management plans are relevant to the entire VCN project, including the agri-enterprise and related infrastructure sub-projects whose locations are not yet known.

Table 7.1 Environmental , Social, and Climate Management Framework (ESCMF) for VCN Agricultural Value Chain Stages

Stages in value chain	Key issue affecting the	Potential impact (positive and negative)		Economic	Standard Mitigation Measures	Monitoring & indicators
		Environmental/Climate	Social & Institutional			
<i>Production</i>	<ul style="list-style-type: none"> <input type="checkbox"/> Land preparation – land clearing, cultivation, and other issues <input type="checkbox"/> Use of earth-moving machines, e.g. tractors for clearing <input type="checkbox"/> Use of agro-chemicals <input type="checkbox"/> Use of pesticides 	<ul style="list-style-type: none"> <input type="checkbox"/> Woodland loss <input type="checkbox"/> Land & soil degradation <input type="checkbox"/> Water and soil pollution <input type="checkbox"/> Flooding <input type="checkbox"/> Erosion <input type="checkbox"/> Wild fire <input type="checkbox"/> Biodiversity loss <input type="checkbox"/> Waste management issues <input type="checkbox"/> GHG emission 	<ul style="list-style-type: none"> <input type="checkbox"/> Increased youth, women, and men employment directly and indirectly <input type="checkbox"/> Increased sense of pride and responsibility by participating youth and women <input type="checkbox"/> Resource conflicts <input type="checkbox"/> Possible agitation from youth not presently included in the programme <input type="checkbox"/> Social exclusion - women and youth and PLWD • Use of child labour ▪ Possible loss of cultural assets 	<ul style="list-style-type: none"> • Increased household income and reduced poverty <input type="checkbox"/> Increased youth employment and social well-being <input type="checkbox"/> Improved nutrition and food security <input type="checkbox"/> Increased ability of women and youth to manage their enterprises in productive and profitable manner, thereby increasing GDP and manpower development <input type="checkbox"/> Increased import substitution especially of rice <input type="checkbox"/> But increasing associated environmental and social costs 	<ul style="list-style-type: none"> <input type="checkbox"/> As much as possible, discourage the opening of virgin forests <input type="checkbox"/> Train farmers in sustainable land management practices and agrochemical management <input type="checkbox"/> Deliver training and agricultural inputs to farmers on-time to enable them to adjust and adapt their planting and harvesting methods and timing <input type="checkbox"/> Adopt and enforce health, safety, and environment rules at production sites <input type="checkbox"/> Encourage full exploration of the value chain including soil testing and agrochemical services <input type="checkbox"/> Develop a clear and simple Stakeholder Engagement Plan (SEP), incl. grievance mechanism, to manage expectations <input type="checkbox"/> Actively involve women and youth in all components and levels of decision-making within the project 	<ul style="list-style-type: none"> <input type="checkbox"/> Number of farmers that received training on sustainable land preparation <input type="checkbox"/> Change in woodland area <input type="checkbox"/> Results from periodic soil and water analysis <input type="checkbox"/> Health, safety, and environment manual <input type="checkbox"/> Number of value chain enterprises around soil testing and agrochemicals management <input type="checkbox"/> Stakeholder Engagement Plan <input type="checkbox"/> Conflict resolution committee meetings <input type="checkbox"/> Lists of approved projects and their beneficiaries <input type="checkbox"/> A greement on land access for women and youth and PLWD and land lease documents

Stages in value chain	Key issue affecting the	Potential impact (positive and negative)				
		Environmental/Climate	Social & Institutional	Economic	Standard Mitigation Measures	Monitoring & indicators
Processing	<input type="checkbox"/> Use of processing machine Parboiling of Rice	<input type="checkbox"/> Waste generation <input type="checkbox"/> Air, water, and land pollution <input type="checkbox"/> GHG emission from machines <input checked="" type="bullet"/> Use of wood for heating/parboiling	<input type="checkbox"/> Unsafe and non-healthy working conditions <input type="checkbox"/> Possible use of child Labourers <input checked="" type="bullet"/> Migration influx to processing sites	<input type="checkbox"/> Increased sales and household income <input type="checkbox"/> Increased youth employment and social well-being <input type="checkbox"/> Improved processing capacity, value additions and value chain development <input type="checkbox"/> Improved nutrition and food security <input type="checkbox"/> Increased ability of youth to manage their enterprises in productive and profitable manner, thereby increasing GDP and manpower development <input type="checkbox"/> Increased import substitution of Rice <input type="checkbox"/> But increasing associated environmental and social costs	<input type="checkbox"/> Encourage the use of renewable and low-carbon energy sources during processing operations <input checked="" type="bullet"/> Encourage waste valorization and resource recycling <input type="checkbox"/> Adopt health, safety, and environment rules at processing sites <input type="checkbox"/> Train farmers in sustainable agro-processing practices to reduce environmental impacts <input type="checkbox"/> Step up knowledge management and information dissemination to showcase the achievement of the project	<input type="checkbox"/> Number of operators adopting renewable low carbon technologies <input type="checkbox"/> Number of enterprises established focusing on processing <input type="checkbox"/> Number of entrepreneurs adopting sustainable processing operations <input type="checkbox"/> Knowledge management /Communication plans, stakeholder meeting reports, communication project flyers/leaflets

Stages in value chain	Key issue affecting the	Potential impact (positive and negative)				
		Environmental/Climate	Social & Institutional	Economic	Standard Mitigation Measures	Monitoring & indicators
<i>Marketing</i>	<input type="checkbox"/> Construction of market infrastructure ¹⁷³	<input type="checkbox"/> Dust, smoke, noise, ground movement / vibration <input type="checkbox"/> Deforestation <input type="checkbox"/> Water pollution <input type="checkbox"/> Flooding and erosion from poorly constructed culverts, roads, etc.	<input type="checkbox"/> Better access to market <input type="checkbox"/> Better access to production and processing sites by supervisory agencies <input type="checkbox"/> Improved access to rural communities <input type="checkbox"/> Conflict over land and demand for compensation where infrastructure is to be constructed	<input type="checkbox"/> Improved market penetration <input type="checkbox"/> Access to market information and market linkage and support services <input type="checkbox"/> Strengthened market value chain, with more profitable enterprises <input type="checkbox"/> Improved storage and reduced waste and postharvest losses	<input type="checkbox"/> Use construction equipment with moderate decibel during construction <input type="checkbox"/> Develop/adopt and enforce health, safety, and environment rules at construction sites <input type="checkbox"/> Lawful and willing consent of community/or individuals on land site for market infrastructure <ul style="list-style-type: none"> • Roads must be constructed with drainages 	<input type="checkbox"/> Observation of construction equipment for dust, noise, smoke, vibration, etc. <input type="checkbox"/> Work inspection report on the environmental quality of market infrastructure <input type="checkbox"/> Health, safety, and environment plans <input type="checkbox"/> Copy of consent of community /individuals on market infrastructure land site
<i>Transportation</i>	<input type="checkbox"/> Use of motorized and heavy transportation machines	<input type="checkbox"/> GHG emission from transportation	<input type="checkbox"/> Influx of rural Migrant workers to agri-enterprise sites and processing areas <input type="checkbox"/> Increased number of service providers, which boost the economy	<input type="checkbox"/> Increased ownership of motorized and other transport system <input type="checkbox"/> Increased number of service providers <input type="checkbox"/> Increased GDP <input type="checkbox"/> But increasing associated environmental and social costs	<input type="checkbox"/> Organize transport entrepreneurs into an association for easy management <input type="checkbox"/> Develop a code of conduct, and health, safety, and environment regulation for transport operators	<input type="checkbox"/> Code of conduct for transport operators <input type="checkbox"/> Minutes of meetings of transport operators' association

¹⁷³ Infrastructures within the Category B only.

7.4 Analysis of Alternatives

Environment and climate change mainstreaming in agriculture to build resilient, climate-smart and environment-friendly agriculture aligns with government policy intentions and well captured in government documents including: National Agricultural Technology and Innovation Policy (NATIP 2022-2027), National Development Plan (NDP, 2021-2025), Agricultural Sector Food Security and Nutrition Strategy (AFSNS 2016 – 2025), National Gender Policy in Agriculture, National Climate Change Policy Response and Strategy, Environmental Impact Assessment (EIA) Act (2004), Nigerian National Policy on Environment (revised 2016), National Agricultural Resilience Framework, Nigeria’s Third National Communication under the UNFCCC, and Nigeria’s Intended Nationally Determined Contribution (INDC) to GHG Emission Reduction Targets under the Paris Climate Agreement. The VCN will move in this direction of mainstreaming.

The VCN value chain crops include Sorghum, Maize, Rice, or Millet (staple food for food security), Cowpeas, Sesame, Groundnuts or Soyabean (Cash crops for incomes) and Fruits, Vegetables (Horticulture crops to improve dietary diversity and health). Generally, the approach to cereals cultivation in Nigeria is to use any available seeds with little concern for quality. The VCN will focus on providing to the farmers high yielding, flood, and drought tolerant and pests and insects’ resistant seeds varieties. Farmers will be encouraged to adopt climate-smart agronomic practices as set out in Table 7.2.

Table 7.2: Alternatives Promoted through Climate and Environment Mainstreaming

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
Cereals (Rice, Maize, Sorghum, and Millet,	<ul style="list-style-type: none"> • Use of untested seedlings and uncertified seeds • Wrong application of soil amendments and agrochemicals • Use of low yield and long gestation varieties • Use of non-flood and drought resistant seed varieties • Fertilizer spreading • Tillage operations remove all trees and vegetation. • Use of inorganic crop protection chemicals • No risk transfer measures to mitigate losses. • Farming activities not guided by agro-climatic information. • Waste poorly managed and constituting a nuisance. • Fuelwood as main energy sources for processing • No access to irrigation • Substantially limited to the short rainy season • Farms mainly cultivated for subsistence. 	<ul style="list-style-type: none"> • Encourage transplanting of tested seedlings and seeds from certified suppliers • Encourage soil sample analysis for appropriate agrochemical applications. • Train and certify spraying groups to carry out agrochemical spraying enterprise. • Encourage the adoption of improved, high yield, drought, and flood tolerant and pest resistant and early maturing varieties. • Encourage deep application of urea at 6cm-10cm depth. • Encourage minimum or zero tillage. • Encourage the use of organic crop protection solutions like Neem oil. • Encourage use of organic fertilizers and farmyard manure • Encourage carbon sequestration activities (improving organic carbon levels in the soil) through agroforestry. • Fence farms with hedges to reduce animal intrusion. • Leverage stakeholder engagement to co-manage common resources.

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
		<ul style="list-style-type: none"> • Encourage farmers to sign-on to agricultural insurance for 'no regrets and risk transfer. • Strengthen collaboration to ensure farming activities are guided by agro-climatic information for better timing. • Create value chain for resource efficiency and waste conversion to briquette. • Intermediate processing requiring energy to be done with locally produced green energy technology such as briquettes made from waste, as well solar and other renewable and efficient energy sources. • Construct small dams and irrigation structures for dry season farming. • Train farmers on sustainable land management including soil and water management and landscape rehabilitation to retain water for longer cropping time. • Encourage linkage with prefinance and offtakers out-grower schemes
Legumes and vegetables (cowpea, soybean, and onion)	<ul style="list-style-type: none"> • Use of spent and low-quality seeds • Wrong application of soil amendments and agrochemicals • Use of low-yield and long gestation varieties • Fertilizer spreading • Tillage operations remove all trees. • Use of inorganic crop protection chemicals • Waste poorly managed • No risk-transfer mechanisms • Production activities not guided by agroclimatic information. • Vegetation on farmed land totally removed. • Poor application of technology for erosion and flooding control 	<ul style="list-style-type: none"> • Encourage intercropping and strip cropping with cereals as applicable to improve soil conditions. • Create value chains around resource efficiency. • Encourage soil sample analysis. • Encourage the adoption of improved varieties. • Encourage linkage without grower and prefinancing schemes. • Encourage fertilizer application at 6cm-10cm depth. • Encourage minimum or zero tillage. • Use organic crop protection solutions like Neem oil. • Encourage carbon sequestration activities (improving organic carbon levels in the soil) • Leverage stakeholder engagement to manage common resources. • Encourage farmers to sign on to agricultural insurance for 'no regrets and risk transfer mechanisms • Strengthen collaboration to ensure farming activities are guided by

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
		<p>agro-climatic information for better timing.</p> <ul style="list-style-type: none"> • Encourage agroforestry to maintain trees on farms, and replant trees along farm borders. • Train farmers on sustainable land management including soil and water management and landscape rehabilitation to retain water for longer cropping time. •

8. ENVIRONMENTAL AND SOCIAL SCREENING OF SUB-PROJECTS

8.1 Introduction: Screening and Review

The **VCN's** Environmental and Social Category is rated as a '**SUBSTANTIAL**' The risk of VCN leading to primary not environmentally sustainable production of living natural resources through the cultivation of annual crops is substantial. Other potential environmental impacts are limited, site-specific and constrained to production and agro-processing facilities. These include unsustainable land management, agrochemical use and management issues, unsustainable draw down of groundwater resources from tubewells irrigation, the use of firewood in processing, waste management, unhealthy working environment, risks from construction of market infrastructure including market-connected feeder roads, small-scale irrigation structures, and drainage development (including small earth dams, tube-well and watering points). The risks of biodiversity losses and physical and economic displacement is low. The social risk is also **Substantial** across the states due to insurgency, banditry, and kidnapping by non-state actors, as well as resource conflicts (especially between farmers and pastoralists) and related threats to human security.

The VCN's climate risk is **SUBSTANTIAL** based on the IFAD Climate **Screening Checklist in the ORMS**. The VCN project area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and market infrastructure. The risk of water scarcity leading to drought for agriculture is substantial. The VCN project area has substantial risk of soil erosion resulting from high intensity rainfall and windstorm and unsustainable land practices. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, as well as unsustainable land management practices and operation of environmentally unfriendly processing machines.

In addition to the SECAP screening note and this Environmental Social and Climate Management Framework (with Environmental, Social and Climate Management Plan), other safeguard documents are also being produced. These include Targeted Adaptation Assessment, Stakeholder Engagement Plan and Grievance Redress Management, Integrated Pest Management Plan (IPMP), Labour Assessment and Management Plan (LAMP), and water management and risk mitigation measures and potential for payment for environmental services.

During implementation, it is essential that all sub-project proposals be screened, first on eligibility based on the 'letter of interest' / application form (see Annex 1), and secondly based on environmental, climate and social impacts using the more detailed screening forms (see Annex 2). Project Screening for Environmental and Social Impacts will ensure that sub-projects with high and irreversible impacts on the environment or people that cannot be readily mitigated are not eligible for support by VCN.

Sub-project proposals with moderate (manageable) environmental and social impacts should include the following basic elements in the application and contain in the project specific ESMP:

- a. A summary and description of the possible adverse effects that specific sub-project activities may occur.
- b. A description of any planned measures to avoid or mitigate adverse impacts, and how and when they will be implemented.
- c. A system for monitoring the environmental and social effects of the project.
- d. A description of who will be responsible for implementing and monitoring the mitigation measures; and

- e. A cost estimate of the mitigation measures, which should be included in the sub-project proposal.

The scope of any environmental and/or social review and related mitigation measures will be determined by the relevant (environmental/climate change) NPMU/SPMU staff in consultation with technical experts where needed, via the sub-project screening and approval process. Sub-project proposals with only minor or no adverse impacts do not need a separate review (or ESMP).

8.2 Screening for Eligibility

The VCN PDR provides a detailed description of the targeting and selection process for beneficiaries. Annex 1 provides the proposed format for the letter of interest / application form, which should be completed by each intended beneficiary and will be used as the primary tool for screening for eligibility.

8.3 Screening for Environmental, Social and Climate Impacts

The Environment, Social and Climate Risk Category of VCN are **Substantial**. Some adverse impacts can be readily remedied by appropriate preventive actions and/or mitigation. However, attention will be paid to land development (because of its huge potential for land degradation and its secondary effects), and development of market infrastructure including construction of feeder roads and small dams and irrigation development. Loss of investments to floods is also very high across the VCN project states. By far the most important social risk is the resource-induced clashes between farmers and pastoralists. All the VCN states have the potential of being impacted by this risk. During implementation, it is essential that all sub-project proposals be screened, first on eligibility since the 'letter of interest' / application form (see Annex 1), and secondly based on environmental, climate and social impacts using the more detailed screening forms (see Annex 2).

8.4 Impact Significance Rating

To determine the significance of impacts, the likelihood of an impact occurring is considered against the consequence or magnitude of the impact if it was to occur. Likelihood is defined as the frequency of an impact occurring.

Table 8.1 Definitions of Consequence

Consequence	Definition
No Impact / No change	No impacts on biophysical and social environments / livelihood / health / gender No public concerns No legal issues
Negligible	Low/minor impact on environment / livelihood / health / gender Minor social impacts No legal issues
Intermediate	Some level of impact on environment / livelihood / health / gender Social issues apparent May have legal implications
Severe	Substantial or High-level impacts on environment / livelihood / health / gender Substantial or High public concerns or perceptions Legal non-compliance

Unknown	Extent of the impact cannot be determined at this point Apply precautionary principle
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Projects that have low significance impacts may not require a new ESMP; in that case the standard ESMP in this ESMF report will suffice. In the case of project with moderate and substantial significance, the development of appropriate plans, in addition to the standard ESMP may suffice to manage the severity of the impacts. In the case of projects with impacts of high significance, a separate ESIA is almost always required as good standard practices.

9. MONITORING OF ENVIRONMENTAL, CLIMATE AND SOCIAL IMPACTS

9.1 Introduction

The overall objective of environmental and social monitoring is to ensure that recommended mitigation measures are incorporated, and that activities carried out during implementation from sensitization (i.e. training and awareness-raising) to infrastructure construction/maintenance are environmentally and socially acceptable, and therefore sustainable.

9.2 Key Performance Indicators

Expected Outcomes: The VCN programme will leverage on innovative IFAD experience with monitoring and evaluation including geo-spatial technology and innovative data analysis tools to measure transformative changes in target groups' livelihoods. Some of the **core outcome** indicators that will be tracked are shown on Table 9.1.

Table 9.1: Some of the outcome and output indicators to be tracked in the VCN

Results Hierarchy	Indicators			
	Name	Baseline	Mid-Term	End Target
Outreach Total Project Outreach	1 Persons receiving services promoted or supported by the project			
	1.a Corresponding number of households reached			
	Households - Households	0	364,800	456,000
Project Goal Contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the targeted northern states of Nigeria	Households reporting improved livelihoods and reduction in poverty			
	Households - Number	0	0	250,800
Development Objective Improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chains development as an enabler for rural transformation	CI 1.2.8: Women reporting minimum dietary diversity (MDDW)			
	Women - Number		47,880	95,760
	Number of Households reporting increased income			
	Households - Number		182,400	364,800
	SF.2.1: Households satisfied with project-supported services			
	Households - Number		182,400	410,400
	SF.2.2: Households reporting, they can influence decision-making of local authorities and project-supported service providers			
Households - Number		91,200	273,600	
Outcome 1.1 Improved productivity, climate-adaptive capacity, and resilience of farming systems in target value chains	CI 1.2.2: Households reporting adoption of new/improved inputs, technologies, or practices			
	Households - Number		182,400	273,600
	CI 3.2.2: Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices			
	Households - Number		136,800	273,600
	CI 1.2.5: Households reporting using rural financial services			
Households - Number		15,000	15,000	
Output 1.1.1 Improved access to agricultural inputs and advisory services	CI 1.1.3: Rural producers accessing production inputs and/or technological packages			
	Total rural producers - Number of people		364,800	456,000
	Number of persons accessing digital extension services to increase production and productivity			

	Total persons accessing digital extension services - Number of people		364,800	456,000
Output 1.1.2 Increased land brought under climate/water resilient management and good agricultural practices	CI 3.1.2: Number of persons provided with climate information services			
	Total persons provided with climate information services - Number of people		223,400	456,000
	CI 3.1.4: land brought under climate-resilient management			
	Number - Hectares of Land		7,000	17,500
	CI 1.1.2 Farmland under water-related infrastructure constructed/rehabilitated			
	Number - Hectares of Land		4,892	7,756
Output 1.1.3 Improved uptake of agri-finance and digital services	CI 1.1.5: Number of persons in rural areas accessing financial services			
	Total persons accessing financial services - savings - Number of people		15 000	15 000
	Total persons accessing financial services - credit - Number of people		7 460	15 000
	Number of farmers accessing digital e-voucher for production inputs			
	Total Farmers - Number of people		182,400	456,000
Output 1.2.1 Increased targeted action to improve nutrition and diet diversity	CI 1.1.8: Households provided with targeted support to improve their nutrition			
	Total persons participating - Number of people		159,600	319,200
Output 1.2.2 Households provided with support in gender transformative approaches	Number of Households reached in the Gender Action Learning System (GALS) methodology			
	Households - Number		36,480	182,400
Outcome 2.1 Improved post harvest handling, value addition and access to markets in the target value chains	CI 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities			
	Number of POs - Organizations		4,590	5,400
	CI 2.2.6: Households reporting improved physical access to markets, processing and storage facilities			
	Households - Number		138 600	319 200
Output 2.1.1 Professional partnerships/linkages of VC the actors are developed and consolidated.	CI 2.1.3: Rural producers' organizations supported			
	Rural POs supported - Number		4,590	5,400
	Total size of POs - Number of people		364,800	456,000
Output 2.1.2 Improved access to market infrastructure and post-harvest practices and facilities (storage, processing, food safety)	CI 2.1.6: Market, processing, or storage facilities constructed or rehabilitated			
	Total number of facilities - Facilities	0	87	218
Outcome 3.1 Improved policy / institutional framework for poverty reduction, food and nutrition security, and gender equality	Policy 3: Existing/new laws, regulations, policies, or strategies proposed to policy makers for approval, ratification, or amendment			
	Policies - Number		1	3
Output 3.1.1 Dialogue spaces supported at territorial level	Policy 2: Functioning multi-stakeholder platforms supported			
	Multi-stakeholder platforms - Number		1	3

The VCN programme is planned over a period of seven (8) years. The monitoring plan in Table 9.2 lists the parameters to be monitored, activity that will generate the parameters, monitoring indicator, and responsibility, monitoring means, frequency, and the estimated cost.

Table 9.2 Environmental and Social Monitoring Plan

Parameter	Activity	Monitoring Indicator	Responsibility for monitoring	Monitoring means	Recommended frequency of monitoring	Estimated Monitoring Costs (USD)
ENVIRONMENTAL MONITORING						
Site specific ESMP for road construction/rehabilitation Site specific ESMP for processing facilities Site specific Environmental Screening for water infrastructure rehabilitation Site-specific ESMP for land development	Environmental Screening and impact assessment	Baseline on status of the environmental conditions	NPMU, SPMU, Infrastructure Engineer, Irrigation Engineer, Environmental Officer, Service Providers	ESMPS and ESMF compliance	Once (project specific)	2,165,625
Environmental baseline and biodiversity survey Environmental monitoring - land and soil degradation assessment Monitoring Targeted Adaptation Assessment (TAA) Development of Integrated Pesticide Management Plan Integrated Pesticide management plan monitoring Groundwater monitoring	Climate and Environmental baseline surveys and monitoring	Baseline on status of the environment and climate conditions, risk, and vulnerabilities	NPMU, SPU, Environmental Officer, Service Providers	Baseline reports, mid-term, and end-term reports	Baseline and end term Once for specialized reports	134,375
SOCIAL MONITORING						
Labour and working conditions monitoring. Cultural heritage and social inclusion (marginalised peoples) assessment Community health and safety monitoring Fragility and Security monitoring Financial intermediaries monitoring Grievance redress monitoring	Social monitoring	Social monitoring progress indicators	NPMU, SPMU, Environmental Officer, Gender	M&E reports (annual)	Continuous	205,000

Monitoring stakeholder engagement plan						
Policy engagement on IPDs and Gender and Women Empowerment						
Other Environmental and Social monitoring	Include gender and People with disabilities (PWD) mainstreaming	Activities of Targeting committee	NPMU, SPMU, Environmental Officers, Gender Officer	Social Surveys Beneficiaries assessment	Annual	125,000
						2,630,000

9.3 Summary of Environmental and Social Monitoring Costs

Table 9.3 shows the summary of the monitoring costs among the monitoring activities shown on Table 9.2 for year 1 and the years 2-8 of the VCN project life cycle.

Table 9.3: Summary of Environmental Monitoring costs

Monitoring Parameter*	Average cost per state (in USD)	Total for 9 States (in USD)	Year 1 (in USD)	Year 2 -8 (in USD)
Site specific ESMPs and Environmental Screenings	240,625	2,165,625	942,188	1,223,438
Environmental Monitoring	14,931	134,375	68,750	65,625
Social monitoring costs	22,778	205,000	102,500	102,500
Other environmental and social monitoring costs	13,889	125,000	13,889	111,111
Total monitoring costs		2,630,000	1,127,326	1,502,674

*Cost details are shown on Table 9.2

As shown on Table 9.3 a total of **USD2,630,000** has been estimated for the environmental and social monitoring for the **VCN for the 9 states**. This represents about **2.31%** of estimated **USD114m** commitment basket to VCN. The detailed overview of the monitoring costs is shown on Annex 6. A total of **USD1,127,236** is expected to be expended at the base year while the rest is spread across the 2nd and 8th year (end of the project life cycle).

10. CAPACITY BUILDING AND TRAINING FOR ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT AND MONITORING PLANS

10.1 Strengthening Capacity and Improving Resilience

A successful mainstreaming of environment, social and climate change concerns and the ESCMF into implementation of the VCN project requires the strengthening of institutional capacities, particularly those of the Programme Implementation Units, Agencies and Service Providers, and Farmers Organization and Women Groups. Moreover, there is a strong need for context-specific, on-site training sessions for project beneficiaries – including producers, processors, marketers - and other actors for climate-smart and climate-resilient value chain systems.

10.2 Training Topics

Proposed training topics include, at the very least:

Create awareness about the environment and climate change

- General sensitization of stakeholders on the environment, climate, and social issues
- Sensitization of project beneficiaries on environment-smart and climate resilience value chain
- Awareness-Raising for programme staff – at NPMU and SPMU on environment, climate and social issues including mainstreaming.

Capacity Building

- Understanding Environment and Climate Change Mainstreaming in IFAD projects – The IFAD SECAP 2021 Edition - training for environment/climate specialists at NPMU and SPMU on IFAD’s environment and climate mainstreaming policy and implementation of Project’s safeguard documents
- Training of climate officers on the subproject screening for environment, social and climate risks - developing and vetting subproject ESMPs
- Training of Trainers (ToT) for extension service providers on environment, climate, and social mainstreaming for step-down training to Farmers Organizations and Production and Processing Groups.
- Training on what does IFAD assess. – Guiding Questions and Rating Criteria for Climate Change Adaptation, Environment and NRM, Requirements of SECAP
- Tracking and reporting climate mainstreaming activities - Developing Monitoring Indicators – IFAD COI and project reporting indicators
- Understanding climate financing and RET in project
- Developing environmental, social and climate action plans and budgeting

Social safeguards Training

- Stakeholders engagement and grievance management mechanisms
- Conflict resolution and management
- Monitoring labour and working conditions tracking
- Monitoring gender-based violence and sexual harassment/sexual exploitation and abuse
- Community health and safety

10.3 Target Audience and Approach

The target groups for training should include, at least:

- a. NPMUs staff
- b. SPMU Staff
- c. Implementation partners
- d. Service providers
- e. Farmers Organizations
- f. Communities
- g. Project Beneficiaries

The training topics will be delivered based on the needs of each training target group. As much as possible, Training the Trainers (TOT) will be encouraged, where applicable, to manage resources and effectively reach the target audiences.

Table 10.1: Training Activity and Estimated Cost

SN	Activity	Year			Unit cost (N)	Budget (N)	Budget (USD) @800 = 1USD	Remarks
		1-2	3-5	6-8				
A	Awareness and sensitization							
1	General sensitization of stakeholders on the environment, climate, and social issues	X			2,500,000	22,500,000	28,125	Local media+1 day workshop in each of the 9 States
2	Sensitization of project beneficiaries on environment-smart and climate resilience value chain	X	X	X	2,500,000	22,500,000	28,125	conducted across each state for 1 day
3	Awareness-Raising for programme staff – at NPMU and SPMU on environment, climate and social issues including mainstreaming	X			2,500,000	22,500,000	28,125	conducted across each state for 1 day
B	Environmental and Climate Change Capacity Building							
4	Training on understanding Environment and Climate Change Mainstreaming in IFAD projects – The IFAD SECAP 2021 Edition - training for environment/climate specialists at NPMU and SPMU on IFAD's environment and climate mainstreaming policy and implementation of Project's safeguard documents	X			7,500,000	22,500,000	28,125	3day training at a NPMU for Safeguard Officers
5	Training of climate officers on the subproject screening for environment, social and climate risks - developing and vetting subproject ESMPs	X			7,500,000	22,500,000	28,125	3day training at a NPMU for Safeguard Officers

SN	Activity	Year			Unit cost (N)	Budget (N)	Budget (USD) @800 = 1USD	Remarks
		1-2	3-5	6-8				
6	Training of Trainers (ToT) for extension service providers on environment, climate, and social mainstreaming for step-down training to Farmers Organizations and Production and Processing Groups.	X			8,000,000	72,000,000	90,000	2 days for extension services at each state
7	Training for environment and climate officers on what does IFAD assess. – Guiding Questions and Rating Criteria for Climate Change Adaptation, Environment and NRM, Requirements of SECAP	X	X		7,500,000	15,000,000	18,750	2day training at a NPMU for Safeguard Officers
8	Training on Tracking and reporting climate mainstreaming activities - Developing Monitoring Indicators – IFAD COI and project reporting indicators	X			7,500,000	15,000,000	18,750	2day training at a NPMU for Safeguard Officers
9	Understanding climate financing and RET in project - for climate change and environment officers		X		7,500,000	15,000,000	18,750	2day training at a NPMU for Safeguard Officers
10	Developing environmental, social and climate action plans and budgeting for environmental and climate change officers	X	X		7,500,000	22,500,000	28,125	3day training at a NPMU for Safeguard Officers
C	Social Safeguard Training							
11	Training on stakeholders engagement and grievance management mechanisms	X	X	X	7,500,000	22,500,000	28,125	3day training at a NPMU for Gender and Safeguard Officers
12	Training on conflict resolution and management	X			7,500,000	22,500,000	28,125	3day training at a NPMU for Gender and Safeguard Officers
13	Training on labour and working conditions tracking	X	X	X	7,500,000	22,500,000	28,125	3day training at a NPMU for Gender and Safeguard Officers
14	Training on gender-based violence and sexual harassment/sexual exploitation and abuse	X	X	X	7,500,000	22,500,000	28,125	3day training at a NPMU for Gender and Safeguard Officers
15	Training on Community health and safety	X	X	X	7,500,000	22,500,000	28,125	3day training at a NPMU for Gender and Safeguard Officers
						364,500,000	455,625	

The total training cost is estimated at **USD 455,625** which represents about **0.4%** of the proposed funding basket. In total, both the Environmental, Climate and Social Monitoring costs and Training cost accounts for **USD 3,085,625 representing 2.71%** of the funding commitment to the VCN project.

Annex 1 – Eligibility Screening Form

VALUE CHAIN IN THE NORTH PROJECT

Letter of Interest (Eligibility Screening Form) Please complete all the required spaces in this form

1. Name: Surname -----Other Names:-----
Maiden name (for married women):-----
2. Sex: (a) Male { } (b) Female { }
3. Date of birth: -----
4. Highest Education Level: (a) No formal education { } (b) Primary School { } (c) Secondary School { } (d) Vocational school (e) Tertiary Education { }
5. Which community do you belong to: -----
6. How long have you lived in this community: -----
7. How do you belong to this community: (a) by birth { } (b) by marriage { } (c) other (specify):-----

8. Local Government Area (LGA): ----- State: -----
9. What enterprise are you interested in (see list of selected enterprises for the LGA): -----

10. Do you have any experience in this enterprise: (a) Yes { } (b) No { }. If yes, how many years: -----

11. Do you belong to any youth or women organization: (a) Yes { } (b) No { }. If yes, what is the name: -----

12. Do you belong to any cooperative society: (a) Yes { } (b) No { }. If yes, what is the name: -----

13. Do you have access to any land for the enterprise: (a) Yes { } (b) No { }.
14. If yes to question 13, where is the land located-----; and what is the area size of the land? -----
15. What kind of title to you have to the land: (a) Government paper { } (b) Inheritance from parent { } (c) husband or wife's consent { } (d) family allocation { } (e) community's allocation { } (f) Others (specify):-----

Endorsements:

Applicant: I certify that the information provided here is correct

Name: -----

Signature: -----

Date: -----

Community/traditional leader/Farmers Organization Leader-----

Name: -----

Sign: -----

Date: -----

Verifications:

Comments by the Local Government Liaison Office:-----

Name of Officer: -----

Designation: -----

Sign and date: -----

Comments by the State Project Coordination Office:-----

Name of Officer: -----

Designation: -----

Sign and date: -----

Screening:

Comments by service providers:-----

-Categorical comments (a) Applicant Eligible { } (b) Applicant Ineligible { }

Annex 2 - Environmental and Social Screening Forms for VCN Subprojects

A: Screening Form for Agri-Enterprise Projects

General Information

Project Name:	
Name of incubator / applicant:	
Name of Cooperative: Contact person's details:	
Name of Apex Group: Contact person's details:	
Project Location:	
Project sector (e.g. production, processing, marketing, etc.)	
Estimated Cost:	
Proposed Date of Commencement:	
Expected Project duration:	
Site (estimated area in ha):	
Any equity/contribution brought into the project:	
Any plan for new construction:	

A1. Screening for Environmental and Social Issues

Question	Yes	No	Additional explanation of 'Yes' response
1. Will the sub-project develop any wetlands?			
2. Would the sub-project result in economic displacement ¹⁷⁴ (loss of assets or access to resources) or physical resettlement			
3. Would the sub-project result in conversion and/or loss of physical cultural resources?			
4. Will the sub-project have significant social adverse impacts (affecting access to and/use rights to land, access to potable water and water for other uses) on local communities or other project-affected parties?			
5. Will the project trigger unsustainable natural resource management practices (fisheries, forestry, livestock, and significant increase in use of agrochemicals) that exceed the carrying capacity?			
6. Does the sub-project include conversion of significant areas (above 50 ha) of natural forests/other wild lands?			
7. Would the project potentially cause significant adverse impacts to habitats and/or ecosystems and their services (e.g. habitat loss, erosion/ other form of land degradation, fragmentation, hydrological changes)?			

¹⁷⁴ Economic displacement implies the loss of land, assets, access to assets, income sources or means of livelihoods (see SECAP Procedure Guidance Statement 13)

Question	Yes	No	Additional explanation of 'Yes' response
8. Does the proposed project target area include ecologically sensitive areas ¹⁷⁵ ; areas of global significance for biodiversity conservation and/or biodiversity-rich area; habitats depended on by endangered species?			
9. Does the project involve fisheries development in situations where little information exists on sustainable yield?			
10. Could the project pose a risk of introducing invasive alien species?			
11. Does the project involve the transfer, handling, or use of genetically modified organisms/living modified organisms that may have an adverse effect on threatened biodiversity?			
12. Is the project site close to any oil and gas installation such as flow stations, oil terminal, oil, or gas pipeline right of way?			
13. Has oil spill/ or pipeline fire ever been recorded around project site?			
14. Does the project involve land use changes (agricultural intensification and/or expansion of the cropping area) and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?			
15. Will the project result in increased use of agrochemicals which may affect the natural environment/human health?			
16. Does the project include small-scale irrigation and drainage projects, and water impoundment including small dams (except in wetlands)?			
17. Does the project involve agricultural intensification and/or expansion of cropping area in non-sensitive areas?			
18. Do the project activities include rangeland and livestock development?			
19. Does the project involve artisanal fisheries where there is information on sustainable yield?			
20. Do the project activities include aquaculture and/or mariculture?			
21. Do the project activities include watershed management or rehabilitation?			
22. Does the project include large-scale soil and water conservation measures?			
23. Does the project include small and micro enterprise development sub-projects?			
24. Does the project involve credit operations through financial service providers, including credit for pesticide/other agrochemicals, livestock purchasing, irrigation, etc.?			
25. Do the project activities include natural resources-based value chain development?			
26. Would any of the project activities have minor adverse impacts on physical cultural resources?			
27. Would the project have low probability to have physical resettlement or economic displacement?			
28. Does the project include development of agro-processing facilities?			
29. Will the project require a migrant workforce during construction?			

¹⁷⁵ 'Sensitive areas' include: protected areas (national parks, wildlife/nature reserves, biosphere reserves); areas of global significance for biodiversity conservation; habitats depended on by endangered species; natural forests; wetlands; coastal ecosystems, including coral reefs and mangrove swamps; small island ecosystems; areas most vulnerable to climate change and variability; lands highly susceptible to landslides, erosion and other forms of land degradation and areas that include physical cultural resources (of historical, religious, archaeological or other cultural significance) and areas with high social vulnerability due to poverty, disease, ethnicity and race.

Question	Yes	No	Additional explanation of 'Yes' response
30. Will the project require seasonal workers to plant and/or harvest produce?			
31. Will the construction or operation of the project cause an increase in traffic on rural roads?			

Guidance for sub-project categorization)

"Yes" response to any of questions 1-13	Sub-project Environmental. Climate and Social category is High	ESIA is required for subproject
"Yes" response to questions 14-31	Sub-project Environmental. Climate and Social category is Substantial or Moderate	Sub-project to adopt the ESMP in the general ESMF Subproject to develop ESMF for specific market infrastructure
"No" response to almost all questions	Sub-project Environmental. Climate and Social category is Low	No further analysis is required

B: Screening Form for (Market) Infrastructure Sub-Projects

Name of market infrastructure:	
Infrastructure type:	
Location:	
Proposed Date of Commencement:	
Expected Project duration:	
Estimated cost:	
Estimate number of communities to be served:	
Estimated number of entrepreneurs to be served:	

B1: Screening for (Market) Infrastructure Sub-projects

Question	Yes	No
1. Will the project activities include construction/rehabilitation of rural roads or other rural infrastructure in protected/sensitive areas ¹⁷⁶ ?		
2. Does the project include construction of roads or other infrastructure that entail the total area being cleared of 50 ha or above?		
3. Does the project include construction of dam (s)/reservoir (between 5-15 m high with a reservoir exceeding 2 million m ³)?		
4. Does the project involve large-scale irrigation schemes rehabilitation/ development (above 100 ha)?		
5. Does the project involve significant extraction of ground water (significantly above recharge capacity)?		

¹⁷⁶ 'Sensitive areas' include: protected areas (national parks, wildlife/nature reserves, biosphere reserves); areas of global significance for biodiversity conservation; habitats depended on by endangered species; natural forests; wetlands; coastal ecosystems, including coral reefs and mangrove swamps; small island ecosystems; areas most vulnerable to climate change and variability; lands highly susceptible to landslides, erosion and other forms of land degradation and areas that include physical cultural resources (of historical, religious, archaeological or other cultural significance) and areas with high social vulnerability due to poverty, disease, ethnicity and race.

6. Does the project include water-based (ground or surface) development where it is believed that significant depletion due to climate change or overutilization has occurred?		
7. Does the project involve significant extraction, diversion, or containment of surface water?		
8. Does the project include drainage or correction of natural water bodies (e.g. river draining)?		
9. Will the project include construction/rehabilitation of rural roads that pass-through oil infrastructure locations such as flow stations, tank farms or oil and gas pipelines?		
10. Would any of the project activities have minor adverse impacts on physical cultural resources?		
11. Does the project include development of agro-processing facilities?		
12. Will the project require a migrant workforce during construction?		
13. Will the construction or operation of the project cause an increase in traffic on rural roads?		
14. Has the government or community guaranteed the lease of the land for the (market) infrastructure?		
15. Is there any plan in place for sustainability of the infrastructure during the project life time?		
16. Does the project include specific measures to protect against dust (such as dust masks and water spraying)?		
17. Has arrangement been made to pay adequate compensation for private property that may be affected by the construction of the project?		
18. Will construction equipment with moderate decibels be used and the timing of use be so that people will experience less discomfort?		
19. Will tree and vegetation replanting be carried out to stabilize slopes and re-green road sides?		

Guidance for categorization

"Yes" response to any of questions 1-9	Sub-project Environmental. Climate and Social category is High	ESIA is required
"Yes" response to questions 10-13	Sub-project Environmental. Climate and Social category is Substantial or Moderate	Sub-project to develop specific ESMPs
"No" response to almost all questions 1-13 and 'Yes' to questions 14-19	Sub-project Environmental. Climate and Social category is Low	No further analysis is required

C: Climate Screening Form for Sub-Projects

To be used with the environmental and social screening forms.

Screening for Climate Issues

Question	Yes	No	Additional Explanation of 'Yes' response*
1. Is the project area subject to extreme climatic events such as flooding, drought, tropical storms, or heat waves?			
2. Do climate scenarios for the project area foresee changes in temperature, rainfall or extreme weather that will adversely affect the project impact, sustainability, or cost over its lifetime?			

3. Will the project make investments in low-lying coastal areas/ zones exposed to river flooding and coastal storm surge?			
4. Will the project promote agricultural activity in marginal and/or highly degraded areas that have increased sensitivity to climatic events (such as on hillsides, deforested slopes, or floodplains)?			
5. Is the project located in areas where rural development projects have experienced significant weather- related losses and damages in the past?			
6. Will the project develop/ install infrastructure in areas with a track record of extreme weather events?			
7. Is the project target group entirely dependent on natural resources (such as seasonal crops, rain-fed agricultural plots, and migratory fish stocks) that have been affected by in the last decade by climate trends or specific climatic events?			
8. Will climate variability likely affect agricultural productivity (crops/ livestock/fisheries) or the associated incidence of pests and diseases for the project target groups?			
9. Would weather-related risks or climatic extremes likely adversely impact upon key stages of identified value chains in the project (from production to markets)?			
10. Is the project investing in climate-sensitive livelihoods that are diversified?			
11. Is the project investing in infrastructure that is exposed to infrequent extreme weather events?			
12. Is the project investing in institutional development and capacity building for rural institutions (such as farmer groups, cooperatives) in climatically heterogeneous areas?			
13. Does the project have the potential to become more resilient through the adoption green technologies at a reasonable cost?			
14. Does the project intervention have opportunities to strengthen indigenous climate risk management capabilities?			
15. Does the project have opportunities to integrate climate resilience aspects through policy dialogue to improve agricultural sector strategies/policies?			
16. Does the project have potential to integrate climate resilience measures without extensive additional costs (e.g. improved crop variety, capacity building; or including climate risk issues in policy processes)			
17. Based on the information available would the project benefit from a more thorough climate risk and vulnerability analysis to identify additional complementary investment actions to manage climate risks?			

Guidance for categorization

"Yes" response to any of questions 1-9	Sub-project Climate risk is High	Full Climate Risk Analysis is required for sub-project
"No" response to almost all questions	Sub-project climate risk is Substantial or Moderate	Sub-project to adopt the Targeted Adaptation Assessment

Annex 3 - Environmental and Social Guidelines for contractors¹⁷⁷

Sound environmental and social management of construction projects can be achieved only with adequate site selection and project design. As such, the ESMP for projects involving any new construction, or any rehabilitation or reconstruction for existing projects, should provide information as to screening criteria for site selection and design including the following:

Site Selection

Sites should be chosen based on community needs for additional projects, with specific lots chosen based on geographic and topographic characteristics. The site selection process involves site visits and studies to analyze: (i) the site's, sub-urban, or rural characteristics; (ii) national, regional, or municipal regulations affecting the proposed sites; (iii) accessibility and distance from inhabited areas; (iv) land ownership, including verification of absence of squatters and/or other potential legal problems with land acquisition; (v) determination of site vulnerability to natural hazards, (i.e. intensity and frequency of floods, landslides, etc.); (vi) suitability of soils and sub-soils for construction; (vii) site contamination; (viii) flora and fauna characteristics; (ix) presence or absence of natural habitats and/or ecologically important habitats on site or in vicinity (e.g. forests, wetlands, rare or endangered species); and (ix) historic and community characteristics.

The rules (including specific prohibitions and construction management measures) should be incorporated into all relevant bidding documents, contracts, and work orders.

Prohibitions

The following activities are prohibited on or near the project site:

- Cutting of trees for any reason outside the approved construction area;
- Hunting, fishing, wildlife capture, or plant collection;
- Use of unapproved toxic materials, including lead-based paints, asbestos, etc.
- Disturbance to anything with architectural or historical value;
- Building of fires;
- Use of firearms (except by authorized security guards).
- Use of alcohol by workers.

Construction Management Measures

Solid, sanitation, and hazardous wastes must be properly controlled, through the implementation of the following measures:

Waste Management:

- Minimize the production of waste that must be treated or eliminated.
- Identify and classify the type of waste generated. If hazardous wastes (including health care wastes) are generated, proper procedures must be taken regarding their storage, collection, transportation, and disposal.
- Identify and demarcate disposal areas clearly indicating the specific materials that can be deposited in each.
- Control placement of all construction waste (including earth cuts) to approved disposal sites (>300 m from rivers, streams, lakes, or wetlands). All garbage, metals, used oils, and excess material generated during construction should only be disposed in authorized areas, incorporating recycling systems and the separation of materials.

Maintenance:

- Identify and demarcate equipment maintenance areas (>15m from rivers, streams, lakes, or wetlands).
- Ensure that all equipment maintenance activities, including oil changes, are conducted within demarcated maintenance areas; never dispose spent oils on the ground, in water courses, drainage canals or in sewer systems.
- Identify, demarcate, and enforce the use of within-site access routes to limit impact on site vegetation.

¹⁷⁷ Adapted from Ministry of Agriculture, Irrigation and Water Development, Republic of Malawi (2015) *Environmental and Social Management Framework for Programme for Rural Irrigation Development in Malawi*, pp.76-80.

- Install and maintain an adequate drainage system to prevent erosion on the site during and after construction.

Erosion Control

- Erect erosion control barriers around perimeter of cuts, disposal pits, and roadways.
- Spray water on dirt roads, cuts, fill material and stockpiled soil to reduce wind-induced erosion, as needed.
- Maintain vehicle speeds at or below 10mph within the work area, 15mph or below within 200m of the site, and always abide by the relevant speed limits to / from the work area.

Stockpiles and Borrow Pits

- Identify and demarcate locations for stockpiles and borrow pits, ensuring that they are 15 meters away from critical areas such as steep slopes, erosion-prone soils, and areas that drain directly into sensitive water bodies.
- Limit extraction of material to approved and demarcated borrow pits.

Site Cleanup

- Establish and enforce daily site clean-up procedures, including maintenance of adequate disposal facilities for construction debris.

Safety during Construction

The Contractor's responsibilities include the protection of every person and nearby property from construction accidents. The Contractor shall be responsible for complying with all national and local safety requirements and any other measures necessary to avoid accidents, including the following:

- Carefully and clearly mark pedestrian-safe access routes.
- If school children are in the vicinity, include traffic safety personnel to direct traffic.
- Maintain supply of supplies for traffic signs (including paint, easel, sign material, etc.), road marking, and guard rails to maintain pedestrian safety during construction.
- Conduct safety training for construction workers prior to beginning work.
- Provide personal protective equipment (PPE) and clothing (such as goggles, gloves, respirators, dust masks, hard hats, steel-toed and –shanked boots, etc.) for construction workers and enforce their use.
- Post Material Safety Data Sheets for each chemical present on the worksite.
- Require that all workers read, or have read, all Material Safety Data Sheets. Clearly explain the risks to them and their partners, especially when pregnant or planning to start a family. Encourage workers to share the information with their physicians, when relevant.
- Ensure that the removal of asbestos-containing materials or other toxic substances be performed and disposed of by specially trained workers.
- During heavy rains or emergencies of any kind, apply construction safeguards guidelines.
- Brace electrical and mechanical equipment to withstand unexpected events during construction.

Nuisance and Dust Control

To control nuisance and dust the Contractor should:

- Maintain all construction-related traffic at or below 15 mph on streets within 200 m of the site.
- Maintain all on-site vehicle speeds at or below 10 mph.
- To the extent possible, maintain noise levels associated with all machinery and equipment at or below 90db.
- In sensitive areas (including residential neighborhoods, health centers, schools, etc.) more strict measures may need to be implemented to prevent undesirable noise levels.
- Always minimize production of dust and particulate materials, to avoid impacts on surrounding families and businesses, and especially to vulnerable people (children, elderly).
- Phase removal of vegetation to prevent large areas from becoming exposed to wind.
- Place dust screens around construction areas, paying particular attention to areas close to housing, commercial areas, and recreational areas.
- Spray water as needed on dirt roads, cut areas, and soil stockpiles or fill material.
- Apply proper measures to minimize disruptions from vibration or noise coming from construction activities.

Community Relations

To maintain cordial community relations, the Contractor should:

- Following the country and ESMP requirements, inform the population about construction and work schedules, interruption of services, traffic detour routes, as appropriate.
- Limit construction activities at night. When necessary ensure that night work is carefully scheduled, and the community is properly informed so they can take necessary measures.
- At least five days in advance of any service interruption (including water, electricity) the community must be advised through clearly visible posters at the project site and at central community locations.
- Where possible, particularly for tasks that can also be performed through low-skilled manual labor (such as digging of shallow trenches, etc.), make use of labor from the local community.

Chance Find Procedures for Culturally Significant Artifacts

In case culturally valuable materials (incl. shrines, graves, etc.) are uncovered during excavation:

- Stop work immediately following the discovery of any materials with possible archeological, historical, paleontological, or other cultural value, announce findings to project manager and notify relevant authorities.
- Protect artifacts as well as possible using plastic covers, and implement measures to stabilize the area, if necessary, to properly protect artifacts.
- Prevent and penalize any unauthorized access to the artifacts.
- Restart construction works only upon the authorization of the relevant authorities.

Environmental Supervision during Construction

The bidding documents should indicate how compliance with environmental rules and design specifications would be supervised, along with the penalties for non-compliance by contractors or workers. Construction supervision requires oversight of compliance with the manual and environmental specifications by the contractor or his designated environmental supervisor. Contractors are also required to comply with national and state regulations governing the environment, public health, and safety.

Annex 4 – Checklist for Construction Works

Based on the National Environmental (Construction Sector) Regulations (2011), at every construction facility the following checklist should be implemented:¹⁷⁸

- (1) Every facility shall implement Programmes on best practices as set out in Schedule I of the Regulations.
- (2) Every facility shall provide base for ancillary equipment and bund wall for containment of waste oil in the event of any unanticipated discharge or spillage.
- (3) Every operator of construction facility/site shall ensure:
 - (a) it has a functional, adequate, and appropriate drainage system for the project.
 - (b) the separation or diversion of clean water runoff to prevent it from mixing with water containing high solid particle content.
 - (c) it minimizes the volume of water to be treated prior to release (same as storm water control system).
 - (d) the use of color coding for the drainage system such as blue for surface water drains and red for foul water drains.
 - (e) safe movement of materials and fuel to and from site.
 - (f) tanks are clearly labelled with their contents and storage capacity.
 - (g) workers are trained to carry out the outlined procedures in the Emergency Response Plan as specified in Schedule II to the Regulations.
 - (h) absorbent materials and other containment equipment (e.g. spill kits) suitable for the construction type, are available in adequate quantity on site; and
 - (i) all tanks are properly covered.
- (4) The operator shall ensure:
 - (a) high standard of housekeeping.
 - (b) that dust/particulate matter arising from loaded trucks entering or leaving the site is kept to a minimum level using tarpaulin materials as cover and that water sprays or other dust suppression or collection methods are used at every dusty place where work is carried out.
 - (c) appropriate use of Personnel Protective Equipment (PPE) by all persons at construction site as in Schedule VI to the Regulations.
- (5) Every facility shall have an Emergency Response Plan in accordance with the guide template specified in Schedule II to these Regulations.

¹⁷⁸ *National Environmental (Construction Sector) Regulations (2011)*. S.I. No.19.

Annex 5 - Social Inclusion Strategy

“In every country, certain groups (...) Confront barriers that prevent them from fully participating in their nation’s political, economic, and social life. These groups are branded by stereotypes, stigmas, and superstitions. They often live with insecurity. And such disadvantages not only preclude them from capitalizing on opportunities to lead a better life, but they also rob them of dignity.”¹⁷⁹

Social inclusion means different things to different people. In its flagship publication on the topic, the World Bank defines social inclusion as “the process of improving the ability, opportunity, and dignity of people, disadvantaged on the basis of their identity, to take part in society.”¹⁸⁰ A strategy for social inclusion should therefore both address the above-mentioned ‘barriers’ as well as strengthen the capacities that disadvantaged groups in society require to make the most of development opportunities and realize their full potential.

SAPZ will directly contribute to social inclusion by actively focusing on unemployed youth and women, which together with people with disabilities and widows remain among the most disadvantaged groups in Nigerian society.¹⁸¹ Benue and Niger have at least 9 local governments located along the river Niger and Benue, and this increases their vulnerability to effects from flooding. To ensure those areas are not entirely excluded from project activities and left marginalized, SAPZP is advised to develop tailor-made solutions in those locations where there is at least a commitment to safe access for the project so that youth and women in such areas will still be able to participate in different value chain components.

Using the World Bank’s advice to focus on three critical ‘inclusion domains’ of markets, services, and spaces, SAPZ can help promote social inclusion in the project area through the following instruments and policies:

1. Markets (Land, Regulatory Framework)

- Negotiate with traditional authorities in local communities for long-term land access by women and youth for Agri-enterprise activities.
- Negotiate with state governments to allocate larger plots of unused (but suitable) farmland and provide security of tenure for women and youth associations for Agri-enterprise activities.
- Support legislative reform establishing gender parity in land ownership and inheritance.
- Closely monitor project progress, hold regular meetings with leaders/representatives of women and youth organizations to discuss project challenges, and provide additional (technical) support where needed.

2. Services (Training, Financial, Labour, ICT)

- Provide refresher, advanced and/or top-up skills training on-site for women and youth (on any relevant topic that hinders progress in their agri-enterprises) in combination with intensive mentoring support.
- Support opportunities for information sharing, whereby women and youth who are currently not part of the project can visit the agri-enterprise sites and whereby entrepreneurs can share their experiences (including reasons for failure and success).
- Negotiate with agricultural banks to provide preferential credit arrangements for high-potential women or youth agri-entrepreneurs.
- Encourage contractors / service providers to give employment preference to local community members (e.g. via ‘code of conduct’).
- Organize a ‘hackathon’ together with a technology-oriented innovation centre to develop a special app for rural youth in the project area to promote farming and facilitate market access as well as create an online platform that allows women and youth to showcase their achievements and experiences with wider society and other relevant actors (e.g. government and donor agencies).

¹⁷⁹ World Bank (2013) *Inclusion Matters: The Foundation for Shared Prosperity* (WB: Washington, D.C.), p.xv.

¹⁸⁰ Idem, p.4.

¹⁸¹ Widows are often dispossessed of their late spouses’ property including land by the spouse’s kinsmen. Special consideration and protection need to be given to this category of vulnerable people to make sure they have access to land and other productive bases.

3. Spaces (Physical, Cultural, Social)

- Liaise with local police to ensure security in farming areas, markets, and access routes.
- Organize public awareness-raising campaigns in consultation with local CSOs to promote farming, encourage inclusive community-level decision-making, prevent intra-community conflict, and reduce gender-based violence.
- In general, ensure that initial screening, selection, and support to project beneficiaries by community leaders and others at the grassroots level is based on merit and need rather than lingering primordial considerations.
- To prevent climate-induced exclusion, recommended climate change adaptation and mitigation measures should be given priority. Many beneficiaries may not be able to bounce back once they are affected by hydro-meteorological disasters such as flooding and erosion.

Annex 6: Detailed Costing of Environmental and Social Monitoring costs

Sn	Monitoring activities	Units	Qty /frequency	Costing index	Estimated unit cost/yr (Naira)	Total for cost index_per district	USD (1USD=N800)		Year 1	Year 2 - 8
1	Site specific ESMP for road construction/rehabilitation	5km for 10communities in 10LGAs in 9 states	4500km	4500	75,000	337,500,000	421,875		210,938	210,938
2	Site specific ESMP for processing facilities	1nos in 10communty in 10LGAs in 9 states	900units	900	200,000	180,000,000	225,000		112,500	112,500
3	Site specific Environmental Screening for water infrastructure rehabilitation	1nos in 10communty in 10LGAs in 9 states	900units	900	100,000	90,000,000	112,500		56,250	56,250
4	Site-specific ESMP for land development	50ha/10communities/10LGAs/9states	45000ha	45000	25,000	1,125,000,000	1,406,250		562,500	843,750
5	Environmental baseline and biodiversity survey,		2 time	2	7,500,000	15,000,000	18,750		9,375	9,375
6	Environmental monitoring - land and soil degradation assessment		3times	3	7,500,000	22,500,000	28,125		9,375	18,750
7	Monitoring Targeted Adaptation Assessment (TAA)		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
8	Development of Integrated Pesticide Management Plan		1time	1	10,000,000	10,000,000	12,500		12,500	0
9	Integrated Pesticide management plan monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
10	Groundwater monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
11	Labour and working conditions monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
12	Cultural heritage and social inclusion (marginalised peoples) assessment		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
13	Community health and safety monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
14	Fragility and Security monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
15	Financial intermediaries monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
16	Grievance redress monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
17	Monitoring stakeholder engagement plan		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
18	Policy engagement on IPDs and Gender and Women Empowerment		2times	2	12,000,000	24,000,000	30,000		15,000	15,000
19	Other environmental and social monitoring costs		9 states	9	5,000,000	45,000,000	125,000		13,889	111,111
	TOTAL					2,049,000,000	2,630,000		1,127,326	1,502,674

Annex 7 – Field Visit and Stakeholders Consulted

ANNEX 8: ADDITIONAL CLIMATE ANALYSIS (see Targeted Climate Analysis)

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: Targeted Adaptation Assessment

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department



Investing in rural people

Federal Government of Nigeria

The Value Chain North (VCN) Project

Targeted Adaptation Assessment (TAA)

2023

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1. Introduction

The **Value Chain in the North (VCN)** project is proposed to be implemented in **9 States of the** semi-arid northern Nigeria. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The VCN states covered about 338,206km² (about 37% of Nigeria land area)¹ with about 63.8million people (about 30.2%% of national population)² consisting mostly of the rural poor. The semi-arid northern Nigeria is covered by the dry Sudan and Sahel savanna vegetation. This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain³. Agriculture is rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc.), coupled with low adaptive capacity result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity. High inter-annual variability of rainfall often results in climatic hazards, especially floods and droughts.

The VCN Project vulnerability to climate impact is Substantial. Unpredictability of rainfall in terms of onset and cessation dates as well as length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the wide dry season. Flooding has also become a problem wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

Fragility and conflicts. Nigeria is listed by the World Bank Group as one of 37 "fragile and conflict-affected" countries⁴. Nigeria has a situation described as a "complex crisis" with a "very high" risk index (at 6.5) by the INFORM Risk Index Report for 2021⁵. The World Risk Index report for Nigeria also has a very high rating of 12.66⁶. Monguno (2021) notes that Nigeria's Global Peace Rating has slid, and poor governance has contributed. For more than a decade the Boko Haram insurgency in the **northeast** and banditry and kidnapping in the **northwest**, have been growing problems. This is also complemented by the increasing farmer-herder conflict as populations have risen and natural resources have become increasing contested. Access to a significant proportion of arable lands in the state has been cut-off by Bandits occupation, thus depriving farmers of good arable land for farming. Conflict in the semi-arid northern Nigeria is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, which are in turn exacerbated by population growth and poverty. As in any conflict situation, women (and children) have been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps. The conflicts also stem from stake for land ownership, distribution of resources, corruption, proliferation of arms and ethnic and religious tensions.

¹ NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

² National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

³ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

⁴ <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>

⁵ Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

⁶ World Risk Report, 2021. Bündnis Entwicklung Hilft, Ruhr University Bochum - Institute for International Law of Peace and Conflict 2021. <https://weltrisikobericht.de/weltrisikobericht-2021-e>.

Mainstreaming alignment:

VCN project aligns seamlessly with several national strategies and frameworks. It supports the National Poverty Reduction and Growth Strategy (2021-2031), focusing on poverty reduction through economic growth and redistributive programs. It aligns with the Agricultural Sector Food Security and Nutrition Strategy (2016-2025), National Pathways to Food Systems Transformation, and the National Agricultural Technology and Innovation Plan (NATIP) 2022-2027. This strategic congruence underscores VCN's commitment to fostering a diversified economy, ensuring access to nutritious food, and creating growth and employment opportunities across various value chains.

VCN's contributions are not limited to national frameworks. The project supports the transformative initiatives of the UNSDCF (2022-2027), particularly under the pillars of Planet and Prosperity, aligning with outcomes 1.2 and 2.1. Moreover, it actively contributes to the achievement of several Sustainable Development Goals (SDGs), including Goals 1, 2, 5, and 13, underlining its global relevance. It also aligns with the COSOP (2024-29) strategic objectives, emphasizing the sustainable increase of rural productive capacities and the enhancement of policy frameworks in collaboration with the private sector. Additionally, it aligns with the AFD Country intervention strategy and seeks to complement other IFAD country programs.

In terms of climate change adaptation and resilience, VCN climate mainstreaming is consistent with Nigeria's national priorities and aspirations to deliver on the 47% GHG emission reduction targets of the Nationally Determined Contributions (NDC) and the targets of the Sustainable Development Goals (SDGs), most especially as it relates to goals 1 (no poverty), 2 (zero hunger) 5 (gender equality), 13 (climate action) and 15 (life on land). On the IFAD side, it is consistent with the core objectives and priorities of the IFAD 2016-2025 Strategic Framework⁷, IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025⁸, and IFAD11 Replenishment Consultation agenda for mainstreaming gender, youth, nutrition and climate finance tracking using the multilateral development bank (MDB) methodologies to secure improved and more resilient livelihoods for all rural people, and strengthening national capacity to deliver on the Paris Agreement and SDGs.

The overall **goal** of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The **programme development objective** (PDO) is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The Expected Outcomes of the project are:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
- Improved policy and institutional framework

⁷ IFAD 2016-2025 Strategic Framework. <https://www.ifad.org/documents/38714170/39132730/IFAD+Strategic+Framework+2016-2025/d43eed79-c827-4ae8-b043-09e65977e22d>

⁸ IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025 <https://webapps.ifad.org/members/eb/125/docs/EB-2018-125-R-12.pdf>

1.1. Project Components

Component 1: Foster climate resilient and nutrition sensitive. This component aims at achieving two outcomes: (i) improved productivity, climate adaptive capacity and resilience of smallholder farmers (SHFs) farming systems in the target VCs; and (ii) improved diet quality and nutrition awareness of target rural HHs. The outcome indicators for Component 1 are: *1.2.4 HHs reporting an increase in production*, and *3.2.2 HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices*. The component consists of three subcomponents.

Component 1 is supported by 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices.*

Subcomponent 1.3: *Improve access to finance and scale access to digital financing*

Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs. This aims at achieving three outcomes: (i) improved post-harvest handling, value addition and access to markets in supported VCs; (ii) increased business and entrepreneurial opportunities for youth and women along the target VCs; and (iii) improved policy/institutional framework for poverty reduction, food and nutrition security, and gender equality. Nutrition will be enhanced by promoting nutrition sensitive VCs, food safety, packaging, and labeling. The outcome indicators for Component 2 are: *2.2.2 Supported rural enterprises reporting an increase in profit*, *2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities*, *2.2.6 HHs reporting improved physical access to markets, processing and storage facilities*; *2.2.1 Persons with new jobs/employment opportunities*; *Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment*. The component comprises four subcomponents.

Component 2 is supported by 4 subcomponents:

Subcomponent 2.1: *Improve post-Harvest and Value addition*

Subcomponent 2.2: *improve market linkages and partnerships with VC actors*

Subcomponent 2.3: *Promote entrepreneurship and employment of Women and Youth*

Subcomponent 2.4: *promote an enabling policy and institutional framework*

Component 3: Programme Coordination & Management. The expected outcome of this component is: an efficiently and effectively managed programme achieving results, with the core mainstreaming themes and M&E and KM integrated in all aspects of operations. This component establishes the guidelines and actions for programme management.

1.2. Objectives of the Targeted Adaptation Assessment Report

1. The Targeted Adaptation Assessment Report is a pivotal component of the Value Chain North (VCN) project. This report aims to provide an analysis and strategic guidance to respond to climate

risks, deepen climate adaptation and resilience, and enhance project's effectiveness and sustainability. Its objectives to align with the overarching goals and expected outcomes of the VCN while addressing specific climate risks and impacts and opportunities in the agricultural value chain development in Northern Nigeria.

1.2.1. Primary Objectives

- a. **Assessing Local Climate Risks and Vulnerabilities:** The report will evaluate the specific climate-related risks and vulnerabilities in the VCN states of Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe, Bauchi and Kano. This assessment will provide a granular understanding of the climate and environmental challenges the region face, particularly in the context of agricultural practices and rural livelihoods.
- b. **Identifying Adaptation Strategies and Practices:** A key objective is to identify and recommend resilient agricultural practices and adaptation strategies. These strategies will focus on mitigating the impacts of climate change, enhancing the resilience of agricultural value chains, and ensuring sustainable livelihoods for local communities.
- c. **Evaluating Socio-Economic Impacts:** The report will assess the socio-economic implications of climate change and the proposed adaptation strategies. This includes understanding the impacts on rural incomes, *assets at farm levels*, employment, social networks, gender equality, and youth engagement in agriculture.
- d. **Integrating Technology and Innovation:** A focus will be placed on identifying opportunities for integrating technology and innovation in adaptation strategies. This includes leveraging digital technologies for climate-resilient agriculture, access to climate information, improved market access, and enhanced agricultural value chains.
- e. **Enhancing Policy Alignment and Institutional Frameworks:** The assessment aims to ensure that adaptation strategies align with existing national and regional policies, including the National Poverty Reduction and Growth Strategy and the Agricultural Sector Food Security and Nutrition Strategy. It will also suggest improvements in institutional frameworks to support effective implementation.
- f. **Promoting Community Participation and Inclusivity:** Engaging local communities, particularly women and youth, in the adaptation planning process is a crucial objective. The report will provide recommendations for inclusive rural institutions and community participation in decision-making and implementation processes.
- g. **Developing Monitoring and Evaluation Mechanisms:** The report will propose monitoring and evaluation mechanisms to track the effectiveness of adaptation strategies. These mechanisms will assist in measuring progress against set goals and objectives, ensuring adaptability and responsiveness to changing circumstances.
- h. **Facilitating Knowledge Sharing and Capacity Building:** Aiming to build local capacities, the report will outline strategies for knowledge sharing, training, and capacity building among stakeholders.

This includes disseminating best practices and lessons learned in climate adaptation and sustainable agricultural practices.

2. Indication of Hazard, Exposure, Sensitivity and Adaptive Capacity

The VCN project is to be implemented in **9 States of the** semi-arid northern Nigeria. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states. The 9 states of the semi-arid northern Nigeria covered about 338,206km² (about 37% of Nigeria land area)⁹ with about 63.8million people (about 30.2%% of national population)¹⁰ consisting mostly of the rural poor. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain¹¹. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc. coupled with low adaptive capacity) result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.

In the arid and semi-arid regions, farmers of the northern Nigeria have faced a range of impacts from climate change hazards due to increasing variation in the amount, geographic distribution and timing of rainfall and through effects on crops, soils, insects, weeds, diseases and livestock. This is because traditionally, planning and timing of farming operations are tied to the onset, duration of rainfall and cessation. Climate change impacts contributing to significant loss of livelihood includes:

1. Increased desertification especially of arable land available for agricultural use;
2. Water shortage as a result of drought or dry spells;
3. Precipitation (rainfall), increased temperature and evaporation;
4. Disease and pest outbreak as a result of the changes in climate;
5. Floods leading to damages of crops thereby causing food shortage;
6. Conflict from increased movement of pastoralists to more humid southern areas in search of fodder and water;
7. Changes in the onset of the rainy season changing planting dates and the length of the growing season of annual crops;
8. Increasing variations in terms of timing and amount of rainfall. Water deficits may also depress crops and livestock production and hence, shortage in food supply

According to the Participatory Climate Change Vulnerability Mapping in CASP Areas conducted in March 2021, flood, drought, dry spell, soil erosion, high temperature, windstorm, desertification, soil infertility, and pest and diseases are the most important climate risks in northern Nigeria.

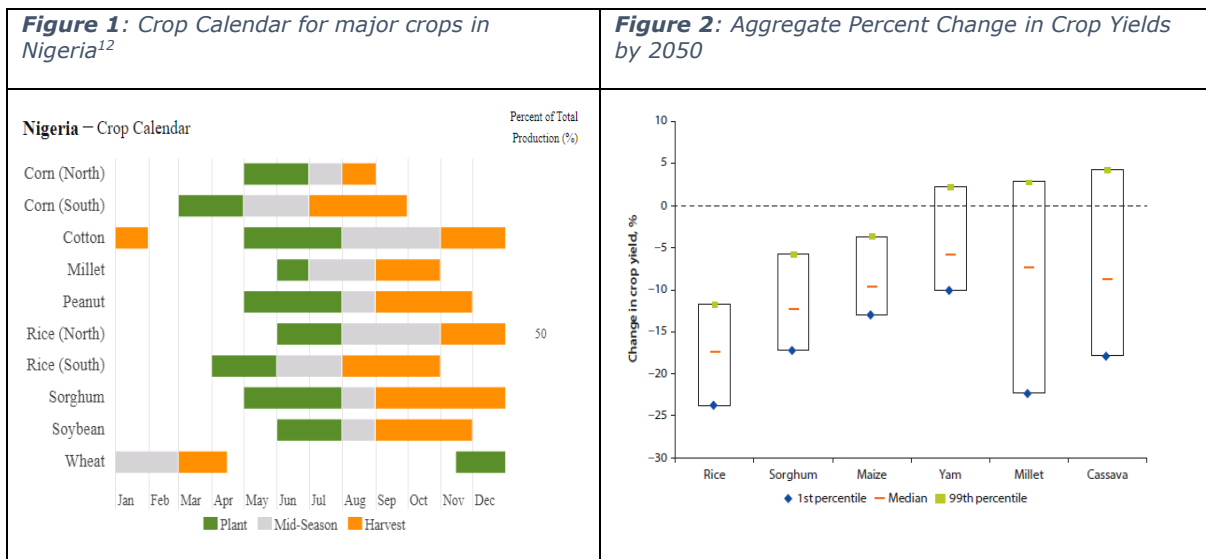
⁹ NBS (2019): Annual Abstract of Statistics. <http://nigerianstat.gov.ng/elibrary>

¹⁰ National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021, Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

¹¹ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

Annual fluvial flooding especially from the Niger and Benue and its tributaries (Sokoto/Rima, Kaduna, Gongola, Taraba, etc.) and other rivers including the Hadejia-Jamaare, as well as pluvial floods from high intensity rainfall result in the loss of farmlands and investments across the semi-arid northern states and continues to be an increasing challenge. In 2012, 2018, and 2022 devastating floods have occurred across the states resulting in substantial losses. Majority of the farmers are not signed to any form of insurance and compensation, while access to weather advisory services established during CASP needs to be strengthened. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to the increased climate variability with possibility of increased dry spells and droughts. Increased rainfall intensity, coupled with land clearing means a greater risk of surface runoff, topsoil erosion, flooding, and risk of river damage to road infrastructure.

Flooding in northern Nigeria often occurs between September and October which coincides with the harvest season for the most important value chain crops including millet, peanut, rice, sorghum, and soybean (Fig. 1).



This often exacerbates investment losses, poverty, and food insecurity and nutrition issues. Cervigni et al (2013)¹³ have shown that there will be decrease in the yield of major crops including Rice, Sorghum, Maize, and Millet, which are value chain crops in northern Nigeria by 2050. This could be as high as almost 25% for Rice and Millet (Fig. 2).

2.1. Current Climate

¹² Source: USDA, 2022. https://ipad.fas.usda.gov/countrysummary/images/NI/cropcalendar/wafrica_ni_calendar.png

¹³ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

Rainfall. Like the rest of Nigeria, the climate of the VCN states is controlled by the two dominant air masses – the moist tropical maritime air mass (south westerlies) driven mainly by the West Africa monsoon system from April through October; and the dry, dust-laden north-easterly tropical continental air mass. The interaction between these two contrasting air masses is controlled by the movement of the inter-tropical discontinuity (ITD). Mean annual rainfall in the northern Sudan Savanna zone range between about 600-1000 mm and less than 600mm (received over 3 months -July to September)¹⁴ in the Sahel zone. Relative humidity is constantly below 40%, except for the few rainy months when it goes up to 60% or more. Dry season in the Sudan savanna is about 4-6 months and exceed 8 months in the Sahel. The inter-annual rainfall variability is high in northern Nigeria resulting in climatic hazards, especially flood and drought. The relative humidity in the north experiences considerable seasonal and diurnal variations¹⁵. Since the 1990s, rainfall has recovered across Nigeria. Analysis of rainfall data from 1981 to 2020 across Nigeria shows that the general trend in rainfall amount has been positive, increasing at about 8.2% annually. The increase is higher in the north at 8.7%¹⁶. The standardized rainfall anomaly over Nigeria shows that the years 1981 to 1990 (except 1988) received below normal rainfall. Rainfall recovery started in 1991; and except for 1992, 1993 and 2001, the years from 1991 to 2020 received above normal rainfall with 2019 and 2012 recording positive anomalies above 2SD. The rainfall anomalies over northern Nigeria are consistent with the signal over Nigeria (Fig. 3).

Temperature. Warming trend over Nigeria is very clear and the signal is consistent over both northern and southern Nigeria. However, temperature is rising faster over the semi-arid northern Nigeria. In essence, exposure to rising temperature and high sensitivity (coupled with low adaptive capacity), leading to high vulnerability to climate and environmental change is greater over northern Nigeria. The observed climate indicates that temperatures over Nigeria has been rising in the last five decades and has been very significant since 1980s. The linear warming for a 30-year averages on a decadal slice reveal changes in temperature by an average of 0.2°C; and has been above normal by as much as 2°C in 1998¹⁷. Nigeria transited from cold period to warm since 1981 with a general warming trend increasing at about 6.1% per annum. The last decade (2011-2020) remains the warmest since 1981 with only 2012 recording below normal maximum temperature. The years 2013 to 2020 have been consistently warm with positive anomalies exceeding 2SD in 2016, 2017 and 2020. The maximum temperature increases since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig.4)¹⁸.

Figure 3: Rainfall anomaly over northern Nigeria (1981-2020)

Figure 4: Maximum Temperature anomaly over Northern Nigeria (1981-2020)

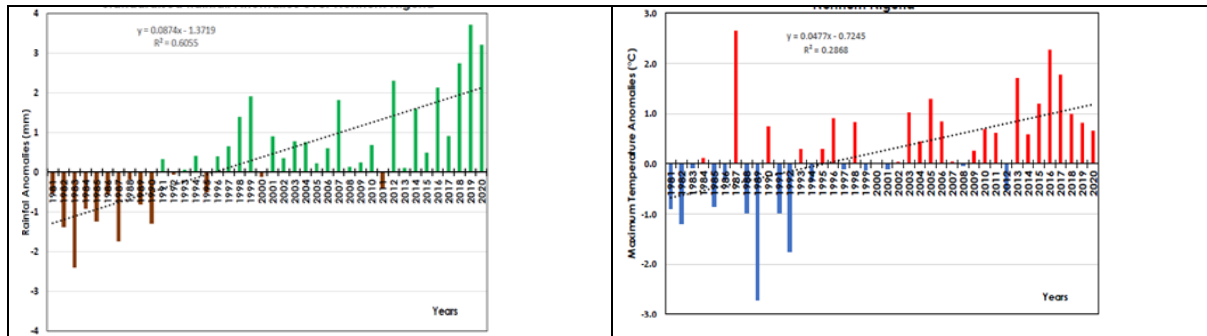
¹⁴ Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months. The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.

¹⁵ State of the Nigerian Environment Report, 2008, SEDEC Associates for Federal Ministry of Environment and UNDP

¹⁶ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

¹⁷ Federal Government of Nigeria (2014): Nigeria's Second National Communication under The United Nations Framework Convention on Climate Change. The Federal Ministry of Environment of the Federal Republic of Nigeria Abuja. Retrieved from www.unfccc.int/resource/docs/natc/nganc2.pdf.

¹⁸ State of Climate in Nigeria 2020, Nigerian Meteorological Agency



2.2. Historical Climate

In Nigeria generally, the average temperature has been gradually increasing. A significant warming trend has been observed, particularly after 1980, with temperatures rising by approximately 0.9°C between 1901 and 2012. There has been an increase in the number of hot days and a decrease in cold days since 1950, with daily minimum and maximum temperatures rising by about 2.0°C to 2.6°C. Rainfall has declined by about 5% since 1915, with increased variability in annual and seasonal patterns. The frequency and length of dry spells during the rainy season have also increased. Although droughts are a natural occurrence, their severity has intensified in recent decades^{19,20}.

Three periods have generally been recognized in the rainfall regime of the Nigeria since the middle of the last century. These include a relatively wet period between 1951 and 1968, a relatively dry period between 1969 and 1992, and another relatively wet period which shows a period of recovery between 1993 and the present²¹. The driest decade was the 1980s (with the worst Sahelian drought in years) while the wettest decade was the 1950s²². The current rainfall trend indicates that every part of the nation is vulnerable, but the arid and semi-arid areas of northern Nigeria are becoming more vulnerable to climate change in the long run than any other parts of the country with a high probability of tending towards increasing aridity^{23,24}. The observed climate also indicates that temperatures have been on the increase in the last five decades and have been very significant since 1980s. The linear warming for a 30-year averages on a decadal slice reveal changes in temperature by an average of 0.2°C. Temperatures have been above normal by as much as 2°C in 1998²⁵.

¹⁹ <https://nimet.gov.ng/>

²⁰ https://www.climatelinks.org/sites/default/files/asset/document/2019_USAID-ATLAS-Nigeria-Climate-Risk-Profile.pdf
Afiesimama, E. A., O. F. Ati, J. O. Olorok, M. A. Ijioma, M. A. C. Chendo and A. Ayansina (2010): *National Climate Change Scenarios Development. Draft Technical Report for Nigeria's Second National Communication*

²² Oguntunde P. G, Abiodun B. J, and Lischeid G. (2011). Rainfall Trends in Nigeria, 1901-2000, *Journal of Hydrology*. **411**:207-218,

²³ Oguntunde P. G, Abiodun B. J, and Lischeid G. (2011). Rainfall Trends in Nigeria, 1901-2000, *Journal of Hydrology*. **411**:207-218,

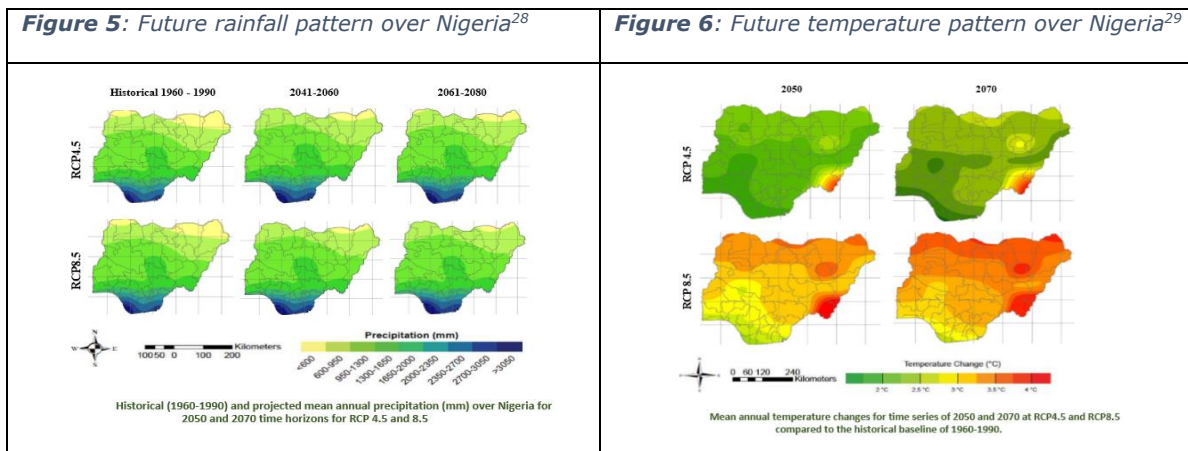
²⁴ Cervigni, R., Riccardo, V., and Monia, S, eds. (2013): *Toward Climate-Resilient Development in Nigeria*. Directions in Development. Washington, DC: World Bank

²⁵ Federal Government of Nigeria (2014): Nigeria's Second National Communication under The United Nations Framework Convention on Climate Change. The Federal Ministry of Environment of the Federal Republic of Nigeria Abuja. Retrieved from www.unfccc.int/resource/docs/natc/nganc2.pdf. Accessed 15 March 2017

2.3. Future Climate

Rainfall: Rainfall is projected to increase across Nigeria. The Sahel savanna is projected to have the highest increase of around 30% under both RCPs 4.5 and 8.5 for the 2050-time step followed by the Sudan savanna with about 10% while the remaining zone are at less than 5%. The projections follow the same trend for the 2070-time horizon, with higher increases under RCP8.5 and even a 45% peak for the Sahel savanna. For aggregate mean annual precipitation, the northern Sahel and Sudan savannas could experience an increase of 29% to 45.8% and 9% to 14.2%, respectively. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400 mm annual maximum historically over this zone (Fig 5)²⁶.

Temperature: Under the RCP4.5 for 2050 and 2070, temperature increase could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline. On average, the temperature increase is projected to vary between 1.95 to 2.31°C under the RCP 4.5 scenario increasing to the range 3.15 to 3.54°C for the RCP 8.5 across the country. The lower increase is predicted for the southern part of the country and the magnitude increases northward. Under the RCP 8.5 scenario for 2050 and 2070, the low range temperature increase is from +2.41°C to +2.68°C and the highest ranges from +4.25°C to +4.63°C compared to the baseline. Under RCP 8.5 almost all parts of Nigeria could experience an increase of a minimum of 2°C and a maximum of 4°C or higher, with the highest increase being felt in the northern Nigeria. In essence, temperature is likely to continue to rise across Nigeria, but faster in the north (Fig 6)²⁷.



²⁶ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

²⁷ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

²⁸ FGN. 2020

²⁹ FGN. 2020

2.4. Assessment of Sub-sector Impacts and Vulnerabilities

This section will evaluate the impacts of climate change on key sectors, notably agriculture, water resources, and health in the VCN states in particular and Nigeria in general. These states are experiencing increasing temperatures, erratic rainfall patterns, and more frequent droughts and floods. Such changes are severely impacting agricultural productivity, water availability, and public health. In agriculture, these states face reduced crop yields and livestock productivity due to higher temperatures and changing rainfall patterns. Water resources are increasingly strained, affecting both human consumption and irrigation. Health impacts are also notable, with increased risks of malaria and other climate-sensitive diseases.

2.5. Vulnerability of Small Holder Farmers

Climate change and variability is perhaps the greatest problem of smallholder agriculture in northern Nigeria. The short rainfall duration leading to short growing season is a limitation to production and by extension other agricultural value chains. Thus, availability of water through irrigation is critical to strengthening resilience and improving adaptive capacity of the smallholder farmers. Desertification and land degradation also undermine the resilience of farmers. The **interaction with stakeholders during the concept note and project design** missions shows other issues to include access to inputs -lack of improved seeds and high cost of fertilizer, lack of labour-saving technologies, insecurity, banditry, and farmers herders conflicts, and innovation (especially in storage, processing and value additions, packaging, seed improvement, etc.). Others include limited access to market and market information, access to finance, low private sector (off takers, financial institutions, etc.) interface with smallholder farmers, unfavorable cross border trade (smuggling makes imported rice cheaper), challenge of storage facilities, low (local) technology for processing and lack of support for value additions.

In the VCN states, Small Holder Farmers (SHFs) are highly vulnerable to climate-related shocks. Their dependency on agriculture, coupled with high poverty levels, gender disparities, lack of assets, and insufficient safety nets, exacerbates their risk to agricultural uncertainties. These states face challenges in terms of access to irrigation, increasing the vulnerability of SHFs. Climate change impacts have already affected ecosystem services essential for agriculture, including water resources.

Flooding is another critical concern, causing infrastructure damage and livelihood losses. Women farmers in these regions are disproportionately affected due to limited access to resources and assets. Youth disinterest in agriculture, heightened by climate change impacts, is a growing issue. SHFs also struggle with pest and disease outbreaks, extreme weather events, labour shortages, and infrastructural deficiencies. The economic situation, characterized by currency devaluation and rising prices, further aggravates food insecurity. Adaptation strategies among farmers are limited, highlighting the need for urgent technical, financial, and institutional support to enhance resilience and food security.

Women farmers, constituting a significant portion of the SHFs, are disproportionately affected due to lower access to resources compared to men. Youth interest in agriculture is declining, further challenged by climate change. SHFs in these states also face pest and disease outbreaks, extreme weather events, and economic challenges such as currency devaluation and rising prices, which worsen food insecurity. Coping strategies among SHFs are often inadequate, with limited adjustments made in farming practices due to resource constraints and lack of climate change awareness.

Small Holder Farmers (SHFs) face significant vulnerabilities due to a range of factors exacerbated by climate change. Over five million Nigerian smallholder farmers have benefited from agricultural programs supported by the International Fund for Agricultural Development (IFAD) and the Federal Government, which indicates the substantial number of SHFs operating in these regions³⁰.

Additionally, socio-political challenges like farmer-herder conflicts and the impact of land degradation and desertification in these states is substantial. The Great Green Wall (GGW) Initiative, which Nigeria is part of, seeks to address these challenges by recovering degraded land, preserving ecosystems, and providing sustainable livelihood opportunities for communities, including smallholder farmers. As part of the GGW Initiative, 7.6 million plants and seedlings have been produced, and 2,801 hectares of land have been reforested, contributing to improving the livelihoods of over 25 million people by 2030³¹.

Furthermore, these states are part of the GGW corridor, which covers about 35% of Nigeria's landmass. The initiative in Nigeria aims to create over 10 million job opportunities and enhance food security, which would be pivotal for smallholder farmers in these regions. The initiative also seeks to reduce conflicts over scarce natural resources, strengthen social infrastructure, and improve living conditions in rural communities³². Implementing VCN will greatly contribute to building the adaptive capacity of the small holder farmers in this region.

2.6. Sector Vulnerabilities

2.6.1. Agriculture

Nigeria is predominantly a rural economy, with about 51% of the population living in rural areas³³, most of whom are smallholder farmers. The overwhelming majority (33.3 million of the 49.3 million) of households are smallholders farming households³⁴ consisting mostly of the rural poor. The agriculture sector contributed 23.24% to overall GDP in real terms in the second quarter of 2022 and grew by 1.20% (year-on-year) in real terms (a decline from 3.16% in Q1) during the period³⁵. Crop Production remained the major driver and accounts for 91.99% of the overall nominal growth of the sector in the second quarter of 2022. As the main source of livelihood for most of the population, the performance of agriculture is a key determinant of rural livelihood resilience and poverty levels³⁶. According to FAO (2020)³⁷, the share of Agriculture in total employment is about 35.1%. Women in agriculture constitute about 30.2% of the agriculture labour force.

The agriculture sector in the Northern states of Nigeria, comprising Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe, and Kano, is a vital component of the region's economy and plays a significant role in the livelihoods of its inhabitants. However, this sector faces several vulnerabilities, especially among smallholder farmers with a significant portion of households engaged in crop and livestock farming. Smallholder farmers in these states play a critical role in producing staple foods like maize, millets, and groundnuts. However, their contribution is challenged by limited access to irrigation and other modern farming facilities, impacting the overall productivity and sustainability of their farming practices. The region faces climate-related challenges such as temperature variations, erratic rainfall patterns, and an increased

³⁰ <https://www.vanguardngr.com/2023/11/5m-nigerians-benefit-from-fg-ifad-programmes-minister/>

³¹ <https://gef6.globelegislators.org/nigeria/the-great-green-wall-experience-in-nigeria>

³² <https://gef6.globelegislators.org/nigeria/the-great-green-wall-experience-in-nigeria>

³³ FAO, World Food and Agriculture statistical pocketbook, 2018.

³⁴ Fraym, CASP Smallholder Farmer Assessment 2020

³⁵ NBS (2022) Nigeria GDP Report Q2 2022, August 2022. <https://nigerianstat.gov.ng/download/1241219>

³⁶ <https://www.statista.com/topics/6729/agriculture-in-nigeria/>

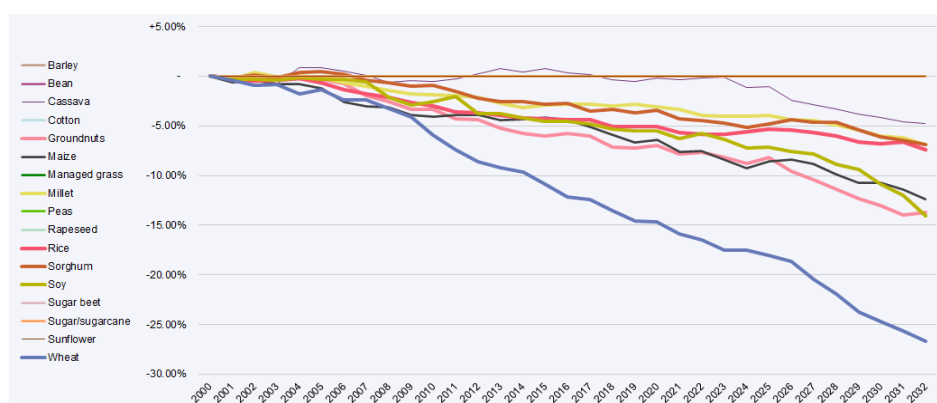
³⁷ FAO. 2020. World Food and Agriculture - Statistical Yearbook 2020. Rome. <https://doi.org/10.4060/cb1329en>

frequency of extreme weather events like droughts and floods. The smallholder farming sector, which produces 70% of staple foods (maize, millets, and groundnuts), is particularly vulnerable as it has access to less than 5% of national irrigation facilities³⁸.

These climatic factors severely affect agricultural outputs, thereby increasing vulnerability and negatively impacting livelihoods. Women farmers, constituting a large percentage of smallholder farmers, face disproportionate impacts due to limited access to resources. Similarly, the youth's interest in agriculture is declining, influenced by the challenges posed by climate change. Smallholder farmers are also confronted with socio-economic challenges, including poverty, food insecurity, and limited access to markets. The rising costs of agricultural inputs and fluctuating market prices further exacerbate their vulnerability. There are initiatives, like the Agricultural Livelihood and Market Recovery Intervention (ALMRI) program in Borno State, aimed at boosting the resilience and capacities of smallholder farmers through training and support in improved farming techniques^{39,40,41}. Implementing VCN play a crucial role in addressing the vulnerabilities faced by farmers in the region.

The IFAD Climate Adaptation in Rural Development Assessment Tool was used to look at the trend in crop yield for northern Nigeria. Using AEZ: dry, moderate soil (which is the common agroecological zone of northern Nigeria) under no irrigation, and median risk and year 2000 as the base year, yield for all the major value chain crops continues to decrease with as much as 27% for wheat, 14% for groundnut and soybean, 12% for maize, and 7% for sorghum, millet, and rice by 2030 (Fig. 7).

Figure 7: Crop yield in Northern Nigeria 2000-2032⁴²



2.6.2. Livestock

Livestock are an important source of food, income, capital, and draught animal power in Nigeria, especially for smallholder farmers in rural, semiarid regions. According to the Food

³⁸ https://en.wikipedia.org/wiki/Agricultural_sustainability_in_northern_Nigeria

³⁹ <https://www.worldbank.org/>

⁴⁰ <https://nigeria.mercycorps.org/>

⁴¹ <https://www.nature.com/>

⁴² IFAD Climate Adaptation in Rural Development Assessment Tool

and Agriculture Organization of the United Nations (FAO), Nigeria's livestock sector accounts for one-third of the 21% contribution that the agricultural sector makes to the national gross domestic product. As of 2021, the number of live cattle in Nigeria was 19.5 million⁴³. The Nigerian government has launched several initiatives to transform the livestock sector, including the Agricultural Promotion Policy 2016-2020 which prioritizes investments in the dairy and poultry sectors to commercialize production and reduce the demand-supply gaps⁴⁴.

The VCN states characterized by semi-arid climate, supports a range of livestock farming practices, which are integral to the livelihoods of many communities. Among various types of farming systems, the Extensive System of livestock production is practiced by nomadic communities in Northern Nigeria, this system involves moving animals in search of food, mainly grasses and water. It is a traditional form of livestock rearing in the region and the source of the farmer-herder crisis in the region. In the Agro-Pastoral System, cattle rearing is combined with crop cultivation. Animals graze on designated rangelands, and supplementary feeds are also provided. The Intensive System involves keeping animals indoors, feeding them high-quality feed, and providing adequate housing and medical care. This system is less common in the Sahel region but is used for milk production with exotic breeds.

Common Sheep breeds in Northern Nigeria include Balami, Uda, and Yankasa. Sheep are primarily raised for their meat (mutton) and wool, with the Balami and Uda breeds being more prevalent in the semi-arid regions. The Goats Breeds like the West African Dwarf, Sokoto Red/Maradi, and Sahel are raised primarily for meat (mutton) and milk. The Sokoto Red and Sahel breeds are more common in the northern regions. The region is home to significant cattle herding, primarily for meat and dairy products. Cross-border movements of cattle are common, highlighting the regional significance of livestock trade and the need for coordinated disease control and market strategies.

The project area faces several challenges in livestock production, including climate variations, limited access to water and grazing lands, and the risk of diseases. Climate change has further exacerbated these challenges, affecting feed availability and the overall productivity of the sector⁴⁵⁴⁶⁴⁷⁴⁸. However, the VCN is not envisaged to support extensive livestock projects.

2.7. Agro-Ecological Regions (AERs) and Crop Production

The Sahel region of Northern Nigeria, characterized by its arid environment, faces unique agricultural challenges and opportunities. This region, as part of the broader Sahel zone across West Africa, has seen significant agroecological changes over the years, with innovations in agroecology improving food security and reversing environmental degradation. However, it remains one of the poorest and most environmentally precarious areas in Africa. The Sahel region is marked by limited and unpredictable rainfall, typically below 500 mm per year. The rainfall pattern heavily influences the cropping systems, which are predominantly rainfed. The region primarily focuses on drought-resistant crops such as millet and sorghum. In the project

⁴³ <https://www.statista.com/statistics/1297914/stock-of-live-cattle-in-nigeria/>

⁴⁴ <https://www.fao.org/in-action/asl2050/countries/nga/en/>

⁴⁵ <https://www.worldagroforestry.org/>

⁴⁶ <https://www.inter-reseaux.org/>

⁴⁷ <https://journals.plos.org/>

⁴⁸ <https://www.nature.com/>

area, double-cropping systems are practiced, including combinations like millet-cowpea or groundnut-maize.

The soils in the Sahel are generally shallow, with characteristics including being coarse-textured and having low organic matter content. These factors make them less fertile compared to soils in the more southern regions of Nigeria. Farming in the Sahel region is primarily conducted by smallholder farmers, with most cultivating less than 1 hectare of land. The lack of mechanization, reliance on traditional tools like hoes and cutlasses, and the use of ox-drawn ploughs are common. This mode of farming, combined with the harsh climatic conditions, creates significant challenges for agricultural productivity. Table 1 shows the major agroecological zones of Nigeria and the prevailing agricultural practices.

Table 1. Agro-ecological Regions and Prevalent farming systems in Nigeria⁴⁹

Agro-ecological Region	Rainfall (mm)	Vegetation	Main Crops	Prevalent Farming Systems
Rainforest (rainfall above 2,000 mm)	2,000 to 4,000 mm	Dense vegetation	Cocoa, oil palm, rubber	Subsistence farming (yam, cassava, maize)
Derived Savanna (rainfall 1,000-2,000 mm)	750 to 2,000 mm	Mixed savanna and forest	Yam, cassava, maize	Subsistence and mixed farming (millet, sorghum, cowpea)
Northern Guinea Savanna (rainfall 750-1,000 mm)	500 to 750 mm	More open savanna	Sorghum, millet, cowpea, cotton	Subsistence and commercial farming (millet, sorghum, groundnut)
Sudan Savanna (rainfall 500-750 mm)	350 to 500 mm	Arid conditions	Livestock and sorghum, millet	Livestock production (cattle, sheep, goats)
Sahel (rainfall below 500 mm)	Below 350 mm	Desert conditions	Nomadic livestock production	Nomadic livestock production (camels, sheep, goats)

The VCN project area falls within the semi-arid Sudan and Sahel regions. These regions are highly vulnerable to climate change, which exacerbates the already challenging agricultural conditions. Trends such as increased temperatures and changes in rainfall patterns further stress the agricultural systems, making them more prone to droughts and affecting crop yields⁵⁰.

⁴⁹ <http://www.fao.org/nigeria/fao-in-nigeria/nigeria-at-a-glance/en/>

⁵⁰ <https://www.yieldgap.org/>

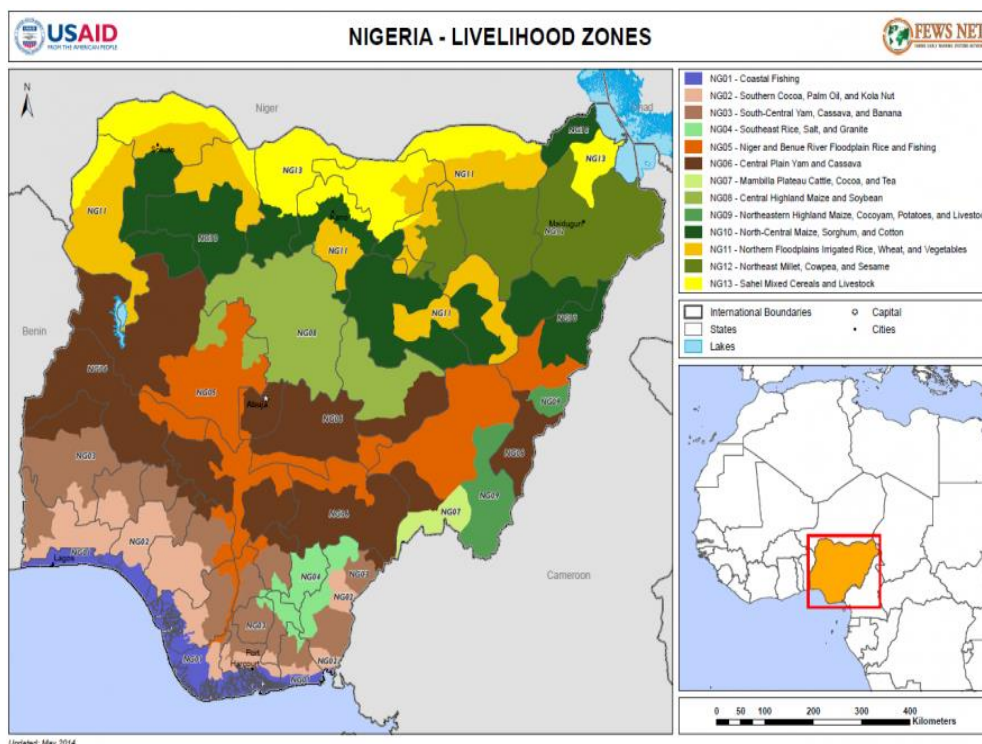


Fig 8: Nigeria Livelihood zones

The livelihood and crop production zones in the semi arid northern Nigeria include the Sahel mixed cereals and livestock zone, northeast millet, cowpea and sesame zone, northern floodplain for irrigated rice, wheat and vegetables, north central maize, sorghum and cotton zone, central highland maize and soybean zone and northeastern highland maize, potatoes and livestock zone (Fig 8).

2.7.1. Water resources

Climate change has significant consequences on water resources in Nigeria, including increases in temperature, higher evaporation rates, shifts in precipitation patterns, and an increase in the frequency of flooding and droughts. These changes will significantly impact agriculture by increasing water demand, limiting crop productivity, and reducing water availability in areas where irrigation is most needed or has comparative advantage⁵¹.

The semi-arid northern Nigeria spans four of the eight hydrological areas/regions (HAs) of Nigeria. These include HA 1 (Sokoto-Rima basin), HA 2 (Upper Niger – Kaduna River basin), HA 3 (Upper Benue – Gongola and Taraba River basins) and HA 8 (Chad basin – Kano-Hadejia River basins). With several river basins in the HAs, the project area has abundant surface and groundwater resources. These water regions are managed by River Basins Development Authorities (RBDA) responsible principally to undertake comprehensive development of both surface and ground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed

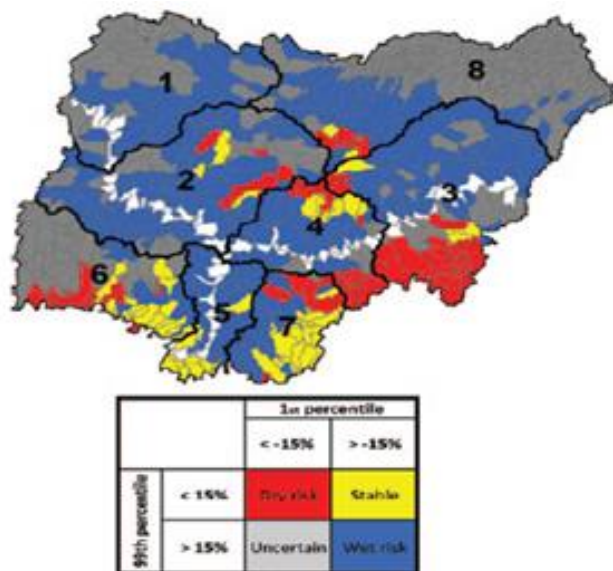
⁵¹ https://www.globalwaters.org/sites/default/files/nigeria_country_profile_nigeria.pdf

management, among others⁵². Future changes in the average water flows of the sub-basins within the semi-arid northern Nigeria are substantially uncertain⁵³ (Fig 9).

According to the Water Action Hub, Nigeria has a large endowment of freshwater resources, with exploitable surface water resources estimated to be 80% of the natural flow, which is about 96km³/yr. Annual extractable groundwater resources are about 59.51km³, distributed as follows: 10.27km³ in northern Nigeria; 25.48km³ in the middle belt; 23.76km³ in the south⁵⁴. Northern Nigeria is home to a significant proportion of Nigeria’s agricultural activities. 83.6 percent of households living in the Northeast of the country declared to practice crop farming. Similarly, 68.6 percent of households in the same region owned or rose livestock⁵⁵.

Groundwater is the main source of drinking water for more than 70% of the rural population in Nigeria, and communal and commercial sectors in rural areas also rely primarily on groundwater to meet their needs. In recent years, urban demand for groundwater has also increased due to the increasing unreliability of water distribution systems⁵⁶. Projected higher temperatures and declines in mean annual precipitation reinforce a drying climatic outlook with reduced groundwater recharge. This overall reduction in water availability means that by 2080, should medium or high population growth projections be realized, Nigeria could fall into the United Nations “absolute water scarcity” category^{57,58}.

Figure 9: Projected changes in average water flows by Sub-basin, 2050 Compared to 1990⁵⁹



⁵² River Basins Development Authorities Act, 1987, No35. <http://lawsfnigeria.placng.org/laws/R9.pdf>

⁵³ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. *Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions*; Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> .”

⁵⁴ <https://wateractionhub.org/geos/country/161/d/nigeria/>

⁵⁵ <https://www.statista.com/statistics/1119613/households-participating-in-agricultural-activities-in-nigeria-by-zone-and-type/>

⁵⁶ https://en.wikipedia.org/wiki/Groundwater_in_Nigeria

⁵⁷ https://en.wikipedia.org/wiki/Groundwater_in_Nigeria

⁵⁸ <https://www.wateraid.org/ng/water-and-climate-change>

⁵⁹ Cervigni, R., Riccardo, V., and Monia, S, eds. (2013): *Toward Climate-Resilient Development in Nigeria*. Directions in Development. Washington, DC: World Bank

Water resources in Northern Nigeria face significant challenges, exacerbated by the region's semi-arid climate, erratic rainfall patterns, and the effects of climate change. These challenges have profound implications for agriculture, human health, and overall socio-economic development. The major challenges include limited and irregular rainfall, over-reliance on rainfed agriculture, depleting groundwater resources, impact of climate change, and water management challenges. Water scarcity affects not only agriculture but also has broader socio-economic impacts. It limits economic activities, affects health due to poor water quality, and can lead to conflicts over water resources⁶⁰⁶¹.

2.7.2. Human Health

Increase in temperature is going to exacerbate the burden of disease on human life in Nigeria. Climate stressors will expand the geographic range of malaria and dengue and increase the burden of waterborne and diarrheal diseases (e.g., cholera). The increased frequency of floods and heavy rainfall events also put already vulnerable communities that lack access to clean water or sanitation at greater risk of cholera and other diarrheal diseases. It is expected that temperature changes will alter the transmission of diseases by 2050. Incidence of diseases is also expected to increase⁶².

Projected increased temperatures, frequency and/or intensity of floods, storms, and droughts will adversely impact human health and nutrition across Nigeria. Malaria is a major public health concern in Nigeria, with the highest malaria risks concentrated in the northern regions. By 2050, changes in temperature and precipitation are expected to alter the transmission and increase the incidence of malaria⁶³. Increased temperatures, recurrent drought, and variable precipitation will continue to be main drivers of stunting and wasting among children⁶⁴. Droughts pose a significant threat to food security and nutrition, given the country's reliance on subsistence, rainfed agriculture. Droughts have been linked to decreases in household production of staples (e.g., maize), reducing income and the ability to purchase food. Additionally, drought-tolerant crop varieties commonly promoted have been shown to be deficient in essential micronutrients. Research also shows that increased CO₂ levels reduce the nutrient levels in some crops⁶⁵.

Human health in Northern Nigeria is impacted by a range of factors, including environmental, socio-economic, and infrastructural challenges. The region's semi-arid climate, coupled with water scarcity and limited healthcare infrastructure, exacerbates these health vulnerabilities. Key health challenges include waterborne diseases, malnutrition and food insecurity,

⁶⁰ <https://nihsa.gov.ng/>

⁶¹ <http://www.iwmi.cgiar.org/>

⁶² <https://www.thisdaylive.com/index.php/2023/11/24/report-nigeria-may-lose-460bn-to-climate-change-by-2050>

⁶³ <https://www.msn.com/en-xl/africa/nigeria/addressing-climate-change-and-related-environmental-issues-in-nigeria/ar-AA1kXe9e>

⁶⁴ https://www.globalwaters.org/sites/default/files/nigeria_country_profile_nigeria.pdf

⁶⁵ <https://wateractionhub.org/geos/country/161/d/nigeria/>

infectious diseases, climate change impacts, poor healthcare infrastructure and poor environmental and sanitary conditions⁶⁶.

2.7.3. Excessive Use of Pesticides

The issue of pesticide use in the VCN project area, particularly among smallholder farmers (SHFs), is increasingly becoming a concern due to changing climatic conditions. The erratic rainfall patterns, rising temperatures, and frequent mid-season dry spells in Nigeria are contributing to higher pest populations. This escalation in pest threats is leading to an increase in pesticide use, especially as the demand for cereals continue to grow to feed urban populations. Smallholder farmers, aiming to maximize yields, often resort to intensive pesticide use. A significant challenge in this context is the lack of adequate safety precautions during pesticide application. Many farmers, constrained by limited resources, either do not invest in or cannot afford appropriate safety equipment, leading to increased risks of pesticide exposure and contamination.

The situation is further compounded by the broader implications of climate change on agriculture. As the climate risks heighten, so does the dependency on pesticides in the agriculture sector. This raise concerns not only about environmental contamination but also about the potential health risks to farmers and consumers alike due to increased pesticide exposure. Addressing this issue requires a multi-faceted approach, involving better education for farmers on safe pesticide use, investment in alternative pest control methods, and stronger regulation of pesticide application and safety standards^{67,68,69}.

Table 2. Summary of Climate Stressors and Sector Risks

Stressors	Agriculture	Livestock	Water Resources	Human Nutrition and Wash	Forestry
Precipitation	Decrease in rainfall, increase in frequency and intensity of droughts	Decrease in water availability for livestock, decline in grazing land quality	Decrease in water availability for irrigation and domestic use	Decrease in water quality for drinking and domestic use	Decrease in water availability for tree growth and forest health
Temperature	Increase in average temperature, increase in frequency and intensity of heatwaves	Increase in heat stress for livestock, reduced forage quality	Increase in evaporation rates, decrease in water availability	Increase in heat stress for people, reduced access to freshwater for drinking and sanitation	Increase in stress tolerance of tree species

⁶⁶ <https://www.who.int/countries/nga/en/>

⁶⁷ <https://fmard.gov.ng/>

⁶⁸ <http://www.fao.org/nigeria/fao-in-nigeria/nigeria-at-a-glance/en/>

⁶⁹ https://ipen.org/sites/default/files/documents/sedi_nigeria_hhps_report_2021.pdf

Extreme Weather Events	Increased frequency and intensity of floods, increased frequency and intensity of sandstorms	Increased risk of livestock drowning and damage to livestock infrastructure	Increased risk of infrastructure damage, water contamination	Increased risk of waterborne diseases, disruption of water supply	Increased risk of tree damage and mortality
Land Degradation	Soil erosion, salinization, waterlogging	Reduced grazing land quality, reduced soil quality	Reduced water infiltration capacity, increased runoff	Reduced water quality, increased risk of flooding	Reduced soil fertility, increased susceptibility to pests and diseases
Biodiversity Loss	Loss of plant and animal species, reduced ecosystem services	Reduced livestock biodiversity, reduced resilience to pests and diseases	Reduced fish populations, reduced food security	Increased risk of malnutrition, reduced access to healthy food	Increased risk of forest fires and disease outbreaks

3. Adaptation Assessment

3.1. Identifying Adaptation Options

Adaptation in the context of climate change involves initiatives and measures aimed at reducing the vulnerability of natural and human systems to the effects of climate change. According to the Intergovernmental Panel on Climate Change (IPCC), adaptation is crucial in addressing the components of vulnerability: exposure, sensitivity, and adaptive capacity. Understanding these factors is key to developing relevant adaptation strategies.

For effective adaptation in agriculture, particularly in Nigeria, options can be categorized into three synergistic levels:

- a. **Plot Level (Micro-level Adaptation):** This level focuses on what individual farmers can do on their farms. Adaptation at this level may include practices like changing planting dates, using climate information, adopting drought-resistant crop varieties, diversifying crops to reduce risks, and implementing soil and water conservation techniques. Understanding the specific needs and practices of farmers is vital for tailoring these micro-level adaptations.
- b. **Catchment or System Level (Meso-level Adaptation):** This involves broader strategies that encompass an entire agricultural system or catchment area. This could include the development of improved irrigation systems, integrated pest management, and the implementation of agroforestry practices. System-level adaptation efforts should be responsive to farmers' needs identified at the plot level.
- c. **National or Strategic Level (Macro-level Adaptation):** At this level, adaptation involves policy-making and strategic planning. Policies to enhance resilience in the agricultural sector are crucial. These may include developing climate-resilient agricultural policies, insurance schemes for farmers, investing in climate information production and dissemination, and investing in agricultural research and development.

It is important for adaptation strategies at all three levels to be integrated and mutually reinforcing. National policies should support system-level adaptations, which in turn should be grounded in the realities of plot-level farming practices. In Nigeria, various policies are being established or are under preparation to build resilience in the agriculture sector. These policies aim to create an enabling environment for effective adaptation at all levels. They include:

- i. Nigeria Climate Change Act 2021
- ii. National Climate Change Policy (NCCP) for Nigeria 2021-2030
- iii. National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN) (2013)
- iv. National Policy on Environment (2013)
- v. National Policy on Disaster Risk Reduction and Management (2018)
- vi. National Policy on Food and Nutrition (2016)
- vii. National Agricultural Technology and Innovation Plan (NATIP) 2022-2027
- viii. National Livestock Transformation Plan (2019)
- ix. National Agricultural Resilience Framework (2020)
- x. Nationally Determined Contributions
- xi. Action Plan on Gender and Climate Change for Nigeria (2020-2025)
- xii. National Action Plan to Reduce Short-lived Climate Pollutants
- xiii. Nigeria's National Adaptation Plan Framework (2020)
- xiv. National Gender Policy 2021 – 2026

For VCN, a range of adaptation options have been identified for fostering climate-resilient and nutrition-sensitive agricultural production activities as proposed in the project concept note and PDR. The proposed activities are targeted at addressing the pressing risks including uncertainties in rainfall onset and cessation (and by implication length of the growing season), soil erosion, soil infertility, land degradation and desertification, and water shortages for crops, and human and animal watering. These interventions will build resilience and increase the adaptive capacity of smallholder farming systems and rural livelihoods to climate and environmental change-driven risks.

1. Promote climate and hydrological information for early warning

Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves, and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

(i) Climate information production and seasonal rainfall prediction (SRP) downscaling and dissemination with NIMET to the communities

VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmer to aid preparedness and resilience.

(ii) Hydrological information production and downscaling with NIHSA

VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modelling of river flow data on the major river catchments across the project area as well as projected rainfall data to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

(iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

(i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that these measures, which include planting pits (Zai), half moon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds and vegetative bunds. Bunds will reduce run off speed and carrying away of soil particles, improve soil moisture and reduces surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

(ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera species*), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

(iii) integrated soil fertility management technologies

Since the Russia-Ukraine war, the price of inorganic fertilizers and other farm additives have increased dramatically. This price increase was also compounded by Nigeria's rising price inflation. Access to fertilizers has also become problematic due to the fragility and insecurity of the situation across the project area. Inorganic fertilizers are being hijacked from farmers by bandits and insurgents to produce improved explosive devices (IED). This has made access to inorganic fertilizers more difficult. Feedback from stakeholders during the fieldwork for VCN design suggests that farmers are increasingly shifting to the use of organic fertilizers and farmyard manure. VCN will promote the production and usage of organic fertilizers by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility while improving climate and environmental benefits.

3. Investment in rehabilitation of market infrastructure that strengthens resilience

Lessons learned from IFAD projects have shown that construction/rehabilitation of basic market infrastructure improves resilience. This includes rehabilitation of climate-vulnerable market connected farm roads, provision of small earthen dams for crops and animals, tube-wells and water pumps for smallholder irrigation and motorized and solar power boreholes and water infrastructure for human and animal watering. The specific activities include:

(i) Rehabilitation of climate-vulnerable market connected farm roads

VCN will invest in rehabilitation and climate proofing of market-connected farm roads to enhance access to market. This will improve communication between the rural producer communities and the outside world and ensure prompt evacuation of farm products to market, processing and offtaking centers. This worked well on CASP and will be upscaled in the VCN project.

(ii) Small irrigation structures

Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

(iii) Water infrastructure for human and animal watering

VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

4. Supporting farmers with climate-resilient planting materials

Flood, drought, and heatwaves are serious climate risks in the VCN project areas. They significantly impact agricultural productivity. In the last couple of years, these risks have become common, leading to loss of investments. The activities here are designed to support farmers with improved (early maturing, high yield, drought and flood tolerant and disease-resistant) varieties seeds. The specific activities are:

(i) Support farmers with climate-resilient seeds: through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

(ii) Support women farmers with Nutrition crops: through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

5. Awareness and capacity building through extension services

Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between climate change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support services including the Farmer Field Schools (FFS) and Training of Trainers (TOT) to ensure that the targets are reached. The specific activities include:

(i) Awareness and capacity building in sustainable land management and GAP: VCN will carry out training in good agricultural and agronomic practices to deliver activities listed in 1,3 and 4. The technical and human capacity activities will be driven through extension support and FFS. E-extension will be strongly promoted to enable wider and timely reach of beneficiaries.

(ii) Capacity building in waste valorization and sustainable agrochemical applications: VCN will provide capacity building in waste valorization including briquettes and biochar production from rice, maize, sorghum, and millet husks, animal feeds production from the hauls/straw, rice bran conversion to poultry feed, rice husk conversion for litter, handicrafts, etc. These training will strengthen the capacity of the women and women groups especially to improve their income and thus become more resilient. VCN will also train youth to create enterprises in correct agrochemicals application.

3.2 Identified Risks and Coping Strategies

Field consultation and stakeholders discussions for SECAP were conducted during the Project Concept Note (PCN) and Project Design Report (PDR) in Sokoto (north-west), Borno and Yobe States (north-east). The discussions across these represent a wide spectrum of opinions and knowledge on the climate and environmental issues of the semi-arid northern Nigeria and adaptation options.

The key climate, environmental and social issues raised during the stakeholders' consultations and discussions across the states are the same set of climate and environmental challenges pervasive in semi-arid northern Nigeria, which constrains the agricultural value chain in the north. Incidentally, these are the set of issues which the closed project (CASP) tried to address.

These include:

- Erratic rainfall – duration, intensity, late onset, and early cessation
- Heat wave and heat stress - from rising temperature
- Desertification and encroachment
- Deforestation
- Land degradation – especially soil erosion
- Pests and diseases – including locusts and quelea birds which significantly affect grains

- Wrong application and adulteration of agrochemicals
- lack of improved seeds
- high cost of fertilizer,
- Access to land for women
- Fragility – insecurity and banditry
- Limited Women participation in VCs
- Limited PWD participation in VCs
- Limited Land access for women
- Limited access to finance and insurance
- Insurgency
- Poverty
- Low productivity
- Low capacity for good agricultural practices
- lack of labour-saving technologies - High production cost due to labour shortages
- More peasants' farmers rely on their children and wives labour which is provided without compensation
- unfavourable cross border trade -smuggling makes imported rice cheaper
- challenges of storage facilities
- lack of support for value additions
- innovation especially in storage, processing and value additions, packaging, seed improvement, etc

the proposed adaptation interventions suggested aligned with their experience in past projects (including CASP) in northern Nigeria. The interventions suggested including:

- Improved seed varieties- early maturing, drought resistant, flood tolerant
- Dams and small irrigation structures and equipment – borehole, tube well, wash bores, water pumps
- Nature based solutions – agroforestry, soil and water conservation, landscape rehabilitation,
- Climate and weather information dissemination for early warning
- Training in agrochemical applications
- Promote home/backyard gardens – especially for women
- Timely provision and distribution of input - fertilizer and soil additives
- Training and advocacy
- Livelihood support for IDPs (internally displaced persons) and Victims of insurgency
- Support for victims of gender-based violence (GBV)
- Support for people with disability (PWDs)
- Support for land access for women
- Promoting access to alternative finance (such as 'no interest' Islamic banking)
- Training and capacity building for youth
- Enlightenment through the community leader
- Diversify crop selection to improve nutrition
- Introduction of simple mechanization tools to encourage youth
- Promote animal traction
- Creation of fully women-led group for more empowerment
- PWDs to be involved in marketing and processing
- Encourage agroforestry to combat climate change
- Promote local food production and consumption
- Training in agrochemical applications
- Promote use of personal protective equipment (PPE)
- Farm inputs including seed for vegetables are key to promote nutrition

- Training in food fortification, food value additions and proper handling of food including agrochemical applications is critical
- More considerations to be given to PWD as beneficiaries in the VCN

These are summarized in Table 3.

Table 3.. Identified Risks and Coping Strategies

Risk Category	Description	Impacts	Coping Strategies
Climate Change	Increasing temperatures, changing precipitation patterns, extreme weather events	Reduced crop yields, increased pest and disease outbreaks, soil erosion and degradation	Diversification of crops, adopting drought-tolerant and flood-resistant varieties, improving irrigation systems, implementing conservation agriculture practices, investing in early warning systems deepen access to climate information
Pest and Diseases	Weeds, insects, diseases, and other pests that damage crops	Reduced crop yields, losses in quality and value, increased production costs	Implementing integrated pest management (IPM) practices, using resistant crop varieties, adopting sustainable pest and disease control methods
Land and soil Degradation	Erosion, compaction, nutrient depletion, and acidification	Reduced crop yields, increased production costs, contamination of water sources	Implementing nature-based solutions including conservation agriculture practices, cover cropping, adopting sustainable land management practices, promoting soil organic matter content
Market Access	Fluctuations in market prices, access to inputs and services, transportation costs and infrastructure	Reduced profitability, increased risk of food insecurity	Strengthening market linkages, improving infrastructure and access to inputs and services, developing risk management strategies
Political and Economic Instability	Conflict, political instability, and economic shocks	Reduced investment in agriculture, disrupted supply chains, food insecurity	Fostering peace and stability, promoting good governance, investing in agriculture infrastructure and development
Human Resources	Lack of skills, knowledge, and access to information	Inefficient production practices, low productivity, limited adoption of new technologies	Investing in education and training, promoting extension services, providing access to relevant information and technologies
Market Infrastructure and Services	Poor market-connected farms roads, lack of storage facilities, lack of access to water for cropping and human and animal watering, limited access to credit and financial services	Increased production costs, reduced marketability of products, limited access to essential services	Improving infrastructure, developing storage facilities, irrigation structures, market-connected farm roads, and water infrastructure for irrigation, human and animal watering, providing access to credit and financial services
Social resilience	climate change and insurgency Plight of IDPs and PWDs and other vulnerable groups access to land for women	increased poverty reduced resilience increased vulnerability	Deepen access to resources by vulnerable populations including IDPs, PWD, widows, orphans, etc. Deliberate actions to secure access to land for women

	limited participation of women		actions to deepen value chains that are compatible with women and vulnerable populations conditions
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Table 4. Policy level Adaptation Options⁷⁰⁷¹

Risk	Local Government Level	State Level	National Level (Strategic/Planning Level)
Climate Change	<ul style="list-style-type: none"> - Implementation of water-efficient practices. - Use of climate-resilient crop varieties. 	<ul style="list-style-type: none"> - Community-based climate adaptation strategies. - Ecosystem conservation and management. 	<ul style="list-style-type: none"> - Alignment with National Climate Policy (2012). - Adherence to NASPA-CCN (2013).
Pest and Diseases	<ul style="list-style-type: none"> - Localized pest management techniques. - Use of organic pesticides. 	<ul style="list-style-type: none"> - Integrated pest management strategies. - Disease surveillance systems. 	<ul style="list-style-type: none"> - National Policy on Agriculture (2016) for pest control measures. - National Agricultural Resilience Framework (2020) for disease resilience.
Soil Degradation	<ul style="list-style-type: none"> - Soil conservation practices. - Organic farming methods. 	<ul style="list-style-type: none"> - Land restoration projects. - Sustainable land management. 	<ul style="list-style-type: none"> - National Policy on Environment (2013) for soil protection. - National Agricultural Resilience Framework (2020) for soil resilience.
Market Access	<ul style="list-style-type: none"> - Development of local market linkages. - Small-scale value addition units. 	<ul style="list-style-type: none"> - Improving regional market infrastructure. - Establishing cooperative marketing platforms. 	<ul style="list-style-type: none"> - National Policy on Agriculture (2016) for market development. - National Livestock Transformation Plan (2019) for livestock market access.

⁷⁰ <https://fmard.gov.ng/>

⁷¹ <https://www.nesrea.gov.ng/>

Political and Economic Instability	<ul style="list-style-type: none"> - Community-based conflict resolution mechanisms. - Diversification of income sources. 	<ul style="list-style-type: none"> - Strengthening local governance structures. - Economic diversification programs. 	<ul style="list-style-type: none"> - National Policy on Disaster Risk Reduction and Management (2018). - NASPA-CCN (2013) for climate-related economic policies.
Human Resources	<ul style="list-style-type: none"> - Skill development and training programs. - Health and nutrition education. 	<ul style="list-style-type: none"> - Capacity building and technical assistance. - Healthcare access improvement. 	<ul style="list-style-type: none"> - National Policy on Food and Nutrition (2016) for workforce health. - National Policy on Education for skill development.
Infrastructure and Services	<ul style="list-style-type: none"> - Local infrastructure development (e.g., wells, roads). - Basic service provision (e.g., healthcare, education). 	<ul style="list-style-type: none"> - Integrated infrastructure planning (e.g., water systems, roads). - Enhancement of public services. 	<ul style="list-style-type: none"> - National Policy on Agriculture (2016) for agricultural infrastructure. - National Livestock Transformation Plan (2019) for livestock infrastructure.
Social resilience	<p>documentation and registration of PWD and vulnerable populations</p> <p>local level awareness creation on available project opportunities for women and vulnerable peoples</p>	<p>facilitate land access for projects targeting women and youth</p> <p>support vulnerable populations with priority actions to benefit in agricultural value chain projects</p>	<p>National Gender Policy 2021 – 2026</p>

3.3 Assessing and Selecting Adaptation Options

Assessing and selecting adaptation options is a critical step in the adaptation process, particularly after a preliminary list of potential adaptations has been established. This phase involves a thorough evaluation to ensure the adaptations are contextually appropriate, effective in reducing vulnerabilities, and contribute positively to overall sustainability.

The assessment should consider the local context's specific needs, the resilience benefits each option provides, and any broader impacts on sustainability. It's essential that this phase involves active engagement with all relevant stakeholders, including those directly affected by these adaptation measures. This inclusive approach helps in making informed decisions, thus avoiding the pitfalls of unsuitable actions or maladaptation. Various methods can be employed in this filtering process to generate and refine adaptation options, including:

- a. **Expert/Stakeholder Elicitation:** Engaging with experts and stakeholders to gather informed opinions and insights.
- b. **Brainstorming and Ideation Sessions:** Utilizing creative group processes like brainstorming or buzzing groups to generate innovative solutions.
- c. **Analysis of Interconnected Decision Areas (AIDA):** Applying systematic analysis to understand and evaluate the interconnectedness of different decision areas.
- d. **Charrettes:** Conducting intensive, collaborative sessions, often public meetings, or workshops, to brainstorm and develop practical solutions.
- e. **Focus Groups:** Gathering a diverse group of people to discuss and provide feedback on specific adaptation options.
- f. **Literature and Case Study Reviews:** Analysing existing literature and case studies to glean insights and lessons from previous experiences.

3.1.1. Analysis Criteria

Making decisions on adaptation options is a complex process, involving decision makers from multiple sectors and experts from diverse fields who need to contend with high levels of uncertainty. It is critical to choose adaptation options that are both effective at increasing resilience as well as socially, economically and politically viable. A simple qualitative description not based on numerical values but on qualitative descriptions such as low, high, and medium can be used but given the diverse array of potential information sources and the many stakeholders with different perspectives and priorities, a Multi-criteria analysis (MCA) is necessary to provide a systematic way for decision makers to make sense of the wide range of information that may be relevant to making adaptation choices. MCA enables decision makers to create a structured framework for comparing a set of defined options across a number of diverse criteria so that they may evaluate adaptation options across a range of priorities or values.

A standard feature of MCA is a performance matrix in which each row describes an option and each column describes the performance of each option against each criterion (Table 4). Often the individual performance assessments are numerical in value, with higher scores representing more preferred options. Individual scores can then be combined into a final score for each option based on the weights that have been assigned to each criterion. Such a matrix can be the final product of an MCA analysis.

3.1.2. IFAD Adaptation Options Prioritisation System

A database of adaptation options, and system for the assessment and prioritisation of adaptation options have been developed as part of IFAD's Adaptation Framework. The prioritisation comprises two main elements. First, the adaptation options are filtered based on project sector, and the climate risks identified during the climate screening process. A MCA is then carried out on the shortlist of adaptation options to assist in choosing measures to integrate into the project using the following criteria:

- i. Technical feasibility
- ii. Cost-benefit ratio
- iii. How well the option addresses risks in the project context

- iv. Complementarity to other IFAD themes
- v. Flexibility (i.e avoids lock-in)
- vi. Mitigation co-benefits
- vii. Transformative potential
- viii. Accessibility for small-holder farmers

The Adaptation Options System uses a simple scoring system based on the eight criteria above. The first four criteria require a minimum score of 2; options which score lower than 2 on any of these criteria do not meet the minimum requirements and are not deemed to be suitable. Adaptation options which are scored the highest are most suitable for a project. The guidance below sets out how users of the system should score assign scores to the adaptation options for each of the criteria in the multi-criteria assessment.

Table 5. Scoring Scheme⁷²

No.	Theme	Scoring Criteria		
		1	2	3
1	Technical Feasibility	No experience in implementing solution	Consultants available with suitable skills	Previous IFAD experience with solution
2	Cost Benefit Analysis	Benefits are less than the costs	Benefits are higher than the estimated costs	Benefits are significantly higher than the estimated costs
3	Addresses Climate Risk	Adaptation option is not relevant or may not be effective for the risks identified	Adaptation option effectively addresses at least one of the identified risks	Adaptation option is relevant for all of the major climate risks identified
4	Accessibility for SHF	Adaptation option is inaccessible for the main project beneficiaries (e.g. unaffordable, requiring regular complex maintenance), or exacerbates existing inequalities.	Adaptation option is accessible for the majority of the project's target beneficiaries.	Adaptation option is accessible to project beneficiaries and specifically benefits women or other marginalised groups.
5	Flexibility (avoids lock-in)	The adaptation option has a long life-time (>10 years) and its design does not allow for any adjustment.	The adaptation option being considered has a short lifetime (less than 10 years)	The adaptation option is low or no regrets or is part of an adaptive management approach.
6	Mitigation Co-benefits	No mitigation co-benefits or adaptation significantly increases greenhouse gas emissions.	Adaptation option leads to emissions reductions, either at present or in the future.	Adaptation option involves reforestation, restoration of carbon sinks, or the substitution of fossil fuels for renewable energy sources.
7	Transformative potential	Adaptation option is limited to small increases in the resilience of target group, but does not involve changes in wider systems.	Adaptation option operates at scale or enables wider implementation of the	Adaptation option enables change in the system in question which significantly increases opportunities for

⁷² [Thematic Brief Irrigated Crops \(ifad.org\)](http://thematicbriefirrigatedcrops.ifad.org)

			option, for instance with a declining marginal cost	target beneficiaries to adapt to climate change.
8	Complementarity to IFAD themes	No complementarity	Complements at least one other cross-cutting theme that is directly relevant to adaptation outcomes	Complements more than one other cross-cutting theme to support systemic resilience.

The Adaptation Options System uses a simple scoring system based on the eight criteria above. The first four criteria require a minimum score of 2; options which scored lower than 2 on any of these criteria were deemed unsuitable for VCN. Adaptation options which were scored the highest are most suitable for a project. The results from the Adaptation Options carried out are shown in Table 6 below. All the options scored more than average and were deemed suitable to a varying degree. Options with high mitigation co-benefits scored generally high whilst those with lower transformative potential scored overall lower.

Ideally, multiple-benefit options that provide synergies with other goals such as mitigation, disaster risk reduction, environmental management or sustainability (e.g. ecosystem based approaches usually provide such multiple benefits) should be favoured due to broad range of potential future climate change impacts and their implicit uncertainties.

Table 6. Scoring Adaptation Options

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
1	Capacitate extension staff with knowledge on climate change in order to support SHF deal with climate risks	3	3	3	3	3	3	3	3	Suitable	24
2	Reduction of soil erosion, nutrient leaching from soil and minimized wind damage. (Soil erosion control and water holding structures)	3	3	3	3	3	3	3	3	Suitable	24
3	Develop knowledge and decision-support systems including improved monitoring and early warning systems (Climate and weather information advisories)	3	3	3	3	3	3	3	3	Suitable	24
4	Climate and weather information dissemination to SHF for early warning	3	3	3	3	3	3	3	2	Suitable	23
5	Implement Agroforestry techniques	3	3	3	2	3	3	3	3	Suitable	23
6	Promote soil and water conservation techniques	3	3	3	2	3	3	3	3	Suitable	23
7	Promote landscape rehabilitation techniques	3	3	3	2	3	3	3	3	Suitable	23
8	Support land access for women	3	3	2	3	3	3	3	3	Suitable	23
9	Improved drainage, improved soil organic matter content and farm design to avoid soil loss and gullyng.	3	3	3	3	3	2	3	3	Suitable	23
10	Use intercropping.	3	3	2	3	3	3	3	3	Suitable	23
11	Use of shade trees and plantation of leguminous varieties for nitrogen fixation	3	3	2	3	3	3	2	3	Suitable	22

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
12	Promote home/backyard gardens	2	3	2	3	3	3	3	3	Suitable	22
13	Livelihood support for IDPs and Vulnerable groups	2	3	2	3	3	3	3	3	Suitable	22
14	Promote use of bio-fertilizer or organic fertilizers	3	3	2	3	3	3	3	2	Suitable	22
15	Consider increasing crop insurance cover against extreme events.	3	3	3	2	3	2	3	3	Suitable	22
16	Reduced tillage to lessen water loss, similarly the incorporation of manures and compost, and other land use techniques such as cover cropping increase soil organic matter and hence improve water retention	3	3	2	3	3	3	3	2	Suitable	22
17	Provide dams and small irrigation structures in areas that are facing severe climate impacts - tube wells, boreholes, wash bores, water pump, etc	3	3	3	3	3	2	2	2	Suitable	21
18	Training in sustainable agrochemical applications	3	3	2	2	3	3	2	3	Suitable	21
19	Promoting access to alternative finance (such as 'no interest' Islamic banking)	2	3	2	3	3	2	3	3	Suitable	21
20	Creation of fully women-led group for more empowerment	3	3	2	3	3	2	2	3	Suitable	21
21	Diversify crop selection to improve nutrition	3	3	2	3	3	2	2	3	Suitable	21

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
22	Agricultural disaster risk reduction and management (DRR/M)	2	3	3	3	2	2	3	3	Suitable	21
23	Water conservation measures are particularly valuable at times of drought (larger storage/dams and water harvesting infrastructure)	3	3	2	2	3	3	2	3	Suitable	21
24	Promotion of Off-farm enterprise	3	3	3	3	3	2	2	2	Suitable	21
25	Improve existing irrigation systems to reduce water losses (e.g. drip irrigation)	3	3	2	3	3	2	2	2	Suitable	20
26	Develop and implement Integrated Pest Management Plan	2	3	2	3	3	2	2	3	Suitable	20
27	Training in food fortification, food value additions and proper handling of food	3	3	2	3	3	2	2	2	Suitable	20
28	Strengthen capacity to generate new forms of empirical knowledge, technologies and agricultural support services that meet emerging climate change and variability challenges	2	3	3	2	2	2	3	3	Suitable	20
29	Drilling boreholes to supplement surface irrigation water	3	3	2	3	3	1	3	2	Suitable	20
30	Promote Innovative risk transfer programs such as agricultural insurance at the farmer level	3	3	2	3	3	2	2	2	Suitable	20
31	Timely provision and distribution of input to help farmers adjust planting season to stave off flood	3	3	2	3	3	1	2	2	Suitable	19

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
32	Introduction of simple mechanization tools to encourage youth	3	3	2	3	3	1	2	2	Suitable	19
33	Research into seasonal viable production systems for different farmers	2	3	3	2	2	2	3	2	Suitable	19
34	Increased diversification of varieties or crops to hedge against risk of individual crop failure (Use flood, drought and/or saline resistant varieties)	3	2	2	3	2	2	2	3	Suitable	19
35	Make use of integrated systems involving livestock and/or aquaculture to improve resilience.	2	3	2	3	2	1	3	2	Suitable	18
36	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	3	3	2	2	1	2	3	Suitable	18
37	Promote animal traction	3	3	2	3	2	1	1	2	Suitable	17
38	Search for integrated solutions to disease and pest control that are cost effective	2	3	3	2	2	1	2	2	Suitable	17
39	Shifting cropping calendars; when to plant, which varieties to plant and which inputs to use	2	2	3	3	2	2	2	1	Suitable	17
40	Use expertise in coping with existing pests and diseases, including post-harvest management	3	2	2	2	2	1	2	2	Suitable	16
41	Promote balanced fertilizer application	2	2	2	2	2	2	2	2	Suitable	16
42	Reappraise economic viability of proposed infrastructure designs based on climate projections over lifetime of assets	2	2	2	2	2	1	2	2	Suitable	15

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
43	Farmers Field School for GAP and climate-resilience information sharing	3	3	3	3	3	3	3	3	Suitable	24
44	promote enlightenment on climate change through the community leader	3	3	3	3	3	3	3	3	Suitable	24
45	Implementation of climate smart agriculture practices and environmentally sustainable practice (e.g. Greenhouses, shadenets)	2	3	3	1	2	2	2	3	Unsuitable	18
46	Develop standards to enable flood proof infrastructure development	2	3	2	1	2	2	2	2	Unsuitable	16
47	Change post-harvest practices, for example the extent to which grain may require drying and how products are stored after harvest.	3	2	2	1	2	1	2	2	Unsuitable	15
48	Provide cooling systems for mid/post-harvest horticulture produce management	1	3	2	1	2	1	2	2	Unsuitable	14
49	Expand Agricultural areas to regions with lower climate risk	1	3	3	1	1	1	1	2	Unsuitable	13

3.2. Iterative Risk Management⁷³⁷⁴

Iterative Risk Management is a crucial approach in addressing the complex and dynamic nature of climate risks, especially in contexts like Northern Nigeria. This approach involves a continuous process of risk assessment, adaptation implementation, monitoring, and adjustment. It recognizes that as conditions and knowledge evolve, so too must strategies for managing risks.

3.2.1. Key Components of Iterative Risk Management

- a. **Risk Assessment:** The first step involves a detailed assessment of the various risks associated with the project. This includes climate risks (such as droughts, floods, and changing rainfall patterns), market risks (like fluctuating commodity prices), and socio-economic risks (such as political instability or changes in local community structures). Tools like climate modelling and socio-economic analysis can be used for this assessment.
- b. **Adaptation Implementation:** Based on the risk assessment, the project team should implement targeted adaptation measures for VCN, especially the first set (1-24) and the second level (25-44) on Table 6.
- c. **Monitoring and Evaluation (M&E):** Constant monitoring of the implemented measures is crucial. This can be done through field surveys, remote sensing technologies, and gathering feedback from local communities and stakeholders. The M&E process should focus on the effectiveness of adaptation measures and their impact on the local environment and communities.
- d. **Adjustment and Learning:** Using the data gathered from M&E, the project team should regularly review and adjust the adaptation strategies. This iterative process ensures that the project remains effective and relevant in the face of evolving risks and changing conditions.
- e. **Stakeholder Engagement:** Continuous engagement with local communities, government bodies, NGOs, and other stakeholders is essential. Their input can provide valuable insights and help in refining the risk management strategies.
- f. **Policy Integration:** Finally, the risk management approach should be aligned with national and regional policies like the National Climate Policy, National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN), and others. This ensures coherence with broader environmental and socio-economic goals.

At project startup when activity locations are known, the project will need to prioritise what activities fall within short-term, mid-term and long term to guide the development of annual work plan and budgets throughout the life cycle of the project.

⁷³ <https://www.ipcc.ch/>

⁷⁴ <https://unfccc.int/>

4. Implementation and Monitoring

The TAA will be implemented by the MAFS, through the national and regional PMU with oversight from CPAT's Environmental, Social and Climate Safeguards Specialist in conjunction with FMinE. ICO and ECG regional team will also provide guidance throughout the duration of the project. The sub-projects will customise and update the TAA as part of project preparation documents for review by the PMU and PSC.

Monitoring is critical in ensuring the long-term success of climate adaptation initiatives, plans and actions. It plays an important role in the following aspects of adaptation.

- a. It tracks performance of activities undertaken during the development of an adaptation plan (e.g. stakeholder engagement activities).
 - b. It tracks pre-identified risk thresholds/trigger levels which identify when new adaptation actions should be undertaken and
 - c. It determines whether planned outputs and outcomes from adaptation actions have been achieved.
 - d. It determines whether changes should be made in terms of adding/removing the action(s) or adjusting in line with the prevailing environment.
 - e. Monitoring will also assist the project to determine whether the actions are incurring any unanticipated side effects.
1. M&E helps demonstrate accountability and commitment of implementation agencies and other stakeholders. This is important for leveraging continued community support for adaptation initiatives, and for demonstrating that taxpayer and investor funding has been spent wisely.
 2. The overall responsibility for monitoring lies with the PMU working in close collaboration with EMA whose staff at ward level are already trained in environmental issues and natural resources management as well as key institutions. IFAD will also conduct follow up missions to ensure appropriate implementation of adaptation options agreed on.

5. Costs and Budgetary Considerations

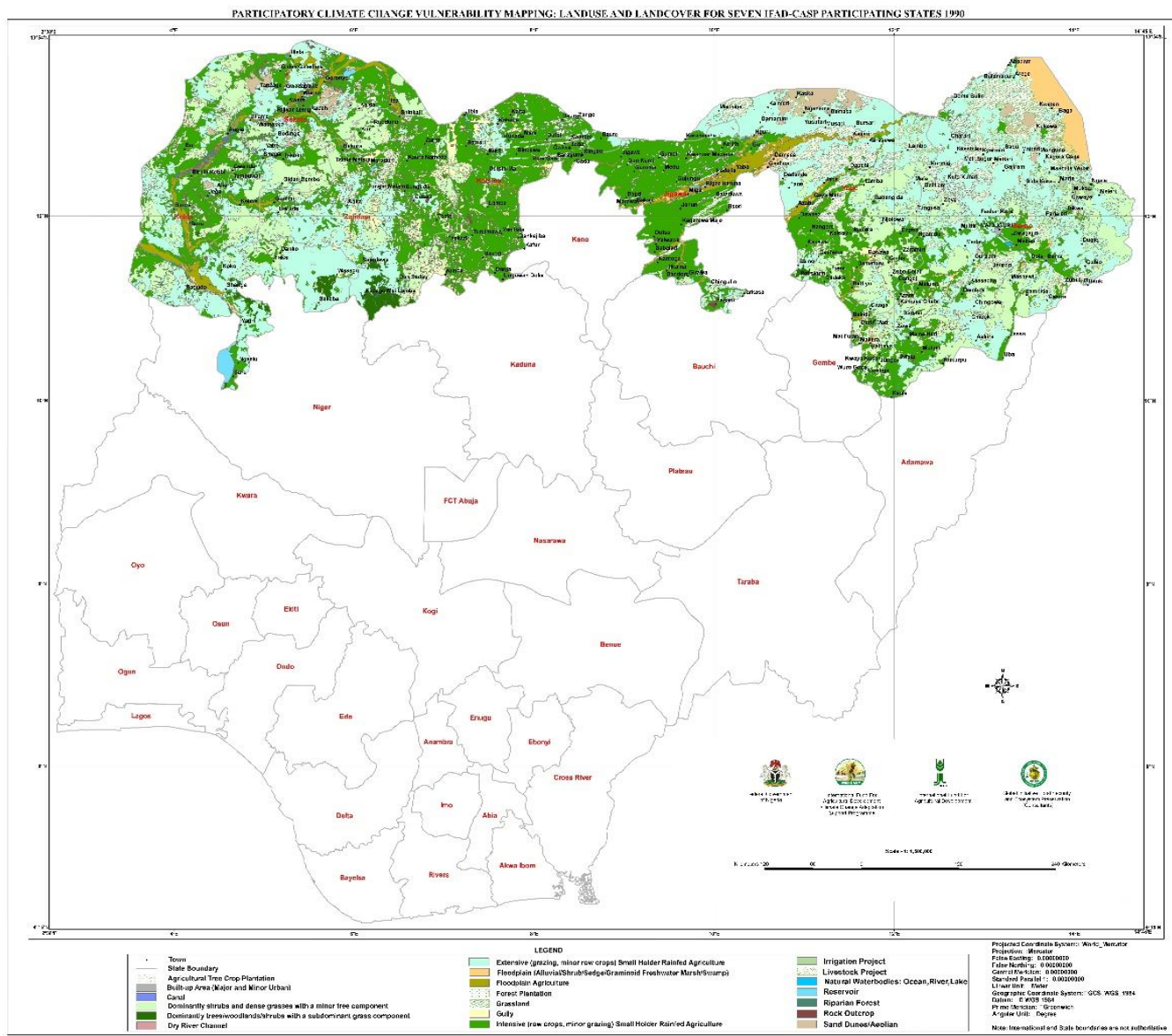
It is important to note that Adaptation Options will not be implemented in isolation but will be integrated within the VCN national and sub-projects activities. Thus, the budget given below will only serve the purposes of creating an enabling environment for climate adaptation measures. Proposed Implementation, Supervision and Monitoring Budget for Adaptation Options (Included also in the ESCMF Implementation Budget)

Table 7. TAA 5-Year Implementation Budget (Also included in the Main ESCMF Implementation Budget)

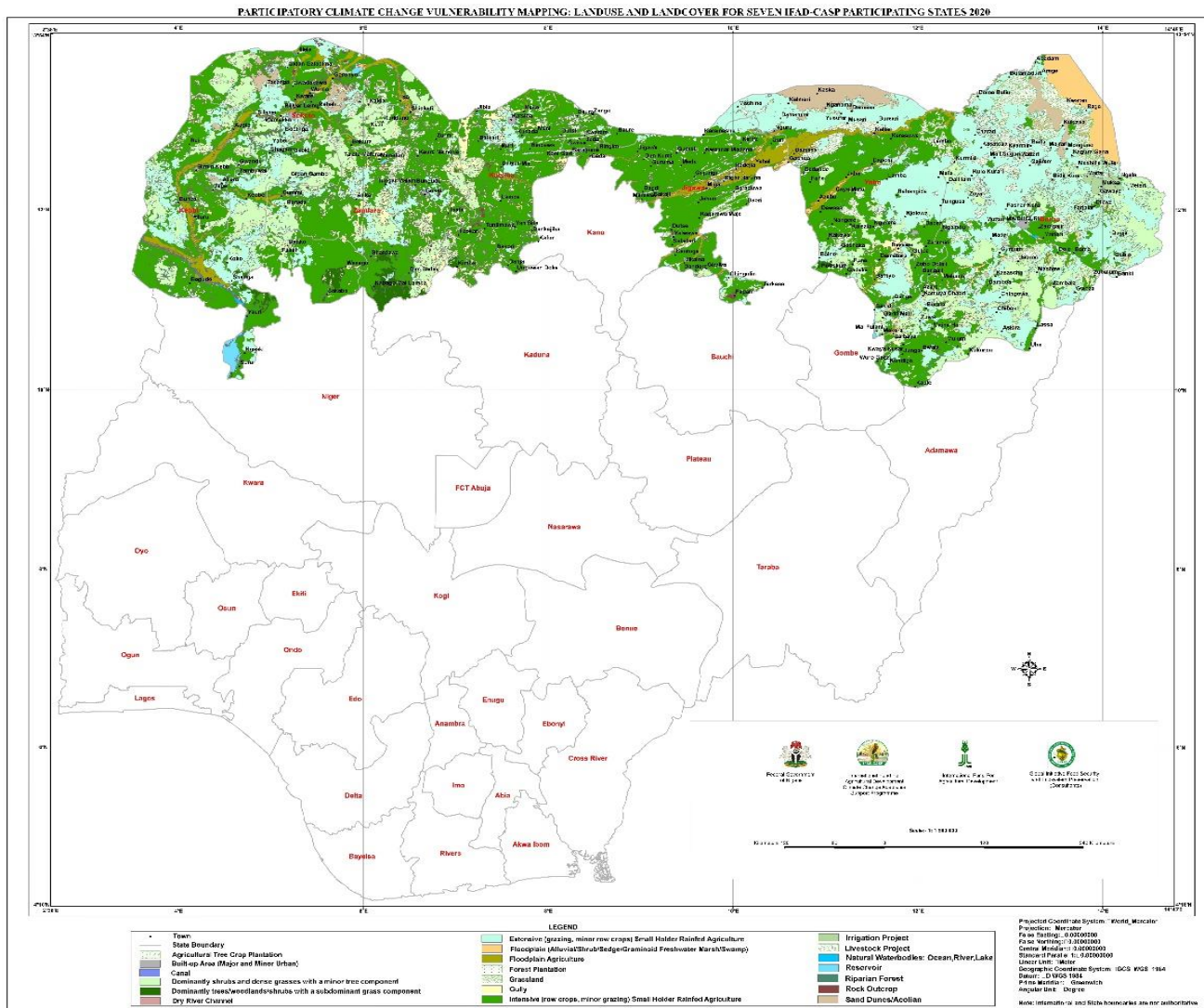
No.	Activities	Estimated Budget USD
Training, Supervision and Monitoring,		
1	National and State staff and stakeholders training on TAA	150,000
2	Training of Extension Staff on TAA (once every year)	350,000
4	Training Activities at farm level (Awareness training programmes)	200,000
5	External Monitoring of TAA (technical audit) at national and sub-projects level	500,000
6	Investment in research of new technologies and approaches for climate adaptation	150,000
7	Stakeholder Engagement meetings and workshops	100,000
8	Environmental Safeguards Specialist (technical support)	Main Project
9	Social and Gender and Safeguards Specialist (technical support)	Main Project
10	ECG-WCA expert (advisory support)	Main Project
	Total	USD 1,450,000

NB. Some adaptation actions including specific hardware systems and supplies for adaptation will be supported from the main project implementation budget at sub-project (e.g. Irrigation systems, Early warning system, soil and water conservation technologies etc.)

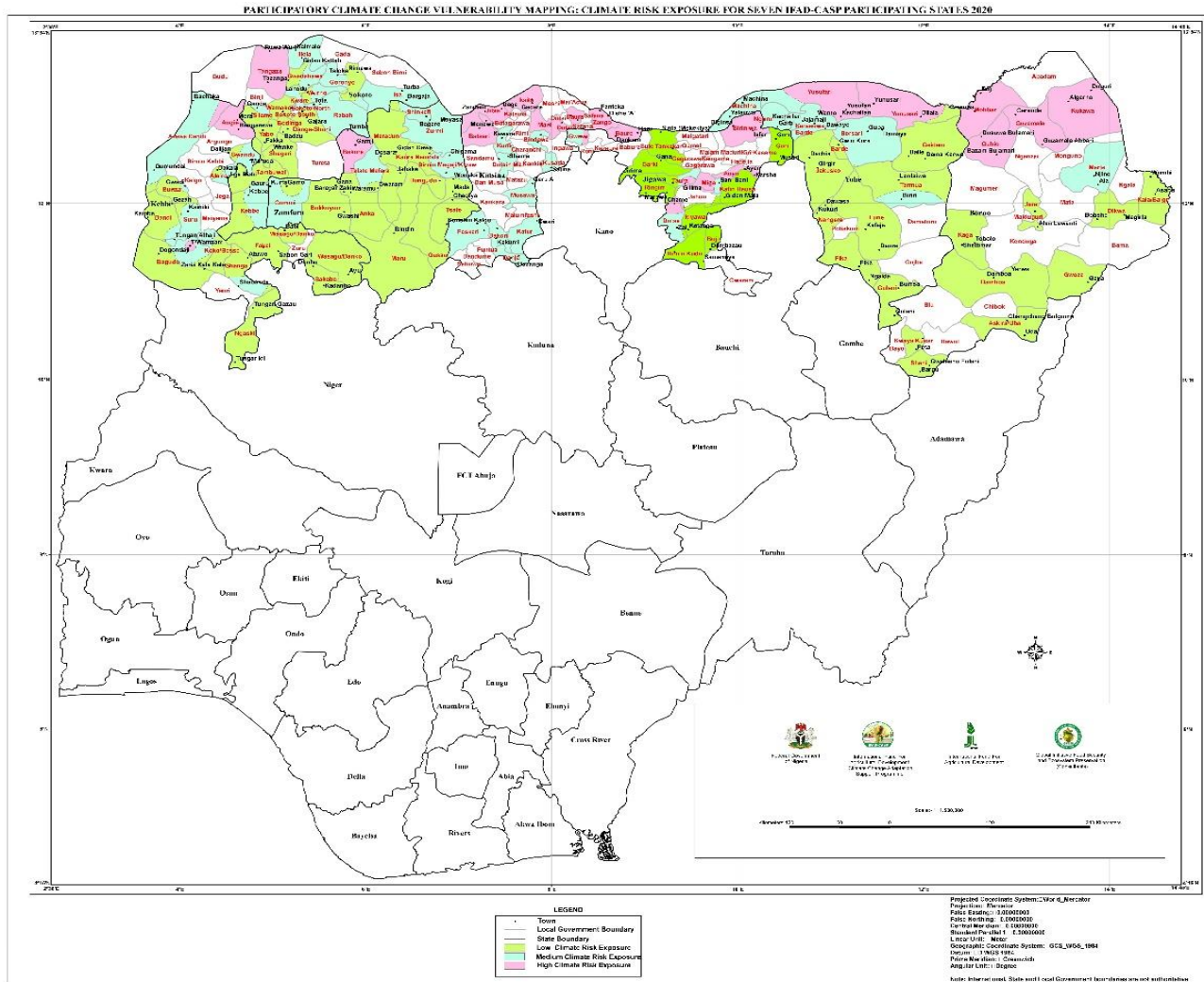
Appendix 1 – PARTICIPATORY CLIMATE CHANGE VULNERABILITY MAPPING (CASP, 2021)



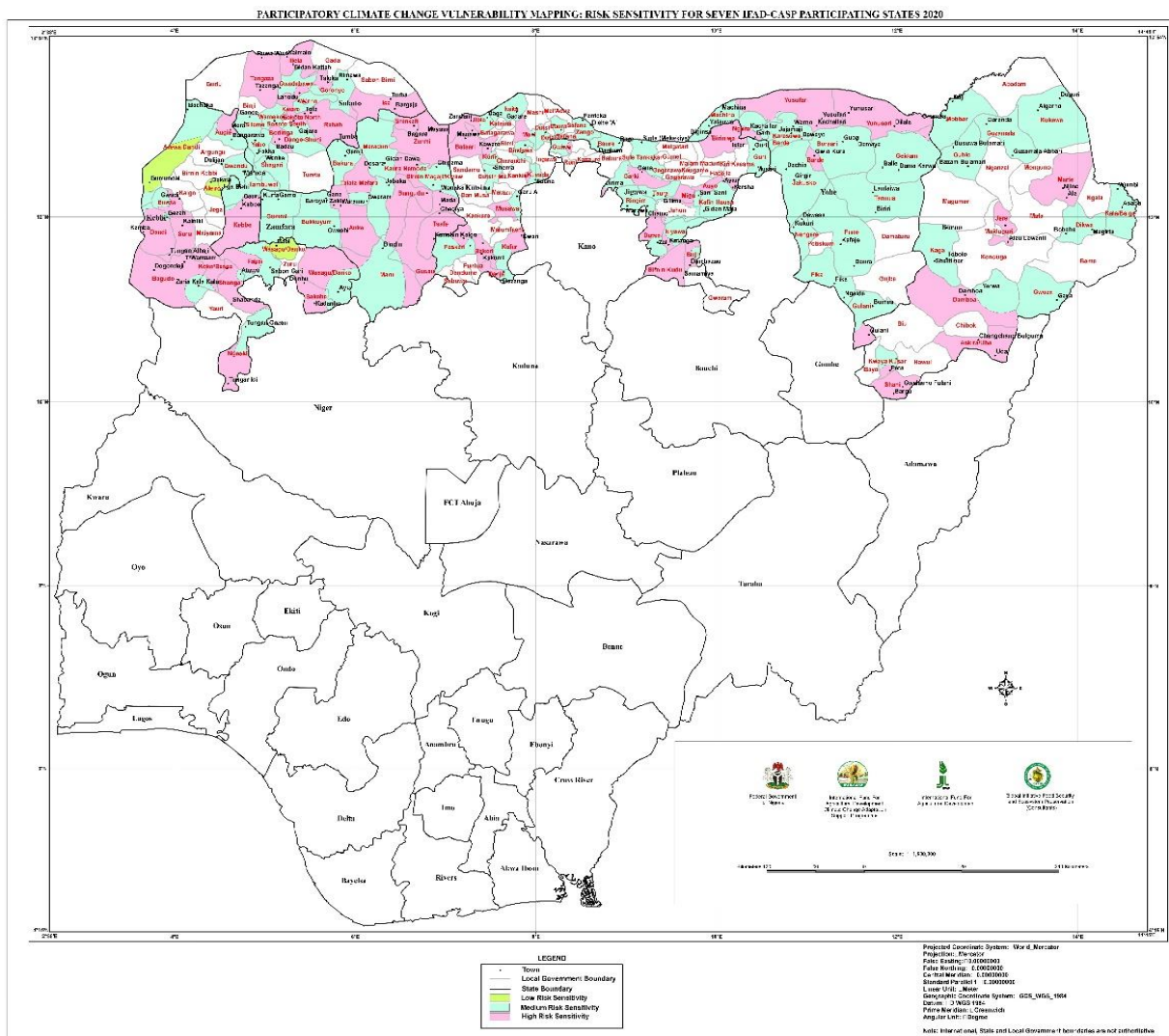
1990 Land use Map of the IFAD CASP States



2020 Land use Map of the IFAD CASP States

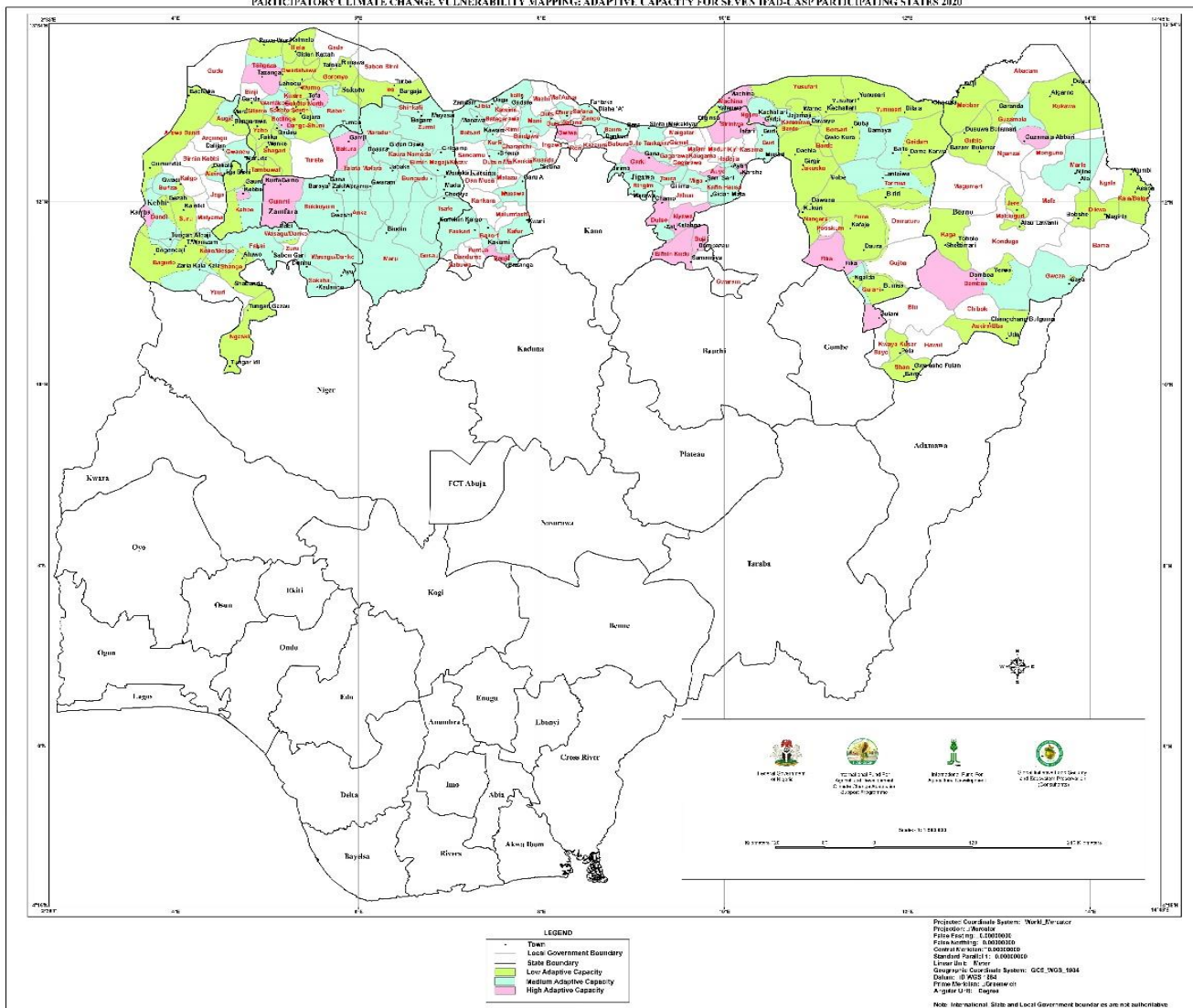


Exposure Map of the IFAD CASP States

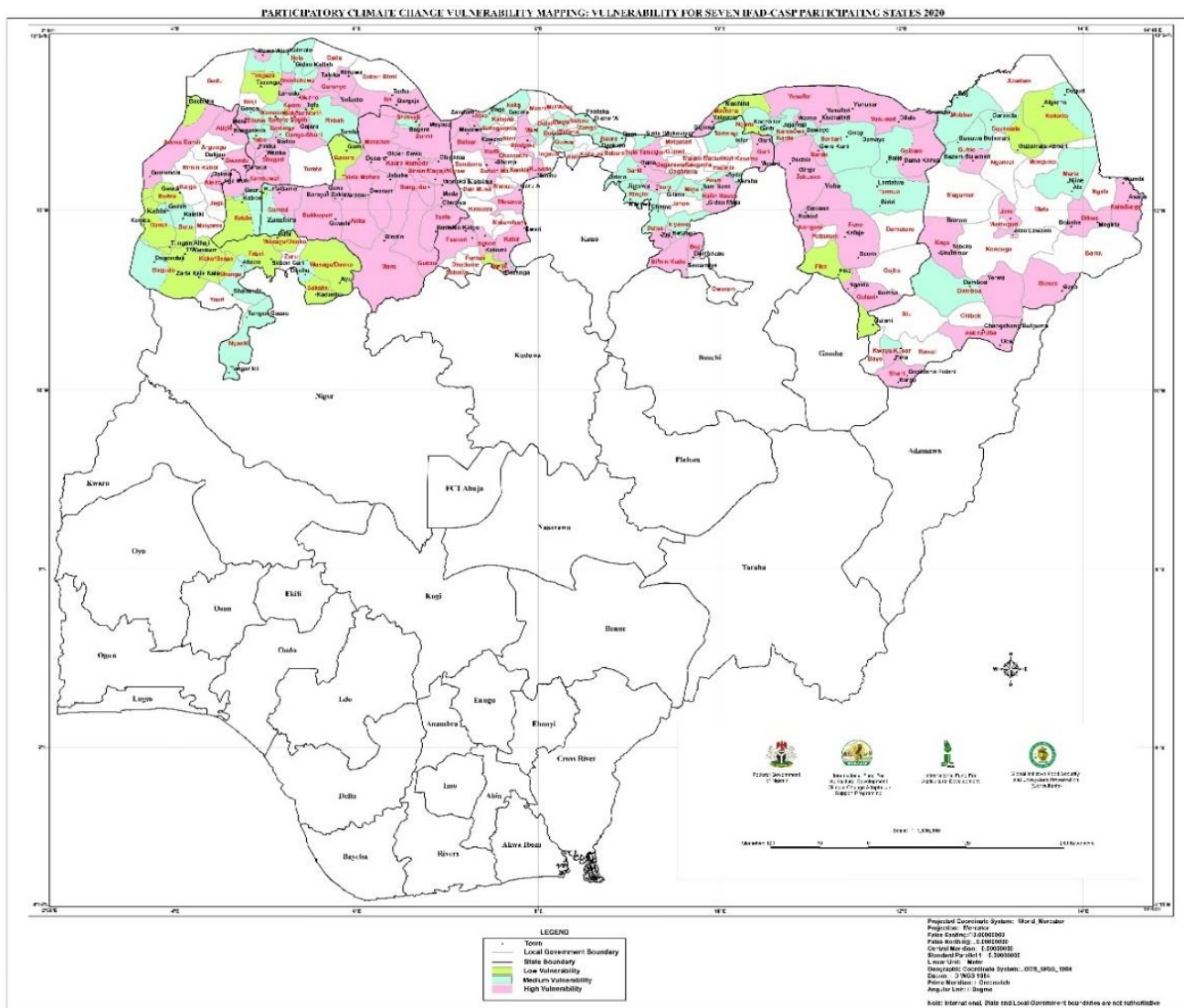


Sensitivity Map of the IFAD CASP States

PARTICIPATORY CLIMATE CHANGE VULNERABILITY MAPPING: ADAPTIVE CAPACITY FOR SEVEN IFAD-CASP PARTICIPATING STATES 2020



Adaptive Capacity Map of the IFAD CASP States



Vulnerability Map of IFAD CASP States

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex: Stakeholders Engagement Plan (SEP)

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

STAKEHOLDER ENGAGEMENT PLAN

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1. INTRODUCTION AND PROJECT DESCRIPTION

1.1 Background

The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Food Security (FMAFS). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. The 9 participating states staddles the north-east and north-west parts of Nigeria and targets selected crops (**rice, maize, sorghum, millet, cowpea**) value chains of strategic importance to the people living in these areas.

Overall goal. The overall goal is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

Development Objectives. The Development Objective is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

Expected Outcomes. The expected outcomes include:

- Improved productivity, climate adaptive capacity and resilience.
- Improved diet quality and nutrition awareness.
- Improved post-harvest handling, value addition and access to markets.
- Improved entrepreneurship and employment opportunities; and
- Improved policy and institutional framework

1.2 Project components

Overall goal. is to contribute sustainably to poverty reduction and better resilience of rural populations in the northern states of Nigeria.

Development Objective. is "to improve food and nutrition security and revenue of households in northern Nigeria by promoting inclusive and sustainable agriculture and crops value chains development as an enabler for rural economic and social transformation".

Specific objectives. The objectives are:

- a. increase sustainable production and productivity of SHFs and MSMEs in Northern Nigeria.
- b. Strengthen the adaptive capacity and resilience of smallholder farming households.
- c. strengthen value addition, nutrition, and access of project beneficiaries to markets.
- d. support the capacity development of existing and new Farmer's Organizations, rural institutions.

Expected Outcomes. The following are the expected project outcomes:

- a. Improved productivity and resilience of farming systems in target value chains.
- b. Improved value addition and marketing of agricultural products in the target value chains.
- c. Enhanced climate resilience and nutrition of small-scale producers.
- d. Increased business and employment opportunities for youth and women along the agricultural value chains.

The Project components are as follows:

Component 1: Foster climate resilient and nutrition sensitive.

This has 3 subcomponents:

Subcomponent 1.1: *Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.*

Subcomponent 1.2: *Promote nutrition and gender awareness and practices.*

Subcomponent 1.3: *Improve access to finance and scale access to digital financing.*

Component 2: Enhance value addition and access to markets for small holder farmers and MSMEs.

This has 3 subcomponents:

Subcomponent 2.1: *Improve post-Harvest and Value addition.*

Subcomponent 2.2: *improve market linkages and partnerships with VC actors.*

Subcomponent 2.3: *Promote entrepreneurship and employment of Women and Youth*

Subcomponent 2.4: *promote an enabling policy and institutional framework.*

Component 3: *Programme Coordination & Management*

1.3 Project implementation and institutional arrangements

The National VCN Programme Office (NPCO) based in Abuja will oversee the VCN. At the federal level, a **National Steering Committee** to be chaired by the Honourable Minister of Agriculture and composed of stakeholders representatives which will include the Permanent Secretary of the FMAFS, Head of PCU, Directors of Department of Extension and Department of Agriculture in the FMAFS, Federal Ministry of Budget and National Planning and, Water Resources, Environment and Labour, CBN, Representative of Youth Group, will provide oversight to the implementation of the VCN and approve the annual work plan and budget (AWPB). The National VCN Programme Coordinator will serve as Secretary to the National Steering Committee which is expected to meet once per year.

At the state level, a **State Project Steering Committee chaired** by the Honourable Commissioner of Agriculture and composed of the commissioners of Finance, Budget and Planning, Women Affairs, representatives of government agencies and departments responsible for youth and women empowerment, representatives of selected commodity associations in the State, representatives of youth and women organizations, and relevant NGO's and financial institutions, will provide oversight function on the project and approve the AWPB. At the LGA level, the project will maintain a Desk Office in the Department of Agriculture.

1.4 Targeting

Geographic targeting. The project will target the 9 States (Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Kogi, Borno, Kano, and Bauchi). LGAs will be selected considering vulnerability as well as financial viability of livelihood activities to be supported by the project; all States considered display high levels of economic and multidimensional poverty.

Direct beneficiaries. A total of 91,000 rural HHs will be directly targeted representing a total of 456,000 people. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line

find themselves in that state due to the consequences of shocks such as conflict, insurgency, and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

Project target groups cut across these socio-economic groups, namely:

- a. **Subsistence and semi-subsistence producers** (very poor and poor HHs)
- b. **Market oriented producers** (poor and vulnerable market oriented HHs)
- c. **Entrepreneurs** (temporarily very poor, poor, and vulnerable market oriented HHs)

Target groups (a) and (b) participate in on-farm production level activities while those in target group (c) engage in income generating activities in all other on and off farm activities across supported value chains. VCN design follows a socially inclusive perspective with 40% of all beneficiaries being women (20% women headed households and 20% married women and unmarried youth). Thirty percent (30%) of all beneficiaries will also be youth aged 18-29 (in line with Nigeria 's youth policy); 5% of all beneficiaries will be PWDs.

Value chains. Based on the different crops available and their score in relation to criteria, the baseline proposals orient towards a mix of:

- Staple food (Sorghum, Maize, Rice, or Millet)
- Cash Crops (Cow peas, sesame, Groundnuts or Soyabean)
- Horticulture (for home gardens)

These are adapted to each state reality and streamline to four crops/state to leverage impact.

1.5 Justification for the Stakeholders Engagement Plan

Experiences with previous IFAD projects has shown that engagement of stakeholders and target groups are critical to success. Stakeholder engagement and public consultation for VNC entails the process of informing the communities on the need to carry out the project, the scope, and the need for the stakeholders to own and safeguard the project as beneficiaries and stakeholders.

It is also important because it will give the communities and stakeholder the opportunity to contribute input and feedback information, aimed at strengthening project concept, design and implementation and to avoid negative impacts or mitigating them where they cannot be avoided. It also reduces the possibilities of conflicts between and among the stakeholders with regards to the project and between the stakeholders and the PMU. In the absence of clear communication with relevant stakeholders and appropriate sensitization of local communities, rumors, misinformation, and speculation thrive, and accusations and tensions easily boil over into conflicts. Therefore, the VCN has developed a stakeholder engagement plan with a clear communication strategy.

The following are the activities involved in the Stakeholder Engagement Plan (SEP):

- Stakeholder Identification and Analysis.
- Information Disclosure.
- Stakeholder Consultation.
- Grievance Management.
- Reporting to Stakeholders.
- Documentation of all stakeholders' plans on how the engagement with stakeholder will take place.

1.6 Expected Output

The expected output of this SEP includes but is not limited to:

Program described and its potential environmental and social impacts and risks as known at the time of preparation of this plan identified.

- Stakeholder identified, mapped, and analyzed.
- Framework for Stakeholder Engagement developed.
- Information to be disclosed and method of disclosure set out.
- Framework for Monitoring and Implementation development.

1.7 Previous Stakeholder Engagement

Efforts to engage with stakeholders for the VCN Project has been ongoing during the Project Concept Note and the Project Design Review stages. This comprises of public consultations at the Ministries, Departments and Agencies (MDAs) at the Federal and State Leles. It also consists of potential beneficiaries, project implementors, potential implementation partners, and non-governmental and community-based organizations.

During the SEP preparation stage, subproject host communities had not been identified by the project. Hence, stakeholders consulted include:

The Project Coordinating Unit of the Federal Ministry of Agric and Food Security

- Ministry of Agric
- Ministries of Finance
- Ministry of Women Affairs
- State Governors in the VCN states.
- State Ministries of Agriculture
- States Ministries of Finance
- States Ministries of Environment
- North-East Development Commission

During the PCN stage, stakeholder engagements were convened in Sokoto and Borno States. Again, during the PDR mission, stakeholders' engagements were concerned in Sokoto, Kebbi, Katsina, Kano and Borno States and Yobe States. These engagements have in attendance the following:

- Federal and State MDA representatives including Commissioners and Permanent Secretaries
- Past IFAD PIU members
- Representatives of Farmers organization
- Representative of women organizations
- Representatives of People with Disabilities
- Women organizations
- NGOs and CSO
- Traditional/community leaders
- The private sectors including banks, insurance, large scale processors (including millers), off takers, etc.

During the engagements:

- Participants were informed on the upcoming project including its aim and objectives.

- Facilitates stakeholder understanding of how they might be affected and their potential role in project implementation and impact management.
- Provided opportunities for stakeholders to express their opinions and concerns in relation to the project and for these opinions and concerns to be considered in the management decisions and for the implementation of the project.
- Acquisition of information from relevant stakeholders that assisted in the preparation of the SECAP, the ESMF and the TAA during the project design.

2. STAKEHOLDER ENGAGEMENT LEGAL AND REGULATORY FRAMEWORK

2.1 Introduction

This section contains an overview of the legal and regulatory frameworks existing in Nigeria with regards to citizen's freedom of information, engagement, disclosure of public information and grievances raised by the public.

2. Legal and Policies

Constitution of the Federal Republic of Nigeria 1999 (as amended): Chapter Two of the constitution provides for Fundamental Objectives and Directive Principles of State Policies; these are the obligations accruing to the State with respect to its citizens. Section 16 provides that the State shall harness resources and control the National economy in such a manner as to secure the maximum welfare, freedom, and happiness of every citizen on the basis of social justice and equality of status and opportunity. Section 20 to provide that the State shall protect and improve the environment and safeguard the water, air and land, forest, and wildlife of Nigeria.

The Freedom of Information Act: This Act applies to both public and institutions providing public services, performing public functions, or utilizing public funds. The Act mandates the making of public records and information more freely available, providing for public access to public records and information, protecting public records and information to the extent consistent with the public interest and the protection of personal privacy, protecting serving public officers from adverse consequences for disclosing certain kinds of official information without authorization and establishing procedures for the achievement of those objectives.

Environmental Impact Assessment (EIA) Act 1992¹ :provides mandatory EIA study for all developmental projects to determine the possible environmental effects of the proposed project. Mandatory study is required for land development schemes covering an area of 500ha or more, agricultural estates covering an area of 500ha or more, drainage of wetland, wild-life habitat or of virgin forest covering an area of 100ha or more, land based aquaculture projects accompanied by clearing of mangrove swamp forests covering an area of 50ha or more, irrigation schemes covering an area of 5,000 ha or more, conversion of hill forest land to other land use covering an area of 50 hectares or more, and conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 ha or more. For public access to information, Section 57 of the Act requires Agencies to maintain a public registry in respect of a project. The registry shall contain all records and information produces, collected, or submitted with respect to the environmental assessment of the project, including any report relating to the assessment and any comments filed by the public in relation to the assessment.

¹ Environmental Impact Assessment (EIA) Act (1992), Section 12.

National Policy on the Environment (Revised 2016)²: The goal of the National Policy on the Environment is to “ensure environmental protection and the conservation of natural resources for sustainable development”. Its strategic objective is to coordinate environmental protection and natural resources conservation for sustainable development. This goal will be achieved by the following strategic objectives:

- a. securing a quality of environment adequate for good health and well-being.
- b. promoting sustainable use of natural resources and the restoration and maintenance of the biological diversity of ecosystems.
- c. promoting an understanding of the essential linkages between the environment, social and economic development issues.
- d. encouraging individual and community participation in environmental improvement initiatives.
- e. raising public awareness and engendering a national culture of environmental preservation; and building partnership among all stakeholders, including government at all levels, international institutions and governments, non-governmental agencies, and communities on environmental matters.

Nigeria Labour Law (1990)³: Section 59(1a) of the Nigerian Labour Law 1990 states that: *No child shall be employed or work in any capacity except where he is employed by a member of his family on light work of an agricultural, horticultural, or domestic character. Section 59 (3) further states: A young person under the age of fourteen years may be employed only- (a) on a daily wage;(b) on a day-to-day basis; and (c) so long as he returns each night to the place of residence of his parents or guardian, or a person approved by his parents or guardian.*

IFAD Social, Environmental and Climate Assessment Procedure (SECAP Procedure 2021)⁴: IFAD is committed to promoting the conservation, rehabilitation and sustainable use of natural resources and ecosystems in an integrated manner, recognizing the importance of addressing both the causes and the consequences of climate change in countries of operation, minimizing adverse social and environmental impacts, and mainstreaming social, environmental and climate sustainability into IFAD’s project cycle. The SECAP helps IFAD to identify social, environmental and climate risks and impacts, and their significance, and determine the level of risk management required to address the risks and impacts associated with IFAD-supported investments and global and regional grant-funded programmes, identify opportunities to mainstream climate resilience, environmental sustainability, nutrition, gender equality and the empowerment of women, youth and other vulnerable groups into IFAD strategies and programming, support borrowers/recipients/partners and IFAD in improving decision-making and promoting the sustainability of project and programme outcomes through ongoing stakeholder engagement, assist borrowers/recipients/partners in fulfilling their own international and national social, environmental and climate commitments, ensure that IFAD’s practices are aligned with its own policies and the procedures of other multilateral financial institutions, and enable IFAD to continue accessing environmental and climate financing. In addition to climate, environmental and social risk identification, SECAP helps to identify opportunities for maximizing development gains by mainstreaming environmental, social and climate issues throughout the project cycle.

² <http://www.environment.gov.ng/publications/REVISED-NATIONAL-POLICY-ON-THE-ENVIRONMENT-FINAL-DRAFT.pdf>

³ Labour Act. Chapter 198, Laws of the Federation of Nigeria 1990

⁴ IFAD Social, Environmental and Climate Assessment Procedures (2021). <https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures>

3. STAKEHOLDER IDENTIFICATION AND ANALYSIS

3.1 Introduction

The VCN is an agricultural value chain project targeted at smallholder farmers in agricultural production, processing, and marketing (including transportation) and its ancillary enterprises.

The key stakeholders for the VNC project include:

- Project Affected Parties (PAP) (including disadvantages and vulnerable persons and groups).
- Interested Parties,

These have different levels of interests and influence in the VCN.

3.2 Categorization of stakeholders and their interest and influence

3.2.1 Project Affected Parties:

This group have low influence, but high interest in the VCN project. They are mainly potential project beneficiaries. They include:

- host communities in project area.
- community members in the project host communities
- crop farmers.
- livestock farmers and pastoralists (who will benefit from water source provision)
- community development associations
- farmers organizations
- women groups
- other community associations and groups etc.

The vulnerable or disadvantaged groups are substantially part of the PAP. They also have high interest but low influence on the project. They are directly impacted by the project and are also potential beneficiaries. They include:

- elderly people above the age of 65
- female headed households.
- persons with disabilities,
- people living in extreme poverty (e.g., unemployed youths),
- internally displaced people (IDPs),
- victims of gender-based violence and sexual exploitation and abuse and sexual harassment,
- orphans,
- migrant laborers, etc.

The project affected parties and vulnerable or disadvantaged groups are at the grass root level. Without focused assistance, they may not be able to participate in the decision-

making process of the project. Disadvantaged and vulnerable individuals or groups require particular attention to participate commensurably in the project benefits and elicit full understanding on how project impacts may disproportionately affect them. Particular attention being paid to this group will also ensure that communication systems to enhance stakeholder engagement will be adapted to take into consideration such groups or individuals' particular sensitivities, concerns, and cultural sensitivities and to ensure a full understanding of project activities and benefits. Engagement with the vulnerable groups and individuals often requires the application of specific measures and assistance aimed at the facilitation of their participation in the project-related decision making so that their awareness of, and input to the overall process are commensurate to those of the other stakeholders.

The plan is to:

- focus efforts on these groups of stakeholders throughout the project cycle,
- involving them in regular consultations throughout the project cycle,
- ensuring adequate use of the grievance redress and feedback channels to engage and keep them satisfied,
- keeping them in the loop on decisions that will influence project design and implementation.

Potential Project Affected Persons (PAPs) shall be consulted using the plan outlined in the Stakeholder Engagement Plan. This will be done throughout the project cycle. To ensure that their views are incorporated in the implementation and execution of the project. This vulnerable group may be more adversely affected by the impact of the project than other Stakeholder groups. They will be consulted using the plan specifically outlined in the Stakeholder Engagement Plan. This will be done throughout the project cycle.

3.2.2 The Interested Parties (IPs):

is made up of stakeholders who may not be directly or indirectly impacted by the project, but who have the potential interest to influence the project outcomes through their statutory functions and mandates or other factors. They have high influence and high interest on the project. They provide may implementation support, governance, and oversight, both technical and financial support for the project. They substantially determine the direction in which the project through feedback from the PAP.

This IPS include:

- Ministries, Departments and Agencies with statutory roles in the implementation of VCN
- ✓ They include the Federal Ministries of Agriculture and Food Security and Finance and other interested MDAs at Federal levels.
- ✓ At the states level, they include Office of the State Governor and MDAs related to Agriculture, Finance, Environment, Water Resources, Women Affairs, Humanitarian, etc.
- ✓ ADPs
- NGOs
- CSO and CBOs
- Traditional/Community Leaders
- Private sector operators – large scale processors, off-takers, service providers, etc.

Some of the role of the IPs include:

- Statutory mandate as Chief executive officer of the State
- Chairing the Project Steering Committee
- Member of the Project Steering Committee
- Implementing agency/ministry
- Policy regulator

- They coordinate activities concerning women in the States and involve in Gender Based Violence related activities.
- Advocacy
- Service providers.
- Off-takers
- Conflict resolution

Table 1: Stakeholders Analysis

SN	Stakeholder	Influence	Nature of relationship	Interest
1	<ul style="list-style-type: none"> • host communities in project area. • community members in the project host communities • crop farmers. • livestock farmers and pastoralists (who will benefit from water source provision) • community development associations • farmers organizations • women groups • other community associations and groups etc. 	LOW	Directly impacted	HIGH
2	<ul style="list-style-type: none"> • elderly people above the age of 65 • female headed households. • persons with disabilities, • people living in extreme poverty (e.g., unemployed youths), • internally displaced people (IDPs), • victims of gender-based violence and sexual exploitation and abuse and sexual harassment, • orphans, • migrant laborers, etc. 	LOW	Directly impacted	HIGH
3	Minister for Agric and Food Security	HIGH	Implementation Influencer	HIGH
4	Minister for Finance	HIGH	Implementation Influencer	HIGH
5	Federal MDAs (Agriculture and Food Security and Finance)	HIGH	Implementation Influencer	HIGH
6	PCU	HIGH	Implementation Influencer	HIGH
7	State Governor	HIGH	Financier/ Implementation Influencer	HIGH
8	State Commissioners for Agric	HIGH	Implementation Influencer	HIGH
9	State Ministries and MDAs	HIGH	Implementation Influencer	HIGH
10	ADPs	LOW	Implementation support	HIGH
11	NGOs and CSOs	HIGH	Advocacy	HIGH
12	Traditional/Community Leaders	HIGH	Conflict resolution	HIGH
13	Private Sectors	HIGH	Service provider	HIGH

4. STAKEHOLDER ENGAGEMENT PROGRAM

4.1 Purpose and Timing of Stakeholder Engagement Plan

This plan is designed to ensure that stakeholders are provided with timely, relevant, understandable, and accessible information, and consult with them in a culturally appropriate manner which is free of manipulation, interference, coercion, discrimination, and intimidation. Transparent engagement between the VCN and project stakeholders is essential. Engagement with Stakeholders is throughout the life cycle of the project and this SEP is designed to represent the roles and involvement of each stakeholder at every stage of the project such as preparation, planning and implementation. If additional stakeholders are identified during the project preparation and implementation, this group should be captured in this SEP as well. The nature, scope, and frequency of stakeholder engagement with each group of identified stakeholders will be affected by the following factors:

- How Stakeholder has been prioritized
- Stakeholder expectations and project risk and impacts
- Peculiarity of vulnerability the people most especially the vulnerable groups
- Cultural and religious factors
- The principles of timeliness, transparency, accessibility, accountability, and participation.

4.2 Expected Outcome / Purpose of the Engagement Process

The engagement process as designed is envisaged to facilitate the following outcomes:

1. Strengthened development outcomes through effective partnerships.
2. Plan of action that clearly identifies the means and frequency of engagement of each stakeholder
3. Identified roles and responsibility of all stakeholders and their participation in the complete project cycle ensured
4. Appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format taking special consideration for the disadvantaged or vulnerable groups.
5. Recognized and effectively addressed potential constraints and conflicts that could affect effectiveness
6. Capacity building program for Stakeholders as well as implementing agencies.
7. Provision of meaningful access to discussion and decision making in development processes. Page 21
8. Adequate feedback and monitoring mechanism to ensure the project is attaining its intended results and detects potential unintended consequences
9. An avenue for information disclosure.

4.3 Management of Stakeholder Participation and Expectations

The power relations and cultural norms of a local context can affect stakeholders' participation. In northern Nigeria where women are hardly permitted to sit with men in public discussion, women may be cut off from participation if the consultation process does not take into consideration such cultural practices in existence. This practice can be accommodated by conducting focused group discussions with women by female officials to ensure that the women are engaged in a manner that is consistent with willing participation.

In managing stakeholder expectations, the project shall:

- Conduct adequate awareness, sensitization, and consultation on the scope,
- identified risks and impacts of the project and its intended results.
- Ensure transparency through information disclosure.
- Engagement events to occur in line with the SEP schedule so that there is clear linkage between engagement activities and the project stages.
- Ensure that engagement is accessible and managed so that it is culturally appropriate, adequate, and timely information and opportunities are provided to all stakeholders to be involved/contributed.

4.4 Proposed Strategy for Consultation

The Environmental and Social Risk Classification of VCN is substantial. The SEP is prepared in proportion to the nature and scale of the potential risks and impacts.

4.5 Community Entry

This is a process of initiating, establishing, and nurturing a relationship with the community with the purpose of securing and sustaining the community’s interest, gain support from the community leaders and to ensure establishment of good working relationship and sustainability of the project. This exercise will be carried out by the Rural Institutions, Environment and Climate Change, Gender, and KMC officer and local NGOs. Activities involved getting the necessary permission/authorizations from the LGAs and Traditional authorities. Expected activities include key-in-depth-interviews and one on one meetings with local leaders or small group meetings with different leaderships segments.

4.6 Community members including vulnerable/marginalized groups:

Meeting with community members to inform them about the project and to solicit their views on the project.

4.7 Communication and Feedback:

Establish Communication line of feedback with the community through local NGOs supported by the Rural Institutions, Environment and Climate Change, Gender, and KMC Officer.

4.8 Outreach:

Use cultural and language sensitive IEC materials including banners, signposts, and flyers to create awareness and sensitization of the project in the communities.

Consultations shall be conducted in the local language obtainable and accessible in the communities. Where this is not the case, proceedings shall be translating or interpreted to the local language of the community.

Table 2: Stakeholder Engagement Methods

Consultation Methods	Targeted Stakeholders
Public Consultations	Every Stakeholder, especially communities
Focus group discussions (FGDs)	Farmers Organizations, Women group, youth group, PWD, MDAs, Traditional Leaders. Focus group discussion is helpful in ensuring that stakeholders, whether majority or minority groups are fairly engaged, and provided the opportunity to freely state their concerns and contributions to the proposed project plan.
Face to face meetings and workshops	Government Ministries and Departments, NGOs, Traditional rulers,

Correspondences (Radio Jingles, Phone, Emails) Town hall meetings	Every Stakeholder
Community meetings/village meetings, through traditional leaders, Associations	Community members and farmers, producers, processors, and other local people
Project Websites	Every Stakeholder with internet access
Advocacy and sensitization using IEC materials including banners, signposts, and flyers	Every Stakeholder
Virtual meetings	MDAs (Formal Stakeholders)

4.9 Stakeholder Engagement Plan of Action

Table 3 provides a plan for the SEP. The plan indicates:

- the project stage at which the engagement should take place,
- the objective of the engagement,
- key activities to be undertaken at each project's stage,
- the target stakeholder (s) to be engaged,
- the platform of the engagement,
- the time of the engagement and,
- implementation responsibility

Where possible, stakeholder engagement plan for the VCN project shall utilize already existing engagement structures within the national system - such as the communal meeting.

Table 3: VCN SEP Plan of Action

Project stage	Primary engagement activities and topics	Target stakeholders	Engagement technique/platform	Frequency and location	Implementation responsibility
<p>Project design Objective: Disclose relevant project information to stakeholders and solicit their inputs/feedback into SECAP, ESMF, TAA and other plans</p>	<p>Project alternatives; Scope of the potential impacts and mitigation measures and benefit enhancers; Land acquisition process; Project environmental and social risks and impacts; Grievance redress mechanism, conflict resolution; GBV/SEA</p>	<ul style="list-style-type: none"> • host communities in project area. • community members in the project host communities • crop farmers. • livestock farmers and pastoralists (who will benefit from water source provision) • community development associations • farmers organizations • women groups • other community associations and groups etc. • elderly people above the age of 65 • female headed households. • persons with disabilities, • people living in extreme poverty (e.g., unemployed youths), • internally displaced people (IDPs), • victims of gender-based violence and sexual exploitation and abuse and sexual harassment, • orphans, migrant laborers, etc. 	<p>Through traditional & religious leaders, village meetings, religious centers, Association meetings, focused group discussions with women, youth, and children, GRM, Advocacy and sensitization through the use of IEC materials including banners, signposts and flyers, radio jingles</p>	<p>Monthly or as needed in the host communities.</p>	<p>PMU, SPMU, E&CC Consultants, Gender Consultants, NGOs</p>
		<p>Traditional/Community Leaders, NGOs, and CBOs</p>	<p>Meetings, Joint Public/community meetings with PAPS</p>	<p>As needed</p>	<p>PMU with E&CC, Gender, and KMC Team</p>
		<p>Ministries, Departments and Agencies of Government at National and State Levels</p>	<p>Workshops, IEC materials such as project information</p>	<p>As required</p>	<p>PMU, SPMU, E&CC Consultants, Gender Consultants, NGOs</p>

			sheets, social media communication (virtual meetings and WhatsApp groups), written correspondence, radio jingles, one on one advocacy meetings		
<p>Project Implementation</p> <p>Objective: Provide regular updates on project activities, implement management plans and strategies, and monitor the effectiveness of the project and plans, and Handling of complaints in a prompt and effective manner</p>	Regularly update on implementation activities, including key milestones, key changes in the Project design, and monitoring results from the ESMPs, Health and safety impacts; Disclose and consult on Contractor activities, hiring preferences, job and business opportunities, training opportunities etc	Traditional leaders, community members, Project affected persons, families and businesses identified during design phase.	Face-to-face meetings Joint public/community meetings with PAPs	Once a month and as needed Community/beneficiary Perception / satisfaction surveys – annually	PMU, SPMU E&CC Consultants, Gender Consultants, NGOs
<p>Project Implementation</p> <p>Objective: Maintain constructive relationships with stakeholders and maintain awareness of environmental and safety practices in the local communities Engagement will focus on day today operation of the Project</p>	Engagement with stakeholders to maintain good relationships and provide update on the Project progress Manage community issues and monitor community attitudes Complaint handling	Project Affected persons	Traditional & Religious Leaders, Village meetings, religious centers, Association meetings, GRM, radio jingles	As needed	NGO supported by KMC, E&CC, and relevant government agency
	Environmental and safety awareness program Emergency preparedness and	<ul style="list-style-type: none"> • host communities in project area. • community members in the project host communities 	Village meetings, religious centers, Association meetings, GRM, radio jingles,	As needed	NGO to be engaged by SPMU supported by E*CC and Gender Specialists

	<p>response Day-to-day engagement with stakeholders to maintain good relationships and provide update on the Project Key Duty Bearer progress.</p>	<ul style="list-style-type: none"> • crop farmers. • livestock farmers and pastoralists (who will benefit from water source provision) • community development associations • farmers organizations • women groups • other community associations and groups etc. • elderly people above the age of 65 • female headed households. • persons with disabilities, • people living in extreme poverty (e.g., unemployed youths), • internally displaced people (IDPs), • victims of gender-based violence and sexual exploitation and abuse and sexual harassment, • orphans, migrant laborers, etc. 	<p>Brochures, Factsheets, signposts, and banners</p>		

4.10 Proposed Strategy to Incorporate the Views of Vulnerable Groups

Vulnerable groups consist of people who may not be able to access Project information and articulate their concerns and priorities about potential Project impacts owing to certain barriers that disadvantage them. The barriers could be socio-cultural, for example where women are not allowed in the same gathering as men, or to appear or speak in public. Other factors could be related to age or financial disability. Taking these barriers into account, several measures as contained in Table 4 will be used to remove obstacles to participation for vulnerable groups.

Table 4: Methods for consultation and consideration

Category of Vulnerable Person	Method of Consultation and Consideration
Elderly	Recognize their organization and leadership, Focus Group meetings, Assisted transport to meetings
female headed Households (widows)/ Women	Recognize and respect cultural norms. Additional separate Focus Group meetings should be held for women. Where women are in seclusion, female consultants and specialists may be assigned to consult with them in the designated areas.
Orphans	Additional Focus Group Meetings Assisted Transport to meetings
People living with disabilities	Recognize their organization and leadership, Focus Group meetings, Assisted transport to meetings
People living in extreme poverty	Assisted transport to meetings

4.11 Proposed Strategy for Information Disclosure

The objective of the information disclosure plan is to ensure that appropriate project information, particularly activities on environmental and social risks and impacts are disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format. The VCN SEP makes provision for disclosure of safeguard documents to project-affected and other interested stakeholder mapped during stakeholder's identification exercise. The disclosed documents which shall be in English language will be released for public review for the period of 21 days in accordance with Nigerian Regulatory Frameworks. Distribution of the disclosure materials will be done by making them available at venues and locations convenient for the stakeholders and places to which the public have unhindered access as on Table 5.

Table 5: Information Disclosure Strategy

Stakeholders	Project Information Shared	Means of communication/ disclosure
MDAs	Safeguard Documents; • Regular updates on Project development; including proposed design / livelihood enhancement and support programmes /community. empowerment program • Additional types of Project's information if required for the purposes of regulation and permitting.	Dissemination of hard copies • Project status reports • Meetings and round tables. • Virtual Meeting online, webinar • Project website
NGOs	Safeguard Documents; • Public Grievance Procedure; • The duration of proposed project activities; • The proposed stakeholder engagement process highlighting the ways in which stakeholders can participate; • GRM in place • Regular updates on Project development including proposed design / livelihood enhancement and support programmes /community. • Electronic publications and press	Electronic publications and press releases on the Project website. • Dissemination of hard copies at designated public locations. • Press releases in the local media (Radio Jingles). • Consultation meetings – village meetings/

	releases on the Project website. • Dissemination of hard copies at designated public locations. • Press releases in the local media (Radio Jingles). • Consultation meetings – village meetings/ Association meetings. • Information leaflets and brochures. • Virtual Meeting Other affected / interested persons • Safeguard Doc	Association meetings. • Information leaflets and brochures. • Virtual Meeting
Other affected / interested persons	Safeguard Documents; • Public Grievance Procedure; • The duration of proposed project activities; • The proposed stakeholder engagement process highlighting the ways in which stakeholders can participate; • GRM in place • Regular updates on Project development including proposed design livelihood /community	Electronic publications and press releases on the Project website. • Dissemination of hard copies at designated public locations. • Press releases in the local media (Radio Jingles). • Consultation meetings – village meetings/ Association meetings. • Information leaflets, pictograms and brochures which shall be translated to the local language obtainable in the localities. • Separate focus group meetings with vulnerable groups, during Stakeholder Consultations.

4.12 Resources and Responsibilities for Implementing Stakeholder Engagement Activities

Estimated Costing Presented in this section is the budget for implementing the SEP for the 9 states. The estimated cost of implementing SEP is about USD129,600. To finance GRM, 10% of the budget for implementing the SEP has been added which is about USD10,800 (i.e. USD 1,200 per state). The total cost for financing the SEP and GRM per states is USD14,400.

Table 6: Cost of implementing SEP (including the GRM)

Item	Description	Number of Participants	Unit (no of states)	Estimate Unit Cost (USD)	Total (USD)
High level meetings with MDAs and NGOs in programme locations	2 per state	To be determined	9	500	9000
Virtual online meetings/ internet with project stakeholders	Cost of Data and internet	To be determined	9	500	4500
Website	Setting up and maintaining project website		9	1000	9000

Town-hall meetings with host community and groups	Expenses for hall and public address system plus refreshments	To be determined	9	2000	18000
Production of Jingles for Television and Radio			9	2000	18000
Programme IEC materials including newsletters, banners, flyers, and signposts			9	1000	9000
Maintenance of Vehicles & Fuelling Miscellaneous (Printing etc.)			9	2000	18000
Capacity Building activities			9	2500	22500
					108000
Contingency					10800
10% for GRM Implementation					10800
TOTAL					129600

4.13 Reporting Stakeholder Engagement Activities

Performance will be reviewed following the engagement sessions conducted in the field. In addition, there will be opportunity to review and assess performance in-between the engagement sessions depending on the level of feedback received from stakeholders during these periods. Evaluation of performance will be assessed based on the extent to which the engagement activities and outputs meet those outlined in this SEP. In assessing performance, indicators will be crafted around the following areas:

- Materials disseminated: types, frequency, and location.
- Place and time of formal engagement events and level of participation including specific stakeholder groups (e.g. women, youth, community leaders)
- Number of comments received on specific issues, type of stakeholder and details of feedback provided.
- Numbers and type of stakeholders who meet the Project team by mail, telephone, and any other means of communication.
- Meeting minutes, attendance registers and photographic evidence
- Comments received by government authorities, community leaders and other parties and passed to the Project.
- Numbers and types of feedback and / or grievances and the nature and timing of their resolution, and
- The extent to which feedback and comments have been addressed and have led to corrective actions being implemented.

Monthly summaries and internal reports on the implementation of the SEP and GRM, together with the status of implementation of associated corrective/preventative actions will be systematized by the PMU E&CC Officer and reported to the Project Coordinator. The monthly summaries will provide a timely mechanism for assessing both the number and the nature of complaints and requests for information, along with the Project's ability to address those in a timely and effective manner and adjust its operations or approach as necessary.

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex: Grievance Redress Mechanism (GRM)

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department



Investing in rural people

Nigeria

VALUE CHAIN NORTH PROJECT

GRIEVANCE REDRESS MECHANISM

1. introduction

This plan details the proposed grievance mechanism that will be used to identify, track, and manage grievances raised by project stakeholders. This mechanism as set out below takes into consideration existing grievance redress systems already in place as indicated during SEP consultations.

2. Objectives of Grievance Redress Mechanism (GRM).

- To address grievances promptly and effectively, in a transparent manner resulting in outcomes that are seen as fair, effective, and lasting.
- To provide a grievance management process that takes into consideration culture and tradition practiced in the area (this may include female members of grievance redress committee (GRC) handling complaints involving women in areas where female seclusion is practiced) and which is readily accessible to all Project affected parties.
- To build trust as integral component of the Project community relations activities.
- To enable a systematic identification of emerging issues facilitating correcting actions and pre-emptive engagement.
- To cut down on lengthy litigation, which may hinder effective implementation of projects.

3. Potential Issues that may Necessitate GRM

The major grievances that might require mitigation include but are not limited to:

1. Community member not adhering to cut-off date as announced during consultation.
2. Dispute about ownership of affected assets.
3. Delay in disbursement of assistance and improper distribution of assistance.
4. Land acquisition, restriction of access and displacement.
5. Non-inclusion of community members in paid labour/workforce.
6. Unrealistic Corporate Social Responsibility (CSR) expectations from the client or contractors by community members.
7. Omission of eligible PAPs.
8. Uncompensated loss of assets.
9. Delay in execution of sub-projects leading to breakdown of trust.
10. Non-implementation or discrepancies in the implementation of SEP/LMP and other documents
11. Potential risk of Gender based violence/sexual harassment of locals because of labour influx.
12. Loss of farm or assets due to animal invasion
13. Losses not identified correctly.
14. Under Compensation for loss of assets.
15. Etc.,

4. Informing Parties on Levels and Channels of Grievance Uptake

There will be 3 levels at which a complainant can channel his/her complaints for redress. These shall include:

- the project site level,
- the project management unit level

- the state project steering committee level.

It is, however, the right of the complainant to take a matter to the court of law as the final arbiter if he/she felt dissatisfied with the judgments obtained from the grievance redress committees set up by this Project or if s/he does not want to use the GRM.

Complainants shall be communicated early during public consultation about the existence of the GRM and sufficient information provided to them on the grievance uptake channels which includes channels that are culturally appropriate and permit for self-identified, confidential, or anonymous procedures (professional letter writers, suggestion / GRM boxes, Email, toll-free telephone).

5. Setting up a Grievance Redress Mechanism

During the time of development of the SEP, the participating states PIU shall establish a Grievance Redress Mechanism that incorporates the use of existing local grievance redress mechanism available in the community. It will be effective and result oriented to work with existing and functional local structures of dispute resolution than to design an entirely new one which may be alien to the people. The existing GRM can be restructured and strengthened for adaptation for this project context. SPMUs are to set up grievance redress mechanisms at the following levels:

- Site/Community Level.
- Project Management Unit Level.
- State Steering Committee Level.

6. The Grievance Redress Committee (GRC)

The specific composition of the GRC will vary depending upon location and context. In general membership of the GRC for the 3 levels of grievance uptakes shall comprise as follow:

GRC at the Community Level

- The traditional Ruler/District head or a person appointed by him from his council.
- The village heads.
- The Woman leader in the community or her secretary.
- A woman leader of an affinity association.
- 2 Representatives of PAPs including at least a woman.
- 2 members of the site committee including at least a woman.
- E&CC officer of the SPMU to serve as the secretary of the committee.

GRC at the PMU Level

The state project coordinator shall constitute a team within the SPMU to receive, hear and address complaints arising from the project. The team members shall include:

- E&CC Officer as head.
- KMC officer
- Gender Officer
- Monitoring and Evaluation officer, and
- The Project Engineer

GRC at the State Steering Committee Level

The committee at this level shall be headed by the Permanent Secretary in the Ministry of Agriculture, and the State Project Coordinator of VCN shall serve as the secretary of the committee.

Membership of the GRC at this level shall constitute as follows:

- The Permanent Secretary Ministry of Agriculture.
- Director Ministry of Women Affairs
- Director Ministry of Agriculture
- Director Ministry of Environment
- The State Project Coordinator of VCN
- Representative of the State's Citizen Mediation Centre/Public Ombudsman/office of Public Defender if available in such state

7. Expectation When Grievances Arise

People generally expect to receive one or more of the following when they present grievances:

- acknowledgement of their problem,
- an honest response to questions/issues brought forward,
- an apology,
- adequate compensation,
- modification of the conduct that caused the grievance.
- some other fair remedies

In voicing their concerns, they also expect to be heard and taken seriously. Therefore, the contractors or government officials must assure people that they can voice grievances and work to resolve them without conflict. To address these challenges, it will be included in the contract agreement of the contractors and service providers to work with their host communities and to fund GRM arising between contractors and their employees, and the communities.

8. Grievance Redress Process

There is no ideal model or one-size-fits-all approach to grievance resolution. The best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs and project conditions and scale. Grievance redress forms will be developed to be used by GRC to register and record progress on grievances.

In its simplest form, grievance mechanisms can be broken down into the following primary components:

Registration: The first step is the presentation of a grievance at the uptake point at any level. The social contact person or secretary of the committee will receive grievance from the complainant, register and acknowledge receipt of grievance to the grievant within 2 days. The registration form will capture the following data:

- Case number,
- Name of the complainant,
- Date of the grievance,
- Gender,
- Complete address,
- Category of the grievance,
- persons involved, and impacts on complainant life,
- Proofs and witnesses, and
- Previous records of similar grievances.

Verification: The verification determines among other things whether the matter has relationship with the project activities, and whether the matter can be handled/resolved at the level where it is presented. This will determine if the matter should be referred to the next level or not. Part of the investigations may also be to assess the cost of lost or risk involved in the grievance.

Processing: The processing step is when options for the approach to resolving the case are weighed and determined. Parties involved in the case are brought together for the first attempt at resolution with suggestions from the parties on practical steps to be taken which may also involve site visit for physical inspection and determination of the claim.

Feedback: All responses to the complainant in a grievance redress process that moves beyond a unit level must be communicated in writing and/or by verbal presentation to the complainant. This will include a follow up on the corresponding authority where cases are referred, to ascertain the status of reported cases. Feedback on outcome of each case should get to the complainant through the secretary of committee or social contact/safeguard person. It is expected that reported complaints at each level will be resolved and determined within 21 days from date of receipt of the complaint.

Grievance resolution will be a continuous process in subproject level activities and implementation. The SPMU will keep records of all resolved and unresolved complaints and grievances (one file for each case record) and make them available for review as and when asked for by IFAD and any other interested persons/entities. The SPMU will also prepare periodic reports on the grievance resolution process and publish these on the VCN project website.

The VCN project intends to strengthen the GRM through information and communication technology such as a web-based dashboard to ensure that all complaints including those of sexual exploitation and abuse are immediately reported to the Government. VCN will integrate the GRM on a web-based dashboard, to adequately and promptly address any potential grievance related to Gender Based Violence and SEA. The complaints registered in this system will be managed by the Grievance Redress Committee (GRC) Secretary that will liaise immediately with any GBV and SEA complaints with the service providers and SPMU for immediate measures.

9. Reporting GBV/SEA

If the GRM receives a case on sexual exploitation and abuse related to the project, complaint will only be recorded after securing full consent of the complainant in line with survival centered approach. The GRM administrator will then refer the complainant to the appropriate SEA/SH service provider or relevant government authorities usually under the Ministry of Women Affairs that handle cases of GBV and SEA. The GRC administrator or secretary will keep the information and personal details of the complainant confidential to protect privacy of GBV and SEA complainants. As part of contractor's agreement, each contractor would be required to sign a code of conduct to mitigate potential risk of SEA /SH. In cases, where the perpetrator(s) is linked to project activities then the contractor/service provider will take appropriate actions as per the provision of the contractor's contract agreement and under the effective law in Nigeria. VCN will report activities and outcomes of GBV and SEA surveillance and management to the World Bank on a regular basis.

10. Financing of the Grievance Redress Mechanism and Cost of Remediation

To finance GRM, 10% of the budget for implementing the SEP being USD 10,800 has been added for GRM financing.

Where grievance relates to issues between the contractors, their workers and employees and the community, the contractor shall fund the GRM.

Where the complainant decides to recourse to litigation, the complainant will be responsible for the cost of the judicial process.

11. GRM Plan

Steps	Process	Description	Completion time frame	Responsibility
1	Receipt of complaint	Document date of receipt, name of complainant, village, nature of complaint, inform the SPMU	1 day	Secretary to GRC at project level
2	Acknowledgement of grievance	By letter, email, phone	1-2 days	Secretary to GRC at project level
3	Screen and Establish the Merit of the Grievance	Visit the site; listen to the complainant /community; and assess the merit	5-10 days	GRC including the E&CC officer & the aggrieved PAP or his/her representative
4	Implement and monitor a redress action	Where complaint is justified, carry out resettlement redress in line with the entitlement matrix/ESS5	14 days or at a time specified in writing to the aggrieved PAP	PC-PMU and E&CC Officer
5	Extra intervention for a dissatisfied complainant	Review the redress steps and conclusions, provide intervention solution	10 days of receiving status report	GRC at PMU level
6	Judicial adjudication	Take complaint to court of law	No fixed time	Complainant
7	Funding of grievance process	GRC logistics and training, redress compensation, court process	During the duration of the grievance resolution	1. where grievance relates to issues between the contractors, their workers and employees and the community, the contractor shall fund the GRM. 2. Where grievance relates to issues between stakeholders (community members and MDAs) and the SPMU, the SPMU shall fund the process from the 10% of SEP implementation cost set aside for GRM.

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: Annex 12 Design Mission Terms of Reference

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 12: Design Mission Terms of Reference

Nigeria – Value Chain in Northern Nigeria (VCN) Design Mission 23 November to 30 December 2023

Terms of Reference

A. Background

1. The Federal Republic of Nigeria and IFAD is currently in operation under the Country Strategic Opportunities Programme (COSOP) 2016-2023 for the Federal Republic of Nigeria. The COSOP has two Strategic Objectives (SOs): SO1. Support smallholders, small processors and traders to derive wealth from tapping into the national food market through an integrated value chain approach; SO2. Foster the economic empowerment of rural youth and women along agricultural value chains.
2. The COSOP 2016-2023 includes the four projects (VCDP, LIFE-ND, SAPZ and CASP) and is covering four IFAD financing cycles, namely US\$ 467 million for over IFAD 10 (2016-2018), IFAD11(2019-2021), and IFAD12(2022-2024). As the Climate Change Adaptation and Agribusiness Support Programme in the Savannah Belt of Nigeria closed in March 2022, the Government of Nigeria and IFAD have decided to initiate the design of the Value Chain Project in Northern Nigeria (VCN) in 2023 to be presented to IFAD Executive Board in September 2024.
3. The Value Chain Programme in the North of Nigeria (VCN) will be implemented under the leadership of the Federal Ministry of Agriculture and Rural Development (FMARD). The programme aims at promoting inclusive and sustainable agriculture and agro-industrial value chains development as an enabler for rural economic and social transformation in Northern Nigeria. It covers the north-east and north-west parts of Nigeria and targets selected crops (rice, maize, sorghum, millet, cowpea). The value chains of these crops highlight strategic importance to the people living in the northern part of the country. The Programme will be linked with initiatives such as Adaptation for Smallholder Agriculture Programme Plus (ASAP +), the Gender Transformative Mechanism, European Union, Inclusive Green finance and the design team would integrate these programmes in their areas of responsibility. This project will be primarily Climate and nutrition focused, with a strong alignment on gender and Youth aspects.
4. The Federal Ministry of Finance and the Federal Ministry of Agriculture and Rural Development will designate a national task team to work along the Project Delivery and design team (PDT).

B. Mission Objectives

5. Based on the VCN project Concept Note the main objective of the Mission will be to elaborate and deliver a full VCN project design report and project implementation manual (PIM), in close consultation with stakeholders and development partners. The key consideration will be to take the opportunities to fully involve the government Project Delivery team (PDT) in the process. The mission will prepare the field visit planning in close collaboration with the Project Delivery team (PDT).

6. This project design mission will take place from 23 November to 30 December 2023 including the writing up and finalizing the Project Design Report (PDR). The PDR will be completed in line with the template provided by IFAD's guidelines (in Annex).

C. Deliverables

- An Aide Memoire that records the conclusions, recommendations and policy issues to be raised, to be circulated 24 hours before the wrap up meetings at the state and federal levels 14 Dec 2023
- Draft detailed Programme Design Report to be submitted by 22 Dec 2023
- Project Implementation Manual (PIM) 30 Dec 2023
- Detailed key files, Working Papers and PDR Appendixes 30 Dec 2023

D. Tasks and responsibilities of team members

7. **Dede Ekoue, Mission Lead.** You will provide overall guidance to the mission. Specifically, she will:

- i. Provide overall guidance and coordination of the mission;
- ii. Lead the top-level meetings with governmental counterparts, and the mission discussions in such meetings;
- iii. Ensure that the Mission team members respond to the various points raised by the IFAD HQs for the approval process;
- iv. Agree with Government counterparts on the mission's work schedule, including the field visits, the mission findings and recommendations, the validation and wrap-up meeting;
- v. Approve the Aide Memoire of the mission (to be sent out at least one day before the wrap-up meeting), the PDR with Annexes and Tables;
- vi. Provide any additional comments or suggestions related to this mission.

8. **Marco Camagni (virtual), Project Technical Lead (PTL), Lead Global Technical Specialist, Rural Institutions, PMI and Patrick Nya Opono, WCA Snr. Regional Technical Specialist who will represent Marco in country.** You will have a technical leadership role to the mission to ensure alignment of the project with IFAD policies, coordinate project preparation and review the PDR and aide-memoire. You will also work as rural institution expert and provide technical insights in the areas related to Farmer Organizations, farmers' participation in Commodity Alliance Forum (CAF) which will be elaborated in Component 2, and any other issues related to rural institutions and institutional capacity building. You will receive strong support from IFAD's Country Office Team. You will specifically:

- i. Lead, coordinate, manage and review the work of the team, with responsibility for the outputs of each mission member, ensuring the overall consistency and alignment with IFAD's policies and guidelines, quality, and cohesion of all written contributions.
- ii. Provide technical oversight on the design mission;
- iii. Lead the coordination with the potential co-financiers for the project design;
- iv. Provide detailed technical guidance on farmer organization, CAF and any other issues related to rural institutions and institutional capacity building.
- v. Identify the scope, content and approach of capacity building needs of implementers (the Government and Farmer Organizations, etc.)
- vi. Coordinate the preparation of the AM to be presented at a validation meeting with all stakeholders and at a subsequent wrap-up meeting, and have the Country Director sign the final Aide Memoire with the government;

- vii. Collaborate and link-up with team members to ensure the timely production of all sections of the PDR, Annexes, Tables and Key documents;
- viii. Address any additional comments or suggestions that may arise after the mission;
- ix. Any other tasks required by the Country Director.

9. Samuel Eremie, Lead consultant and Value Chain/Commodity Market Analysis.

Under the overall guidance of the Country Director and PTL, and in close collaboration with other team members, you will prepare the implementation modalities of the project; work closely with the team to draft the Project Design Report (PDR) and Project Implementation Manual (PIM – Annex 8). You will take the lead writer role of PDR and PIM. The PIM will serve as a comprehensive documentation of how the project will operationalize and implement the various components of the proposed programme. You will perform the following specific tasks:

- i. Work closely with the mission Technical Lead to develop the implementation arrangements and coordination of the new project
- ii. Review and fully develop programme implementation arrangements at the National and Regional levels considering the structures already established;
- iii. Provide a detailed description of project components, sub-components and planned activities, and detail the institutional and implementation arrangements of each components/subcomponents;
- iv. Lead the writing up of PDR and PIM;
- v. In close collaboration with other team members, provide clear, comprehensive and practical guidance in the PIM to operationalize all activities of the VCN project including, financial management, procurement, disbursement and accounting, auditing, monitoring and evaluation (M&E), human resources and knowledge management etc.;
- vi. Establish in the PIM internal control procedures to bring accountability;
- vii. Carry out review of existing studies on value chain analysis of selected commodities;
 - i. Considering the potential opportunities of Special Agro-Processing Zones Programme which covers Kano state, conduct value chain and commodity market analysis and develop activities under Component 2. Enhance value addition and access to markets for small holder farmers and MSMEs;
 - ii. Develop the value chain and agribusiness development approach of the programme
 - iii. Consolidate the lessons learned from the CASP project and provide inputs in the VCN project;
 - iv. Support coordination with the co-financiers for the design;
 - v. Lead the write-up of the Aide Memoire, PDR, and its annexes of the mission, and the completion of the corresponding PDR sections and Annexes;
 - vi. Allocate the tasks to be covered by each consultant and ensure the deliverables are submitted timely;
 - vii. Any other tasks required by the Country Director and the PTL.

10. Brenda Gunde, Global Senior Technical Specialist – ICT4D. In consultation with the Team Leader, she will develop Digital Technologies related activities. Specifically, she will be responsible for the following:

- i. Assess the status of use of ICT4D services in the Value chains including the enabling environment for adoption and beyond as well as the challenges.
- ii. Review the relevant national policies on ICT4D that can act as levers to support the project implementation and identify the relevant stakeholders to support the Value chain and include interventions into the Programme Management and Coordination part of the project.

- iii. Facilitation of the Policy dialogue on ICT4D to support digital transformation in the ongoing and upcoming projects.
- iv. Identify the quick win activities related to digital integration pertinent to the project components with a focus enhanced innovative bundled digital solutions to support farm advisory and extension services, production, and access to markets.
- v. Identify the activities related specifically focusing on Digital market-based information system and opportunities to integrate key players in the value chain, inclusive of adaptive capacity for Youth and Women.
- vi. Propose appropriate interventions and activities in the Components.
- vii. Support the further development of the project's theory of change and assist in the development of a log frame with ICT4D indicators.
- viii. Contribute to expected elements of the Project costing, financial and economic analysis as well as crosscutting sections.
- ix. Contribute to the Mission's Aide-Memoire and PDR including corresponding sections in PIM as requested by the Team Leader.
- x. Any other tasks required by the mission leader.

11. **Ndawazhile Kaluwa, M & E and KM Specialist, Consultant.** Under the overall guidance of the Lead Consultant, you will design the project M&E framework; prepare the logical framework (Annex 1) and finalize the Theory of Change (Annex 2). Ensure use of COI indicators are clearly identified and included in the logical framework. You will perform the following specific tasks:

- i. Lead the finalization of the Theory of Change and write annex 2.
- ii. Draft the section related to Component 3. Programme Coordination & Management focusing on M &E;
- iii. Work closely and coordinate with other team members to elaborate the logical framework and articulate the project theory of change, by considering lessons learned from the M&E framework of the ongoing projects;
- iv. Describe the arrangements for performance management as well as M&E, and specify the agreed reporting requirements;
- v. Contribute to the write-up of the Aide Memoire of the mission, and the completion of the corresponding PIM and PDR sections and Annex;
- vi. Identify specific technical assistances to promote SSTC relevant to the innovations the project expects to bring
- vii. Draft the knowledge management and communication (KMC) section in the aide-memoire and PDR and assess the budget required for KM&C;
- viii. Carry out a knowledge gap assessment related to the topics covered by the project and prioritize knowledge products to be developed;
- ix. Develop the dissemination approach of knowhow based on available communication tools (MoA newsletter, brochures, websites, radio, FFS/FBS)
- x. Any other tasks required by the Country Director and/ or Lead Consultant.

12. **King'ori Wathobio, Rural Infrastructure Specialist, Consultant.** Under the overall guidance of the Mission Team Leaders, you will develop activities on rural infrastructure to be incorporated to the technical components. You will perform the following specific tasks:

- I. Draw on lessons learned from CASP, design the infrastructure activities fully in line with climate smart and climate resilient aspects;
- II. Develop activities related to rural infrastructure, irrigation and water management, water users' associations;

- III. Develop activities related to market place facilities, storage for aggregation centers, equipment for cooling (cold store), sorting, drying, cleaning, grading, etc;
- IV. Propose the modalities of infrastructure and equipment operating and maintenance (including private sector participation);
- V. Draft the sections related to infrastructure under Component 1 and 2 in the aide-memoire, PIM and PDR;
- VI. Directly provide inputs and design infrastructure activities under the subcomponent Reducing post-harvest losses and promoting processing agricultural products of Component 2. Enhance value addition and access to markets for small holder farmers and MSMEs;
- VII. Contribute to the write-up of the Aide Memoire of the mission, and the completion of the corresponding PDR sections and Annex;
- VIII. Any other tasks required by the Country Director and/ or Lead Consultant.

13. Davis Atugonza, Economic and Financial Analysis (EFA) Specialist and consultant. Under the overall supervision of the Mission Team Leaders, and in close collaboration with other team members, you will prepare the COSTAB of the project (Annex 3 & 6): The Economic and Financial Analysis (Annex 4). You will also develop and present all models and costs in excel spread sheets and present the EFA summary as per PMD Operational procedures while ensuring coherence with the Logframe indicators. You will perform the following specific tasks:

- i. In close collaboration with other mission members, prepare the Economic and Financial Analysis (EFA) based on the nature of the project. Assess the financial viability, sustainability as well as the direct economic value of increased access to finance to rural households through rural financial institution as envisioned in the proposed programme. Estimate the cost of proposed activities, identifying investment and operational costs together with their disbursement categories;
- ii. Elaborate on the projects costs (with underlying assumptions), project financing / co-financing strategy and plan, disbursement/ withdrawal arrangements (i.e., the funds flow) from IFAD and other financing sources to intermediaries and end beneficiaries;
- iii. Contribute to the preparation of Annual Work Plan and Budget for the first 18 months of the proposed project;
- iv. Clearly present assumptions and methods used in the valuation of costs and benefits;
- v. Support the M&E specialist in developing the programme M&E framework;
- vi. Contribute to the write-up of the Aide Memoire of the mission, and the write-up of corresponding PDR sections and Annex;
- vii. Any other tasks required by Country Director and/ or Lead Consultant.

14. Chiqui Arregui, Consultant, Targeting and Social Inclusion Specialist and Consultant. You will design the key elements of geographical and poverty targeting and cover gender and social inclusion in close collaboration with the design team. The main tasks include:

- i. Preparation of a situation analysis on gender and social inclusion describing international standards, national policies, strategies, institutions and key collectives' organizations present at national/project level; the situation analysis will describe the intended project communities their demographic, social, cultural, and political characteristics and will analyse the important livelihood opportunities and constraints
- ii. Assess IFAD's target groups of VCN and their communities/grassroots organizations, in order to identify challenges, intersecting domains of vulnerability (age, marital

- status, abilities, socio- economic status, geography) and opportunities to be considered in the design of the project.
- iii. Complete the gender and livelihood analysis checklist for project design (see annex)
 - iv. Develop detailed activities for the technical components to support youth and women;
 - v. Contribute to the design documents (PDR, PIM, Aide Memoire and Annexes);
 - vi. Draft a targeting strategy with identified criteria for geographic and beneficiary targeting (especially for the most vulnerable people, women, youth, PWDs while keeping poverty, inequalities and food and nutrition security in mind);
 - vii. Integrate gender transformative programming, youth sensitivity, social inclusion considerations in the project theory of change and logical framework;
 - viii. Provide inputs into the M&E framework, project logframe and learning systems to incorporate gender and social inclusion perspectives, including the use of participatory approaches and disaggregated data and indicators, and to measure performance of the strategies;
 - ix. Identify implementation arrangements, risks and mitigation measures, costs and financing to ensure effective implementation of appropriate targeting and gender strategies;
 - x. Further define the needs and interests of specific target groups such as women, female head of households, young men and women, persons with disabilities to design relevant interventions;
 - xi. Contribute to the budget allocation of all relevant targeting, gender, and social inclusion activities;
 - xii. Identify the needs, priorities and expectations of poor rural people (including their livelihood strategies and outcomes, vulnerabilities and coping mechanisms, local poverty processes and rural institutions). Identify key issues that may be addressed by the project, disaggregating data by sex and other relevant variables where possible;
 - xiii. Any other tasks required by the Country Director and/ or Lead Consultant.

15. Mayowa Fasona, Natural Resources Management and Social, Environment, and Climate Assessment Procedures (SECAP) Consultant. You will be responsible for the assessment of the proposed project's environmental risks and natural resources management with a focus on how to better mainstream these considerations throughout the project life cycle to maximize developmental gains and enhance sustainability. (including the SECAP Note - Annex 5; and Environmental and Social Management Framework - ESMF). You will perform the following specific tasks:

- i. Assess the expected environmental risk/impacts, and elaborate on mitigation and enhancement measures associated with the proposed project activities;
- ii. Assess the natural resources management context of the proposed project in the proposed geographical area and ecosystems;
- iii. Articulate measures to improve the environment and natural resources management (ENRM) in the project area;
- iv. Explore opportunities for payment of ecosystem services within the project areas;
- v. Finalise VCN SECAP Review Annex in collaboration with the Climate Change and social Inclusion Specialists and support the development of the required studies including Environment, Social, Climate Management Framework (ESCMF), Indigenous Peoples Plan (IPP);
- vi. Contribute to the write-up of the Aide Memoire of the mission, and the write-up of corresponding PDR sections and Annex;

- vii. Develop detailed activities related to climate change and adaptation under Component 1. Foster climate-resilient and nutrition-sensitive agriculture for food security, and ASAP+;
- viii. Contribute to sections in the PDR focusing on climate change adaptation and mitigation including the indicators for ASAP+ that VCN will contribute to, develop the climate change sections of the SECAP Annex;
- ix. Provide cost estimates for the ENRM activities under VCN;
- x. Any other tasks required by the Country Director and/ or Lead Consultant.

16. Dorothy Murugu Food Security and Nutrition Specialist, Consultant. Working closely with the Project Delivery Team, you will prepare the nutrition aspects of the SECAP and prepare technical annexes, and provide inputs for the project PDR on issues related to nutrition and food security. You will closely liaise with the targeting and social inclusion, and the climate change experts to provide an integrated SECAP report. You will perform the following specific tasks:

- i. Prepare a situation analysis on nutrition and food security describing international standards, national policies, strategies, institutions and key collectives' organizations present at national/project level; the situation analysis will describe the intended project communities their demographic, social, cultural, and political characteristics and will analyse the important livelihood opportunities and constraints.
- ii. Develop detailed activities for the technical components focusing on nutrition and food security under Component 1. Foster climate-resilient and nutrition-sensitive agriculture for food security;
- iii. Draw on the lessons learned from the CASP project, Identify key nutrition and food security issues of the areas to be covered by VCN and project activities to address the issues;
- iv. Contribute to the VCN design documents (PDR, PIM; Aide Memoir and Annexes);
- v. Integrate nutrition considerations in the project theory of change and logical framework;
- vi. Review proposed project activities with a targeting -nutrition lens and make adjustments as necessary to align with the impact pathways;
- vii. Contribute to the budget allocation of all relevant nutrition activities;
- viii. Develop outlines for the project and nutrition strategies building on contributions from the team;
- ix. Prepare ToRs of PMU staff with nutrition functions;
- x. Identify potential implementing partners to support the identified nutrition sensitive interventions and propose partnership arrangements;
- xi. Any other tasks required by the Country Director and/ or Lead Consultant.

17. Francis Nwilene, consultant Agronomist. You will be responsible for the assessment and development of the activities supporting agricultural production and agricultural productivity as below:

- i. Assess the situation analysis on the selected commodities by the VCN taking into account the lessons learned from the CASP project.
- ii. Develop detail activities for the technical components focusing on improving agricultural productivity under Component 1. Foster climate-resilient and nutrition-sensitive agriculture for food security;
- iii. Draw on the lessons learned from the CASP project, Identify key issues on agricultural production and productivity in the areas to be covered by VCN and project activities to address the issues;

- iv. Contribute to the VCN design documents (PDR, PIM; Aide Memoir and Annexes);
- vi. Review proposed project activities with a targeting -nutrition lens and make adjustments as necessary to align with the impact pathways;
- vii. Contribute to the budget allocation of the relevant agricultural productivity activities including the agricultural input costs;
- x. Identify potential implementing partners to support improving the agricultural productivity of the targeted beneficiaries and propose partnership arrangements;
- xi. Any other tasks required by the Country Director and/ or Lead Consultant.

18. **Franklin Ibemessie, Procurement, Consultant.** You will be responsible for the assessment and development of procurement management for the proposed project in line with IFAD guidelines. You will perform the following specific tasks:

- i. Undertake (or where this has been already done, review) Part B of the Procurement Risk Assessment (project level), using the IFAD Procurement Risk Matrix;
- ii. In case Part A of the IFAD Procurement Risk Matrix (country level) has not been created, undertake this assessment.
- iii. Define procurement arrangements, including identifying the start-up measures to be taken up by the IA to initiate processes required for the first year of implementation, such as staff recruitment, training plans, setting up of procurement management, reporting and monitoring systems, preparation of initial bidding documents by the borrower, system for applying for IFAD clearances as well as the issue of the General Procurement Notice (GPN) after ratification of the IFAD loan/grant by the competent national authority;
- iv. Identify the Project's Procurement Strategy based on the complete list of the Project's procurement requirements, the objectives of the design, and based upon credible market research for arriving at the optimal procurement approach for the project's high-ticket contracts, contracts with high scheduling risks (that could result in delays for other activities) and the contracts of the first 18 months;
- v. Prepare the initial offline 18-month Procurement Plan based on such information, in the form of an attachment to the Project Design report, indicating agreements reached with the Implementing Agency as to contract packaging, methods of procurement, prior review thresholds, contract quantities and estimated costs and definition of a practical implementation schedule in line with the overall project implementation schedule and the AWPB;
- vi. Develop the draft procurement provisions of the Financing Agreement and the Project Procurement Arrangements (PPA);
- vii. Make presentation for the outcomes of the procurement design at the PDT members and/or any meetings and workshops to be hold related to the new design.
- viii. Identify the changes/appendices needed to supplement the national standard bidding documents for compliance with the IFAD project procurement framework and IFAD's policies, including the Social, Environmental and Climate Assessment Procedures (SECAP);
- ix. Contribute to the relevant sections in the design document and Project Implementation Manual (PIM);
- x. Develop specific, actionable guidance on addressing SECAP risks (e.g. in technical specifications or bidder qualifications of the bidding documents). A close coordination with the SECAP specialist in the PDT is required to determine which risks should be flagged as relevant for procurement in the ORMS SECAP Screening Tool. Each of the flagged risks need to be addressed in the PIM.
- xi. Develop a suitable IFAD procurement supervision plan for the Project, considering the relative strengths, weaknesses and risks revealed by the PRM assessment;

- xii. Identify needed procurement capacity building programs for the project's lead implementing agency staff¹² involved in project procurement both at or prior to project start-up and/or during project implementation;
- xiii. Prepare the Quality at Entry Questionnaire for review by the SPO;
- xiv. Submit an assignment report (as per IFAD format), and any other relevant ancillary documents (including Procurement Plans, Implementation Manuals, Operation Manuals, etc.); and
- xv. Carry out any other activity, as required by IFAD.

18. Timothee Tabapssi, Policy and Institutional Development Support, Rural Institution and Farmer Organization Programme Management, will

In coordination with the PTL/Value Chain and Rural Finance Expert, the consultant will provide guidance on the IFAD component of Policy and Institutional Development support considering rural institution and farmer organisation and focusing on the capacity building and involvement of Commodity Alliance Forums, in the following areas:

- i) facilitation of local policy dialogue and influencing local investments for inclusive and conducive market linkages;
- ii) strengthening quality control, grading and standardization systems; and
- iii) support to the establishment and strengthening of community conflict management mechanisms for sustainable investments.

19. Austin Tatah, Financial Management, Finance Officer, WCA. You will be responsible for the development of financial management of proposed project in line with IFAD guidelines. As an integral part of project preparation, IFAD requires that a FMA is made of the (name of executing and or implementing agency) to ensure that financial management capacity is, or can be developed to be sufficiently strong and robust to implement the proposed future project. The objective is to ensure that the financial management arrangements that are in place to manage and control project finances will meet IFAD's fiduciary requirements. The FMS should refer to IFAD's "Guidance Note on Undertaking Financial Management Assessment @ Design" for detailed guidance on the procedures to be followed. You will perform the following specific tasks:

- i. Ascertain what organization, entity or unit is to be the prime focus of the assessment;
- ii. Using the IFAD FMAQ (Appendix III), as the basis to collect the relevant information, assess the strengths and weaknesses of financial management systems, internal controls and financial reporting systems which will relate to financial management and administration of project funds;
- iii. Identify risks arising from material deficiencies and propose practical recommendations for improving financial management functions and/or staffing for financial operations needed to mitigate risk;
- iv. Complete the Summary Project Fiduciary Risk Assessment at Design table (detailed FMAQ/ IPRM). The FMS should base any conclusions on the finalized organizational structure, after implementation of any mitigation actions and should ensure that the CPMT receive copies of relevant documentation as it may need to become included in the financing agreement (for instance, as pre-conditions of disbursement) so that it can be confirmed that the PIU structure that is actually set up is the same as that reviewed;
- v. Finalize the FM sections of the PIM; support the PIM expert to develop capacity building programmes for project staff responsible for financial management

- vi. Familiarize with details of co-financing package and related donor-requirements including GCF, EU, GTM, ASAP+, ensure any additional FM requirements and required legal covenants are clearly described in the design documents
- vii. Collaborate with the EFA expert to ensure that the COSTABs provide clarity on expenditure, fund-flows, financier cost-sharing rules if any, and details of anticipated co-financing whether domestic or international (distinction should be made between cash and in-kind contributions)
- viii. Prepare draft TORs clarifying scope of first annual audit, and audit coverage for subsequent years;
- ix. Complete corresponding PDR sections and Tables;
- x. Any other tasks required by the Country Director and/ or Lead Consultant.

20. **Stephen Waiswa, consultant, ICT4D**

- i. Review the relevant national policies on ICT4D that can act as levers to support the project implementation and identify the relevant stakeholders to support the Value chain and include interventions into the Programme Management and Coordination part of the project.
- ii. Support the Global Senior Technical Specialist on the Policy dialogue on ICT4D to support digital transformation in the ongoing and upcoming projects.
- iii. Identify the quick win activities related to digital integration pertinent to the project components with a focus enhanced innovative digital solutions to support farm advisory and extension services, production, and access to markets.
- iv. Identify the activities related specifically focusing on Digital market-based information system and opportunities to integrate key players in the value chain, inclusive of adaptive capacity for Youth and Women.
- v. Propose appropriate interventions and activities in the Components.
- vi. Support the further development of the project's theory of change and assist in the development of a log frame with ICT4D indicators.
- vii. Contribute to expected elements of the Project costing, financial and economic analysis as well as crosscutting sections.
- viii. Contribute to the Mission's Aide-Memoire and PDR including corresponding sections in PIM as requested by the Team Leader.
- ix. Any other tasks required by the mission leader

21. **David Ajayi, Rural Finance.** Working under the overall direction of the country director and guidance from the mission lead, you will undertake the assignment with the following terms of reference:

- i. Review the existing financial inclusion strategies and relevant government policy documents relevant to financial inclusion in Nigeria;
- ii. Assess the existing financial inclusion infrastructure in Nigeria and identify the gaps and areas of improvement with specific reference to the north of the country;
- iii. Assess the financial inclusion status of the project area beneficiaries and identify how best they can benefit from the programme;
- iv. Assess the beneficiary financial literacy capacity needs/gaps and propose interventions that will address the same;
- v. Make an assessment of other key players in the same space and draw lessons on how VCN could leverage and build synergies with them;
- vi. Identify barriers and constraints that have been limiting the uptake of women, youth and marginalized groups to financial/digital financial products and services.
- vii. Identify constraints and barriers in accessing formal financial services by MSMEs

- viii. Propose sustainability approaches to be inbuilt in the programme interventions for continuity.
- ix. Develop a roadmap and strategic interventions/instruments that will address the beneficiary felt financial needs;
- x. Undertake any other task as may be assigned by the country director

22. Mr. Joseph Nganga, Programme Officer, Nigeria ICO, WCA: Closely support the Country Director and the mission team leader in overall organization of the mission. Work closely with all mission members to make sure that the mission members have access to the required information from the relevant stakeholders. You will perform the following specific tasks:

- i. Arrange top-level meetings with governmental counterparts and partners;
- ii. Link mission members with the government PDT, government officials (federal and state) and relevant stakeholders;
- iii. Facilitate meetings and discussions between mission members and PDT members, government officials (federal and regional) and relevant stakeholders;
- iv. Ensuring that the mission team members respond to the various points raised by the IFAD HQ and others during approval processes;
- v. Develop, with inputs from mission members, Annex 10 on the exit strategy and Annex 11 on required start-up activities (Annex 11)
- vi. Complete the write up of the Aide Memoire of the mission (to be sent out at least one day before the wrap-up meeting), the PDR with Annexes and Tables);
- vii. Address any additional comments or suggestions that may arise after the mission;
- viii. Any other tasks required by the Country Director and/ or PTL.

23. Mr. Adebayo Ogunniyi, Country Programme Analyst, Nigeria ICO, WCA– you will provide the below logistics support:

- a) Upload the PDR in ORMS timely;
- b) Arrange setting up of the meetings, prepare of meeting agenda, and take meeting minutes.
- c) Provide technical notes for the Country Director prior to any technical meetings related to the VCN design;
- d) Support consolidating the design report and Annexes;
- e) Support preparing the mission schedule and logistic support;
- f) Support the preparation of meetings including the mission wrap-up meetings;
- g) Any other tasks required by the Country Director and/ or PTL.

E. Mission schedule

24. The IFAD members and the consultants will hold meetings in Abuja from **24 to 29 November as well as from 07 to 14-15 December 2023**. A team meeting to discuss the TOR and any other issues related to the Mission will be held on the first day of the Mission. There will be field visit to regions to consult regional partners in the first week of the mission. Consultations with the federal government PDT, project implementing partners and stakeholders at federal level will be undertaken in the second week of the mission. The Aide-memoire with focus on key findings and recommendations and will be shared with the Federal Ministry of Agriculture and Rural Development (FMARD) one day before the wrap-up meetings to be scheduled on **Thursday, 14 December 2022**. The writing-up of the PDR with Annexes and Tables will be finalized until 29 December 2023.

Date	Activity
23 November 2023	Arrival in Abuja
24-28 November 2023	Mission members discussion in Abuja
28 November 2023	Design launch with the Government Officials and other stakeholders including Country Programme Advisory Team (CPAT)
29 November to 07 December 2023	Field trip to regions
08-14 December 2023	Abuja-info gap filling and follow-up meetings/wrap-up
15 Dec 2023	Departure from Abuja
16-29 December 2023	PDR Drafting (home-based)
30 December 2023	First draft PDR

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: Annex 14 Consultations on the design and key persons met

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 14: Consultations on the design and key persons met

In addition to several smaller group interactions, the following major consultations were held around the full design of VCN.

- The design launch workshop, carried out on November 27, 2023 in Abuja to provide preliminary orientations for the design and to agree how to implement the process including the consultative process. Below is the request from FGN to IFAD to design the VCN.



- Consultative field visits conducted in eight states (Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara), during November 29 – Dec 7, 2023.
- A debriefing workshop held on December 11, 2023 in Abuja to confirm the strategic orientation of the project.
- A wrap-up workshop on the design held in Abuja on December 14, 2023 to confirm the strategic orientations, on the basis of which the technical team went deeper to prepare a detailed PDR of which both initial and final drafts have been sent to the government.
- A technical validation workshop, held in Abuja on March 21, 2024 under the coordination of the FMAFS in collaboration with the FMF, to: (i) ensure common understanding of the major orientations of the VCN design; (ii) Validate the IFAD PDR before its urgent submission on April 1, 2024 for IFAD HQ review to ensure timely approval; and (iii) lay the foundation for synergies with other partners during the future implementation of the VCN program.

Annex 14.1: Design launch workshop – agenda, participants and presentations

National Official Launch of the Value Chain North Project Design Wells Carlton Hotel -Asokoro Abuja 27 November 2023		
Time	Activity (Physical/virtual session)	Responsible
9.00-10.00	● Registration / coffee	● ICO
10.00-10.30	Official Remarks: <ul style="list-style-type: none"> ● Mrs. Dede Ekoue, Country Director, IFAD Country Office, ● Mrs. Sally A. IBRAHIM, Project Manager – Food Security, Agriculture, Rural development, Resilience & Regional ECOWAS Programs, AFD, Representing Mr Xavier MURON, Country Director, Agence Francaise de Developpement ● Dr. Adebayo Babatunde, Assistant Director, International Economic Relations Department (IERD), Federal Ministry of Finance, ● Official opening speech: Mr. Musa Bukar, Director Projects Coordinating Unit (PCU), Federal Ministry of Agriculture and Food Security (FMAFS). 	
10.30-10.40	● Group photo	● All
10.40-11.00	● Coffee Break	● All
11.00-11.20	● Presentation on preliminary strategic orientations of VCN	● Mr. Joseph Nganga, Program Officer, IFAD Nigeria
11.20-11.40	● Presentation on key elements of design methodology	● Dr. Sam Eremie, Consultant and Team Lead of the VCN Design
11.40-12.40	<ul style="list-style-type: none"> ● Q&A on presentations ● Contributions on how to ensure a successful design: new policies, documentations, statistics, engagement of stakeholders, leveraging existing/ future programs 	● Mrs Ekoue, Dr Eremie, Mr Nganga, Dr Onoja, Ms Ibrahim
12.40-1.00	● Conclusions and closing remarks	● Dr Eremie, Dr Onoja (Country Program Advisor), Mrs. Ekoue, Mr Bukar

Participants at design launch workshop

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 27 th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
FGN									
01	Boukari Musil	Director	Abuja	M			✓ boukari01@gmail.com	08030339368	[Signature]
02	Bukola Shobade	CAO (Agd)	Abuja	F			✓ bukola.shobade@gmail.com	08093169589	[Signature]
03	Babatunde Adebayo	Asst. Dir. (Agd)	Abuja	M			✓ tundeayoadebayo@yahoo.com	08033059855	[Signature]
04	Folunmi Asch-ware	Director	Abuja	M			✓ Yonnachajiade@yahoo.com	080375723	[Signature]
05	Tochukwu Mbanugo	Asst. Dir. (Agd)	Abuja	M			✓ Tochukwu.Mbanugo@agof.gov.ng	0802323309	[Signature]
06	Joshua Okpata	VP (TA)	Abuja	M			✓ josh.okpata@gtimwaben.io	08031927880	[Signature]
07	Ibrahim Mohammed	Deputy Director	Abuja	M			✓ mohammedibrahim@gmail.com	0803677520	[Signature]
ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 27 th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
VCDP									
1	Dr. FATIMA K. ALIYU	National Programme Coordinator	ABUJA	F			✓ fatika2013@gmail.com	0802365454	[Signature]
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3	KEHINDE OLAMIDE ODUNTAN	KM Asst.	ABUJA	F			✓ kehindeolamide@yahoo.com	0803787952	[Signature]
4	IDODE KAYODE A.	MIS	ABUJA	F					[Signature]
5	ALHASSAN ABRAHAM	ADMIN. ASST.	ABUJA	M			✓ alhassanabraham@yahoo.com	0803497744	[Signature]
6	GONI MALAH	SA - NPC	ABUJA	M			✓ gonimalah@gmail.com	0803511136	[Signature]
ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 27 th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
ICO									
7	Dede Ekoue	Country Director	Abuja	F			✓ dede.ekoue@gmail.com	080673778	[Signature]
8	Joseph Nganga	Programme Officer	Abuja	M			✓ j.nganga@fed.org	08034758543	[Signature]
9	Adebayo Ogunniyi	Country Programme Analyst	Abuja	M			✓ j.nganga@fed.org		[Signature]
10	Chioma Adiele-Okpara	Country Programme Officer	Abuja	F			✓ c.adielle-okpara@fed.org		[Signature]
11	Ibrahim Ahijo	Admin Assistant	Abuja	M			✓ i.ahijo@fed.org	08034758543	[Signature]
12	Emmanuel Erengwa	Driver	Abuja	M			✓ e.erengwa@fed.org	09070058052	[Signature]
13	Emmanuel Maduakor	ICT Consultant	Abuja	M			✓ emma@smartminds.net	800390644	[Signature]
14	Dr Samuel Eremie	Lead Mission Consultant		M			✓ samueleremie@yahoo.com	0709425035	[Signature]

15	Kingori Wathobio	Mission Consultant								
16	Davis Atungoza	Mission Consultant	Kampala	M	✓			davisatungoza@yahoo.com	+256772 380597	W
17	Dorothy Murugu	Mission Consultant	Abuja	F	✓			dorothymurugu@yahoo.com	+254724 782150	AK
18	Patrick Nya Opono	Mission Consultant	Abidjan	M	✓			p.nyapono@ifad.org	+225 0707394238	PK
19	Austin Tatah	Regional F.M. Officer	Abidjan	M	✓			a.tatah@ifad.org		AT
20	Stephen Waiswa	Mission Consultant		M	✓			s.waiswa@ifad.org	+256772 995090	SW
21	Brenda Gunde	Global Snr. Tech. Specialist ICT4D	Nairobi	F				bgunde@ifad.org		BG
22	David Ajayi	Mission Consultant	Abuja	M	✓			davidajayi@gmail.com	0803322610	DA
23	Prof. Mayowa Fasona	Mission Consultant	Lagos	M	✓			m.fasona@gmail.com	0812530 8622	MF
24	Dr Francis Nwilene	Mission Consultant	Ibadan	M	✓			f.nwilene@cgiar.org	08034339601	FN
25	Timothee Tabapssi	Mission Consultant	Abuja	M				timothee.tabapssi@gmail.com	+237681992246	TT

26	Priscilla Achakpa	Mission Consultant	Abuja	F	✓			prachakpa@gmail.com		PA
27	Donald Yakumbur	Mission Consultant	Abuja	M	✓			yakumbur@gmail.com		DY
28	OluGbenga Aderemi-Williams	Mission Consultant								AW

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 27th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA

S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
LIFE-ND									
29	Engr. Dr. Sanni Abiodun	NPC	Port Harcourt	M	✓		abbey_sanni@yahoo.com	0806261827	SA
30	Jerus Uvieghara	KMC Coordinator	Port Harcourt	M	✓		jerusujerusa@yahoo.com	08085038803	JU
31	Bunmi Ogunleye	Technical Assistant to NPC	Port Harcourt						

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 27th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA

S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
CPAT									
32	Dr Onoja Ameh	Lead Advisor	Abuja	M	✓		dranoja@fahro.co.uk	0834455625	OA
33	Thomas Yisa	VCDF Liaison Officer/Logistics Team Member	Abuja	M	✓		thomas@fahro.com	08030352568	TY
34	Yusuf Halliru	Financial Inclusion Advisor	Abuja	M	✓		y.halliru@fahro.com	0835322	YH
35	Dr. Chinwe Onyegbula	Lo-Life	Abuja	F	✓		conyegbula@fahro.com	080295804	CO
36	Engr. Emeka Nwachukwu	LO-SAPZ	Abuja	M	✓		pastoremeke40@gmail.com	086393 7339	EN
37	Saudatu Zahraadeen	Gender	Abuja	F	✓		zsaudatu@gmail.com	080580892	SZ
38	Dr. Abdulhameed Girei	Monitoring & Eval	Abuja	M	✓		asirejo@gmail.com	0805497186	AG

ATTENDANCE FOR ICT4D POLICY DIALOGUE WORKSHOP 27 th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
SAPZ									
39	Dr. Kabir Yusuf Zakwa Tsiga	NPC PON	Abuja	M		✓	drztsga@gmail.com	090333682	
40	Babangida Shehu OKORIE AGWU	KMC Coordinator RMed (SAPZ)	Abuja	M		✓	SIRMONAKO@GMAIL.COM	0903455832	

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 27 th NOVEMBER, 2023 AT WELL CARLTON HOTEL ABUJA									
S/NO	NAME	RANK/Organisation	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
+NGN Others Partners									
1	Oni Nabaeel	Agriculture Hub Manager (ITP)		Male		✓	N.oni@cgiar.org	0803551613 0813922479	
2	Jerry Tobi	MTI (JICA)		Male		✓	Jerry@Jerry.lanreawu@gmail.com	0813922474	
3	Anne-Marie Abbaagui	WEP		Female		✓	anne.abbaagui@wepdigital.net	0814956277	
4	Bashree Ishag	FAO Prog. Specialist	Abuja	M		✓	Bashree.Ishag@fao.org	08036351257	
5	Umaru Mbaruf	NTDA	Abuja	M		✓	Umaru@NTDA.gov.ng	08035389056	
6	Tusif Apurakan	A.M/NTDA	Abuja	M		✓	tusif@ntda.gov.ng	0706476121	
7	Lukman Lamid	Dep. Manager	FCT	M		✓	Lamid@ntda.gov.ng	0803576467	
8	Chidozie Anja	World Bank	FCT	M		✓	canja@worldbank.org	08037304453	

Presentations

 VCN Launch Presentation Strateç	 VCN Design Nov-Dec2023 - Incep
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Annex 14.2: Consultative Field Visits – Team Composition, Calendar, guides and reports



Federal Government of Nigeria



Investing in rural people

FEDERAL REPUBLIC OF NIGERIA

Reports of the Field Consultations
for
The design of Value Chain Programme
in Northern Nigeria (VCN)

Introduction :

This report provides highlight of the design mission field consultations from November 29 to December 7, 2023. The Consultations engaged over 300 stakeholders from Borno, Jigawa, Kaduna, Katsina, Kano, Kebbi, Yobe and Zamfara States. The stakeholders include Ministries, Departments and Agencies (MDAs) of the Government, Farmer Organizations (FOs), FSAs, CDAs, Financial Institutions, Development Agencies, Value Chain Actors (input dealers, off-takers, processing firms, transporters, wholesalers), ICT Service Providers, Research Institutes, NGOs, Civil Society Organizations and other key stakeholders who were mobilized with the support of the State governments under the leadership of the Commissioners of Agriculture.

The consultations were held under the coordination of Federal Ministry of Agriculture and Food Security (FMAFS) who provided the leadership, in close collaboration with the Federal Ministry of Finance (FMF). Technical support was also provided by the Country Programme Advisory Team (CPAT) and some staff of the closed FGN/IFAD CASP who are still working in the States. Considering the need for digitalization in VCN, National Information Technology Development Agency (NITDA) was represented in the consultation process.

Highlight of findings from the Field Consultations

Theme	Sokoto/Kebbi/Zamfara	Kano/Katsina/Jigawa	Borno/Yobe
Priority Value Chains	Rice, Millet, Maize, Soybean, Aquaculture, Groundnut, Hungry rice, Sorghum	Millet, Soybean, Cowpea, Rice, Maize, Sesame and Sorghum	Rice, Millet, Maize, Soybean, Groundnut, Sorghum, Cowpea, Onions
Rural Infrastructure	Range land improvement, market stores/stalls, portable water, irrigation schemes, access roads, rain water harvesting structures, provide watering points.	Land conservation and harvesting technologies, road runoff harvesting, halfmoon rainwater harvesting, construction of road networks from communities/farms to markets,	Storage facilities, Water Facilities like boreholes, Tube wells; Land Development, Access/feeder roads, market infrastructure, dams/small irrigation structures, water

		irrigation structures	harvesting structures
Gender and Social Inclusion	Seed entrepreneurship for youth, provide starter packs to support women, women friendly interventions, female extension agents gender specific trainings, promote GALS methodology, promote access to land for women, PWDs and IDPs, promote job creation for women and youth, promote access to mechanization	Promote the use of GALS, empowerment learning centres for women, promote women only groups, entrepreneurship for the youth on various enterprises, consider friendly interventions for PWDs, support women with milling and grinding machines	Access to land for women, support for IDPs, capacity building for youth, women only/led groups, mechanization tools to encourage youth,
Nutrition	Poor diets (predominantly carbohydrates), capacity building on diets, promote vegetable gardens, promote fruits production, promote small ruminants, backyard poultry for consumption, promote horticulture crops relevant for nutrition, promote nutrition education, complementary food for children	Provide nutrition aids, promote small ruminants like goat and sheep, carry out food demonstrations of bio-fortified crops.	Promote backyard gardens, local food production/consumption, diversify crop selection to improve nutrition, indigenous chickens, vegetable gardens.

Matching Grant	Matching grant model for input support to farmers (30% for women and youth, 40% for men)	Provide matching grants for inputs using e-wallet to finance its distribution thereby bypassing middlemen.	Use e-voucher systems for efficient and transparent distribution of input subsidies
Env. and Climate Change	Weather information services, provide weather predicting gadgets, deployment of climate resilient certified seeds through matching grant models, promote organic fertilizers or regenerative agriculture, weather forecast and crop calendars in partnership with NiMET, promote appropriate intercropping systems	Promote agroforestry, provision of green houses, provision of solar powered machines, sensitization on hygiene and sanitation, provision of early maturing – drought resistant and high yielding varieties, use of organic fertilizer, sensitization on seasonal calendar and promote innovations in weather forecasting	Agroforestry, weather information/early warning systems, early maturing varieties, partnership with NiMET
Access to Market	Linkage with off-takers.	Linkage with off-takers, promote access to market through local vendors	Operationalize CAF, linkage to private sector/off takers, linkage to processors and wholesalers, build capacity on bargaining power, promote access to Market Information Platforms

<p>Access to Finance/financial inclusion</p>	<p>Linkage with Development Exchange Centre (DEC), insurance services through NAIC and other private insurance services providers, linkage with NIRSAL, ascertain the current state of the FSAs and strengthen them.</p>	<p>FSA is a form of rural finance which tends to combine the attributes of investment company, microfinance and community based financial outfit. Being microfinance arrangement, its operations rest equally on its financing of small-ticket transactions on which interests receivable are not capped. Facilitate expansion of FSA to other communities and LGAs not covered during CASP. Trainings on financial literacy, promote agents banking, linkage to FIs such as BOA, BOI, Zenith Bank, Sterling, FCMB and MFBs. Facilitate access to insurance through NAIC.</p>	<p>Strengthening of CDAs, FSAs and FOs, linkage to FIs, Insurance, promote financial literacy, promote value chain financing involving off-takers, processors, wholesalers, aggregators, financial institutions and beneficiaries. Facilitate digital access to credit and financial services through mobile applications</p>
<p>Production/Produ ctivity</p>	<p>Fertilizers, high cost of inputs, promote access to quality seeds, Extension services, early maturing seeds, organic</p>	<p>Use of extension service providers to train farmers on GAP, provision of power tillers and simple farm implements,</p>	<p>Fertilizers, high cost of inputs, promote access of improved seeds, Extension services, timely provision and distribution of</p>

	<p>fertilizers, promote access to mechanization, promote GAP trainings. Public/private extension service providers, promote use of digital advisory tools, promote digital extension services, provide mechanization equipment</p>	<p>promote animal traction, provision of ploughing machines, provide improved seedlings, provision of agro-inputs, ensure timely supply of agricultural inputs to farmers, promote use of digital technologies for communication, information dissemination, e-tension services.</p>	<p>inputs (fertilizers and soil additives), training on GAP, promote animal traction, promote digital technologies for precision farming to increase productivity (e-advisory, e-extension, GAP, PHM)</p> <p>Equipment: Water pumps, simple mechanization equipment</p>
Post-harvest/Value Addition	<p>Threshing machine, Oil extraction machine, G/Nut thresher, value addition to groundnut and cowpea</p>	<p>Training on packaging and branding, training on smart agro-processing practices, provide milling and grinding machines.</p>	<p>Rice Processing, G/nut processing, G/nut oil production, processing equipment</p>
Fragility Issues	<p>Insecurity in some LGAs/communities.</p> <p>Poverty is the underlying cause.</p> <ul style="list-style-type: none"> • Range land improvement to reduce farmers – herders’ conflict 	<p>Influx of foreign herders. Encroachment of traditional grazing and cattle routes by farmers</p> <ul style="list-style-type: none"> • Tighten border security and control, community leaders to identify incoming herders. • Establish grazing 	<p>Insurgency, banditry, farmers-herders conflict, displacement of people from their communities, destruction of infrastructures in some of the affected LGAs.</p> <ul style="list-style-type: none"> • Promote digital infrastructure accessibility • Prioritize climate-

		reserves that provides water, animal feeds, vet services & nomadic schools.	resilient best practices
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Annex 14.2.1: Detailed report of field consultations by each team (Team 1, 2 and 3)

Team 1:



Team 1 - Sokoto-Kebbi- Zamfara

Team 2:



Team 2 - Report on the Field Visit for the I

Team 3:



Team 3_Borno_Yobe Feedback Report.pptx

Annex 14.2.2: List of Stakeholders engaged during the field Consultations

Team 1: Sokoto-Kebbi-Zamfara

Find the link to the list of stakeholders [here](#)

Team 2: Katsina-Kano-Jigawa

Find the link to the list of stakeholders [here](#)

Team 3: Borno-Yobe

Find the link to the list of stakeholders [here](#)

Annex 14.2.3: Standard Agenda for Consultation with Key Stakeholders

Time	Activity	Responsible
10:00am - 10:10am	Opening: Introduction of participants	All participants
10:10am - 10:20am	Welcome Remarks	Host State Comm. of Agric
10:20am - 10:30am	Objectives of the meeting	Mission Team Lead
10:30am - 10:50am	Presentation of the VCN Overview & Design Methodology	Mission Team Lead
10:50am – 11:00am	Presentation of the Methodology for Consultation Groups	CPAT Rep
11:00am – 2:00pm	<p>Breakout Groups for Consultation on priority needs (Reflecting on what was used for the VCN)</p> <p>The challenges (needs), opportunities and priorities of the State/region for the Agriculture and Food Systems Transformation</p> <p>Key successes/innovations by IFAD and others to address the identified needs and priorities</p> <p>How to best take into account mainstreaming areas: Gender and Youth, Nutrition, Environment & Climate Change, Financial inclusion, PwDs.</p> <p>How best to strengthen partnership with private sector for support to small scale farmers.</p> <p>How to leverage on ICT4D for development</p> <p>Key Partners needed to scale-up innovations/successes</p>	<p>Focus Groups:</p> <p>Government</p> <p>Farmers</p> <p>Youths</p> <p>Private Sector</p> <p>Women / PwDs</p> <p>To be facilitated by:</p> <p>Consultants, Government & CPAT</p>
2:00pm – 3:00pm	Lunch	
3:00pm – 4:00pm	Feedback from the breakout groups	Participants
4:00pm – 4:30pm	Closing and Vote of thanks	Government, Consultants and the CPAT

Annex 14.2.4: The mission team composition and Calendar of field visits

Team	Team Members	Geo-political Zone	Host States	Participating States	Dates
Team 1	IFAD: 1. Joseph Nganga 2. Francis Nwilene 3. Dorothy Murugu 4. Timothee Tabapssi 5. Donald Yakumbur CPAT: 1. Yusuf Haliru 2. Dr. Chinwe Onyegbula FMAFS: Yerima Alhaji Uba FMF:	North West	Sokoto	Sokoto & Zamfara	Arrival from Abuja 29 th Nov. 2023 Departure back to Abuja - 7 th Dec. 2023
		North West	Kebbi (By Road)	Kebbi only	Travel from Sokoto to Kebbi - 1 st Dec. 2023 Return back to Sokoto 3 rd Dec. 2023
Team 2	IFAD: 1. Samuel Eremie 2. David Ajayi 3. King'ori Wathobio 4. Gbenga Aderemi-Williams CPAT: 1. Engr. Emeka Nwachukwu 2. Saudatu Zahradeen 3. Dr. Ameh Onoja FMAFS: Ibrahim Mohammed FMF:	North West	Katsina	Katsina only	Arrival from Abuja 29 th Nov. 2023 Return to Abuja 4 th Dec. 2023
		North West	Kano	Kano & Jigawa	Arrival from Abuja 4 th Dec. 2023 Departure back to Abuja -7 th Dec. 2023
Team 3	IFAD: 1. Patrick Opono 2. Adebayo Ogunniyi 3. Chiqui Arregui 4. Stephen Waiswa 5. Mayowa Fasona CPAT:	North East	Borno	Borno & Yobe	Arrival from Abuja 29 th Nov. 2023 Departure back to Abuja - 7 th Dec. 2023

	<p>1. Dr. Abdulhameed Girie</p> <p>2. Thomas Yisa</p> <p>NITDA:</p> <p>1. Lukman Lamidi</p> <p>FMAFS:</p> <p>Musa Bukar (DPCU)</p> <p>FMF:</p> <p>Babatunde Adebayo</p>				
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Annex 14.2.5: Responsibilities of Field Team Leaders

A. Field Team Leaders (FTL)

- Team 1 (Sokoto, Kebbi, Zamfara): Timothee (FTL), Francis (Alt. FTL)
- Team 2 (Katsina, Kano, Jigawa): King'ori (FTL)
- Team 3: (Borno, Yobe): Mayowa (FTL), Patrick (Alt. FTL).

B. Courtesy Call Leads

- Team 1 – Joseph
- Team 2 – Sam
- Team 3 – Patrick

C. Responsibilities of field team leaders

- Coordinate the field activities, including the meetings and field visits (In his absence, or where the Team splits during field visits, the FTL appoints an Alt. FTL to coordinate activities).
- In the absence of the Courtesy Call Lead, lead the courtesy call.
- Assign responsibility among Team members to ensure the collection of the primary and secondary information indicated in the checklists/questionnaires. Ensure that most information is obtained directly/discretely by Team members without administering formal questionnaires on the stakeholders.
- Obtain the attendance list of key participants at meetings and other activities for each state, especially, senior government officials and major private sector actors. For FOs, the names and telephone numbers of the EXCO members is sufficient.
- Ensure compliance with UNDSS requirements, especially for Team members not to stay outside their designated hotels outside the mandatory timelines.
- Submit a brief report for each state visited at the Mission Team Reflection meeting in Abuja on 8 November 2023.

Annex 14.2.6: Guiding questionnaire for informants during field visits

1. **FMAFS/States Ministries**
 - **As Is Situation in relation to:**
 - Fragility in general (in the North in particular)
 - Agri food value chain inclusiveness
 - Nutrition, Natural and Environment resources management, climate resilience
 - Social Inclusion (Women and Youth empowerment, people with disabilities)
 - Productivity and market access for farmers
 - Farmers organizations empowerment
 - Working conditions, Child Labor
 - Rural Infrastructure Management and supply chain infrastructure development
 - Rural Community Empowerment
 - ICT4D
 - Other support (subsidies, insurance, financial inclusion)
 - **Key Challenges in relation to policies enforcement**
 - Lessons learnt from initiatives and policies and opportunities.
 - **Key Orientations towards VCN:**
 - Project management,
 - Crops Value chain, targeting criteria (fragility etc...)
 - Others
2. **Federal Ministry of Finance**
 - **Staffing and Organization**
 - Recruitment
 - Relationship with PCU
 - Team Structure
 - Team Trainings
 - **Budgeting**
 - Lessons learnt from other project Budgeting.
 - Budget management process
 - Budget feasibility assessment
 - Process for disbursement arrangement
 - Internal Control system/ Internal Audit system
 - Accounting and Financial reporting management
 - **External audit**
 - **Orientations towards VCN** (Procurement and financial management, audit) etc...
3. **Federal Ministry of Women Affairs**
 - **As Is situation in relation to:**
 - Women empowerment in the country (specifically in North of Nigeria)
 - Involvement/contribution in Communities
 - Involvement in agri food value chain in the North of Nigeria
 - Challenges and opportunity
 - Orientations for VCN project (Better women and youth contribution)
4. **Extensions Services & Research & NIMET**
 - **As Is situation of Services in relation to:**
 - Support to farmers and other value chain actors (Technical Assistance provided)
 - Strategy towards collaboration across VC actors and farmers access to markets
 - Effectiveness and sustainability measurement of initiatives
 - ICT4D opportunity
 - Weather forecasts for the public, businesses, and government agencies
 - Climate information for agriculture, water resources, and disaster preparedness
 - Agrometeorological advisories for farmers

- Hydrological information for environment and water resources management, climate resilience
 - Training and education in meteorology and related fields
 - Research and development in meteorology and climate science
 - **Challenges and opportunity**
 - **Orientations towards VCN project**
- 5. Financial Institutions (rural development)**
- Geographical Coverage in targeted regions
 - Agricultural services portfolio
 - Requirements from farmers and other VC actors
 - Strategy/policy relate to women and youth empowerment, natural and environment resources management.
 - Types of services Offers /portfolio of value chain actors involved.
 - Interest rates/ maximum loan/ existing reimbursement term
 - Human, financial, operational resources Assessment
 - Plan of growth of agricultural services, challenges and opportunity
 - Audit and control system in place
 - Orientations towards VCN project
- 6. Development Agencies (local or International)/Civil Society/NGOs**
- Services Offers
 - Crop value chain Supported.
 - Strategy in relation to fragility, women and Youth empowerment
 - Strategy in relation to natural and environment resources management, climate resilience, Child labour fight, working condition,
 - Orientations towards nutritious value chain
 - Challenges and opportunities for small scale farmers and farmers Organizations, Women and Youth better participation to value chain
 - Existing studies etc...
- 7. CPAT (Country Programme Advisory Team)**
- **As Is situation of targeted regions**
 - Opportunities in relation to crop value chain promotion (nutrition, women and youth sensitivity, etc. environmental and naturally friendly, fragility, etc...)
 - Mapping and profiling of value chain actors in targeted regions
 - Orientations towards VCN
- 8. LGAs/Village Communities:**
- Identity and Governance structure
 - Women and Youth, people with disabilities' participation
 - Rural infrastructure management
 - Services Offers/supports to small scale farmers and farmers organizations etc...
 - Challenges and opportunities
 - Orientations towards VCN
- 9. CASP/VCDP PCU**
- Project management Lessons Learnt (Coordination – Team composition – procurement – activities implementation, sustainability and scaling etc.)
 - Value chain actors mapping and profiling
 - CASP infrastructure sustained after the project
 - Value chain actors' integration (Collaboration and communication system systems)

10. Value Chain Actors (Inputs Dealers – farmers – farmers Organization – Collectors –Large Off-takers - Processing Farms – Transporter – Marketing and Sales entities)

- Organization and Governance
- Women and Youth (participation in decision making, value chain activities)
- Types of services offers
- Services alignment to IFAD policies (food security & nutrition, women and Youth sensitiveness, NERM, climate resilience, working condition, sustainability, etc...)
- Procurement (suppliers base and quality control) & financial strategy in place
- Productions (requirements, Yields and quality and safety control system, IFAD policies)
- Processing (requirements, Efficiency and quality and safety control system, IFAD policies)
- Post harvest activities evaluation (storage, transportation, IFAD policies etc...)
- Selling price (Customer requirement, NERM, quality and safety control)
- Management system (data etc.)
- Key challenges identification
- Plan for growth and opportunities
- Support from Government
- Participation in Value Chain collaboration (Association, Alliances etc...)
- Orientations towards VCN (choice of crops, etc...)

11. ICT4D (operators etc...)

- Digital Finance access opportunity (Financial Institutions maturity) and challenges
- Digital access to information (price, customer, training, weather & campaign Alerts, demand, supplies, etc...) opportunity (Extension services support, Research Organizations, Online platform, Telcom Operators, etc...), Challenges and key success factors
- Collaboration with NIMET, research and development Organizations

Time	Activity (Physical/virtual meeting)	Responsible
9.00-9.15	<ul style="list-style-type: none"> ● Introductions/ welcoming remarks ● Remarks by AFD 	<ul style="list-style-type: none"> ● IFAD CD ● AFD Rep.
9.10-9.20	<ul style="list-style-type: none"> ● Summary of rationale for IFAD and AFD involvement 	<ul style="list-style-type: none"> ● Samuel Eremie
9.20-.9.30	<ul style="list-style-type: none"> ● Summary of Lessons Learned 	<ul style="list-style-type: none"> ● Stephen Waiswa
9.30-.9.40	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
9.40-10.10	<ul style="list-style-type: none"> ● Project objectives, geographic area of intervention and target groups 	<ul style="list-style-type: none"> ● Chiqui Arregui
10.10-10.40	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
10.40-11.05	<ul style="list-style-type: none"> ● Coffee Break 	<ul style="list-style-type: none"> ● All
11.05-11.30	<ul style="list-style-type: none"> ● Summary of Components/outcomes/activities 	<ul style="list-style-type: none"> ● Samuel/ All
11.30-12.00	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
12.00-12.30	<ul style="list-style-type: none"> ● Summary Theory of Change and Logical Framework 	<ul style="list-style-type: none"> ● Ndawa Kaluwa
12.30-13.00	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
13.00-14.00	<ul style="list-style-type: none"> ● Lunch Break 	<ul style="list-style-type: none"> ● All
14.00-14.20	<ul style="list-style-type: none"> ● Summary of Alignment, ownership, and partnerships 	<ul style="list-style-type: none"> ● Samuel Eremie
14.20-14.30	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
14.30-15.00	<ul style="list-style-type: none"> ● Summary of Costs, benefits and financing 	<ul style="list-style-type: none"> ● Davis Atugonza/ Austin Tatab
15.00-15.20	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
15.20-15.30	<ul style="list-style-type: none"> ● Summary of Exit Strategy and Sustainability 	<ul style="list-style-type: none"> ● Mayowa Fasona
15.30-15.40	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
15.40-16.00	<ul style="list-style-type: none"> ● Project Risks and mitigation measures 	<ul style="list-style-type: none"> ● Franklin/Austin/ Mayowa
16.00-16.15	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
16.15-16.30	<ul style="list-style-type: none"> ● Summary of Project management and coordination 	<ul style="list-style-type: none"> ● Samuel/Timothee
16.30-16.40	<ul style="list-style-type: none"> ● Reflections/ Q&A 	<ul style="list-style-type: none"> ● All
16.40-17.10	<ul style="list-style-type: none"> ● Summary of Financial Management, Procurement and Governance 	<ul style="list-style-type: none"> ● Austin/Franklin

17.10-17.30	● Reflections/ Q&A	● All
17.30-17.45	● Summary of Planning, M&E, Learning, KM and Communication	● Ndawa
17.40-17.50	● Innovation and scaling up	● Stephen
17.50-18.10	● Reflections	● All
18.10-18.30	Conclusions/way forward	● CD

Annex 14.4: Wrap-up Meeting of VCN Design

Agenda

Official Wrap-up Workshop of the Value Chain North Project Design Barcelona Hotel, Wuse II - Abuja 14 December 2023		
Time	Activity (Physical/virtual session)	Responsible
9.00-10.00	● Registration / coffee	● ICO
10.00-10.30	Official Remarks: ● Mrs. Dede Ekoue , Country Director, IFAD Country Office, Abuja ● Mr. Xavier Muron , Country Director, Agence Francaise de Developpement ● Dr. Adebayo Babatunde , Deputy Director, International Economic Relations Department (IERD), Federal Ministry of Finance, Abuja ● Official opening speech: Mr. Musa Bukar , Director Projects Coordinating Unit (PCU), Federal Ministry of Agriculture and Food Security (FMAFS), Abuja.	Moderator - Yusuf
10.30-10.40	● Group photo	● Moderator
10.40-11.00	● Coffee Break	● ICO
11.00-12.00	● Presentation on proposed key features of the design -VCN outlook	● Samuel Eremie/ Design Team
12.00-1.00	● Reflections and Q&A	● All
1.00-1.10	● Next steps for the design	● Joseph Nganga
1.10-1.30	Closing remarks: ● Mr. Musa Bukar , Director PCU, FMAFS, Abuja ● Mr. Adebayo Babatunde , Deputy Director, Federal Ministry of Finance, Abuja ● Xavier Muron , Country Director, AFD ● Mrs. Dede Ekoue , Country Director, ICO, Abuja	● Moderator
1.30-2.30	● Lunch and departure	● ICO

Presentations



Final 13122023 VCN
PROJECT KEY FEATU



Final 13122023 VCN
Next Steps (1).pptx

Participants

Wrap-up

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 14 DECEMBER, 2023 AT BARCELONA HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
AFD									
	Mr Xavier Muron	Country Director	Abuja				<i>xmuron@afd.fr</i>	0803 000 2342	<i>Xmuron</i>
	Ms Sally Abdo Abdallah Ibrahim	Project Manager	Abuja				<i>abdoabdallahibrahim@afd.fr</i>	-	<i>Sally</i>

Wrap-up

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 14 DECEMBER, 2023 AT BARCELONA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
VCDP									
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2	VERA ONYEKA ONYILO	KMCA	ABUJA	F		✓	<i>v.onyeka@vcdp.org</i>		<i>Vera</i>
3	KEHINDE OLAMIDE ODUNTAN	KM Asst.	ABUJA	F		✓	<i>kehindeolam@yaho.com</i>	08023527052	<i>Kehinde</i>
4	IDODE KAYODE A.	MIS	ABUJA	M		✓	<i>kayode@yaho.com</i>	08052197203	<i>Idode</i>
5	ALHASSAN ABRAHAM	ADMIN. ASST.	ABUJA	M		✓	<i>alhamanabraham@yaho.com</i>	0805497749	<i>Alhaman</i>
6	GONI MALAH JERUS	KMC-LIFEAD	ABUJA - Rivers	M		✓	<i>jerus@life-ad.org.ng</i>	08085038802	<i>Goni</i>

Wrap-up

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 14 DECEMBER, 2023 AT BARCELONA HOTEL ABUJA										
S/NO	NAME	Ministry/Agency	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
						Below 35	Above 35			
FGN										
32	Mr Bukar Musa	FMAFS	PCU Director	Abuja	M		✓ <i>bukar.musa@fgn.gov.ng</i>	08080333984	<i>Bukar</i>	
33	Mr Yerima Alhaji Uba	FMAFS	Deputy Director FDA	Abuja	M		✓ <i>yerimahalhaji@fmafs.gov.ng</i>	08080333984	<i>Yerima</i>	
34	Mr Ibrahim Muhammad	FMAFS	Deputy Director P&PC	Abuja	M		✓ <i>mohtakai2@gmail.com</i>	08080333984	<i>Ibrahim</i>	
35	Mr Adebayo Babatunde	FMF	Deputy Director	Abuja	M		✓ <i>tundeadebayo@fmf.gov.ng</i>	08080333984	<i>Adebayo</i>	
36	Ms Munet Sadiku	FMF	AO Director IERD	Abuja					<i>Munet</i>	
37	Mr Goodluck E. Ugwu	FMF		Abuja					<i>Goodluck</i>	
38	Mr Joshua Okpata	OVP	Technical Advisor	Abuja	M	✓	<i>josh.okpata@gtinnovation.io</i>		<i>Joshua</i>	
39	Dr. Ugo Ugo	AI D	PARTECH	Abuja	M	✓	<i>ugougo@partech.com</i>		<i>Ugo</i>	

Wrap-up

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 14 DECEMBER, 2023 AT BARCELONA HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
CPAT									
32	Dr Onoja Ameh	Lead Advisor	Abuja					0803497725	<i>Onoja</i>
33	Thomas Yisa	VCDP Liaison Officer/Logistics Team Member	Abuja	M			<i>yisathomas@jalisco.com</i>	07050392568	<i>Thomas</i>
34	Yusuf Haliru	Financial Inclusion Advisor	Abuja						<i>Yusuf</i>
35	Dr. Chinwe Onyegbula	LO	Abuja	F		✓	<i>chinweon@cpat.org</i>	0803951024	<i>Chinwe</i>
36	Engr. Emeka Nwachukwu	LO	Abuja	F		✓	<i>emekaw@cpat.org</i>	08063957359	<i>Emeka</i>
37	Saudatu Zahadeen	GYS	Abuja	F		✓	<i>zsaudatu@gmail.com</i>	08055708032	<i>Saudatu</i>
38	Dr. Abdulhameed Girei	MOLEX	Abuja	M		✓	<i>agirei@gmail.com</i>	08055499186	<i>Abdulhameed</i>
39	Timothy Bala	Accountant	Abuja	M		✓	<i>bala.timothy@yaho.com</i>	08163524555	<i>Timothy</i>

Wrap-up

ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 14 DECEMBER, 2023 AT BARCELONA HOTEL ABUJA									
S/NO	NAME	RANK	DUTY STATION	GENDER	AGE GROUP		EMAIL	PHONE	SIGNATURE
					Below 35	Above 35			
SAPZ									
39	Dr Kabir Yusuf	NPC	Abuja						<i>Kabir</i>
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WRAP-UP
ATTENDANCE FOR OFFICIAL LAUNCH OF VCND DESIGN MISSION WORKSHOP 14 DECEMBER 2023 AT BARCELONA HOTEL ABUJA

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WRAP-UP
ATTENDANCE FOR OFFICIAL LAUNCH OF VCN DESIGN MISSION WORKSHOP 14 DECEMBER 2023 AT BARCELONA HOTEL ABUJA

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WRAP-UP
ATTENDANCE FOR OFFICIAL LAUNCH OF VCND DESIGN MISSION WORKSHOP 14 DECEMBER 2023 AT BARCELONA HOTEL ABUJA

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Annex 14.5: Consultations at Technical Validation Workshop 21 March 2024 Highlights from the VCN Project Validation Workshop

1. Opening

- The workshop started with introduction remarks from the Country Director, IFAD Country Office, Nigeria – Ms. Dede Ekoue.
- Commissioners of Agriculture and Finance from the potential VCN states (Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara) introduced themselves.
- Also, the Deputy Director, International Economic Relations Department (IERD), FMF – Mr. Adebayo Babatunde and the Director, Planning and Policy Coordination, FMAFS – Mr. Ibrahim Tanimu, represented by the Deputy Director, Collaborative and Partnership, FMAFS – Mrs. Okuboere Mukah gave their introduction remarks.
- The VCN Design Team Lead, Dr. Eremie made the presentation of the Synopsis of the VCN and the recommendations below were made by both the Federal and State Governments to be effected in the Draft PDR.
- The Director, Planning and Policy Coordination, FMAFS – Mr. Ibrahim Tanimu, represented by the Deputy Director, Collaborative and Partnership, FMAFS – Mrs. Okuboere Mukah called for the validation of the Draft PDR and it was validated by the Government
- The Country Director, IFAD Country Office, Nigeria – Ms. Dede Ekoue, appreciated the Government, and the leadership of VCDP, LIFE-ND and SAPZ for their cooperation with IFAD and emphasized IFAD’s commitment to supporting and strengthening the Food System Transformation Agenda of Nigeria through the smallholder farmers.
- The workshop continued with development partners joining to discuss Potential Pathways for Partnership and Synergy on the VCN Project as can be seen below.

2. Key Recommendations to be Updated in the Draft PDR

1. Leveraging lessons learned to strengthen programme management, this can be done in 2 ways in addition to reflection in the VCN document;
 - i. Integrate in the PIM the strategies taking into account the lessons learned from successes and challenges of past programme
 - ii. Integrate lessons learned as well as strategies that take them into account, such as lead implementation agencies; oversight institutions at federal and state levels and FOs (FSA and CDAs).
2. The design follows a socially inclusive perspective. However, the percentage presented does not allow for good understanding of the structure. Recommendation is to present the percentages as follows;
 - a) 40% of all beneficiaries are women, out of this;
 - i. 15% are women headed households
 - ii. 10% are married women
 - iii. 15% are female youth
 - b) 60% represent male group out of which;
 - i. 15% are male youth
 - ii. 45% other males
 - c) 30% are youth, which;
 - i. 15% are female youth
 - ii. 15% are male youth
 - d) Across all the beneficiary groups, 10% will be PWDs.

This presentation is to allow an easy understanding of the structure of the VCN target group.

3. Ensure there is policy and programmatic support to ensure legal registration of FOs such as CDAs, FSAs, CAFs. This will be important to strengthen the voice and influence as planned in the project under subcomponent 2.4. It will also be important to boost the capacity of FOs to form partnership with public and private sector as indicated in subcomponent 2.2.
4. It is important to integrate insecurity linked to criminality (banditry and terrorism) in subcomponent 2.4, section 3 on supporting fragility and conflict management. Recently, the insecurity seems to lead to major displacement for both farmers and herders, therefore compromising food security.
5. Paragraphs 11 and 106 should include National Digital Agricultural Strategy (NDAS), while National Information Technology Development Agency (NITDA) be included in paragraph 13 considering the importance given to digitalization. In paragraph 122, include registration of FOs as you remove "secondment" in the last sentence which reads – All recruitments and secondment to the NPCO shall be subject to IFAD No Objection".
6. Integrate number of FOs registered as a key result for the log frame.

3. Validation

Following the discussions, the VCN document was validated with the recommendation to include the proposed amendments. The validation was confirmed by Federal Ministry of Agriculture and Food Security in the presence of Honorable Commissioners of Agric and finance of the states.

The United Nations Resident Coordinator's Office

- Key outcomes in the area of agriculture include improving food security and productivity.
- IFAD should leverage what other UN agencies are doing in agriculture.
- Partner with governments at all levels for sustainability.
- Form partnerships with development partners for effective implementation.
- There's a need to mainstream peace outcomes.
- IFAD should tap into FAO's peace work and UNDP's climate change efforts.
- Connect internally displaced persons (IDPs) in the PDR to the UN Secretary-General's Agenda on IDPs.
- Leverage conflict advisers in the UN for advice.
- Strengthen community-based agencies for sustainability.

Food and Agriculture Organization (FAO)

- FAO has a presence in most of the VCN states in Nigeria for effective collaboration.
- Conduct a thorough mapping of key stakeholders and development partners to understand their interests and try to meet them.
- Know the work plans of states as they align with the Food System Agenda and try to incorporate them into the VCN.

United Nations Industrial Development Organization (UNIDO)

- UNIDO works in the areas of food post-harvest handling and processing, which are key areas of collaboration with IFAD.
- Collaborate to transition farmers from subsistence farming to commercial farming.
- Assist in moving farmers from production to processing, packaging, maintaining best practices, and achieving international marketing standards.

Heifer International

- Support efforts to reduce food importation in Nigeria.
- Collaborate in strengthening the productivity and resilience of farmers.
- Support the adoption of climate-smart agriculture practices.
- Enhance mechanized farming by supporting individuals and organizations to own and service tractors.
- Build the capacity of farmers and support them with post-harvest management without using preservatives.
- Reduce the burden on women in agriculture through mechanization.

United Nations Children's Fund (UNICEF)

- UNICEF has a presence in some of the VCN states for effective collaboration.
- Facilitate discussions between IFAD and IITA in developing value chains around aflatoxin-free peanuts.
- Support backyard gardening, particularly in households with children under 2 years of age.
- Emphasize the need for collocation of interventions.
- Utilize State Committees for Food and Nutrition for coordination of nutrition interventions.

African Development Bank (AfDB)

- Partner with IFAD in the area of climate change, focusing on irrigation and tree planting.
- Provide capacity development in tree planting and necessary resources for implementation.

- Wheat extension to cover other value chains on the National Agricultural Growth Scheme (NAGS) project

United Nations Women

- Support women to own and have access to land.
- Integrate gender responsive extension services.
- Collaborate to strengthen advocacy for policy reforms.
- Advocate for women's entrepreneurship.
- Collaborate on the Buy from Women digital solution

World Food Programme (WFP)

- WFP has a presence in all VCN states for effective collaborations.
- Collaborate with IFAD to off-take produce from smallholder farmers.
- Support in protecting smallholder farmers from climate shocks.

Global Centre on Adaptation (GCF)

- Provide knowledge analytics.
- Support in the area of value chain analytics.
- Assist in conducting risk assessments and evaluating the climate change vulnerability of value chains.
- Develop an investment needs analysis.

IITA/Zero Hunger

- Collaborate on digital innovations in agriculture extension and mechanization.
- Support in the area of climate change with a weather calculator.
- Mobilize support from the Consortium of International Agricultural Research Centers (CGIAR) project.

Participants



List of participants
at Technical Validati



List of participants
at Technical Validati

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex: Annex 15 Relevant IFAD Documents

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 15: Relevant IFAD Documents

CASP Programme Completion Report



CASP PCR.pdf

IOE Sub-regional evaluation of countries with fragile situation in IFAD-WCA



IOE Sub-regional
evaluation of count

Assessment of gender fragility for value chain north



Gender Assessment
of Fragility Studies \

Nigeria COSOP Completion Review

Nigeria [COSOP](#) Completion Review

Impact of global inflation and Russia-Ukraine War Nigeria

Impact of [Russian](#)-Ukranian War

RBAs Report Impact of COVID-19 Nigeria



RBA's Report
Impact of COVID-19

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: PDR OSC Compliance Note VCN

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Compliance of the draft Value Chain Program in Northern Nigeria Project Design Report (PDR) with with OSC Decision Memo

S/N	OSC Requirement	VCN PDR Provisions	Conclusion/Recommendation
1	<p>Fragility and Programme approach: The OSC noted the fragile context and the intention of the programme to address the drivers of fragility and asked for more clarity on how this would be addressed by the programme. In this regard, the OSC stressed the importance of clearly outlining the implementation approach to be adopted by the programme, highlighting the role of women and youth as entry points in fragile situations, and ensuring that the fragility lens would not be lost during the full design. The OSC further underlined the importance of identifying potential security risks and noted that the IPRM would be a key document during programme implementation.</p> <p>Given the fragile context, the OSC also recommended to the extent possible to simplify the activities while still respecting the theory of change.</p>	<p><u>Addressing the drivers of fragility</u> Paragraph 21 - Successful partnership with government and farmers organizations (FOs) in inclusive nutrition-sensitive climate-resilient VCs and responses to fragility; results and knowledge from CASP to address the root causes of the fragility drivers.</p> <p><u>Role of women and youth as entry points in fragile situations</u> Paragraph 9 and 10 of page 3 PDR (part of the lessons learned) - Targeting youth. Targeted young beneficiaries were able to mitigate the effects of fragility drivers by diversifying and growing their economic activity. The increased income the youth got helped reduce youth migration, crime, and vandalism. This lesson is supported by the lesson at VCN design that Youth empowerment through entrepreneurship interventions shows prospects of keeping youth in agriculture. VCN will support youth entrepreneurship.</p> <p>Paragraph 18 Page 4 of the PDR, VCN will address the high levels of poverty, vulnerability, food and nutrition insecurity, climate shocks, and social and financial inclusion challenges that affect SHFs, women, youth and vulnerable groups in the fragile northern Nigeria states. Embedding gender and social inclusion, nutrition, and environment and climate change in all the components, VCN aims to support the target groups (including women, youth and PWDs) to overcome the above challenges through three interlinked impact pathways: (1) fostering climate-resilient and nutrition-sensitive production; (2) enhancing inclusive and profitable inclusion of target groups in VC; and (3) promoting an enabling and inclusive policy/institutional framework and mechanisms for conflict management at the local level.</p> <p>Paragraph 36 page 9 of the PDR - Addressing fragility. Considering the significant influence of the fragility context in northern Nigeria for effective programme implementation, VCN design integrates fragility response into all the components, and will address the root causes of fragility, leveraging existing policies and institutions, and employing innovative methods that ensure gender inclusion and empowerment within the agricultural sector. The Technical Note on “Assessment and Strategies for Promotion of Gender Equality through Support to VC and Food Security in Northern Nigeria in the Context of Fragility and Conflict” provides guidance for integrating fragility into VCN, while measures to reduce fragility risks are presented in Annex 10. The</p>	<p>Aligned with OSC requirement</p>

		<p>social management plan of the Social Environmental Climate Assessment Procedures (SECAP) and the Environmental, Social and Climate Management Framework (ESCMF) have recommended mitigation measures for fragility and resource conflicts, access to land, and gender inequality and social exclusion issues which often create instability and displacement of people. The measures include: setting up and strengthening the commodity alliance forum (CAF) to manage conflicts; support regular dialogue on conflicts and land policy, and using access to land for women and youth as precondition for community participation; promote more women-friendly activities and women only groups, mainstream the GALS strategy; and ensure that PWDs are given priority in the businesses that suit their conditions. A Response to Emergency and Disaster (RED) subcomponent has also been included in VCN to mitigate fragility impact.</p> <p><u>Insecurity risk</u></p> <p>Paragraph 108 page 27 of the PDR highlights the follow - The social risk is also Substantial across the states due to insurgency, banditry, and kidnapping by non-state actors, as well as resource conflicts (especially between farmers and pastoralists) and related threats to human security.</p> <p>Section 3.9 Risks and Risk Management and presented in more detail measure to address the insecurity risk. In addition, Annex 10 provides guidance to be followed during the implementation of the programme to address insecurity risk - Integrated Project Risk Matrix (IPRM).</p> <p>In addition, the Programme Implementation Manual provides some guidance. For example, at page 47, the PIM recommends to “Identify alternative locations/communities to guarantee safety of project staff in case of insecurity in the chosen project location/ community and monitor security situation shift dynamics based on advice from the UN system and local security agencies” and at page 102, the PIM also recommends full deployment of ICT4D opportunities to manage fragility and insecurity.</p> <p><u>Simplifying activities while remaining compliant with the theory of change</u></p> <p>The VCN will promote simplified best practices as reflected in Paragraph 11. simple sustainable land management (SLM) technologies. VCN will prevent complexities by promoting activities that can be successfully implemented through local farmers organisations and community development associations, by revisiting the success achieved by the success of Financial Saving Associations, communities development associations) by extending best practices implemented in north central from VCDP such promoting climate-resilience technologies (e.g. safe chemical spraying and conversion of waste to wealth) to offer livelihood opportunities for youth. CASP helped pilot successful digital extension using radio and non</p>	
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		<p>USSD code to address fragility. VCN will build on this experience to scale up technologies that have been proven simple and successful for farmers to simplify farmers access to services even in time of limited mobility and to enhance efficiency and impact of all the activities.</p> <p><i>the ICT4D Technical Note</i> in annex highlights how digital solutions will be used to support Production and Productivity Enhancement through a) The e-Extension applications indicates the widening ratio of Extension Officers to the farmers, also the fragility issues call for the use of e-Extension solutions (translated in local languages and commodity specific) to be deployed through mediums like digital applications (e.g Rice Advice, Farm Monitor), radio and TV stations, SMS and USSD codes, voice notes, community volunteers/champion farmers.</p> <p>Paragraph 101 mentions how for states suffering from conflicts or fragile situations .the Simplified Project Procurement Procedures for Fragile and Conflict Affected Situations FCAS might be applied as per Project Procurement Arrangement PPA letter.</p>	
2	<p>Nutrition and Value chain selection: The OSC noted the high levels of poverty and malnutrition in Nigeria, and especially in the north of the country where VCN would be implemented. Hence, the OSC emphasized the importance of addressing nutrition through the value chain selection, ensuring that nutrition sensitive crops be identified. In this regard, the OSC questioned whether the preliminary crops identified in the PCN would be able to adequately address the high levels of malnutrition. The OSC also stressed the importance of considering gender and youth in the value chain selection, striking a balance between profitability, food and nutrition security and the inclusion of women and youth.</p>	<p><u>Addressing nutrition through the selection of nutrition sensitive value chain selection such as staple crops, fruits and vegetables</u></p> <p>Paragraph 30 – A robust crop selection approach developed during the design of VCN, involved: incorporation of the FMAFS, State crop strategies, field consultations, and mainstreaming themes; development of criteria including, importance to food security and nutrition, market orientation, and potential for inclusion of target groups, and weights for scoring of the VC crops; and development of a potential crops basket with a mix of: Staple crops for food security (Sorghum, Maize, Rice or Millet), Cash crops for incomes (Cowpeas, Sesame, Groundnuts or Soyabean), and Horticulture crops to improve dietary diversity and health (Fruits, Vegetables).</p> <p>For effectiveness, VCN will support a maximum of seven crops, with flexibility for each state to prioritize a maximum of five crops based on its fragility context and comparative advantage.</p> <p><u>Importance of considering gender and youth in the value chain selection</u></p> <p>The technical note highlights that nutrition, women and youth inclusiveness, environment and climate resilience were the highest rated among the value chain selection criteria with all of these criteria given each the maximum rate of 5 followed by market orientation with a maximum rate of 4; and high market value with the rate of 3.</p> <p>Paragraph 41 - Promotion of nutrition sensitive VC crops through the selection of the crops with the highest nutrition advantage for each state; Promotion of market-oriented nutrition sensitive approaches,</p>	Aligned with OSC requirement

		<p>including: supporting cottage/community level small-scale food Enterprises (SFEs); development of commodity aggregation centres for nutrition (N-CACs) to facilitate ease of supply to the SFEs; and exploring market linkages for highly demanded nutritious commodities such as the Tom Brown complementary food; Gender sensitive social behavior change communication (SBCC) and nutrition education on dimensions of food consumption, and applying nutrition sensitive GALS tools to strengthen the role of gender dynamics at HH level; Promotion of context appropriate homestead food production, for nutrient rich vegetables, tubers, fruits and food trees, and support with small livestock (goats, sheep, local chickens) starter packages targeting very poor women.</p>	
3	<p>Gender: The OSC sought clarity on whether the programme aimed to be validated as gender transformative. This was confirmed by the PDT. The OSC discussed the challenging situation for women and the significant gender gap in agricultural production. In this regard, it was noted that particular attention should be given to value chain selection, addressing the constraints related to women’s access to land, and identifying key entry points for policy dialogue. The OSC also recommended to consider gender action labs, in particular with regard to addressing gender dynamics at the household level, and to further reflect on how the gender action labs approach will be applied and the mechanisms to be integrated in the design. Finally, the OSC recommended some caution at the portfolio level with regard to gender targets.</p>	<p>Para 30 page 8 of the PDR indicates the VCN priority chains include sorghum maize millet (FOOD SECURITY), cowpeas, sesame and ground nut and soybeans (Cash crop) horticulture fruits and vegetables, which each state will select a maximum of 5 value chains for effectiveness Paragraph 41 page 10 indicates that the VCN will support small livestock for very poor women with starter packages.</p> <p><i>This selection of gender sensitive value chains is based on the analysis of women participation and constraints and opportunities in various value chain. The conclusion of this analysis summarized in annex 12.10 Markets and Values chains which indicates the following:</i></p> <ul style="list-style-type: none"> - Traditionally, Cowpeas, groundnuts, Sesame, are crops where it is observed high participation of women from all stages of the value chain. Besides, these three products have respectively combination of higher market demand, and higher value market. - In addition, Youth and women have entrepreneurship opportunities in production (depending on the crop sensitivity. For example, small ruminants), and mostly can gain benefit from off farms activities such as processing (cereals milling, Oil extraction, – seeds multiplication etc...), Services (extensions services – farmers field schools – retail and transport), crop residue management (e.g animal feed, briquette). <p><i>In addition, Paragraph 41</i> under subcomponent 1.2 related to nutrition and gender awareness highlights as one of the priorities of VCN, the “promotion of context appropriate homestead food production, for nutrient rich vegetables, tubers, fruits and food trees, and support with small livestock (goats, sheep, local chickens) starter packages targeting very poor women”.</p> <p><u>Women access to land and identifying key entry points for policy dialogue.</u></p> <p><i>The executive summary paragraph 12</i> under Subcomponent 2.3. Promoting entrepreneurship for women and youth indicated that VCN will target 4,000 rural women and youth who are not integrated in FOs and whose access to land is limited, for training and</p>	Aligned with OSC requirement

		<p>support with business packages for entrepreneurship. The activities under the subcomponent include Promote entrepreneurial activities in all stages of the supported VCs; and Capacity building and training activities with VCN support for start-up capital.</p> <p>Paragraph 35 - The social management plan of the Social Environmental Climate Assessment Procedures (SECAP) and the Environmental, Social and Climate Management Framework (ESCMF) have recommended mitigation measures for fragility and resource conflicts, access to land, and gender inequality and social exclusion issues which often create instability and displacement of people. The measures include setting up and strengthening the commodity alliance forum (CAF)/ Community Development Associations (CDA) to manage conflicts; support regular dialogue on conflicts and land policy, and using access to land for women and youth as precondition for community participation; promote more women-friendly activities and women only groups, mainstream the GALS strategy; and ensure that PWDs are given priority in the businesses that suit their conditions. A Response to Emergency and Disaster (RED) subcomponent has also been included in VCN to mitigate fragility impact.</p> <p>Page 12 of the PDR under Subcomponent 2.4 aims at “promoting an enabling policy and institutional framework, aims to strengthen territorial dialogue spaces, and facilitate inclusive processes to identify policy/regulation issues affecting the target VCs. The activities under this subcomponent include: (a) Advocacy with relevant government, sector, and traditional authorities at the federal, state and LGA levels to support women and youth equitable access to land”</p>	
4	<p>Institutional Capacities: Given the fragile context and the intended implementation approach of addressing the drivers of fragility, the OSC stressed the importance of ensuring that implementing partners be identified during the design, clarifying their role and ensuring that they would have the required institutional capacities. The OSC also recommended to conduct an institutional gap analysis and to ensure that lessons from CASP be integrated.</p>	<p>A high level analysis institutional capacity gap analysis of institutions and platforms has been done through the SWOT analysis to propose strategies for leveraging their strengths and address their challenges. These institution and community based and FO driven platforms have been partners for CAPS in north providing a better understanding of the challenges they face and the opportunities. Risk mitigations measures have already been included in the PDR (IPRM) taken into account their challenges and the fragility context Before implementation , an in-depth institutional capacity will be conducting to facilitate the fine tuning in a participatory manner of capacity building strategies building on CASP lessons learned and best practices across the portfolio. Annex table 2, this table provides organizational capabilities matrix the key file table 5 project actors and key role provides principal institutions involved, supporting institutions and other possible partners in execution for each major subcomponent of the project . Paragraph 21 page 5 of the PDR highlights institutional capacity Promote social cohesion by facilitating conflict</p>	<p><i>Aligned with OSC requirement and full institutional capacity gap will be done before implementation</i></p>

		<p>resolution; strengthen institutional capacity, governance and inclusivity in FOs, CDA/CAFs and other rural institutions, to ensure a functioning inclusive dialogue space, and identify regulatory and policy matters affecting targeted VCs, in particular inclusion of rural women, youth and vulnerable groups; leverage on the CDA/CAFs for the management of conflict and fragility; support dialogue to improve policies and their enforcement on nutrition, gender, and support to youth, and facilitate the development of frameworks that enable women and youth to access land for production purposes; and provide institutional support to enhance existing extension services, including the use of digital technologies for e-extension.</p> <p>Community-based institutions will be adapted for VC development based on CASP experience. CASP successfully mobilized the community development associations (CDAs) and the financial services associations (FSAs) for community cohesion and voice, and to facilitate access of the community agribusinesses to financial services and entrench a culture of agribusiness. VCN will strengthen and use these community institutions.</p> <p>Section 1.4 Portfolio and Lessons Learned captures the lessons learned under CASP. These lessons are leveraged across the PDR.</p> <p>A complementary study on the current state of FOs and rural institutions for VCN targeting. This will be a roadmap for mapping, profiling, developing, and strengthening of CDAs, FOs, FSAs and CAFs, all these important institutions, which will be crucial to the sustainability of VCN's intervention</p>	
5	<p>Lessons Learned: The OSC noted that a number of lessons emerged during the OSC discussion of the new Nigeria COSOP and recommended that they be considered in the design of VCN, including with regard to targeting, KM, and integrating risks. The OSC also recommended to strengthen the section on lessons learned and further integrate lessons from CASP, including on natural resource management, as well as from the portfolio at large, from IOE, as well as from RIA's impact</p>	<p>Section 1.4 Para 7 page 2 of the PDR Portfolio and Lessons Learned captures the lessons learned under CASP. These lessons are leveraged across the PDR, from targeting, knowledge management, risk management, resource management . to portfolio management. Under para 7 after along the VC. <i>With regards to achieve higher income, RIA's impact assessment of VCDP indicates that "efforts to capitalize on enhanced productivity to achieve higher income will likely require greater investments in increasing access to market among beneficiaries. Leveraging the lessons learnt from the RIA's VCDP assessment (page 46), VCN will build VCDP "innovative intervention which include CAF, engaging farmers with off-takers, promoting seed entrepreneurs, and developing financial products targeted towards farmers' needs, that take institutional initiatives</i></p>	<p><i>Aligned with OSC requirement</i></p>

	<p>assessment of the Value Chain Development Programme.</p>	<p><i>beyond training and input provision to address market failures.” RIA mentions these interventions are critical to ensure engagement of FOs with value chain actors, and likely to exert long-term impacts that may take several years to materialize.</i></p> <p>..</p> <p>Also, IOE recommendations were taken into account for example, regarding Targeting and gender. Priority must be given to gender transformation through the Gender Action Learning System (GALS) approach and targeting gender sensitive VCs in page 3 para 9 of the PDR.</p> <p>Paragraph 9 - Targeting and gender: Priority must be given to gender transformation through the Gender Action Learning System (GALS) approach and targeting gender sensitive VCs. This COSOP lesson will be reinforced with the following: (i) Appropriate targeting is an enabling factor for achieving results in fragile contexts; and (ii) Use of the GALS methodology and women-only groups positively impacts gender equality and women’s empowerment (GEWE). VCN will target: CASP-supported states to consolidate successful interventions, and include Kano State for markets for the VCs, and VC crops that meet the programme objectives of climate sensitivity, targeting women and youth, and nutrition value; and use women-only groups and the GALS methodology for GEWE.</p> <p>Paragraph 10 - Targeting youth: Targeted young beneficiaries were able to mitigate the effects of fragility drivers by diversifying and growing their economic activity. The increased income the youth got helped reduce youth migration, crime and vandalism. This lesson is supported by the lesson at VCN design that Youth empowerment through entrepreneurship interventions shows prospects of keeping youth in agriculture , . VCN will support youth entrepreneurship.</p> <p>Paragraph 13 - VCN will use the RAAMP experience of remotely monitoring the project’s progress in crisis affected areas, and develop a digitized MIS-based M&E system that will routinely monitor outputs and outcomes attributed to the Theory of Change, coherent with the KM function and adequately funded through a dedicated budget for M&E/KM activities and capacity building</p>	
6	<p>SECAP and People with Disabilities (PWDs): The OSC commended the PDT for the comprehensive situation analysis in the SECAP and encouraged the team to use the SECAP as a design tool for targeting interventions. The PDT was also requested to consider PWDs and to include specific targets for this</p>	<p>Page 1 Para 2 <i>The programme development objective (PDO) is to improve food and nutrition security and income of the households (HHs) through inclusive and sustainable value chain (VC) development as an enabler for rural transformation, targeting women, youth and people with disabilities (PWDs).</i></p> <p>Page 7 under section 2.2 Targeting Strategy, <i>the programme’s targeting strategy involves geographic targeting, direct beneficiary targeting and VC assessment. VCN targeting will be pro-poor and</i></p>	<p><i>Aligned with OSC requirement</i></p>

	<p>group. ECG offered its support to the team with regard to the design of targeted activities for PWDs.</p>	<p><i>responsive to the specific capacities and needs of target and social groups to be reached. Paragraph 40 PDR. Additional targeting measures. VCN will target one person per HH. Representatives of all the target groups ((including youth, women, PWDs and IDPs) will be involved in all stages of the project cycle (project launch, mobilization, beneficiary selection, implementation of activities and M&E) in the target sites.</i></p> <p>Executive summary, under Mainstreaming Themes para 2, the VCN will specifically target women, youth and PWDs (40%, 30%, and 10% respectively); programme opportunities, quotas, application processes and requirements will be made known in target locations through communications that reach target groups.</p> <p>Paragraph 35 – ensure that PWDs are given priority in the businesses that suit their conditions.</p> <p>Para 38 page 10, Inclusion of PWDs and returning IDPs, to access agricultural inputs through a one-time in-kind seed and fertilizer input distribution and training on GAP.</p> <p>Three pathways for targeted PWDs:</p> <ol style="list-style-type: none"> 1. Involvement of PWDs in condition-appropriate VCs in adapted activities (para 38) 2. Income generating activities that these groups commonly engage in and / or that they aspire to be involved in. (para 41) 3. Involvement of PWDs care givers in any of the project activities (when the disability does not allow direct involvement in productive activities) (page 182) 	
7	<p>Co-Financing: The OSC noted that international co-financing was foreseen from AFD. The PDT assured the OSC that the co-financing had been confirmed and that AFD was co-designing the programme with IFAD. Moreover, the PDT emphasized that the co- financing provided an opportunity to finance complementary studies and further identify information gaps.</p>	<p>Paragraph 56- <i>The financing of VCN includes: IFAD PBAS US\$ 56.7 million (39% of the total cost); IFAD BRAM US \$30 million (21%); Co-financing from AFD US\$ 50.8 million (35%); and Domestic co-financing from the FGN and Beneficiaries US\$ 8 million (US\$ 6 million and US\$ 2 million, respectively) in form of in-kind contribution</i></p> <p><i>Financing of AFD will go toward the implementation of some VCN complementary studies among the following:</i></p> <ul style="list-style-type: none"> • <i>Markets study of agricultural products.</i> • <i>Nutrition formative study</i> • <i>Farmers’ organizations and Rural Institutions</i> • <i>Rural finance and financial Service Association.</i> 	<p><i>Aligned with OSC requirement.</i></p>
8	<p>Synergy with the Portfolio and NSO: The OSC recommended that the synergies with the portfolio and with the NSO currently under implementation in Nigeria be further highlighted in the design. The OSC also advised that the link</p>	<p>Paragraph 53 page 13 - The scaling-up strategy in VCN involves: adopting a decentralized approach to scale up innovations; continuous learning and adaptation through regular feedback loops, impact assessments, learning and sharing of</p>	<p><i>Aligned with OSC requirement</i></p>

	to the CASP programme be clarified as VCN would scale up successful approaches from CASP.	experiences; drawing insights from past IFAD and AFD projects to inform the adaptive approach to scaling-up successful activities; and focus on a few key monitorable innovations and results to scale-up. VCN will strategically focus on scaling up: (a) <i>the 4Ps model building on the success of the CAF, and collaborate Babban Gona for further scaling up innovative approaches; (b) e-vouchers for input distribution; (c) utilization of the data collected by tech companies as alternative datasets that enhance credit scoring engines, for farmers to access credit without the need for collateral; (d) leveraging agricultural credit guarantee facilities to support derisking loan processes for remote rural areas; and (e) community-based FSA arrangements across the participating states to increase the number of beneficiaries with access to credit.</i>	
9	Rural Finance: The PDT was advised to clarify the overall VCN approach and the financial instruments to be adopted, and to ensure that the use of matching grants were aligned with the IFAD Rural Finance policy.	<p>Paragraph 42 - <i>In line with the IFAD Inclusive Rural Finance Policy, VCN will use a variety of financial instruments, including grant and credit, working capital and asset loans and equity, and for risk-mitigation, guarantees, risk-sharing facilities and insurance. Matching grant will be used as a short-term financing instrument to promote diffusion of technologies and enable target groups to carry out productivity-enhancing investments, compensating for the limited availability and high costs of term finance.</i></p> <p>Financial inclusion interventions are need driven as reflected in annex 14 on consultations. Matching grants have been identified as a priority by all stakeholders during the consultations to facilitate access of small holders farmers including youth, women and PWD, to productive resource while facilitating their integration with rural financial systems including FSA. The financial inclusion strategy builds on financial services associations FSA that have been developed through CASP . Many of them have continued to function after CASP closure. The FSA will be reinforced through VCN which will connect FSA and mature FOS to financial institutions. Additional study is planned to fine tune product design/ deployment and partnership strategy</p>	<i>Aligned with OSC requirement</i>
10	ICT4D: The OSC recommended a more detailed approach to ICT4D and advised that it be considered	Annex 13.9: Technical Note for ICT4D provide a detailed action plan for integrated digital advisory services including Climate-Smart Weather and Crop	<i>Aligned with OSC requirement.</i>

	<p>from a fragility perspective. The PDT confirmed that ICT4D was a strong pillar in the Nigeria portfolio and an action plan would be prepared.</p>	<p><i>Calendar App, Digital Extension Advisory Services, Farmers' Access to Output Markets and Fair Prices. In addition, the technical note proposes mitigation measures for risk for implementation and scale up taking into account the fragility context. The ICT4D has been detailed in the PDR and mainstreamed across several components. .</i></p> <p>Paragraph 11 <i>provides strategic orientations on how to use the ICTD4 , based on CASP's experience for climate information and services, digital agronomic advice, and capacity building of SHFs on simple sustainable land management (SLM) technologies; and from VCDP, promoting climate-resilience technologies (e.g. safe chemical spraying and conversion of waste to wealth) offered livelihood opportunities for youth. VCN will scale up proven technologies and integrate the use of Information and Communications Technology for Development (ICT4D) to enhance efficiency in all the subcomponents.</i></p> <p>Paragraph 37 <i>- ICT4D will be mainstreamed in the implementation of this component in the following strategic areas: (i) integrating cutting-edge technologies like remote sensing data and drones for precise crop management insights; (ii) leveraging mobile applications to digitize training content to enable extension of training coverage to remote areas using an agent assisted delivery model; and (iii) promoting access to finance through development of digital products.</i></p> <p>Paragraph 106 <i>- VCN will adapt to the high Fragility and security risks in northern Nigeria by addressing the fragility drivers of poverty, youth unemployment, and climate change, and deepening the use of ICT4D tools for programme monitoring.</i></p>	
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Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: Notes on the Meeting with the Directors (QE)

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Value Chain Programme in the North of Nigeria (VCN)

Minutes of Virtual Meeting with Directors – 29 April 2024

1. Present at the Meeting:

No	Name of Participant	No	Name of Participant
1	Bernard Hein	12	Brou Yao Bernard
2	Carlos Juan Mendoza	13	Ogunniyi Adebayo
3	Dede Ekoue	14	Ebrima Ceesay
4	Marco Camagni	15	Patricia Wills-Obong
5	Ilaria Bianchi	16	Isaac Mensah
6	Athur Mabiso	17	Ahidjo Ibrahim
7	Anne Ashley Davidson	18	Donald Yakumbu
8	Nadia Cappiello		
9	Chioma Adiele-Okpara		
10	Johannes Stute		
11	Nicole D'avila Guehi		

2. Context of VCN – By the Country Director

Following the introduction of the WCA Regional Director, the Country Director expressed gratitude to the Directors for their valuable time. Providing a comprehensive context for the meeting, the CD emphasized the pivotal aspects of the VCN project. This included delving into the intricacies of the design process, aligning the project with the key governmental priorities, IFAD objectives, and the Sustainable Development Goals (SDGs). Furthermore, the CD highlighted the overall goal and objectives of the project, theory of change, main components, targeting strategies, financing mechanisms, partnership dynamics, fragility context, implementation frameworks, and the necessary technical support required. The CD noted that the PDR has been developed building on comments and guidance received during the OSC in November 2023. She confirmed that the OSC recommendations were being fully addressed and integrated into the PDR.

The Directors lauded the diligent work of the PDT in crafting a robust and articulate PDR. With no additional comments forthcoming from the Country Director, Project Technical Lead (PTL) or the rest of the design team, the Directors proceeded to offer their feedback and response to the Directors comment and questions were provided during and after the meeting, as outlined in the table below.

After the exchanged, the two Directors encourage the PDT to pursue the development of the PDR taking into consideration very specific context of the country and necessity to ensure a timely delivery of IFAD design pipeline.

Summary of Comments from Directors and Responses provided by the team.

S/N	Name of Director	Main Comments	Response Provided by the team
	Bernard Hein	<p>Overall, the document is well written, and it addressed the comments OSC including statement of fragility which are well put together. The PDR has a good alignment with the COSOP. The PDR promotes gender transformation and youth sensitive.</p> <p>Provide more narrative around the components and sub-components. Along the line, we need to make sure that the key strategic words should be reflected clearly in the main PDR. For example, mention bio-fortification. SC1.1 we should not forget matching grant for youth.</p>	<p>Due to word limits, additional information has been provided in the section 2.4 page 10 components and sub-components in the PDR. However, due to character limit, additional information is available in the technical notes in Annexes and in the PIM which include much more details on project activities. For bio fortification, see paragraph 18, page 5 and paragraph 40 page 11, for matching grants for youth, see paragraph 41 page 11 additional information in technical notes and manual</p>
		<p>Strengthen the link across the components.</p>	<p>The logic of the project is extensively described in the TOC. The two components are closely linked as the first one is instrumental in helping target groups in adopting more sustainable and resilient production systems while the second will improve access to markets in partnership with other value chain actors.</p>
		<p>Lesson learnt: we need to strengthen the narrative around the lessons learnt and the results of CASP including operational areas (finance, procurement, staffing etc.)</p>	<p>Done, page 2 and 3 of PDR.</p>
		<p>Matching grant: How do you relate MG in SC1.1(sustainable agriculture) and SC1.3 (access to finance)</p>	<p>MGs are one instrument in the broader project strategy to provide financing to target groups' different type of needs (including for inputs purchase as in SC1.1), blending grants from the project with complementary loan funds from the FIs. This</p>

			strategy includes all the elements described in SC 1.3 starting from strengthening demand (financial literacy training) and supply (capacity building of FIs, starting with local ones such FSAs) as well as applying risk management instruments. To ensure that MGs are applied in a way which is crowding in FIs rather than the opposite as well as to minimise the risk of political influences, the actual management of these funds will be outsourced to FIs. Paragraph 41 and 42 of the PDR have been amended to explain better the above. More details are in the PIM and in the Technical Notes on Matching grants and on Financial inclusion under annex 13 (PIM
		ICT4D: Strengthen the narrative on ICT4D across the PDR.	The ICT4D was mainstreamed into the PDR however Paragraph 31, 39 and 41 of the PDR for example have been strengthened to indicate more how solutions that integrate GIS, Remote Sensing and Artificial Intelligence will promote bundled services and support delivery of of extension (access to information) early warning systems, e-voucher for access to quality inputs and digital financial services
		PWDs: be explicit on what to be done for the PWDs in the project (see Para. 35 & 38 – follow-up with ECG for guidance on specific approach and activity. Also, check what projects are doing on the PWDS).	Three pathways for targeted PWDs: 1. Involvement of PWDs in condition-appropriate activities in VCs (para 38) 2. Production based income generating activities that these groups commonly engage in and / or that they aspire to be involved in. (para 41). 3. Involvement of PWDs care givers / HH members in any of the project activities in the production realm (when the disability does not allow direct involvement in productive activities) (page 182). Please see Annex 12.8 Poverty, Targeting and Social Inclusion for all details (page 184) Added a paragraph in the PDR indicating reference to Annex 12.8 (page 7 paragraphs and 28). Added a reference at the beginning of the targeting section in the PDR to link the reader to Annex 12.8 Poverty, Targeting and Social Inclusion (page 7, paragraph 23). Please notice that VCN does not intend to qualify for PWDs mainstreaming tool requirements for IFAD 12 commitments but does include 10% of PWDs among its beneficiaries to align with the population of Nigeria where 15% of people lives with at least one disability
		Lack of consistency: Identify areas of inconsistencies in the memo of Juan Carlos.	see below specific responses

		<p>Complexity: The document appears complex; if due to time constraint, we will need to tell a better story on how these sub-components complement each other.</p>	<p>The project has just two components, one dealing with production and one on post production and access to markets. Having said that, some of the subcomponents are justified to either operationalise the mainstreaming themes or reaching out specific target groups (e.g. women and youth).</p>
		<p>M&E Cost allocation: It should be between 3-5% of the COSTAB.</p>	<p>A proposed revised M&E and KM budget allocation has been shared with the EFA specialist for the costab.</p>
		<p>Gender transformation: highlights if GALS will be sufficient to make the project gender transformative?</p>	<p>Reference to Annex 12.8 added in the PDR page 18, paragraph 2).</p> <p>No additional text added in Annex 12.8 Poverty, Targeting and Social Inclusion (pages 181 - 182) comprehensive details on what has been considered for the project to be GT.</p> <p>The Gender Action Learning System (GALS) intervention will be offered primarily to men and women beneficiaries who are married (and to others when possible) to equip HHs to remove persistent gender barriers limiting women’s empowerment and HH socio-economic progression. Given their responsibilities as managers of HH nutrition but men’s heavy influence in their decisions, the project will embed nutrition in the GALS methodology. The methodology will be employed as well in FOs, CAFs, and communities directly affected by conflict to develop a vision and path towards gender equality and socially inclusive development. GALS is the methodology chosen towards community-led empowerment and inclusion for improved equity and development results but it is not the only pathways to accomplish gender transformation.</p> <p>The GT strategy includes a many different actions and approaches. (see point 11 below)</p>

		<p>Mainstreaming areas: In addition to providing the analysis, we should indicate concrete strategies that should be used to make progress in each mainstreaming areas – youth, gender, climate resilience and nutrition. It is important to make explicit link/reference to the technical notes.</p>	<p>Pathway for Youth:</p> <ol style="list-style-type: none"> 1. Promoting entrepreneurship for youth who are not integrated in FOs and whose access to land is limited, with training and support with business packages for entrepreneurship. This includes promoting entrepreneurial activities in all stages of the supported VCs and capacity building and training activities with VCN support for start-up capital. (para 51, ref to page 181 and 182) 2. Promoting an enabling policy and institutional framework to strengthen territorial dialogue spaces for youth, and facilitate inclusive processes to identify policy/regulation issues affecting youth engagement. Supporting youth equitable access to land. (para 51, ref to page 181 and 182) <p>The demand-driven strategy used by the projects for youth in the chosen VCs will include incubation model, AgriHub’s youth employability model, and learn from VCDP’s youth-sensitive implementation approach.</p>
		<p>Gender</p>	<p>Please see Annex 12.8 Poverty, Targeting and Social Inclusion (pages 181 - 182) comprehensive details on what has been considered for the project to be GT. As part of its gender transformative nature, the project will :</p> <ol style="list-style-type: none"> 1. Promote women’s access to land and work towards strengthening the enforcement of systems protecting women’s tenure security. In locations in which access to land is a serious constraint and there is access to water, measures such as vertical farming in large bags will be promoted. 2.VCs and specific self-employment nodes of interest to women are included among opportunities supported by the project. The matching grant scheme will provide more favorable terms to poor women given this social group’s limited capacity to access financing. 3.Women will receive knowledge acquisition and skills development activities from the project in separate groups in communities where women and men do not generally participate in joint groups. 4.Additional gender equity measures will be employed, as needed, to ensure that women receive all the support required to effectively access project opportunities in line with the VCN’s targeting and overall project strategy. - Support will be

			<p>provided to women to create women’s only cooperatives if this is women’s preference.</p> <p>5.Women representatives will be involved at all moments in the project cycle to ensure that women receive information on project opportunities;</p> <p>6.VCN will include a robust zero tolerance policy to SH/SEA and be included in the project’s GRM.</p> <p>6.In addition to these programmatic measures, GEWE responsibilities will be embedded in the job descriptions of all staff at project HQ level and a social inclusion assistant in each State which will be responsible for all GEWE activities.</p> <p>7.Finally, the project will adopt a zero-tolerance stance towards SH/SEA; the GRM will include clear indications of procedures to follow in the specific occurrence of a case of SH/SEA</p>
		Climate resilience	<p>The strategies and design components recommendations to mainstream environment and climate resilience are included under Sc. 1.1, while more specific strategic orientations and activities can be found in the E&CC Technical Notes, as well as the SECAP triggered safeguard documents (including SECAP, ESCMF and TAA).</p> <p>P19-par 8</p>
		Nutrition	<p>Updated paragraph 6 under mainstreaming themes by inserting this phrase: “An elaborate nutrition strategy which includes focus on increased incomes for smallholder farmers through a dietary diversification approach that promotes bio fortified value chains, agrobiodiversity and sustainable use of nutritious traditional varieties can be found in the Nutrition Technical Notes Annex on page 303 to 308.”</p> <p>Updated the technical notes to reflect the key words mentioned by the Directors (agrobiodiversity, bio fortified value chains, traditional varieties, etc)</p>
		Executive summary (ES): Ensure that the RED component is reflected in the ES.	<p>The team agreed to include in the executive summary a brief narrative of the component RED. See executive summary.</p>
		Use of matching grant (MG) in infrastructure	<p>Under the key principle of using MGs to graduate project beneficiaries and crowd in FIs they will be applied with different modalities to finance the purchase of different</p>

			type of assets, including infrastructure and equipment in C2, as well as for working capital needs related to production and post production. A summary of multiple use of MGs is included in the PIM.
		SAPZ + VCN linkage: Clarify what will be the linkage between SAPZ and CASP.	This has been completed. See executive summary
		Technical notes: It is important to make explicit link/references to the technical notes across the document. There may be a need to strategically choose some contents from the technical notes to strengthen narratives in the PDR. This will include deprioritizing, for example, length of diagnosis for expending narrative on VCN strategies.	This has been complied with. See pages 10 and 11 of the PDR and page 59 of the Technical Note under strategy for financing women and youths Also, paragraph 38, pg 10, of the PDR. And See in the Technical Note under proposed financial arrangement on page 58
		Follow up with SEC if AFD logo should be in the document for the EB.	This has been clarified. The AFD logo will not be included in the document for the EB session.
	Carlos Juan Mendoza	The director made few comments and concluded to share written feedback to the team. The feedback was received and had the following: While understanding the constraints on word limit, the description of the components in the PDR needs to be more complete, ideally bringing some text from the PIM. Right now, the components description is more of a list of interventions; something that would be expected at the concept stage, not at PDR. For example, matching grants are mentioned in more than one component, but it is not clear what they are being used for.	The country director acknowledged all comments are well noted and will be integrated in the PDR prior to submission to DRM. The team agreed to address all the issues raised in the written comment by the director. There is a new section of the PIM that explains the use of MGs, their use and the differentiated percentage contribution for certain target groups (i.e. women, youth, PWDs). See also the table in that section.
		Maybe the document could include some information about the problem of food security and the availability	This has been done. See the executive summary page.

		<p>of the supply considering the continuous devaluation of the Naira increasing cross-borders food trade with the other neighbouring countries (Chad, Niger, and Benin) and thus increasing the prices and decreasing the availability of agricultural products for the local Nigerian population.</p>	
		<p>On addressing OSC comments: OSC comments have been mostly well addressed by the PDT. Fragility and gender empowerment have particularly been well mainstreamed throughout the PDR, taking on board OSC's comments. However, some issues still remain which are highlighted below: While weak staff capacity is recognized in the PDR, and provisions are in place to improve capacities of existing umbrella associations, an institutional capacity gap analysis is missing from the PDR, risking compounding some of the challenges mention in the CASP lessons learned.</p>	<p>A high level analysis institutional capacity gap analysis of institutions and platforms has been done through the SWOT analysis to propose strategies for leveraging their strengths and address their challenges. These institution and community based and FO driven platforms have been partners for CAPS in north providing a better understanding of the challenges they face and the opportunities. Risk mitigations measures have already been included in the PDR (IPRM) taken into account their challenges and the fragility context Before implementation , an in-depth institutional capacity will be conducting to facilitate the fine tuning in a participatory manner of capacity building strategies building on CASP lessons learned and best practices across the portfolio.</p>
		<p>Lessons learnt: few words about CASP despite the fact that VCN is the “continuation” of CASP. The section could be beefed-up.</p>	<p>This has been incorporated.</p>
		<p>While OSC's comments to include PWDs have been addressed, including a long needs analysis in the SECAP note, there are few details in the PDR on the actual targeted activities for PWDs and the rationale for these (i.e. disability-friendly provisions in extension service).</p>	<p>Three pathways for targeted PWDs: 1. Involvement of PWDs in condition-appropriate VCs in adapted activities (para 38) 2. Income generating activities that these groups commonly engage in and / or that they aspire to be involved in. (para 41) 3. Involvement of PWDs care givers in any of the project activities (when the disability does not allow direct involvement in productive activities) (page 182)</p>

			<p>Rational: PWDs in Nigeria receive limited support from the government and rely strongly on family members and non-governmental organizations and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their households or can be abandoned leaving PWDs in a situation of using begging to survive. Due to their vulnerability, they are also more acutely affected by situations of conflict, as well as by sexual exploitation and abuse (SEA).</p>
		<p>The financial instruments to be adopted, including the matching grants have been clarified. However, to better align with IFAD's Rural Finance Policy it would be recommended to outline how the interventions will be needs-driven RF interventions, considering the needs of women, youth and PWDs in their design (pg 10, PDR).</p>	<p>Interventions are need driven as reflected in report of consultations. The financial inclusion build on financial services associations that have been developed through CASP . Many of them have continued to function after CASP closure. The FSA will be reinforced through VCN. There is a need to connect the FSA and mature FOS to financial institutions Matching grants have been highlighted as a priority by all stakeholders to facilitate access to productive resource while preparing also for integration with rural financial systems including FSA. Additional study is planned to fine tune product design/ deployment and partnership strategy.</p>
		<p>On ICT4D interventions, more details are needed in paragraph 106 (pg 23, PDR) on how the project will specifically use ICT4D to address fragility.</p>	<p>The following text has been added to the PDR "The project will adapt GIS, remote sensing and Artificial intelligence integrated digital solutions that will support mapping of fragile areas remotely as well as, provide predictive analytics for early warning both from climatic changes advisory as well as data and evidence for programme level monitoring and decision support "</p>
		<p>Nutrition-sensitive VC crops are promoted and inclusive of women and youth, responding to this OSC comment. Without adding extra activities, it's recommended to explicitly mention how through home gardens, agrobiodiversity and the sustainable use of nutritious traditional varieties and NUS can be conserved, providing nutrition benefits, and helping diversity smallholders' incomes (pg 10, PDR)</p>	<p>Revised paragraph 6 under mainstreaming themes by inserting this phrase: "An elaborate nutrition strategy which includes focus on increased incomes for smallholder farmers through a dietary diversification approach that promotes bio fortified value chains, agrobiodiversity and sustainable use of nutritious traditional varieties can be found in the Nutrition Technical Notes Annex on page 303 to 308." Updated the technical notes to reflect the key words mentioned by the Directors (agrobiodiversity, bio fortified value chains, traditional varieties, etc)</p>
		<p>Restructuring project components: The description of the components, subcomponents and activities in the PDR could be more elaborated. It is true that more</p>	<p>Additional content is provided in the PDR and in the technical note. Serious challenge with the number of character provided for this section.</p>

		<p>details are included in the PIM, a few additional pages (3 to 4) could be added to the PDR. As it stands now, it seems more a description for a project Concept Note.</p>	
		<ul style="list-style-type: none"> ● The number of subcomponents is quite high (4 subcomponents for component 1 and the same for component 2). Related to this point also the allocation of funds, for component C1 the subcomponents C1.1 and C1.2 together represent 93% of C1 budget, while for component C2, the subcomponent C2.1 budget represents 73% of C2 budget. It might be better to reduce the number of subcomponents and introduce some changes: <ul style="list-style-type: none"> ○ There is most likely a mistake in C1 with C1.4. “<i>Response to Emergency and Disaster</i>” that is included in the PDR (page 11) with USD 0 M as budget and it is described. I should be removed since it is not found in the other project documents. ○ The policy work should be all grouped together. In subcomponent 2.1 there is an activity “Promotion of policy dialogue for nutrition at state and local levels” that could be moved to the policy subcomponent 2.4. ○ The policy subcomponent 2.4 could be moved to component 3 which becomes “Policy, Programme coordination and 	<p>The structure of the project, which is not feasible to modify at this stage, has not changed since OSC and fully reflects the TOC development pathways. The structure build on the successful experience of value chain development in Nigeria including through CASP and VCDP and address interlinked challenges to help achieve the outcomes.</p>

		<p>management” with 2 subcomponents: C3.1 <i>“Promoting an enabling policy and institutional framework; C3.2. “Programme Coordination and Management”</i></p> <ul style="list-style-type: none"> ○ Subcomponent C1.3. <i>“Improving access to finance and scale access to digital financing solutions”</i> could be moved to component C2 and merged with subcomponent C 2.3 <i>“Promoting entrepreneurship for women and youth”</i>. ○ In fact C1.3, C2.3 and C2.2 (improving market linkages and partnerships with VC actors” could be grouped together in one subcomponent 3.2 <i>“Improving access to finance and promoting entrepreneurship and partnerships among the VC”</i>. It will then encompass all VC actors. ○ The tile of C2 could be revised from <i>“Enhance inclusive and profitable inclusion of target groups in the VCs”</i> to <i>“Enhance inclusion of target groups in the VCs”</i>. <p>This will restructure the project into 2 main components each composed by 2 main subcomponents. Plus, a third component on policy and project management.</p>	
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		Indicators: The indicator CI 2.2.1: Beneficiaries with new jobs/employment opportunities with a target of 136,800 beneficiaries seems too high for a less than USD 200 M project budget.	This indicator refers to both self-employment and employment. The focus of the project is on self-employment by supporting income-generating activities in different value chains and entrepreneurship for women and youth. Considering the total outreach of the project (over 400,000 people) the target seems feasible.
		The Core Indicator CI 1.2.5: Households reporting using rural financial services with a target of 15,000 HHs seems very low. It represents 3% of the overall HHs. Also considering the overall project cost.	This indicator for loans (15,000) has been set in a conservative way as the challenges to promote access to credit in the project target area are huge, including due to cultural issues. Having said that, the involvement of FIs as partners in the implementation of the project (i.e. managing project funds) combined with the demand/supply strengthening activities and risk management instruments could ultimately lead to a higher result. Conversely, the target for households with savings has been increased to 45,000.
		The logframe indicators should better disaggregate all targeted beneficiaries, including internally displaced people, as their tracking in the current logframe is not evident.	The multiplier for internally displaced persons has been added in the outreach disaggregation and the output activities (at 10%) on only component 1 as advised in the PDT meeting. An updated LF as at May 1, 2024, has been shared with the team lead.
		Budget and AWPB: The USD 5.8 M budget allocated to C 2.3 “Promoting entrepreneurship for women and youth” is may appear to be very low for a project which is youth sensitive (30%), gender transformative (40%) and with an overall budget of USD 145.5 M.	This budget specifically relates to very targeted activities for (a) Promoting entrepreneurial activities for women and youth with high potential but who are not and could not be integrated in FOs because of a number of barriers (e.g. access to land) or are simply not interested in farming. It is intended for capacity building activities, and support to beneficiaries with equipment grants as start-up capital.
		It is not clear if AFD co-financing will be direct or parallel co-financing and will it be a loan or a grant or mix of the two (in that case please specify the amount for each).	Done. Parallel co-financing loan from AFD. Information included in the PDR.
		The PDR should include agreed coordination arrangements for receiving, addressing, and reporting grievances, which is currently missing.	VCN will activate IFAD’s GRM procedure as well as the GRM procedure and plan developed for the VCN (see GRM document under Annex 5) that allow affected complainants to have their concerns resolved in a fair and timely manner through an independent process.

			P.22 par.85
		What's the interest to train farmers on GAP? It is too costly to get and then renew the certification for smallholder farmers.	GAP is just an example of training on sustainable agricultural practices which are critical to access more dynamic and remunerative markets
		<p>Mainstreaming Targeting:</p> <p>The VCN design meets all the requirements and can be validated as gender transformative, youth sensitive and nutrition sensitive.</p> <ul style="list-style-type: none"> ○ Nutrition pathways: NS value chains selection, nutrition education integrating with all components and extend to all beneficiaries, specific reinforced package on nutrition activities for most vulnerable and in fragile areas with context appropriate homestead food production, fortified millet and rice, and policy dialogue for nutrition at state and local levels. 	<p>The targeting strategy has been amended in the PDR and Annex 12.8 Poverty, Targeting and Social Inclusion, to include a target of 5% for returning IDPs that are ready to transition from a humanitarian assistance situation into production based development activities supporting food security, nutrition and income earning. A total of about 456,000 direct beneficiaries/ households (40% women, 30% youth). VCN seeks to primarily target people living under the poverty line, but also acknowledging the need to target people who are vulnerable to falling into poverty. Three main target groups: Subsistence and semi-subsistence producers (very poor and poor households) - 40% of beneficiaries, Market oriented producers (poor households and households vulnerable to poverty) - 30% of beneficiaries, and Individuals not associated to POs, involved in starting entrepreneurship, such as agribusiness or employment opportunities (30% of all beneficiaries).</p> <p>Link to the Nutrition Technical Annex has been added in the PDR on page 13 of the PDR paragraph 10 "A detailed nutrition strategy with defined impact pathways to nutrition is attached in the Nutrition Technical Notes Annex on page 303." Added this phrase in chapter 1, section 1.4 of the PDR, paragraph 8: "Refer to Nutrition Technical Notes Annex pgs. 295-302 for elaborate lessons learnt from CASP, VCDP & field interactions that informed VCN's Nutrition Strategy design."</p>
		<ul style="list-style-type: none"> ○ Gender transformative pathways: GALS, entrepreneurship/upgrading model, risks mitigation for GBV and personal security, alphabetisation, basic financial literacy, and income generating activities for women. 	<p>No additional text added in Annex 12.8 Poverty, Targeting and Social Inclusion (pages 181 - 182) comprehensive details on the pathways to render the project GT. Only added a reference to the Annex in the PDR, page 18, paragraph 2) which should help clarify..</p> <ul style="list-style-type: none"> - Page 181 and 182 - Para 20
		<ul style="list-style-type: none"> ○ Youth pathways: entrepreneurship graduation and digitalisation 	<p>VCN is already NS, YS and GT and targets 10 percent PWDs. It does not intend to qualify as an investment which includes PWDs as a priority target group at design to</p>

		<ul style="list-style-type: none"> ○ 10% beneficiaries are PwDs (the overall national population is 15%), but it does NOT intend to prioritise PwD as a target group ○ IPs: Not applicable 	<p>count among IFAD 12 commitments for PWDs (see note 56). Nevertheless, in order to align with Nigeria population of 15 percent People living with at least one disability, VCN does include disabled among its outreach beneficiaries.</p>
		<p>In terms of the climate finance, the project can be validated for adaptation finance and has the required indicators. The design is also aligned to Nigeria's NDC, incorporating mitigation related activities and while it mentions that GHG emissions will be monitored the mandatory CI 3.2.1 is not incorporated in the logframe nor has the project run an EX-ACT analysis. This was already brought to the attention of the team as the mitigation finance amount based on ECG review is not small (USD 4 512 000)</p>	<p>“ C.I. 3.2.1: Tons of greenhouse gas emissions (tCO2e) avoided and/or sequestered “ has been integrated in VCN PDR (page 8 in the Outcome indicator matrix)</p> <p>The core outcome indicator 3.2.1 has been incorporated in the LF. It is therefore important to engage FAO to run the ex-ante analysis (at design).</p> <p>As a precondition for attributing mitigation finance to an IFAD project, IFAD requires an ex-ante GHG assessment to prove that the project overall has the potential to be a net sink of GHG emissions, compared to the without-project scenario. This Ex Ante GHG Assessment is underway with the Colleagues of FAO and should be finalised by May 15th. The result will permit to integrate a specific baseline and target for the CI 3.2.1 in the VCN project Log frame</p> <p>Preliminary climate finance calculation by Bernard (on 11 April) suggests VCN is 27% for adaptation finance and 5% for mitigation finance. We should be waiting for the validation of this estimate by Tarek and Paraskevi shortly.</p>
		<p>Further suggestions for improvements to PDR: On the SECAP, while it is accepted that the project does not encroach protected areas, PDT may want to check that project activities do also not infringe on key biodiversity areas. It seems that the Falgore and Lame Burra Game Reserves are located within the projected area for instance.</p> <p>The targeting strategy should consider how the project aims to target the most climate vulnerable groups, as well as the other criteria outlined.</p>	<p>The risk rating for biodiversity conservation based on ORMS screening tool is LOW as indicated in the SRN. All other documents should align with this.</p>

		Geospatial methods i.e. earth map are recommended to identify the areas and communities most vulnerable to climate change.	
		There is mention of rehabilitation of access roads in the SECAP note and costing / financing sheet, however little mention in the PDR components. Suggest providing more information on this activity (pg 11, PDR).	There is an allocation in the project budget (USD 11.7 million) which will be strategically used in combination with market facilities to improve access roads and facilitate access to markets for target beneficiaries.
		Other activities which are included in the SECAP but not the PDR are Farmer Field Schools and agroforestry interventions.	Reference to both added in the previous question on SECAP
		The SECAP note suggests that at design stage an in-depth analysis of VCN's carbon footprint will be conducted. PDT should clarify whether this refers to an EXACT analysis and whether this has been or will be carried out.	Pls see response to #36
		The TAA report (page 33) scores a number of adaptation options based on their suitability to the project. It may be necessary to summarize these options and incorporate them into the SECAP Note climate impacts section and namecheck in the PDR.	This has already reflected in the SECAP under recommendations for project design and implementation (p29-33). They are also summarised under Sc1.1 in the PDR (p.19 par8), albeit in succinct form. This is also well elaborated in the Technical Note on E&CC. It was much more explicit in the last version (12 April 2024) of the PDR (see page 4 para 48-52)
		Livestock farmers and pastoralists as beneficiaries are mentioned in the PDR in the stakeholder engagement plan. Never mentioned before.	Yes. Experience from CASP shows that livestock farmers and pastoralists are co-beneficiaries (indirect beneficiaries) of water infrastructure provision for human and animal watering. They are also important stakeholders for conflict management
		Paragraph 77 states: "With guidance from IFAD and the IFAD ICT4D division, VCN will develop an MIS-based M&E System"I think saying IFAD suffices....there is not such a thing as the "IFAD ICT4D division"	This was language from writer but been resolved and removed ICT4D division

		<p>Further suggestions for improvements to PDR: On the SECAP, while it is accepted that the project does not encroach protected areas, PDT may want to check that project activities do also not infringe on key biodiversity areas. It seems that the Falgore and Lame Burra Game Reserves are located within the projected area for instance.</p>	<p>The Environmental, Social and Climate Change Management Plan (ESCMP) (see p.61, Appendix III of the SECAP Review Note), the biodiversity conservation recommended mitigation measures to reduce the risk of project infringe on key biodiversity areas including national parks and forest and game reserves include:</p> <ul style="list-style-type: none"> ● Conduct environmental screening for all subprojects. · Discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. ● Avoidance of areas that infringe on known habitats and migration patterns of protected, endangered or rare species, and maintain known wildlife migration corridor. <p>By the national and state laws, the national parks and forest and game reserves are no farming zones. And so VCN project activities cannot encroach into these areas. By the way, Falgore Game reserve is now one of the newly designated National Parks.</p>
		<p>The targeting strategy should consider how the project aims to target the most climate vulnerable groups, as well as the other criteria outlined. Geospatial methods i.e. earth map are recommended to identify the areas and communities most vulnerable to climate change.</p>	<p>Page 7, Paragraph 25; the PIM and Annex 12.8 page 179 : added reference to the use of geospatial imagery to obtain updated assessment of areas and communities most vulnerable to climate change. Specific LGAs will be selected in the eight states based on specific criteria including climate vulnerability (geospatial mapping to be used to have updated information on the locations most vulnerable to climate change)</p> <p>Mainstreaming environment and climate change into the VCN will be done also through strengthening opportunities for the provision of timely and appropriate climate and hydro-meteorological information to guide on-farm activities and reduce climate vulnerability through collaboration with appropriate institutions. for the full targeting strategy please refer to the annex 12.8 and also point 34 above</p>

Nigeria

Value Chain Programme in Northern Nigeria Project Design Report

Annex: Annex 5 Vcn Srn For Pdr1

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 6. SECAP Review Note (PDR level)

SOCIAL, ENVIRONMENTAL AND CLIMATE ASSESSMENT PROCEDURE (SECAP) REVIEW NOTE FOR THE VALUE CHAIN IN THE NORTHERN NIGERIA (VCN) PROJECT

1. Introduction

1. The objective of the SECAP Review Note for the Value Chain in the North (VCN) Project Design Report is to conduct a situational analysis of climate, environmental and social priorities, define and validate the final social, environmental and climate risk categories of the project, and produce the relevant plans including stakeholder engagement and grievance redress mechanism. This note identifies opportunities and risks associated with the VCN and proposes the steps and actions for the Environmental, Social, and Climate Management Framework (ESCMF), Environmental, Social, and Climate Management Plan (ESCMP) and the Target Adaptation Assessment (TAA). It also makes the case for disclosure of the SECAP studies as necessary.

2. The note was produced through review of literature on the proposed project area, review of documents on ongoing and completed IFAD projects, especially the Climate Change and Agribusiness Support Programme (CASP) which was implemented in the study area, and stakeholder consultations in the project area during the concept note and design missions. The VCN project is to be implemented in **9 States of the 13 states of the semi-arid northern Nigeria**. These proposed states spread from northeast to the northwest Nigeria consisting of **Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara** states (Fig 1).

2-

3. The 13 states of the semi-arid northern Nigeria cover about 323, 3299 km² (about 35.4% of Nigeria land area) with about 120.2 million people (about 59.7% of national population) consisting mostly of the rural poor. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc coupled with low adaptive capacity) result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.

3-. ~~The 9 states of the semi arid northern Nigeria covered about 338,206km² (about 37% of Nigeria land area)¹ with about 63.8million people (about 30.2%% of national population)² consisting mostly of the rural poor. The semi arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation (with little southward extension to the northern guinea savanna around southern Kaduna and Taraba states). This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain and semi-arid plain³. Agriculture is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity (including low rainfall and high temperature, drought, flood, uncertainty in rainfall onset and cessation dates and length of growing season, soil erosion, land degradation, resource conflicts, etc coupled with low adaptive capacity) result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity.~~

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¹- NBS (2019)- Annual Abstract of Statistics- <http://nigerianstat.gov.ng/eLibrary>

²- National Bureau of Statistics (NBS), and United Nations Children's Fund (UNICEF). August 2022. Multiple Indicator Cluster Survey 2021. Statistical Snapshot Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

³- Cervigni, Raffaele; Valentini, Riccardo; Santini, Maria. 2013. Toward Climate Resilient Development in Nigeria. Directions in Development - Countries and Regions. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811>

Figure 1: The VCN Project States

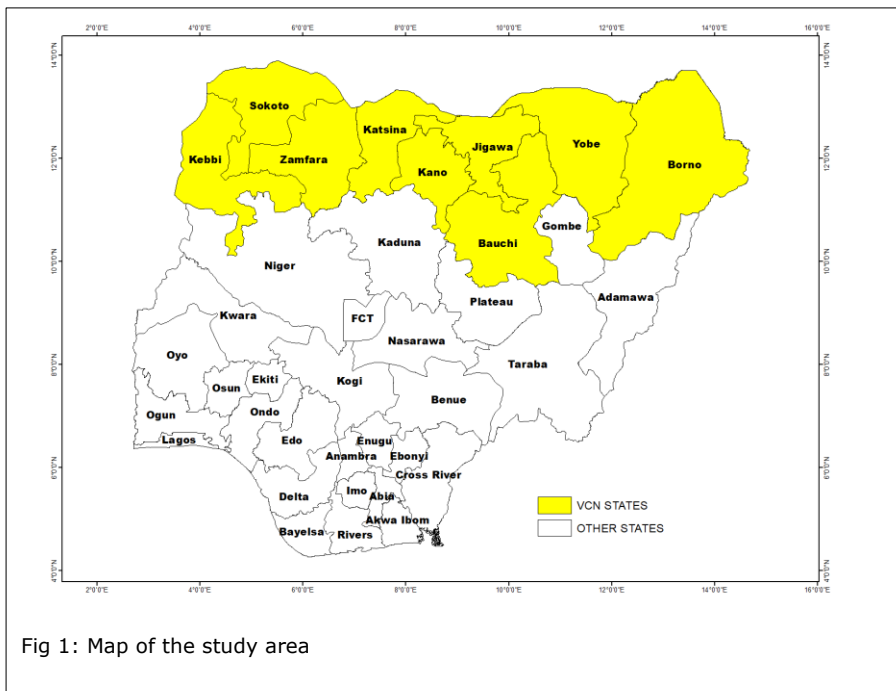


Fig 1: Map of the study area

2. Situational analysis and potential project impacts

4. The sections below present a detailed analysis of the situation from a socio-economic, environmental, and climatic perspective.

2.1. Socio-economic and nutritional assessment

5. Overall poverty situation. Nigeria is home to 200 million people; 70% of the country's population lives in rural areas⁴. 40.1% of Nigerian's are poor according to the national poverty line (137,430 naira per person per year). Sharp spatial differences in poverty are found between southern and northern Nigeria and even across States within regions. Also, poverty levels are higher and deeper in rural areas; 52% of the rural Nigerians live under the poverty line (against 18% in urban areas)⁵. Over 72% of the extreme poor live in Northern Nigeria⁶.

Table 1: Key demographic and poverty data in VCN target States, Nigeria

State	Population / # people (xxx)	Economic poverty level / % (2018)	Average HH size / # people (2018)
Kebbi	5,200,000	50.2	6.39
Sokoto	6,400,000	87.7	5.93
Zamfara	5,300,000	74.0	6.54
Katsina	9,500,000	56.4	6.80
Jigawa	6,800,000	87.0	8.15
Kano	15,900,000	55.1	7.10
Bauchi	7,700,000	61.5	6.79
Yobe	3,900,000	73.3	6.87
Borno	3,100,000	Information not available	Information not available

Sources:

Population: obtained from the project concept note, exact citation to be obtained and inserted here;

Poverty headcount: WB, 2022. *Nigeria Poverty Assessment 2022: A Better Future for all Nigerians*;

HH size: NBS, July 2020. *Nigeria Living Standards Survey (2018/2019)*.

6. Age, gender, education, reliance on rainfed agriculture and shocks are the primary drivers of poverty in Nigeria⁷. Young people and those with lower levels of education are common among the poor due to lacking capital and not having the means to engage in lower risk or diversified income generating streams. Women with young children are likely to be poorer than their male counterparts due to the combined effects of gender norms, being youth and their multiple responsibilities. External shocks such as the negative effects of climate change, low resilience and conflict have profound effects on HH wellbeing.

7. Also, 65% of people living in the North of the country are multidimensionally poor, that is, affected with deprivations associated to health, education, living standards, employment, and shocks⁸.

8. Gender. Women and girls represent half of Nigeria's population with women accounting for about 49,3% of the population. Gender inequalities remain pervasive in Nigeria, fuelled by traditions, customs, gender stereotyping and cultural prejudice. According to the OECD's Social Institutions and Gender Index (SIGI), Nigeria is among the top 10% of countries worldwide that exhibit the highest levels of gender discrimination. Nigeria also falls in the group of countries with the highest gender inequality in human development outcomes with a Gender Development Index value of 0.868 and is classified in group 5, which includes countries with very low levels of human

⁴ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

⁵ WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.

⁶ FGN, 2021. National Poverty Reduction with Growth Strategy (NPRGS).

⁷ NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

⁸ Ibid.

development⁹. While the participation of women in agricultural value chains is generally low compared to male participation, women are overrepresented as unpaid family members engaged in farming. Women involved in farming are mostly working in the areas of harvesting, processing and marketing of farm produce¹⁰.

9. Women face the challenge of lack of access to land for production more than their male counterpart. Access to capital/credit, limited access to information on project opportunities and poor literacy also limit women's participation in agricultural development projects and ownership of businesses in agricultural value chains. According to a World Bank study in 2019¹¹, approximately 28 percent of girls between the ages of 15-19 are already married, and 23 percent in that age group are already mothers or pregnant with their first child. The incidence of early marriage and childbearing is even higher in the states of the semi-arid northern Nigeria with the youngest ages of marriage seen in the Northwest, Northeast, and North Central regions. Early childbearing is strongly correlated with maternal and child mortality. Millions of adolescent girls (10-19 years)¹² are currently out of school; they have never enrolled or dropped out early. According to the NLSS 2019/2019, approximately 7% of girls ages 15-19 are out-of-school in Northern states. The low proportion of girls attending secondary schools is particularly concerning, given that attaining this level of education is associated with fewer unwanted pregnancies and reduced infant mortality.
10. Anecdotal evidence collected during the design mission indicates that poor women, especially poor women headed HHs provide cheap labor to others. In some locations the surplus of supply of cheap labor by poor women could be resulting in women receiving less than they would in situations without conflict and / or instability.
11. The group indicated that many women are becoming widowed given the high rate of polygamy; one man dies, 2-4 women become widows and highly vulnerable. Men do not want to marry a woman with several children in a situation of important levels of widowhood.
12. The project should consider the high number of women headed households (WHH); according to local participants these represent about 40% of HHs who are live under the poverty line; and their extremely high levels of vulnerability given that women have extremely limited access to assets such as land, low participation, and influence in collective and public spaces. Measures need to be devised to ensure that this segment of the population is targeted at scale and considered in all decision-making processes and spaces supported by the project.
13. Adolescent girls and women in a situation of high levels of poverty (very poor) can find no option to feed their children than sexual transactional exchanges. Also, sexual harassment, exploitation and abuse are common in a situation of displacement, according to local participants in the group, from IDP camp staff, other men in a situation of power. The same applies to when resettling back to communities into precarious shelter with men holding positions of power. These cases often go unreported through conventional channels and are known in through specific inquiry by entities specifically interested in protecting women's rights.
14. To overcome these challenges, VCN is intends to be gender transformational, integrating therefore all dimensions. Indeed, focusing only on targeting women may not be relevant to lead to the desire changes in terms of gender equality and women's empowerment. As highlighted by the 2023 CCR¹³, it needs to be rather backed by interventions (such as GALS methodology) that address gender dynamics within households and give women a voice in decision making as demonstrated by other projects, such as VCDP and CASP. During the design phase, more information will be collected to better understand the challenges face by women in the Northern part of Nigeria, in terms of workload, access to resources, participation, voice, etc. A study will

⁹ Country Partnership framework Nigeria FY21-FY25 World Bank Group

¹⁰ Thompson, O. A. and Amos, T. T. (2016): Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark

¹¹ ditto

¹² Definition: pmadata.org

¹³ Nigeria COSOP Completion Review 2023

be conducted to inform the design, and suitable pathways for policy engagement on GEWE.

15. **Youth.** Generally, Nigeria has one of the youngest and largest working-age populations in the world. Youth in Nigeria constitute people aged between 15-29 years according to the new youth policy (2019)¹⁴ and make up the largest demographic group after children, accounting for 23 percent of the total population at 41 million, a figure that is set to rise to 84 million by 2050¹⁵.
16. The International Labour Organization estimates that some 60% of young people between the ages of 15 - 24 in Nigeria are in working poverty¹⁶, youth unemployment (15-35 years) 42.5% and underemployment rate 21%¹⁷. Engagement of youth in agriculture is a priority for the government. Youth have an untapped potential to become the food producers of the present and the future. However, targeting youth often focuses on male youth of different ages because they are more visible than female youth, especially in more conservative communities. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Youth with education are thus a low hanging fruit. Without deliberate efforts rural youth with low education, especially females can often be missed by development interventions.
17. A large segment of the youth is in northern Nigeria where both youth unemployment and underemployment is higher due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. Not enough jobs are being created for the youth, who are characterized by lower human capital relative to adults.
18. *Fragility and conflicts.* Nigeria is listed by the World Bank Group as one of 37 “fragile and conflict-affected” countries¹⁸. Nigeria has a situation described as a “complex crisis” with a “very high” risk index (at 6.5) by the INFORM Risk Index Report for 2021¹⁹. The World Risk Index report for Nigeria also has a very high rating of 12.66²⁰. Monguno (2021) notes that Nigeria’s Global Peace Rating has slid, and poor governance has contributed. For more than a decade the Boko Haram insurgency in the **northeast** and banditry and kidnapping in the **northwest**, have been growing problems. This is also complemented by the increasing farmer-herder conflict as populations have risen and natural resources have become increasingly contested. Discussions with stakeholders in Sokoto state suggest that access to a significant proportion of arable lands in the state has been cut-off by Bandits occupation, thus depriving farmers of good arable land for farming. Conflict in the semi-arid northern Nigeria is compounded by stresses and shocks related to, or triggered by, environmental degradation and climate change, which are in turn exacerbated by population growth and poverty. As in any conflict situation, women (and children) have been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps. The conflicts also stem from stake for land ownership, distribution of resources, corruption, proliferation of arms and ethnic and religious tensions.
19. **Indigenous peoples.** There are no indigenous people according to the UN classification whose existence is threatened by the project.
20. **Marginalised groups.** IDPs and PWDs are two additional social groups often facing increased vulnerability and difficulty in accessing sustainable development opportunities, thus becoming marginalised.
21. **PWDs.** In Nigeria, it is estimated that approximately 15% of the population of Nigeria lives with at least one disability²¹. Yet, anecdotal evidence in States affected by

¹⁴ Federal Republic of Nigeria. National Youth Policy (2019-2023). Enhancing Youth Development and Participation in the context of Sustainable Development.

¹⁵ World Bank Group, 2019. Nigeria on the Move: A Journey to Inclusive Growth. Nigeria Systematic Country Diagnostic. June 2019.

¹⁶ Based on ILO estimates (percentage of employed living below US\$1.90 PPP).

¹⁷ NBS, 2021. Q4 2020 Unemployment Report <http://nigerianstat.gov.ng/elibrary> Accessed 1st January 2024.

¹⁸ <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>

¹⁹ Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

²⁰ World Risk Report, 2021. Bündnis Entwicklung Hilft, Ruhr University Bochum – Institute for International Law of Peace and Conflict 2021. <https://weltrisikobericht.de/weltrisikobericht-2021-e>.

²¹ <https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law> Accessed 1st January 2024.

insurgency indicates that many people have acquired a disability because of terrorist attacks. As such, many more PWD are likely to be present in northern States than documented in recent population data.

22. 71% of people living in HHs with at least one member living with a disability are multidimensionally poor²². PWDs in Nigeria receive limited support from the government and rely strongly on family members and non-governmental organizations and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their households or can be abandoned leaving PWDs in a situation of using begging to survive²³.
23. The Joint National Association of People with Disabilities (JONAPWD) created in 1992 is an umbrella organization of PWDs established in Nigeria to promote the rights and development of Nigerians with disabilities. The organization represents the interests of the teeming population of PWDs at the local and international level. JONAPWD is a full-fledged member of the international body called Disabled People’s International (DPI). Also, in 2019, Nigeria passed the Discrimination Against Persons with Disabilities (Prohibition) Act in 2019²⁴ and created the National Commission for Persons with Disabilities (NCPWD) pursuant to section (31) of the Discrimination Against Persons with Disability (Prohibition) Act 2018²⁵.
24. **IDPs.** In November 2023, a total of 2,295,534 people were internally displaced in Nigeria’s Northeastern Region of which 94% as a result of insurgency; and 1,190,293 in the North West and North Central Regions. In addition, over 240,000 Nigerians from Sokoto, Yobe and Borno and have sought refuge in Chad and Niger²⁶. Formal and informal IDP camps and host communities have received those internally displaced by conflict and violence in northern Nigeria.

Table 2: IDPs per VCN Target State, September 2023.

State	# IDPs	State	# IDPs	State	# IDPs
Kebbi	-	Katsina	174,000	Bauchi	68,400
Sokoto	72,000	Kano	25,000	Borno	1,800,000
Zamfara	156,400	Jigawa		Yobe	172,300

Source: UNHCR, September 2023. Nigeria: Education Dashboard 2022-2023 Schoolyear.

25. The Federal Government of Nigeria is intensively engaged in achieving peace, safety and security in affected States in VCN’s target States resulting in the start of a progressive return of displaced populations to their communities of origin. Anecdotal evidence however indicates that even in these locations absolute reduction of all risks of violence has not been achieved in all communities resulting in movement restrictions beyond a perimeter of 5 or 10 kms from the community center. In this context, land available for farming can be limited in communities affected by conflict and violence resulting in increased competition over land.
26. Consistent with existing reports²⁷, interviewees reached during the design mission indicated that displaced women in Northern States are often subjected to sex in exchange for food, shelter, water, and others by men in positions of relative power controlling decisions related to access to these basic human rights. Survivors are primarily women but can also include their children. Anecdotal evidence also indicates

²² NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

²³ <https://borgenproject.org/disabilities-in-nigeria/> Accessed 1st January 2024.

²⁴ <https://drive.google.com/file/d/12459t6medwblvSunXqk6o9x9npxG6W4/view> Accessed 1st January 2024.

²⁵ <https://ncpwd.gov.ng> Accessed 1st January 2024.

²⁶ UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.

²⁷ Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.globalr2p.org/countries/nigeria/>

Accessed 30th December 2023.

UNHCR, 2020. Assessment of Trafficking Risks in Internally Displaced Persons Camps in North East Nigeria.

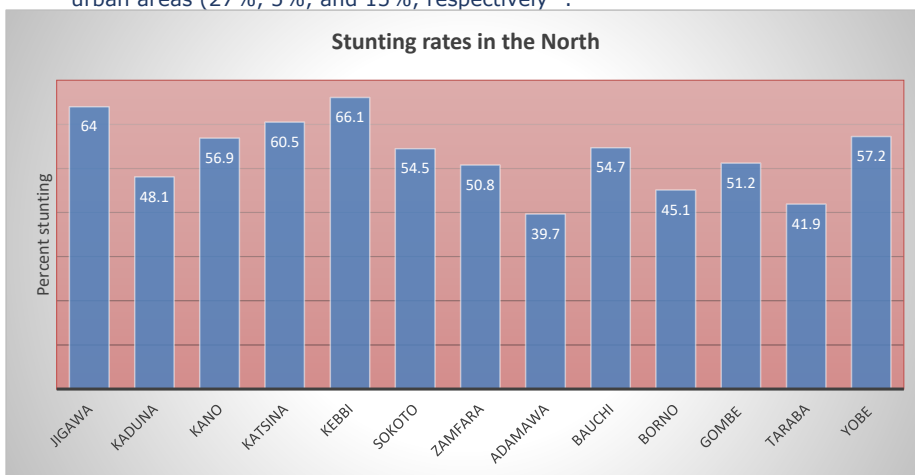
<https://data2.unhcr.org/en/documents/details/75273> Accessed 10th of December 2023.

that PWDs are, due to their vulnerability, also more acutely affected by situations of conflict, as well as by sexual exploitation and abuse (SEA).

27. **Nutrition and food security.** Nigeria has the highest population in Africa with an estimated 223.8 million people by the year 2023 according to UN data (UNFPA,2023)²⁸. The country has one of the highest fertility rates, currently estimated at 5.1 children per woman resulting in a rapid population surge with an annual growth rate of 2.6 percent²⁹. The population is projected to reach approximately 440 million by the year 2050 but the human development index (HDI) remains low at 0.534 ranking it 158th out of 189 countries and territories³⁰. There is recent evidence to show that malnutrition and nutrition related issues remain a major public health concern in Nigeria³¹. The country recognizes that reducing malnutrition is an important goal of development as spelt out in the National Development Plan (NDP,2021-2025) which aims at improving food and nutrition security, achieving dietary diversity and access to quality food with an emphasis on food safety practices.

28. Among key efforts of the Federal Government of Nigeria to fight against malnutrition in all its forms, is the provision of the National Policy on Food and Nutrition which guides all investments by government and partners on nutrition. Moreover, the National Multi-Sectoral Plan of Action for Food and Nutrition (NMPFAN) sets out strategies and interventions for improving the nutritional status of all Nigerians with specific emphasis on the most vulnerable groups. Further, Nigeria is in a quest to accelerate the achievement of the Sustainable Development Goals (SDGs) on nutrition by the year 2030 as demonstrated by the government’s commitment to the implementation of priority actions spelt out in the Food Systems Transformation Pathways Implementation Plan³². The overarching goals of this plan is reduction of poverty, hunger, food insecurity, malnutrition, unemployment among the youth and to increase Women’s Empowerment in Agriculture Index as well as increase Environmental Performance Index score.

29. Despite the robust policy environment for nutrition improvement in Nigeria, the country still grapples with the triple burden of malnutrition³³. According to NDHS (2018)³⁴, 37% of all children under five years are stunted which is higher than the Africa average of 30.7%³⁵. Additionally, 7% of children under five years are wasted while 22% are underweight. Children are mostly affected by undernutrition during the first 1000 days of life as evidenced by increase in prevalence of stunting from 19% by 6 months of age to 47% by 24 months of age. High prevalence of malnutrition is more predominant in the Northern states where stunting rates are higher than country average (figure 1). Generally, the prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively)³⁶.



²⁸ United Nations Population Fund, World population dashboard. <https://www.unfpa.org/data/world-population/NG>

²⁹ National Population Commission. <https://www.nationalpopulation.gov.ng/>

Field Code Changed

Figure 2: Prevalence of stunting among children under five years in the Northern states (source: NDHS, 2018)

30. Anaemia affects children and women in the rural areas more than in urban areas. The NDHS shows that 68% of children below five years and 58% of women of reproductive age (15-49) are anaemic³⁷. The report confirms that children in rural areas (73%) are more likely to be anaemic than those in urban areas (62%). The northwestern states (Zamfara, Kebbi and Sokoto) are the most affected by anaemia in the country with very high prevalence rates (78%-84%). Dietary diversity is poor among women and children while feeding practices are sub-optimal. Only 11% of all children under five years were fed a minimum acceptable diet. The proportion of women who consumed five or more food groups is lower in the northern zones³⁸ than in the southern zones³⁹ with the lowest proportion reported in the North Central zone (47%). Children in the northern zones consume fewer foods rich in vitamin A and iron than those in the southern zones.

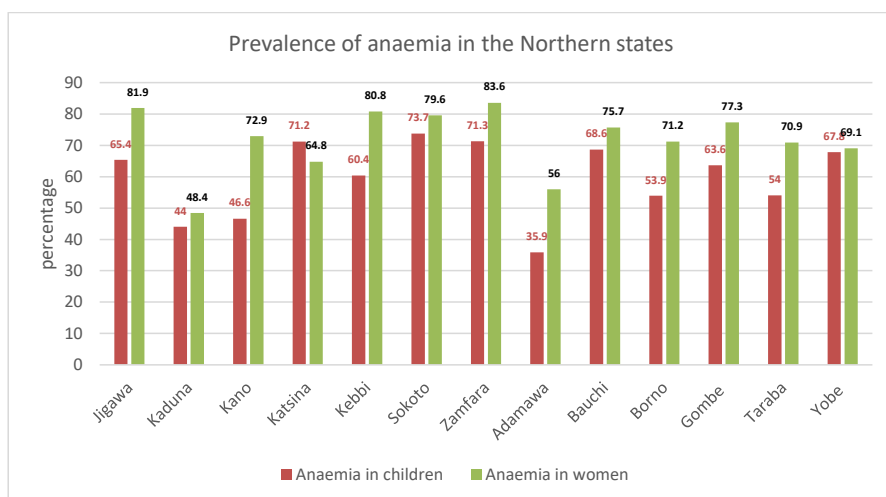


Figure 3: Prevalence of anaemia in Children under five years and women 15-49 years in the Northern states (source: NDHS, 2018)

31. Seventy-nine percent of households in Nigeria are food insecure. More than half of households in the North East (57.3%) and North west (51.5%) zones experience stressed food consumption whereas a significant proportion of households in the North are considered to be in a crisis food consumption state⁴⁰. A complex web of factors contributes to food insecurity and malnutrition in Nigeria. Inadequate care for infants and young children leaves them vulnerable to illness and poor nutrition, especially before their second birthday. Access to healthcare, clean water, and

³⁰ National Multi-sectoral plan of action for food and nutrition (2021-2025)

³¹ Preliminary report (September 2022) of the National Food Consumption and Micronutrient Survey, 2021

³² National Action and Communication Plan for Implementation of the Food Systems Transformation Pathways in Nigeria, 2023.

³³ Triple burden of malnutrition comprises under-nutrition, over-nutrition, and micronutrient deficiencies.

³⁴ Nigeria Demographic Health Survey, 2018

³⁵ Global Nutrition Report for Nigeria, accessed online in December 2023 at <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

³⁶ Nigeria Demographic Health Survey, 2018

³⁷ *Ibid*

³⁸ Northern zones include North Central, North East, and North West

³⁹ Southern zones include South East, South South, and South West

⁴⁰ Households in crisis food consumption in North west (42.3%) and North East (36.7%) zones (NFCMS, 2021)

proper sanitation remains limited, further hindering basic health and wellbeing. For instance, sanitation and hygiene practices are poor with less than standard toilets and open defecation still common. Usage of unimproved toilets is more prevalent in the Northern zones⁴¹ with 21.5 per cent of households practicing open defecation system. The practice is more prominent in the rural areas (34.5 percent) than in the urban areas (7.4 percent)⁴². Anecdotal evidence from field visits in the North revealed frequent occurrence of water borne diseases because of water contamination.

32. Armed conflict, primarily in the north, disrupts food production and access, while erratic rainfall patterns wreak havoc on harvests. Widespread unemployment and poverty trap many in a cycle of food insecurity. While chronic and seasonal food shortages plague the entire country, volatile food prices exacerbate the situation. In the northeastern zone, frequent conflicts further worsen these pre-existing vulnerabilities, pushing food insecurity to acute levels. In most instances, food insecurity is inversely related to the level of education of women at household level⁴³. There is generally poor implementation of nutrition and food security related policies at State and Local Government levels.
33. Women in urban areas are substantially more likely than those in rural areas to consume meat, fish, and poultry (84% versus 59%); eggs (22% versus 11%); sugary foods (19% versus 13%); and sugar-sweetened (32% versus 13%). Consumption of biofortified crops (yellow cassava, orange fleshed sweet potatoes and orange maize) by women of reproductive age is generally low⁴⁴. Nigerian rural households consume much less than 20% of fortified foods compared to urban households⁴⁵. The proportion of women who consumed five or more food groups generally increases with increasing education and wealth. For example, 48% of women with no education consumed five or more food groups, as compared with 70% of women with more than a secondary education.
34. Complementary feeding is mainly characterized by consumption of foods made from grains (78% and 90% among breastfeeding and non-breastfeeding children aged 6 to 23 months respectively). There is low consumption (27%) of meat, fish, and poultry among breastfeeding children as well as fruits and vegetables rich in vitamin A (37%) and eggs (13%). (source: NDHS 2018).

VCN potential social impacts and risks

35. *Fragility and security.* The semi-arid northern Nigeria where the VCN project is proposed currently faces **high level risk** of complex fragility problems. This includes the Boko-Haram insurgency in the northeast and the banditry and kidnapping crisis in the northwest. In both regions, natural resource induced crisis by different social actors (including between farmers and pastoralists) have elevated human insecurity risks. There are pockets of communal clashes and armed robbery across communities. This security and fragility problems can wipe-off investments due to farmers abandoning their fields, constrain effective project management, increase project management cost, and undermine the achievement of the project development objectives.
36. *Women's access issues to land.* Experience from CASP shows that there is a **substantial** risk that female beneficiaries may not be able to access land and

⁴¹ 40 per cent in North West zone and 20 per cent in North East zone.

⁴² National Food Consumption and Micronutrient Survey (NFCMS), 2021

⁴³ Ibid

⁴⁴ According to the NFCMS 2021, only three percent of women consumed yellow cassava, five percent consumed orange-fleshed sweet potato and 13 percent consumed orange maize

⁴⁵ Rural versus urban consumption of: vegetable oil (20 percent vs. 48 percent), wheat flour (8 percent vs. 27 percent), semolina flour (7 percent vs. 40 percent), sugar (15 percent vs. 31 percent), NFCMS 2021

materialise project and their investments without explicit project facilitation and commitment from local governments.

37. *Cultural heritage.* This is a **low level** risk. Some of the communities in the project area have invaluable material and non-material cultural heritages (mountains, ruins and buried monuments), geodiversity and geoheritage and long history of culture, traditions, values, and festivals that enrich their heritages. However, the chances that the project will negatively impact cultural heritage of the people is low.
38. *Indigenous people.* This is a **low level** risk. There are no indigenous people according to the UN classification whose existence is threatened by the project. However, there are several distinct tribes and cultures spread across the project area. The risk of exclusion of marginalised and itinerant tribes (such as the nomadic Fulanis) and those with weak political representation is real.
39. *Labour and working conditions.* The total fertility rate, family size and number of children out of school is high in the VCN States. Poverty is also very high and literacy level is low. The risk of forced labour is **low**. The risk of using child labourers on the farm is **substantial/moderate**. But the use of child labourers on farms by smallholder farmers is permitted by both the Nigeria Labour Act 1990⁴⁶ and the Nigerian Child Rights Act 2003⁴⁷. Section 59(1a) of the Nigerian Labour Law 1990 (with concurrence of Section 28(1b) of the Child Rights Act 2003) states that: *No child shall be employed or work in any capacity except where he is employed by a member of his family on **light work of an agricultural, horticultural, or domestic character.*** Section 59 (3) further states: ***A young person under the age of fourteen years may be employed only- (a) on a daily wage;(b) on a day-to-day basis; and (c) so long as he returns each night to the place of residence of his parents or guardian, or a person approved by his parents or guardian.*** Thus, the key issue here is to continually monitor the project during implementation to ensure that the provisions of children working with parents and guardians and on daily wage are not abused.
40. *Community health and safety.* This is a **moderate** risk. Productivity of the rural population is hampered by ill-health, particularly HIV/AIDS, tuberculosis, and malaria. There is the risk of surface water pollution because of the project activities that can impact the health of poor people that depend on surface water sources in the project area. This includes risk of improper application of agrochemicals and water eutrophication. Lack of personal protective equipment (PPE) on farm poses the risk of exposure to schistosomiasis and other water-associated neglected tropical diseases. Child malnutrition is also high in northern Nigeria, and this poses the risk of increased childhood mortality. VCN could also involve or lead to the construction or rehabilitation of small earthdams. Specific, monitoring measures related to water borne diseases will be put in place as well as safety measures.
41. *Physical and economic resettlement.* The risk of physical and economic displacement is **low** as the VCN will not support enterprises on disputed lands. The banditry, Boko Haram crisis and farmers-herders crisis has already precipitated significant physical and economic displacement.
42. *Elite capture.* The chances of some 'city people' that are more exposed and financially endowed than the 'village people' coming back home to try and hijack the whole process is **moderate**. Politicians may also try to hijack and manipulate the selection processes to favour their supporters. The process of recruitment of project staff also faces the risk of hijack leading to recruitment of incompetent technical staff into the project management with its concomitant capacity, performance, and sustainability issues.

Grievance redress. There is a **moderate** risk of ineffective grievance/complaint documentation and redress processes (including with respect to allegations of non-compliance with IFAD's SECAP standards, selection process, recruitment process, sexual exploitation, and abuse, etc), leading to unaddressed stakeholder complaints that may undermine project implementation, organizational reputation, and achievement of

⁴⁶ Labour Act. Chapter 198, Laws of the Federation of Nigeria 1990

⁴⁷ Child Rights Act 2003. Act No. 26

project development objectives. Also, different forms of GBV have been documented and reported in some States in the project target, namely, in the context of displacement affecting women and children with perpetrators often being people managing operations related to the allocation of goods and essential services to displaced women. The project will incorporate explicit language and procedures related to sexual harassment, exploitation, and abuse.

2.2 Environment and climate context, trends and implications

The sections below give a detailed environmental assessment, while also presenting the climate trends and impacts.

2.2.1 Environmental assessment

43. **Drainage.** The semi-arid northern Nigeria spans four of the eight hydrological areas/regions (HAs) of Nigeria. These include HA 1 (Sokoto-Rima basin), HA 2 (Upper Niger – Kaduna River basin), HA 3 (Upper Benue – Gongola and Taraba River basins) and HA 8 (Chad basin – Kano-Hadejia River basins). With several river basins in the HAs, the project area has abundant surface and groundwater resources (Fig 3). These water regions are managed by River Basins Development Authorities (RBDA) responsible principally to undertake comprehensive development of both surface and ground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management, among others⁴⁸. Future changes in the average water flows of the sub-basins within the semi-arid northern Nigeria are substantially uncertain⁴⁹.
44. **Relief and physiography:** Nigeria have extensive geodiversity and physiographic regions. The northern Nigeria consists of the inland basins, north-eastern Highlands, the great plains of northern Nigeria and the North central Plateau and Highlands⁵⁰. The inland basins include the Niger-Benue trough and the Sokoto and Chad basins. Average elevation lies below 1000ft (305m). The north-eastern highlands (Adamawa-Bamenda highlands) of undifferentiated basement complex lie between 1000 and 2000ft (305-610m). The great plain of northern Nigeria substantially underlain by undifferentiated basement complex lies between 1000 and 2000ft (305-610m) and covers extensive area between the Sokoto basin in the northwest and the Chad basin in the northeast. The north central plateau and highlands underlain by sandstone on undifferentiated basement complex lie between 2000 to 300ft (610-915m) and consists of bold relief and rocky outcrops and inselbergs found around the Kaduna-Jos-Bauchi axis, northern Adamawa and south-eastern Borno and southern Taraba states. The highest elevation ranging from 3000ft to above 5000ft (915-1525m+) are found in the Jos Plateau and the Mandara mountains in the Adamawa-Bamenda ranges along the Nigeria-Cameroon border.
45. **Ecology.** The major ecological region of northern Nigeria consists of the savanna vegetation - northern guinea, Sudan and Sahel savannas (Fig 4). The **savanna** ecosystems cover about 48.5% of Nigeria's land area. The **northern guinea savanna** consists of shorter trees (compared to southern guinea). It covers part of Kaduna and Bauchi states as well as northern Taraba state in the northeast. It is typified by open woodland with tall grasses and fire-resistant trees. Tree cover here varies between 15

⁴⁸ River Basins Development Authorities Act, 1987, No35. <http://laws.nigeria.placng.org/laws/R9.pdf>

⁴⁹ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

⁵⁰ Udo, R. K. (1970). *Geographical Regions of Nigeria*. Ibadan, Nigeria: Heinemann Educational Books Ltd

to 25% in undisturbed areas. The **Sudan savanna** is extensive from the Sokoto basin to the lower part of the Chad basin and covers much of the northern (semi-arid) frontline. The ecology consists of a greater frequency of *Acacia albida*, *Tamarindus indica*, and *Schelocarya birrea* and forest cover of up to 20% of the land area. The **Sahel savanna** is found mainly in the Chad basin and along the northern fringes with Niger Republic. In addition to grasses, shrub species (*Combretum spp.*) and acacias predominate. Forest cover rarely exceeds 10% except along seasonal watercourses.

46. **Protected areas.** The variable climatic conditions and geodiversity of Nigeria support a diverse assemblage of terrestrial and aquatic organisms. However, the remaining natural forests and diverse species of international importance exist only in protected areas or otherwise inaccessible (swamp, montane, and culturally protected) sites⁵¹. Protected areas cover about 117,441 km² (12.84%) of Nigeria's land area⁵². Nigeria's present network of protected areas includes seven national parks, 994 forest reserves, 5 strict nature reserves, 32 game reserves, 27 Important Bird Areas, 11 Ramsar Sites, 2 World Heritage Sites, 1 biosphere reserve, and many sacred groves at varied level of protection^{53, 54}. The total area covered by Forest Reserves in the semi-arid northern Nigeria is about 56,824.76⁵⁵ as shown on Table 3.

47. Gashaka-Gumti (6,731km²), Chad Basin (2,258km²) and Kamuku (1,121km²) national parks fall within the semi-arid northern Nigeria. In alignment with Nigeria's NDC, the Federal Government in December 2020 designates 10 forest reserves as new National Parks. Four of these, Falgore Forest Reserve (Kano State), Hadejia Wetlands Games Reserve (Jigawa State), Kogo Forest Reserve (Katsina State), and Marai Forest Reserve (Jigawa State)⁵⁶ are within the VCN project area.

Figure 23: Projected changes in average water flows by Sub-basin, 2050 Compared to 1990⁵⁷

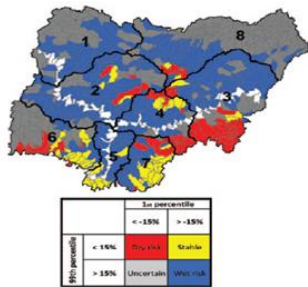


Figure 34: Nigeria's agro-ecological zones (NASPA-CCN 2011)

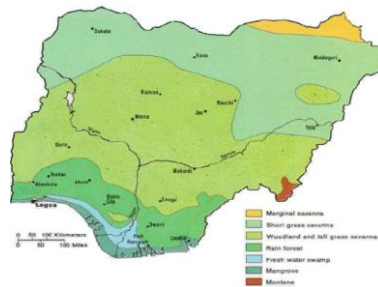


Table 13: Area covered by Forest Reserves in the semi-arid northern Nigeria states.

Sn	State	Derived Savanna (km ²)	Guinea Savanna (km ²)	Sudan/Sahel Savanna (km ²)	Total area (km ²)
1	Adamawa	328.83	1,188.04	0.00	1,516.87
2	Bauchi			8,175.80	8,175.80
3	Borno		1,346.37	1,795.17	3,141.54
4	Gombe				
5	Jigawa			977.32	977.32
6	Kaduna		864.17	5,743.91	6,608.08
7	Kano			723.67	723.67

⁵¹ USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.

⁵² USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.

⁵³ <http://www.un.org/esa/agsenda21/natlinfo/countr/nigeria/inst.htm>

⁵⁴ USAID (2013). Nigeria Biodiversity and Tropical Forests 118/119 Assessment. Available at: <http://www.usaidgems.org/Documents/FAA&Regs/FAA118119/Nigeria2013.pdf>.

⁵⁵ Oyebo, M, Bisong, F and Morakinyo, T (2010): A Preliminary Assessment of the Context for REDD in Nigeria. Commissioned by the Federal Ministry of Environment, the Cross River State's Forestry Commission and UNDP.

⁵⁶ <https://guardian.ng/property/fq-designates-10-forest-reserves-as-national-parks/>

⁵⁷ Source: Cervigni et al. 2013

8	Katsina			326.67	326.67
9	Kebbi			3,076.76	3,076.76
10	Sokoto			16,943.71	16,943.71
11	Taraba	7,094.22		4,373.02	11,467.24
12	Yobe			3,867.10	3,867.10
13	Zamfara				
		328.83	10,492.80	46,003.13	56,824.76

Source: Adapted from Oyebo et al. (2010)

Land cover Trends

48. Nigeria experienced the world's highest deforestation rate of 5% net forest loss annually from 2010-2015⁵⁸. Table 4 shows the summary of landcover trends in the seven CASP states (Borno, Jigawa, Katsina, Kebbi, Sokoto, Yobe, and Zamfara) between 1990 and 2020.

49. Land cover classes that recorded decline include areas covered by dominantly shrubs and dense grasses with a minor tree component (-3.54%), dominantly trees/woodlands/shrubs with a subdominant grass component (-0.41%), extensive (grazing, minor row crops) small Holder Rainfed Agriculture (-5.27%), and Floodplain (Alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp) (-0.14%), natural waterbodies (-0.04%), and reservoirs (-0.01%). On the other hand, land cover categories that recorded increase during the period include Intensive (row crops, minor grazing) Small Holder Rainfed Agriculture (9.7%), built up area (0.27%), dry river channel (0.03%), floodplain agriculture (0.47%), gully (0.18%), irrigation project (0.15%), and riparian forest (1.1%).

50. As indicators of deforestation, the dominantly trees/woodlands/shrubs with a subdominant grass component landcover has been declining at around 1.55% and Floodplain (alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp) at -0.17% annually. Land degradation pointers in the area include decrease in Dominantly shrubs and dense grasses with a minor tree component (0.63% annually), Extensive (grazing, minor row crops) Small Holder Rainfed Agriculture (0.64% annually), Grassland (0.8% annually), Natural Waterbodies (0.33% annually) and reservoir (0.09% annually), as well as increase in gully (0.17% annually).

Table 24: Land use and land cover change in the seven CASP states⁵⁹

Landuse and landcover type	Area_1990 (km2)	Percent	Area_2020 (km2)	Percent	diff_%	diff_GR
Agricultural Tree Crop Plantation	21.5	0.0	35.3	0.0	0.00	2.14
Built-up Area (Major and Minor Urban)	569.9	0.2	1,329.5	0.5	0.27	4.44
Canal	28.0	0.0	31.9	0.0	0.00	0.47
Dominantly shrubs and dense grasses with a minor tree component	52,026.5	18.7	42,177.8	15.1	-3.54	-0.63
Dominantly trees/woodlands/shrubs with a subdominant grass component	2,447.4	0.9	1,310.5	0.5	-0.41	-1.55
Dry River Channel	0.0	0.0	89.0	0.0	0.03	
Extensive (grazing, minor row crops) Small Holder Rainfed Agriculture	76,650.7	27.5	61,977.2	22.3	-5.27	-0.64
Floodplain (Alluvial/Shrub/Sedge/Graminoid Freshwater Marsh/Swamp)	7,429.2	2.7	7,051.1	2.5	-0.14	-0.17
Floodplain Agriculture	9,151.7	3.3	10,447.8	3.8	0.47	0.47
Forest Plantation	409.2	0.1	453.6	0.2	0.02	0.36
Grassland	25,182.4	9.0	19,146.2	6.9	-2.17	-0.80
Gully	9,877.4	3.5	10,387.3	3.7	0.18	0.17
Intensive (row crops, minor grazing) Small Holder Rainfed Agriculture	85,413.7	30.7	112,420.7	40.4	9.70	1.05
Irrigation Project	662.1	0.2	1,081.9	0.4	0.15	2.11

⁵⁸ FAO (2016). Global Forest Resources Assessment 2015: How are the world's forests changing? Second edition. FAO, Rome. 54pages

⁵⁹ Participatory Climate Change Vulnerability Mapping and Training in CASP Areas. March 2021

Livestock Project	45.8	0.0	40.4	0.0	0.00	-0.39
Natural Waterbodies: Rivers, Lakes and ponds	1,072.6	0.4	966.7	0.3	-0.04	-0.33
Reservoir	969.8	0.3	943.5	0.3	-0.01	-0.09
Riparian Forest	256.6	0.1	3,360.2	1.2	1.11	40.31
Rock Outcrop	1,144.2	0.4	1,144.1	0.4	0.00	0.00
Sand Dunes/Aeolian	5,053.1	1.8	4,035.0	1.4	-0.37	-0.67
	278,411.8	100.0	278,429.6	100.0		

2.2.2 Climate trends and impacts

Present climate

51. **Rainfall.** Like the rest of Nigeria, the climate of the VCN states is controlled by the two dominant air masses – the moist tropical maritime air mass (south westerlies) driven mainly by the West Africa monsoon system from April through October; and the dry, dust-laden north-easterly tropical continental air mass. The interaction between these two contrasting air masses is controlled by the movement of the inter-tropical discontinuity (ITD). Mean annual rainfall in the northern Sudan Savanna zone range between about 600-1000 mm and less than 600mm (received over 3 months -July to September)⁶⁰ in the Sahel zone. Relative humidity is constantly below 40%, except for the few rainy months when it goes up to 60% or more. Dry season in the Sudan savanna is about 4-6 months and exceed 8 months in the Sahel. The inter-annual rainfall variability is high in northern Nigeria resulting in climatic hazards, especially flood and drought. The relative humidity in the north experiences considerable seasonal and diurnal variations⁶¹. Since the 1990s, rainfall has recovered across Nigeria. Analysis of rainfall data from 1981 to 2020 across Nigeria shows that the general trend in rainfall amount has been positive, increasing at about 8.2% annually. The increase is higher in the north at 8.7%⁶². The standardized rainfall anomaly over Nigeria shows that the years 1981 to 1990 (except 1988) received below normal rainfall. Rainfall recovery started in 1991; and except for 1992, 1993 and 2001, the years from 1991 to 2020 received above normal rainfall with 2019 and 2012 recording positive anomalies above 2SD. The rainfall anomalies over northern Nigeria are consistent with the signal over Nigeria (Fig. 5).

52. **Temperature.** Warming trend over Nigeria is very clear and the signal is consistent over both northern and southern Nigeria. However, temperature is rising faster over the semi-arid northern Nigeria. In essence, exposure to rising temperature and high sensitivity (coupled with low adaptive capacity), leading to high vulnerability to climate and environmental change is greater over northern Nigeria. The observed climate indicates that temperatures over Nigeria has been rising in the last five decades and has been very significant since 1980s. The linear warming for a 30-year averages on a decadal slice reveal changes in temperature by an average of 0.2°C; and has been above normal by as much as 2°C in 1998⁶³. Nigeria transited from cold period to warm since 1981 with a general warming trend increasing at about 6.1% per annum. The last decade (2011-2020) remains the warmest since 1981 with only 2012 recording below normal maximum temperature. The years 2013 to 2020 have been consistently warm with positive anomalies exceeding 2SD in 2016, 2017 and 2020. The maximum temperature increase since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig. 6)⁶⁴.

⁶⁰ Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months.

The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.

⁶¹ State of the Nigerian Environment Report, 2008, SEDCC Associates for Federal Ministry of Environment and UNDP

⁶² State of Climate in Nigeria 2020, Nigerian Meteorological Agency

⁶³ Federal Government of Nigeria (2014): Nigeria's Second National Communication under The United Nations Framework Convention on Climate Change. The Federal Ministry of Environment of the Federal Republic of Nigeria Abuja. Retrieved from www.unfccc.int/resource/docs/natc/nganc2.pdf.

⁶⁴ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

Figure 45: Rainfall anomaly over northern Nigeria (1981-2020)

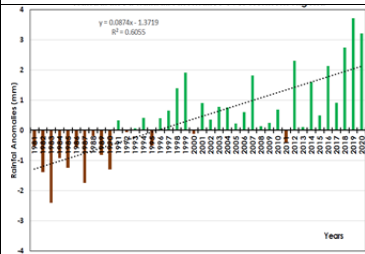
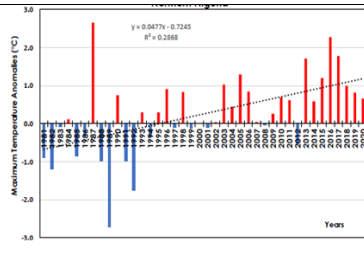


Figure 56: Maximum Temperature anomaly over Northern Nigeria (1981-2020)



Future climate Trend

53. **Rainfall:** Rainfall is projected to increase across Nigeria. The Sahel savanna is projected to have the highest increase of around 30% under both RCPs 4.5 and 8.5 for the 2050-time step followed by the Sudan savanna with about 10% while the remaining zone are at less than 5%. The projections follow the same trend for the 2070-time horizon, with higher increases under RCP8.5 and even a 45% peak for the Sahel savanna. For aggregate mean annual precipitation, the northern Sahel and Sudan savannas could experience an increase of 29% to 45.8% and 9% to 14.2%, respectively. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400 mm annual maximum historically over this zone (Fig 7)⁶⁵.

54. **Temperature:** Under the RCP4.5 for 2050 and 2070, temperature increase could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline. On average, the temperature increase is projected to vary between 1.95 to 2.31°C under the RCP 4.5 scenario increasing to the range 3.15 to 3.54°C for the RCP 8.5 across the country. The lower increase is predicted for the southern part of the country and the magnitude increases northward. Under the RCP 8.5 scenario for 2050 and 2070, the low range temperature increase is from +2.41°C to +2.68°C and the highest ranges from +4.25°C to +4.63°C compared to the baseline. Under RCP 8.5 almost all parts of Nigeria could experience an increase of a minimum of 2°C and a maximum of 4°C or higher, with the highest increase being felt in the northern Nigeria. In essence, temperature is likely to continue to rise across Nigeria, but faster in the north (Fig 8)⁶⁶.

Figure 67: Future rainfall pattern over Nigeria⁶⁷

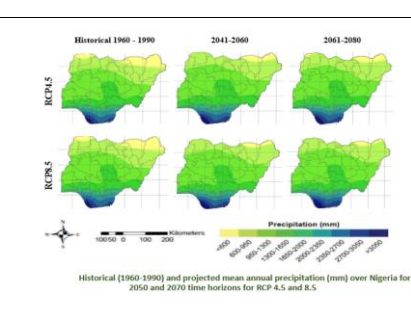
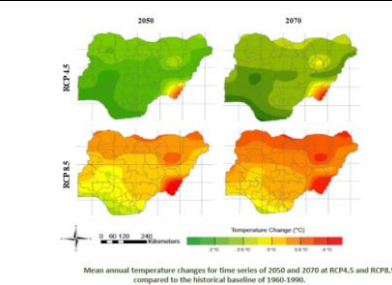


Figure 78: Future temperature pattern over Nigeria⁶⁸



⁶⁵ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%202018-04-2020%20-%20FINAL.pdf

⁶⁶ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%202018-04-2020%20-%20FINAL.pdf

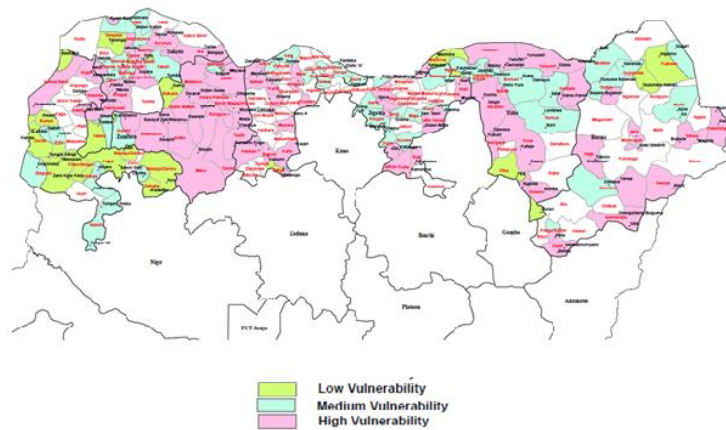
⁶⁷ FGN. 2020

⁶⁸ FGN. 2020

Climate change vulnerability and impacts on Agriculture

55. According to the Participatory Climate Change Vulnerability Mapping in CASP Areas conducted in March 2021, flood, drought, dry spell, soil erosion, high temperature, windstorm, desertification, soil infertility, and pest and diseases are the most important climate risks in northern Nigeria. Based on the report, in Kebbi state, Suru, Bagudo, Shanga, and Ngaski LGAs are considered areas of highest vulnerability to climate change. In Sokoto state, Goronyo, Isa, Kware, Wurno, Dange-Shuni, Silame, Shagari, and Tambuwal LGAs are considered areas of highest vulnerability.
56. In Zamfara state, Shinkafi, Maradun, Zurmi, Talata Mafara, Kaura Namoda, Birnin Magaji, Bungudu, Anka, Tsafe, Maru, Gasau and Bukkuyum LGAs are considered areas of highest vulnerability to climate change. In Katsina State, Jibia, Batsari, Kurfi, Dutsin Ma, Mani, Bindawa, Kusada, Musawa, Kafur, Bakori and Faskari LGAs are considered areas of highest vulnerability to climate change. In Jigawa State, Sule Tankakar, Kafin Hause, Birnin Kudu, Buji and Guri, LGAs are considered areas of highest vulnerability to climate change. In Yobe State, Yusufari, Yunusari, Geldam, Jakusko, Nangere, Fune and Gulani LGAs are considered areas of highest vulnerability to climate change. In Borno State, Kala/Balge, Dikwa, Kaga, Gwoza, Askira/Uba, Shani and Kwaya Kusar LGAs are considered areas of highest vulnerability to climate change (Figure 9).

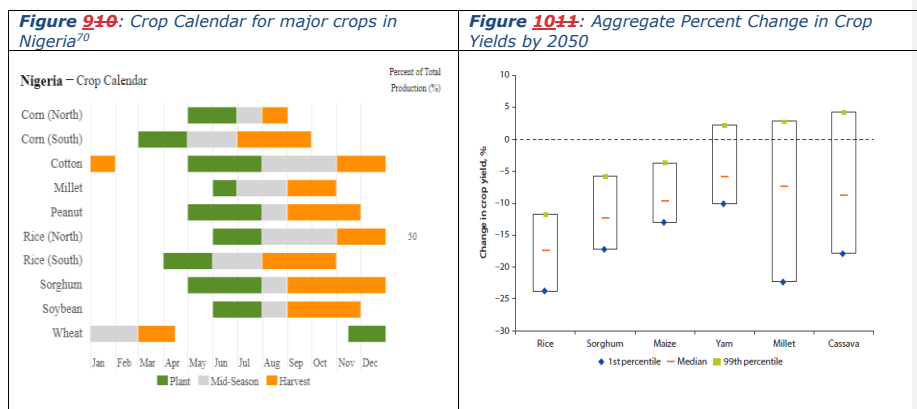
Figure 8: Climate Change vulnerability in CASP states



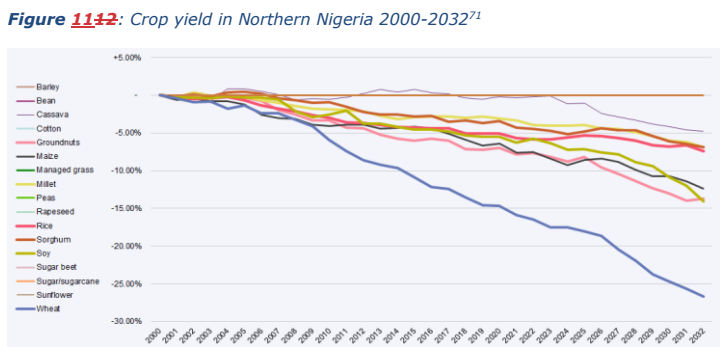
57. Annual fluvial flooding especially from the Niger and Benue and its tributaries (Sokoto/Rima, Kaduna, Gongola, Taraba, etc) and other rivers including the Hadejia-Jamaare, as well as pluvial floods from high intensity rainfall result in the loss of farmlands and investments across the semi-arid northern states and continues to be an increasing challenge. In 2012, 2018, and 2022 devastating floods have occurred across the states resulting in substantial losses. Majority of the farmers are not signed to any form of insurance and compensation, while access to weather advisory services established during CASP needs to be strengthened. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to the increased climate variability with possibility of increased dry spells and droughts. Increased rainfall intensity, coupled with land clearing means a greater risk of surface runoff, topsoil erosion, flooding, and risk of river damage to road infrastructure.
58. Flooding in northern Nigeria often occurs between September and October which coincides with the harvest season for the most important value chain crops including millet, peanut, rice, sorghum, and soybean (Fig. 10). This often exacerbates investment losses, poverty, and food insecurity and nutrition issues. Cervigni et al (2013)⁶⁹ have

⁶⁹ Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development-- Countries and Regions. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

shown that there will be decrease in the yield of major crops including Rice, Sorghum, Maize and Millet, which are value chain crops in northern Nigeria by 2050. This could be as high as almost 25% for Rice and Millet (Fig. 11).



59. The IFAD Climate Adaptation in Rural Development Assessment Tool was used to look at the trend in crop yield for northern Nigeria. Using AEZ: dry, moderate soil (which is the common agroecological zone of northern Nigeria) under no irrigation, and median risk and year 2000 as the base year, yield for all the major value chain crops continues to decrease with as much as 27% for wheat, 14% for groundnut and soybean, 12% for maize, and 7% for sorghum, millet and rice by 2030 (Fig. 12).



⁷⁰ Source: USDA, 2022. https://ipad.fas.usda.gov/countrysummary/images/NI/cropcalendar/wafrica_ni_calendar.png
⁷¹ IFAD Climate Adaptation in Rural Development Assessment Tool

Strengthening resilience and improving adaptation to climate change.

60. Climate change and variability is perhaps the greatest problem of smallholder agriculture in northern Nigeria. The short rainfall duration leading to short growing season is a limitation to production and by extension other agricultural value chains. Thus, availability of water through irrigation is critical to strengthening resilience and improving adaptive capacity of the smallholder farmers. Desertification and land degradation also undermine the resilience of farmers.
61. The **interaction with stakeholders during the concept note and project design** missions shows other issues to include access to inputs -lack of improved seeds and high cost of fertilizer, lack of labour saving technologies, insecurity, banditry and farmers herders conflicts, and innovation (especially in storage, processing and value additions, packaging, seed improvement, etc.). Others include limited access to market and market information, access to finance, low private sector (off takers, financial institutions, etc.) interface with smallholder farmers, unfavorable cross border trade (smuggling makes imported rice cheaper), challenge of storage facilities, low (local) technology for processing and lack of support for value additions.
62. VCN will have to strengthen resilience to climate change in northern Nigeria through building on the resilience-enhancing activities of CASP. This includes supporting farmers with tube wells, wash bores, water pumps and other small irrigation structures. CASP (in partnership with ICARDA) demonstrated and trained smallholder farmers on soil and water conservation and landscape rehabilitation techniques including planting pits (zai), half-moon, tie ridges, bunding, contour ploughing, and runoff diversion. It also trained farmers on soil management practices through crop rotation, cover cropping, strip cropping, mulching, fertilizer tree agroforestry with *Faidherbia Albida* and composting and farmyard manure production. Promoting mass adopting of these simple techniques and technologies and innovation for sustainable land management is critical to improving the adaptive capacity of the smallholder farmers. VCN will also improve access to climate information for planning production and processing cycles and on-farm activities for efficient agricultural value chain systems. Both the CASP impact study and responses from stakeholders for the VCN concept note agreed that farmers output has increased.
63. VCN will also need to improve on human resilience-enhancing infrastructure provided by CASP. This includes construction of water infrastructure for human and animal watering (which also provides water for animal watering for the pastoralists and reduces conflicts), and construction/rehabilitation of market connected farm roads to improve physical access to markets and reduce post-harvest losses. CASP mainstreamed conflict management in the FOs and CDA structure. Field consultations in Sokoto States suggest that there is conflict management committee in each LGA that handle conflict between Fulani and Farmers. VCN will improve innovation in several areas including storage, value additions, access to finance (including insurance), market information, packaging, seed improvement, land management, conflict management and use of digital agric technologies. Resistance to innovation due to social, cultural, and religious biases could undermine resilience. Thus, education and sensitization are key improve innovation adoption.

Climate and Environmental Risks

Climate risk

64. **Project vulnerability to climate change impacts:** The inherent and residual risks of project vulnerability to climate change impacts are both **Substantial**. The VCN project areas face the risk of climate uncertainty especially with regards to rainfall and temperature. Unpredictability of rainfall in terms of onset and cessation dates as well as length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the wide dry season. Flooding has also become a problem wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

65. **Mitigation:** VCN will promote climate-smart and good agricultural practices, strengthen access to climate information services and sensitize agro-entrepreneurs on climate risk insurance and link them to NAIC and other insurance services providers. The project will also support farmers with climate-tolerant and high yield seeds, promote clean and energy-efficient processing systems, provide capacity building on soil and water conservation and landscape rehabilitation techniques, and strengthen extension services to disseminate innovations and digital agriculture technologies that improve climate resilience.
66. **High temperature and extreme heat.** The risk of high temperature and extreme heat in semi-arid northern Nigeria is **Substantial**. This means that prolonged exposure to extreme heat, resulting in heat stress, is expected to occur at least once in the next five years⁷². Future projections have shown the likelihood of increase in temperature across Nigeria and with higher value expected for northern Nigeria. This increases the risk of heatwaves, water scarcity, dry spells and agricultural droughts.
67. **Mitigation:** VCN will promote access to climate information by farmers to reduce losses to dry spells. It will also invest in smallholder irrigation structures to reduce losses to dry and drought conditions. It will promote e-extension to disseminate good agronomic practices to farmer. It will sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. VCN will promote use of improved and drought and heat tolerant seeds/seedlings and soil and water conservation practices and also deepen climate-smart and good agricultural practices.
68. **Flooding.** River flood hazard is classified as **Substantial** based on modelled flood information currently available on ThinkHard⁷³. This means that potentially damaging river floods are expected to occur at least once in the next 10 years. There is also the risk of pluvial flood from heavy rainfall submerging farmlands in the project area and this may be aggravated by unsustainable land use and management practices, which influence how localized river flood hazard evolves into the future and alter future hazard level.
69. **Mitigation:** VCN will strengthen collaboration with the Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological Service Agency (NIHSA) to improve climate services - capacity to generate forecast of extreme rainfall events and river flows and production and dissemination of weather information to farmers in local languages at regular interval. It will support deployment of e-climate services app to improve dissemination of weather information to farmers. It will promote e-extension to disseminate good agronomic practices to farmers. VCN will also sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities.
70. **Water scarcity.** The risk of water scarcity for agriculture is **Substantial**. This means that droughts are expected to occur on average every 5 years. Although model projections are inconsistent in their estimates of change in drought hazard, which influences water scarcity, the present hazard level may increase in the future due to climate change. It would be prudent for the VCN to be robust in addressing increased drought hazard and water scarcity. This makes irrigation very important.
71. **Mitigation:** VCN will support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spell. In addition to agronomic extension officers, VCN will promote climate information advocacy through radios and text messages to disseminate weather and climate information to farmers in local languages. It will promote integration of traditional forecasting knowledge with science knowledge through regular feedback from farmers.

⁷² <https://thinkhazard.org/en/report/182-nigeria/>

⁷³ <https://thinkhazard.org/en/report/182-nigeria/>

72. **Soil Erosion (water and wind).** A **substantial** risk - Soil erosion resulting from high intensity rainstorm and windstorm, unsustainable land practices and road construction without drainage and poorly terminated road edges and unsustainable land development mechanisms. This is likely across all states.

73. **Mitigation:** VCN will promote landscape rehabilitation and agronomic practices such as contour ploughing, terraces and contour bunds, etc to control soil erosion. It will encourage the planting of cover crops and anchor crops with the main crop. It will also ensure that all farm to market roads constructed/rehabilitated must have drainage to prevent erosion. Design and construction of roads, bridges and culverts will be climate-smart and properly monitored to prevent inappropriate termination that can lead to erosion.

74. **Greenhouse gas emissions: The inherent and residual risks of Greenhouse gases emissions are moderate.** The likelihood of some activities (e.g., rice cropping) as well as unsustainable land management practices and operation of environmentally unfriendly processing machines leading to emission of GHGs is real. In addition, the reliance of processing facilities on fuelwood and charcoal as energy sources poses the risk of GHG emissions.

75. **Mitigation:** The VCN project will promote climate-smart agriculture and the use of climate information to guide on and off farm activities. Safeguard guidelines developed to guide and promote sustainable agriculture will be followed through. Use of clean and renewable energy technology and use of climate information and advisory services will also be promoted.

Environmental risk

76. **Project vulnerability to environmental conditions: The inherent and residual project vulnerability to environmental conditions risks are both Substantial.** VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of difficult semi-arid ecology with widespread degradation conditions including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. The poor environmental conditions pose the risk of poor yield, loss of crops and land conflicts.

77. **Mitigation:** VCN has developed SECAP safeguard documents (SRN, ESCMF, ESCMP) which will guide environment and climate mainstreaming and natural resource management in the project. VCN will build on the achievement of CASP by integrating activities that deepen the capacity of farmers in soil and water conservation and landscape rehabilitation to improve the environment and natural resource management. It will also promote extension services to promote good agricultural practices and adoption of good agronomic practices.

78. **Biodiversity losses.** This is a **low** risk. The VCN Project area harbours some protected areas, forest reserves, and delicate wetland areas (such as the Hadejia-Nguru wetlands) that also serve as important habitats for birds during the winter in the northern hemisphere. Desertification, land degradation and biodiversity losses are already serious issues in northern Nigeria because of unsustainable land management practices and significantly contribute to climate impacts and resource conflicts. However, no subproject is expected around the protected areas.

79. **Mitigation:** VCN will conduct environmental screening for all subprojects. It will discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. It will Follow through activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water

conservation, landscape rehabilitation, etc.). in addition, the project will avoidance areas that infringe on known habitats and migration patterns of protected, endangered or rare species, and maintain known wildlife migration corridor.

80. **Resource efficiency and pollution:** This is a **substantial** risk. The VCN is a natural resource-dependent project that may involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts; or lead to primary environmentally unsustainable production of living natural resources including arable cropping of value chain crops. Other inherent risks include waste proliferation from production and processing sites as well as excessive and inappropriate use (including adulteration) of agrochemicals including inorganic fertilizers and pesticides. The cluster farming to be adopted possess the risk of agrochemical pollutions as well as massive groundwater drawdown around clusters through tubewell irrigation by several farmers.
81. **Mitigation:** the project will promote resource efficiency and integrated waste management and monitoring systems related to air quality (dust, CO2 emission etc) as well as health and safety on the project sites – e.g., conversion of rice waste at processing sites to briquettes. It will conduct periodic monitoring of the groundwater around farm clusters. It will train farmers on appropriate use of fertilizers and pesticides and promote farmers production and use of on-farm organic manure. It will also promote livelihood opportunities in waste valorisation and agrochemicals application through appropriate training and capacity building. An Integrated Pest Management Plan (IPMP) will be developed for the VCN.
82. **Cultural heritage.** This is a **low** risk. Some of the communities in northern Nigeria has invaluable physical and non-physical-cultural heritages (mountains, ruins and buried monuments), geodiversity and geoheritage. Some communities have a long history of culture, traditions, values, and festivals that enrich their heritages. The projected is not expected to impact any of that.
83. **Mitigation:** VCN will activate the procedure for chance finds and other protection and handling of cultural heritage throughout all stages and activities of the project. It will discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values.
84. **Indigenous people.** This is a **low** risk. There are no indigenous people according to the UN classification whose existence is threatened by the project. However, there are several distinct tribes and cultures spread across the project area. The risk of exclusion of marginalised and itinerant tribes such as the nomadic Fulanis) and those with weak political representation is real.
85. **Mitigation:** VCN will deepen social inclusion by considering all the social actors and mainstream inclusion and equity through the targeting, stakeholders engagement and grievance redress strategies.
86. **Labour and working conditions.** This is a **moderate** risk. The total fertility rate, family size and number of children out of school is high in northern Nigeria. Poverty is also very high and literacy level is low. Although the risk of forced labour is low, the risk of using child labourers on the farm is **moderate** (but consistent with the National Labour Law and Child's Right Act). Actually, VCN could operate in value chains that are characterized by working conditions that do not meet national labour laws or international commitments. it could also involve child labour. Some migrant labour influx may also be expected. The risk of women also carrying out unpaid labour in their husbands' farms is also substantial.

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87. **Mitigation:** Gender Action Learning System (GALS) to support collaboration and cooperation between men and women for common goal. VCN will continue to sensitize project beneficiaries on the danger of using child labourers beyond the situated thresholds. VCN will promote a framework to encourage gender equality and inclusive participation and discourage child labour and unpaid women labour and establish an open and well publicized grievance reporting channel and redress mechanism. It will continually monitor beneficiaries to ensure compliance with labour and working conditions.

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88. **Community health and safety.** This is a **moderate** risk. Productivity of the rural population is hampered by ill-health, particularly HIV/AIDS, tuberculosis, and malaria. There is the risk of surface water pollution because of the project activities that can impact the health of poor people that depend on surface water sources in the project area. This includes risk of improper application of agrochemicals and water eutrophication. Lack of personal protective equipment (PPE) on farm poses the risk of exposure to schistosomiasis and other water-associated neglected tropical diseases. Child malnutrition is also high in northern Nigeria, and this poses risk of increased childhood mortality. VCN could also involve or lead to the construction or rehabilitation of small earthdams.

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38. **Mitigation:** VCN will promote nutrition-sensitive interventions and livelihood opportunities in agrochemicals and application and waste valorisation by training youths to become experts in agrochemical applications. It will promote use of appropriate PPE among farmers to safeguard human health. It will conduct periodic and safety audit to ensure clean production and processing environment. For the construction or rehabilitation of small earthdams, specific, monitoring measures related to water borne-diseases will be put in place as well as safety measures.

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90. **Physical and economic displacement.** This is a **low** risk. The risk of physical and economic displacement is low as the VCN will not support enterprises on disputed lands. The banditry, Boko Haram crisis and farmers-herders crisis has precipitated significant physical and economic displacement.

91. **Mitigation:** VCN will screen subprojects to ensure no physical and economic displacement. It will support the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. It will advise farmers to avoid lands in designated grazing reserves and around known grazing routes. It will also promote compulsory agric insurance for producers and processors as a 'no regret' strategy and policy dialogue on land and resource conflicts.

92. **Financial intermediaries.** This is a **low** risk. In the process of deepening financial inclusion, VCN will encourage and work with financial intermediaries including deposit money banks, development banks, and microfinance organizations to link them to farmers. There is a risk many of these organizations may not have environmental, social and governance systems that matches IFAD commitments to environmental, climate and social commitments.

93. **Mitigation:** VCN will require from all Financial Intermediaries and Partners their ESG system that matches IFAD commitments. Where such does not exist, VCN will request the Financial Intermediaries to adopt IFAD's SECAP procedure.

94. **Fragility and Security:** The inherent and residual fragility and security risks are both **High**. The semi-arid northern Nigeria faces complex fragility problems. This includes the insurgency in the northeast and the banditry and kidnapping crisis in the northwest. In both regions, natural resource induced crisis by different social actors including between farmers and pastoralists have elevated human insecurity risks. There are pockets of communal clashes and armed robbery cases across

communities. This security and fragility problems can wipe-off investments due to farmers abandoning their fields, constrain effective project management, increase project management cost, and undermine the achievement of the PDO.

95. **Mitigation:** The VCN will support policy dialogue and engagements aimed to strengthen policy implementation and institutional service delivery across sectors. It will also contribute to addressing fragility drivers including poverty, unemployment, lack of youth empowerment, climate change, and resource decline. VCN will deepen the use of ICT and digital tools for project monitoring. It will promote climate resilient practices and sustainable land management practices to improve the natural resource base. VCN will strengthen activities that promote social inclusion and shared benefits to reduce conflicts, maintain robust grievance redress mechanisms, and build synergy and partnership with other development partners operating in the regions for shared project management in conflict experience and learning. VCN will also consider integrating a RED component (component 0) to increase the project its responsiveness to potential natural disasters.

96. **Elite capture.** This is a **moderate** risk. The chances of some 'city people' that are more exposed and financially endowed than the 'village people' coming back home to try and hijack the whole process exist. Politicians may also try to hijack and manipulate the selection processes to favour their supporters. The process of recruitment of project staff also faces the risk of hijack leading to recruitment of incompetent technical staff into the project management with its concomitant capacity issues in performance and sustainability.

97. **Mitigation:** VCN will conduct detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption. Ensure compliance with pre-approved, objective selection criteria and transparent information-sharing and decision-making. It will Sensitize communities on project objectives, target groups, beneficiary selection criteria, and risk of elite capture. It will involve all stakeholders in the process of beneficiary selection in order to adhere to representative and transparent decision-making related to the project.

98. **Grievance redress.** This is a **moderate** risk. The risk that the project has ineffective grievance/complaint redress processes (including with respect to allegations of non-compliance with IFAD's SECAP standards, fraud, corruption, or SEA), leading to unaddressed stakeholder complaints that may undermine project implementation and achievement of project development objectives.

99. **Mitigation:** VCN will maintain robust knowledge management, information dissemination and community engagements to keep everybody informed. It will implement simple and clear stakeholder engagement plan (SEP) with a clear complaint, grievances redress and dispute resolution framework and make this known to all stakeholders. The grievance redress mechanism will be culturally appropriate and based on available customary dispute-settlement mechanisms among the targeted communities. It will be easily accessible to the stakeholders and beneficiaries in such a way to have in place at the early stage of the project a dialogue channel for complaints/remarks and feedback that will contribute to reinforce social cohesion. Relevant stakeholders will be kept informed about project progress on a regular basis.

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2.2.3 Climate change mitigation

100. Nigeria's total GHG emissions was estimated at 131 million tCO₂eq. in 2021⁷⁴. In its 2021 NDC update, Nigeria committed to reducing emissions by 47% below BAU by

⁷⁴ <https://globalcarbonatlas.org/emissions/carbon-emissions/>

2030, conditional on international support. This is equivalent to an emissions level of 1% above to 23% below 2010 levels by 2030 excluding LULUCF⁷⁵. Moreover, the country committed to unconditionally reducing emissions 20% below BAU by 2030. This is equivalent to an emissions level of 17-27% above 2010 levels (excl. LULUCF) by 2030. At design stage, an in-depth analysis of VCN's carbon footprint will be conducted.

2.3 VCN 's Targeting Strategy

101. **Geographic targeting.** The Project will target nine States in northern Nigeria. Based on the high levels and depth of poverty as well as fragility, VCN will target states previously covered by CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe) plus Kano State as it offers important market opportunities and linkages with the IFAD and ADB financed SAPZ project. The northern section of a ninth state, Bauchi, will also be included given consistent poverty levels, strategic geographic location vis-à-vis other target States and to leverage on ADF's investments (RAMP and RAAMP). Specific LGAs will be selected within these nine participating States based on the following criteria:
- CASP / RAAM / RAAMP targeted
 - Withing cluster of LGAs where project supported VCs are viable
 - Peace and security
 - Poverty level
102. The IOM's Stability Index generates recurrent security scores and information indicating citizens' perceived security or insecurity levels and indication on their intention to stay or to leave and cluster analysis which enables the identification of pockets of stability⁷⁶. Such index can provide useful in identifying locations for targeted programming.
103. **Direct beneficiary targeting.** A total of about 456,000 direct beneficiaries will be targeted by VCN, equivalent to 91,000 households. VCN includes three main target groups:
104. **Subsistence and semi-subsistence producers (40% of all beneficiaries).** This group comprises farmers with less than 3.0 hectares and produce mainly for subsistence and have very limited surplus – if any. HHs in this category generally earn less than \$1 per day, have no or vert few production assets (of low value). Many of these HHs are female headed.
105. Rural dwellers in this category will be supported to enhance their production, productivity and resilience of farming activities; as a result, food security levels are expected to see important increases in this group. Beneficiaries in this category will receive support to access land (women, youth, PWDs, IDPs), receive technical training, be offered matching grants (covering xxx% of investment costs), linked to input suppliers, service providers, markets, and any financial services available. As many of the beneficiaries in this category will not be members of formal FOs, the project will support the legalization of people that apply in informal or new groups. Beneficiaries supported in this category are expected to sustainably transition out of poverty.
106. **Market oriented producers (30% of all beneficiaries).** This group is constituted by farmers who are market-oriented, cultivating their own or leased land but who are highly susceptible to poverty due to the effects of internal or external shocks. Generally, these producers are members of relatively strong and formal Fos which link them to markets. These farmers can also be involved in and post-harvest activities.

⁷⁵ <https://climateactiontracker.org/countries/nigeria>

⁷⁶ An example of the stability index report is as follows: <https://dtm.iom.int/reports/nigeria-stability-index-overview-round-3-september-2023>

107. This category of farmers will receive support to render their activities more robust and commercially viable. Interventions to be offered to this group include training on technical and business skills, offered matching grants albeit with lower subsidies than poor farmers in category (a) above (covering xxx% of investment costs), and linked to financial institutions. More, these farmers will be linked when possible to poor farmers targeted by the project and others to increase marketing volumes and ease access to fair markets among all. Farmers in this category targeted by the project are expected to consolidate and expand their farming activities under conditions of decent employment among their workers with fair wages.
108. **Individuals** not associated to FOs, involved in starting **entrepreneurship**, such as agribusiness or **employment opportunities (30% of all beneficiaries)**. The rationale for this is the existence of a large portion of the population mostly youth not interested in on-farm production, but off-farm innovative income opportunities. People in this category live under the poverty line and are interested in entrepreneurial activities, that is, opportunities around farming including seed production, provision of services to farmers, processing, transport, trade, etc in project supported VCs.
109. The Project will provide the following interventions to this category of beneficiaries: technical and business training, access to matching grants (covering xxx% of investment costs), and linkages to financial institutions, service providers and markets.
110. Cross cutting interventions will be offered to beneficiaries from all three groups, namely, nutrition and the Gender Action Learning System (GALS), as relevant.
111. **70% of women, youth, PWDs and returning IDPs** targeted will be poor subsistence and semi subsistence producers and poor (aspiring) entrepreneurs.
112. Overall, **women will represent 40 percent of project beneficiaries (half of the women targeted will be WHH); 30 percent project will be youth aged 18-29 and 10% PWDs.**
113. VCN, through participatory poverty and livelihood analysis approaches, will support communities and POs to develop appropriate eligibility criteria to select the beneficiaries. The project will ensure that the selection process is transparent by holding public meetings with participatory democratic decision-making processes. In addition, self-targeting measures will reduce the risks of inequality and elite capture.
114. The gender activities of the VCN project will be transformative to challenge the root cause of gender inequalities and will fully align with IFAD Gender Transformative Approaches as well as the national gender policies. The project will identify and address the barriers that women face in accessing and controlling productive economic resources (assets, land, equipment, quality input), while strengthening their voices and agency using a Household/Community-led empowerment Methodology (e.g. GALS) and addressing workload issue at household level.
115. **Value chain screening (from beneficiaries perspective)**. All value chains considered by the project will be screened to ensure climate and environmental, social and market suitability. In this context, opportunities will exist for women, youth and PWDs to participate in the project through income generating activities that these groups commonly engage in and / or that they aspire to be involved in.

3. Institutional analysis

116. **Institutional framework.** The National Programme Management Unit (NPMU) will manage the implementation of environmental and climate mainstreaming activities and provide technical support and coordination of climate and environment mainstreaming activities undertaken in the states. The NPMU will be supported by the Country Programme Advisory Team (CPAT). The day-to-day implementation of the environment and climate mainstreaming activities at the state level will be the responsibility of the State Programme Management Unit (SPMU). The project design will ensure the

employment of Environment and Climate Change Specialist at NPMU and SPMU levels to oversee the implementation of the environment and climate mainstreaming activities.

117. **Contribution to Nationally Determined Contributions (NDC).** According to Nigeria's 2021 updated NDC⁷⁷, under a business-as-usual scenario, agricultural productivity could decline between 10 to 25% by 2080. In some parts of the north, the decline in yield in rainfed agriculture could be as much as 50%. Nigeria's NDC recognizes climate smart agriculture and reforestation as critical to achieving the conditional 47% GHG reduction target by 2030⁷⁸. The NDC aims to leverage on climate smart agriculture (to reduce up to 74million tonnes of GHG per year in 2030) to address the combined challenges of food security and climate change. It also aims to sustainably increase agricultural productivity and support equitable increases in farm incomes, enhancing food security and development, while reversing deforestation and unsustainable land-use change, improving adaptation, and building resilience of the agricultural and food security systems, and reducing GHG emissions in the agric sector. The Agriculture, Forestry and Other Land Use (AFOLU) sector is projected to contribute about 33% of Nigeria's GHG emissions by 2030. This comes from direct conversion of forestland into cropland, biomass burning, liming, urea application, and indirect N₂O emissions from manure management, among other sources.
118. VCN will build on the success of CASP to mainstream climate resilient measures to deepen the adaptive capacity of smallholder farmers to respond to climate risks through the capacity building and hard and soft structural activities that will be undertaken. In addition, VCN will contribute to GHG emission reduction and mitigation through training on good agricultural practices and climate mitigation actions. VCN will bring on board the monitoring, reporting and verification (MRV) of GHG emissions saved/avoided because of climate and environmental mainstreaming activities to quantify VCN contributions towards Nigeria's meeting the NDC target.
119. **Alignment and Contribution to Climate Finance.** Climate finance are primary investment in climate mitigation and adaptation⁷⁹ and aims at reducing emissions, enhancing sinks of greenhouse gasses, reducing vulnerability, and maintaining and increasing the resilience of human and ecological systems to negative climate change impacts⁸⁰. Investing in de-risking smallholder agriculture and businesses by building and strengthening local institutions including farmers organizations, cooperatives, farmers apex groups, and rural finance institutions presents inexpensive way to de-risk loan products to small-holder agriculture. With funding from ASAP climate financing, CASP invested on improving the resilience of rural smallholder farmer in 7 semi-arid northern states through rural institution development, capacity building and soil and water conservation techniques, landscape rehabilitation, climate information production and dissemination to farmers, extension services delivering training on climate-resilient inputs and climate-smart production systems, rangeland management, and provision of market infrastructure including rehabilitation of climate-vulnerable market-connected farm roads, small earth dams, irrigation structures and water for human and animal watering.
120. Although VCN is not proposed to be the second phase of CASP, ***it will also source for climate finance funds to mainstream climate change and environmental sustainability, building on some of the activities of CASP, especially in capacity building and extension service delivery.*** One key areas of climate financing for VCN is in pursuing renewable energy technologies for smallholder production and processing, as well as innovation and digital agricultural technologies that significantly reduce labour for women, improve access to market and inputs, improve productivity and response to climate change, and improve resilience on the overall. The VCN will strengthen technical support for smallholder farmers and organizations to develop bankable adaptation and

⁷⁷ Federal Government of Nigeria (2021). Nigeria's Nationally Determined Contributions – 2021 update. Available at https://climatechange.gov.ng/wp-content/uploads/2021/08/NDC_File-Amended-11222.pdf.

⁷⁸ Federal Government of Nigeria (2015a). Nigeria's Nationally Determined Contributions. Available at https://www4.unfccc.int/.../Nigeria%20First/Approved%20Nigeria%20INDC_271115.pdf.

⁷⁹ Barbara Buchner, Baysa Naran, Pedro Fernandes, Rajashree Padmanabhi, Paul Rosane, Matthew Solomon, Sean Stout, Costanza Strinati, Rowena Tolentino, Githungo Wakaba, Yaxin Zhu, Chavi Meattle, Sandra Guzmán (2020). Global Landscape of Climate Finance 2021. Climate Policy Initiative.

⁸⁰ Daniela Chiriac and Baysa Naran (2020): Examining the Climate Finance Gap for Small-Scale Agriculture. Climate Policy Initiative and IFAD. www.climatepolicyinitiative.org

mitigation business plans as part of the capacity building plans. With this, the VCN will leverage both public and private sector climate finance. It will also strengthen the Knowledge Management and Communication to provide maximum visibility for successful climate finance activities and climate mainstreaming gains. As part of the climate financing tracking, VCN will monitor the tonnes of GHG emissions (tCO₂e) avoided and/or sequestered because of climate finance activities in VCN.

121. **Capacity building.** Capacity building activities for VCN beneficiaries and project implementation staff to mainstream climate and environmental resilience will be carried out directly by service providers and extensions service agents (through outreaches and farmers field schools) through the life of project. The project will also build Nutrition capacity along the value chains. This will include:

- Beneficiaries' sensitization on climate and environmental risks; health, workplace safety and hygiene issues; biodiversity conservations, insurance and risk transfer, etc.
- Understanding the requirements of SECAP and SECAP-triggered documents
- Sustainable agricultural practices
- Soil and water conservation
- Landscape rehabilitation
- good agronomic practices
- use of climate information and crop calendar
- climate-smart agriculture
- resource efficiency and pollution prevention
- integrated pesticide management
- quick-win livelihood opportunities in climate mitigation and adaptation in production and processing
- Stakeholder engagement for conflict resolution and grievance management.
- Environmental and social audit and reporting.
- Deepen awareness creation and capacity building for nutrition along the value chains
- Deepen food fortification and recipes from local crops
- Deepen home garden practice
- Promotion of nutrition education for youth and women

4. Environmental and Social Category

122. Based on the preliminary screening from the **IFAD Environmental and Social Safeguards Screening Checklist in the ORMS, VCN** Environmental and Social Category is rated as a '**SUBSTANTIAL**' (see Appendix I).

123. VCN is a natural resource dependent value chain project, which include agricultural intensification and/or expansion of crop production clusters in non-sensitive areas as well as the development of medium-sized agro-processing centres to cluster women processors. The risk of VCN leading to primary not environmentally sustainable production of living natural resources through the cultivation crops, especially annual crops, is substantial. Other potential environmental impacts are limited, site-specific and constrained to production and agro-processing facilities. These include unsustainable land management and agrochemical use and management issues, unsustainable draw down of groundwater resources from tubewells irrigation, the use of firewood in processing, waste management, unhealthy working environment, risks from construction of market infrastructure including market-connected feeder roads, and small-scale irrigation structures and drainage development (including small earth dams, tube-well and watering points). The risks of biodiversity losses and physical and economic displacement is low.

124. An **Environmental, Social and Climate Management Framework (ESCMF)** with appropriate **Environmental, Social and Climate Mitigation Plans (ESCMP)** will be developed to enable mitigation/remediation/considerable reduction of potential risks as appropriate. Sub-project-specific **Environmental and Social Management Plan** will be required for land development and development of market Infrastructure on

case-by-case basis. VCN will not have any severe negative impacts on the livelihoods of other peoples including involuntary taking or restriction on the use of land resulting in physical or economic displacement. It is not envisaged to negatively affect indigenous peoples or sites of historic, religious, or cultural significance. The project will not support the opening of lands in virgin forests, sensitive areas and protected areas (including national parks, forest reserves and important bird areas), and/ or new clearing of contiguous areas of above 100 ha in a single location. The mitigation options proposed for environmental concerns will provide opportunities to mainstream environment and climate-resilient production and processing systems and creating additional value chains (such as making use of waste) within the existing system without extensive additional costs.

125. The social risk is also **Substantial** across the states due to insurgency, banditry, kidnapping by non-state actors, and resource conflicts (especially between farmers and pastoralists) and related threats to human security. The VCN will build on existing channels including CAF and the CDAs, as well as LGA conflict resolution committee established by government in some of the states to deepen conflict resolution. It will also support mechanism to compensate farmers and processor for conflict-related damages. Access to land by women also pose a challenge. VCN will prioritize women in targeting and support policy dialogue on land reform as a mitigation strategy for both land access for women and conflict management. As much as possible, it will promote framework to discourage child labour and unpaid women labour, minimize migrant labour influx, sensitize on community health and safety, discourage elite capture, and established an open and well publicised grievance reporting channel and redress mechanism.

5. Climate Risk Category

126. In terms of climate, based on the preliminary screening IFAD **Climate Screening Checklist in the ORMS** the project is assessed to have a **SUBSTANTIAL Climate risk (see appendix II of SECAP Note)**. A **Targeted Adaptation Assessment** is required and will be carried at the Project Design stage. The VCN project area has substantial risk of high temperatures and extreme heat in both present and future climate scenarios. It also has a substantial risk of river and pluvial flood hazards, aggravated by unsustainable land use and management practices, with potentials for catastrophic damage to production and processing infrastructure. The risk of water scarcity leading to drought for agriculture is Substantial. It also has substantial risk of soil erosion resulting from high intensity rainfall and windstorm and unsustainable land practices. There is a moderate risk of GHG emission from rice cropping, fertilizer applications, as well as unsustainable land management practices and operation of environmentally unfriendly processing machines.

127. The VCN target group is substantially dependent on climate-sensitive natural resources especially rainfed agricultural plots. Rice, one of the value chain crops for VCN is grown mainly in the Fadamas (inland wetlands) and the fertile alluvial plains of the major river systems. All parts of the project area have been subjected to extreme flooding in the recent past. Climate variability including unexpected dry spells occasioned by unpredictable rainfall and high temperature can affect the sub-projects' impacts, sustainability and return on investment. Projected future climatic changes suggest that the project areas will experience fluctuations in temperatures and precipitation due to increased climate variability. This suggests the likelihood of increased dry spells and high intensity rainfall leading to pluvial floods, erosion and landslides, and risk of river damage to road infrastructure. Increased local processing (e.g., rice parboiling) further represents a greater risk of use of firewood with concomitant GHG emissions from deforestation.

128. VCN has the potential to integrate climate resilience measures without extensive additional costs through capacity building programmes in climate-smart agricultural production strategies, strong collaboration with extension and weather/climate

monitoring institutions for regular agro-climatic information and use of the climate resilient seed varieties (early maturing and flood and drought tolerant varieties). VCN will also pursue partnerships to enable farmers get access to agric linkages and marketing information. VCN will invest in market infrastructure (including market-connected roads and small irrigation structures) to strengthen resilience of small-holder farmers. In addition, GHG emissions resulting from deforestation through fuelwood usage for processing will be reduced. VCN will invest in rural renewable energy technologies including conversion of rice, millet, and sorghum husks into briquettes. Micro-insurance to cover losses to floods will be promoted through linkage with NAIC and other private Insurance Institutions.

6. Recommendations for project design and implementation

129. Rice, Sorghum, Millet, Maize, Cowpea (with possibility Soya bean and vegetables) are some of the value chain crops that are likely to be supported by VCN. The identified environmental, climate change and social risks, if not mitigated, or adapted to will likely reduce the positive impacts of the proposed investments. To strengthen resilience, the project has to reduce the impact (exposure and sensitivity) of environmental and climate change risks, while simultaneously improving the adaptive capacity of the beneficiaries. Thus, the PDR should present tremendous opportunities for improving adaptive capacity in order to mainstream resilience into the production and processing value chains.

6.1 Climate and Environment

130. ***Climate and hydrological information.*** The risk of high temperature and extreme heat means mean less water, heatwaves and increased heat stress, water scarcity, dry spells, and agricultural droughts. The risk of damaging river floods and pluvial floods from high intensity rainfall submerging farmlands and destroying market infrastructure in the project area is very likely. This may be aggravated by unsustainable land use and management practices which influence how localized river flood hazard evolves into the future and alter future hazard level. The VCN project will deepen access to weather information by leveraging existing partnership with the Nigerian Meteorological agency (NIMET), the Nigeria Hydrological Services Agency (NIHSA) and the River Basin Authorities (RBDA) to ensure that timely information and early warning on weather and river flow regimes are disseminated to farmers and processors as early as possible to enable them take appropriate decisions aimed at safeguarding their investments.

131. ***Sensitization and no regrets option.*** Sensitization of project beneficiaries to possible losses from climate hazards is critical. In addition, VCN beneficiaries will be linked with Insurance service providers including NAIC and other private insurance providers to signed-on to a weather index insurance. Thus, VCN will deepen the 'no regrets' option to ensure that every project beneficiary is informed and protected to reduce losses. The VCN will ensure the delivery of training and agricultural inputs in good time to assist farmers to adjust and adapt their planting and harvesting methods and timing.

132. ***Irrigation structures for water scarcity.*** The risk of water scarcity for agriculture is Substantial. This means that droughts are expected to occur on average every 5 years. Generally, the short rainy season also limits cropping to only one season. However, the VCN project area has a large area of Fadamas where multiple cropping season is feasible with little investment in small irrigation structures including tubewells, wash bores and pumping machines. In other upland parts, small earthen dams have proved to be lifeline for both crop production and human and animal watering during the dry season. The VCN will invest on small irrigation structures including small earthen dams, tube wells, washbores and water pump to ensure robust response to drought and water scarcity and ensure multiple cropping seasons.

133. ***Resource efficiency, waste and pollution management.*** The VCN is a natural resource-dependent project that may involve or lead to primary environmentally unsustainable production of living natural resources including arable cropping of value

chain crops. Other inherent risks include waste proliferation from production and processing sites as well as excessive use of agrochemicals including inorganic fertilizers and pesticides. The cluster farming to be adopted possess the risk of agrochemical pollutions as well as massive groundwater drawdown around clusters through tubewell irrigation by several farmers. VCN will ensure that waste management at processing sites is improved through waste valorization enterprises including the conversion of rice, sorghum, millet, corn and other crop waste and residues to briquettes. This will significantly reduce the use of fuelwood for local processing. Green enterprises will be created through training of youth in correct agrochemical applications where they can make an enterprise. Periodic environmental audits of processing facilities will also help to ensure compliance with expected environmental and health standards.

134. **Landscape rehabilitation, soil and water conservation, and good agricultural practices.** Soil and land degradation from desertification, wind and water erosion, flooding and soil losses are serious challenges limiting availability of arable lands for agriculture. CASP invested on training and demonstrations on landscape rehabilitation, soil and water conservation and good agricultural practices. The VCN project will upscale landscape rehabilitation/land reclamation, and soil and water conservation techniques and technologies including intercropping with cover crops, fertilizer tree agroforestry, half-moon, planting pits, farmyard manure, etc. Sustainable intensification and good agricultural practices from land preparation to harvest and storage through Farmer Field School (FFS) and use of improved crop varieties will be promoted by the VCN.

6.2 Social Issues

135. **Resource Conflicts.** Natural resource induced crisis by different social actors including between farmers and pastoralists have elevated human insecurity risks in northern Nigeria. Mainstreaming conflict resolution and land management into programme offers several advantages for reducing resource conflicts. The VCN will leverage on rural institutions established by CASP including Commodity Alliance Forum (CAF) that include the pastoralist social groups. VCN will continue to support conflict resolution dialogue and the building of mutual understanding and confidence between the two social groups – farmers and pastoralists. VCN will promote an expanded community security and a traditional committee that includes representatives from the farmers and pastoralists. However, mitigation measures are critically important, including avoiding farming on grazing routes, making sure farms and surroundings are clear of weeds, and fencing of farms with crops that are unattractive to grazing livestock. “No regrets options” as an adaption strategy will be promoted.

6.3 Market infrastructure

136. **Roads and irrigation infrastructure.** Construction and rehabilitation of market connected farm roads and provision of small irrigation structures and equipment to farmers help to strengthen their resilience to climate change. These ensure easy movement of products to processing and market sites and ensure all year-round production. ESMP of market-connected feeder roads and the ESCMF will be developed to ensure that roads and other market-infrastructure contractors adhered to the environmental and social guidelines.

6.4 Component contribution

Component 1.1: Promote sustainable agricultural systems, improved technologies and climate resilient agricultural production practices

137. In addition to the climate, environment and social safeguard activities captured in the SECAP, ESCMF, ESCMP, Target Adaptation Assessment, and the various plans (integrated pest management, stakeholder engagement, grievance redress, and labour assessment and management), the following activities are proposed to mainstream climate change and environment into the VCN. The

proposed activities are targeted at addressing the pressing risks including uncertainties in rainfall onset and cessation (and by implication length of the growing season), soil erosion, soil infertility, land degradation and desertification, and water shortages for crops, human and animal watering. These interventions will build resilience and increase the adaptive capacity of smallholder farming systems and rural livelihoods to climate and environmental change-driven risks.

Output 1: Promote climate and hydrological information for early warning

138. Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

(i) Climate information production and seasonal rainfall prediction (SRP) downscaling and dissemination with NIMET to the communities

VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmer to aid preparedness and resilience.

(ii) Hydrological information production and downscaling with NIHSA

VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modelling of river flow data on the major river catchments across the project area as well as projected rainfall data to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

(iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

Output 2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

139. Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

(i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that

these measures, which include planting pits (Zai), half moon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds and vegetative bunds. Bunds will reduce run off speed and carrying away of soil particles, improve soil moisture and reduces surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

(ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera species*), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

(iii) integrated soil fertility management technologies

Since the Russia-Ukraine war, the price of inorganic fertilizers and other farm additives have increased dramatically. This price increase was also compounded by Nigeria's rising price inflation. Access to fertilizers has also become problematic due to the fragility and insecurity of the situation across the project area. Inorganic fertilizers are being hijacked from farmers by bandits and insurgents to produce improved explosive devices (IED). This has made access to inorganic fertilizers more difficult. Feedback from stakeholders during the fieldwork for VCN design suggests that farmers are increasingly shifting to the use of organic fertilizers and farmyard manure. VCN will promote the production and usage of organic fertilizers by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility while improving climate and environmental benefits.

Output 3. Investment in rehabilitation of market infrastructure that strengthens resilience

140. Lessons learned from IFAD projects have shown that construction/rehabilitation of basic market infrastructure improves resilience. This includes rehabilitation of climate-vulnerable market connected farm roads, provision of small earthen dams for crops and animals, tube-wells and water pumps for smallholder irrigation and motorized and solar power boreholes and water infrastructure for human and animal watering. The specific activities include:

(i) Rehabilitation of climate-vulnerable market connected farm roads

VCN will invest in rehabilitation and climate proofing of market-connected farm roads to enhance access to market. This will improve communication between the rural producer communities and the outside world and ensure prompt evacuation of farm products to market, processing and offtaking centers. This worked well on CASP and will be upscaled in the VCN project.

(ii) Small irrigation structures

Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

(iii) Water infrastructure for human and animal watering

VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and

animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

Output 4. Supporting farmers with climate-resilient planting materials

141. Flood, drought, and heatwaves are serious climate risks in the VCN project areas. They significantly impact agricultural productivity. In the last couple of years, these risks have become common, leading to loss of investments. The activities here are designed to support farmers with improved (early maturing, high yield, drought and flood tolerant and disease-resistant) varieties seeds. The specific activities are:

(i) Support farmers with climate-resilient seeds: through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

(ii) Support women farmers with Nutrition crops: through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

Output 5. Awareness and capacity building through extension services

142. Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between climate change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support services including the Farmer Field Schools (FFS) and Training of Trainers (TOT) to ensure that the targets are reached. The specific activities include:

(i) Awareness and capacity building in sustainable land management and GAP: VCN will carry out training in good agricultural and agronomic practices to deliver activities listed in 1,3 and 4. The technical and human capacity activities will be driven through extension support and FFS. E-extension will be strongly promoted to enable wider and timely reach of beneficiaries.

(ii) Capacity building in waste valorization and sustainable agrochemical applications: VCN will provide capacity building in waste valorization including briquettes and biochar production from rice, maize, sorghum, and millet husks, animal feeds production from the hauls/straw, rice bran conversion to poultry feed, rice husk conversion for litter, handicrafts, etc. These training will strengthen the capacity of the women and women groups especially to improve their income and thus become more resilient. VCN will also train youth to create enterprises in correct agrochemicals application.

6.5 Mitigation measures

143. Mainstreaming environment friendly and climate-smart small holder commercial production and processing into the project design has several strongpoints, including strengthening of climate and environmental management as mitigation, reducing vulnerability to climate impacts, reducing the adverse impacts on the natural environment, and improving the achievement of programme output targets. Mitigation measures for the VCN revolve around:

Project vulnerability to environmental conditions

144. (i) VCN SECAP and other safeguard documents will guide environment and climate mainstreaming and natural resource management in the project (ii) An environmental and social management framework will be developed to further provide for adaptation and mitigation measures to guide against unsustainable land management practices (iii) building on the CASP, VCN will integrate activities that deepen the capacity of farmers in soil and water conservation and landscape rehabilitation to improve the environment and natural resource management (iv) extension services will be intensified to promote good agricultural practices and promote adoption of good agronomic practices.

Project vulnerability to climate change impacts

145. As means of mitigation, VCN will: (i) promote climate-smart and good agricultural practices (ii) strengthen access to climate information services (iii) sensitize agro-entrepreneurs on climate risk insurance and link them to NAIC and other insurance services providers (iv) support farmers with climate-tolerant and high yield cultivars (v) promote clean and energy-efficient processing systems (vi) provide capacity building on soil and water conservation and landscape rehabilitation techniques (vii) strengthen extensions services to disseminate innovations and digital agriculture technologies that improve climate resilience.

Biodiversity Conservation

146. Environmental screening will be conducted for all subprojects to ensure minimal impact on the ecosystems and biodiversity and ensure no activities around protected areas, forest reserves and important wetland areas of conservation significance. The activities outlined in the SECAP to protect ecosystems and biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc) will be followed through.

Resource Efficiency and Pollution Prevention

147. (i) Resource efficiency and integrated waste management will be promoted. This includes conversion of rice and other crop waste at processing sites to briquettes. (ii) Periodic monitoring of the groundwater around farm clusters will be conducted to ensure sustainability. (iii) As part of the good agronomic practices, farmers will be trained on appropriate use of fertilizers and pesticides. (iv) Organic manure production and use on farms will be promoted (v) Livelihood opportunities in waste valorisation will be exploited.

Cultural Heritage

148. (i) the procedure for chance finds and other protection and handling of cultural heritage will always apply (ii) the localization of project beneficiaries in their communities will reduce negative impact of alien culture diffusion into local culture to upset the traditional values.

Indigenous People

149. As much as possible, the VCN shall deepen social inclusion by considering all the social actors. The targeting strategy will mainstream inclusion and equity in selection project beneficiaries.

Labour and Working Conditions

150. (i) As means of mitigation, VCN will promote the implementation of the Gender Action Learning System (GALS) which supports collaboration and cooperation between men

and women for common goals; VCN will promote a framework to encourage gender equality and inclusive participation and discourage child labour and unpaid women labour, sensitize on community health and safety, and establish an open and well publicized grievance reporting channel and redress mechanism and (ii) sensitise project beneficiaries on the danger of using children labourers (iii) continually monitor beneficiaries to ensure compliance.

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Community Health and Safety

151.-(i) As means of mitigation, VCN will establish and maintain working relationships with the line ministries (such as health, gender, education) to build synergy in nutrition-sensitive interventions in VCN. (ii) VCN will create livelihood opportunities in agrochemicals and application and waste valorisation by training youths to become experts in agrochemical applications. (iii) VCN will promote use of appropriate PPE among farmers to safeguard human health and specific monitoring, measures related to water borne disease will be put in place as well as safety measures with respect to dams constructions.

152-151.

Fragility and Security

153.152. The VCN will (i) deepen poverty dialogue on conflicts (ii) include activities that build mutual trusts and confidence, promote mutual understanding (e.g., community action plans and participatory land-use plans) and address the root causes of fragility (iii) deepen the use of digital tools for project monitoring (iv) promote sustainable land management practices and land rehabilitation and reclamation to make more arable lands available (v) strengthen activities that promotes social inclusion and shared benefits of all social actors to reduce conflicts (vi) operate robust grievance redress mechanisms (vii) build synergy and partnership with other development partners operating in the regions for shared project management in conflict experience and learning.

Physical and Economic Resettlement

154.153. VCN will contribute to supporting the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. As means of mitigation for risk of land resource conflicts, the project will: (i) advise agri-entrepreneurs to avoid lands in designated grazing reserves and around known grazing routes; (ii) encourage agribusinesses to adopt agricultural insurance as a 'no regret' strategy to compensate for possible loss due to animal destruction of crops; and (iii) encourage state government to consider options such as creating ranches or designated grazing areas (iv) promote understanding between the farmers and pastoralists.

Financial intermediaries and direct investments

155.154. (i) IFAD will require all Financial Intermediaries in the VCN to show evidence an ESG system that matches IFAD commitments (ii) Where such does not exist, IFAD will require the Financial Intermediaries to adopted IFAD's SECAP procedure and this shall guide the relationships between IFAD and such organizations with respect to the VCN project.

Elite Capture

156.155. (i) The project will put in place strict due diligence and integrity checks in the selection of participating youth and women to ensure that only those who meet the set criteria are admitted to participate in the project (ii) Recruiting of staff on competitive basis (emphasis on skills and experience required for each post) will be

required (iii) The project coordinators will be required to consult directly and extensively throughout the process with all the potential stakeholders - in both the private and public sector to ensure that only the best are recruited.

The full environmental, climate and social risks and planned mitigation elements are shown on the shown on the Environmental, Social and Climate Management Plan (ESCMP) on Appendix 3

6.6 Grievances redress

157.156. The stakeholder engagement plan has identified the key stakeholders including Project Affected Parties (PAP), Interested Parties, and Disadvantages and vulnerable persons and groups. In addition, it also identified their levels of influence and interests. The identified PAP include: host communities in project area, community members in the project host communities, crop farmers, livestock farmers and pastoralists (who will benefit from water source provision), community development associations, farmers organizations, women groups, other community associations and groups, etc. This group have low influence, but high interest in the VCN project. They are mainly potential project beneficiaries.

158.157. The vulnerable or disadvantaged groups classified in the context of this project, include elderly people above the age of 65, female headed households, persons with disabilities, people living in extreme poverty (e.g., unemployed youths), internally displaced people (IDPs), victims of gender-based violence and sexual exploitation and abuse and sexual harassment, orphans, migrant laborers, etc. This group of people also have high interest but low influence on the project. They are directly impacted by the project and are also potential beneficiaries.

159.158. The project affected parties and vulnerable or disadvantaged groups are at the grass root level. Without focused assistance, they may not be able to participate in the decision-making process of the project. The plan is to focusing efforts on these groups of stakeholders throughout the project cycle, involving them in regular consultations throughout the project cycle, ensuring adequate use of the grievance redress and feedback channels to engage and keep them satisfied, and keeping them in the loop on decisions that will influence project design and implementation.

160.159. The Interested Parties is made up of stakeholders who may not be directly or indirectly impacted by the project, but who have the potential interest to influence the project outcomes through their statutory functions and mandates or other factors. They include Ministries, Departments and Agencies with statutory roles in the implementation of VCN in the various participating states. They include the Federal Ministries of Agriculture and Food Security and Finance and other interested MDAs at Federal levels. At the states level, they include Office of the State Governor and MDAs related to Agriculture, Finance, Environment, Water Resources, Women Affairs, Humanitarian, etc. This group also include NGOs, CSOs, CBOs, Traditional/Community Leaders, etc. They have high influence and high interest on the project. They provide implementation support, governance, and oversight, both technical and financial support for the project.

161.160. The GRM identifies potential issues that may necessitate GRM and require mitigation. These include community member not adhering to cut-off date as announced during consultation, dispute about ownership of assets, delay in disbursement and improper distribution of assistance, land acquisition, restriction of access and displacement, non-inclusion of community members in project beneficiary and paid labour/workforce; unclear beneficiary inclusion/exclusion criteria, unrealistic corporate social responsibility (CSR) expectations from the client or contractors by community members, omission of eligible PAPs, delay in execution of sub-projects leading to breakdown of trust, non-implementation or discrepancies in the implementation of safeguard documents, and potential risk of GBV, SH and SEA of vulnerable people as a result of project implementation, among others.

~~162.161.~~ VCN will activate IFAD's procedure that allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. The Project implementation unit and IFAD will be committed to: (i) working proactively with the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions⁸¹.

~~163.162.~~ **Information Disclosure:** VCN SEP will make provision for disclosure of safeguard documents to project-affected and other interested stakeholder mapped during stakeholder's identification exercise. Appropriate project information, particularly on environmental, climate and social risks and impacts, shall be disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format. Disclosed materials/documents shall be made available at venues and locations convenient for the stakeholders and places to which the public have unhindered access.

6.7 Multiple benefits approach

7 Mainstreaming environment and climate change into the VCN programme presents multiple benefits, including:

- Improving land management to increase availability of arable lands for cultivation, improve soil productive capacity, and increase crop productivity.
- Reducing investment loss to flooding and improving resilience of beneficiaries through insurance compensation for losses.
- Create opportunities for green growth and climate-smart production and processing through reduction in fuelwood usage, poverty reduction and increase in number of value chains (and by implication beneficiaries) through resource efficiency.
- Expanding opportunities for workable, stakeholder-based conflict resolution mechanisms through the CAF and the host communities, as well as compensation for loss of investments incurred through conflicts.
- Strengthening opportunities for the provision of timely and appropriate climate and hydro-meteorological information to guide on-farm activities and reduce climate vulnerability through collaboration with appropriate institutions.
- Fostering benefits of improved market access and increased production and processing through market infrastructures
- Improved adoption of sustainable land management practices and good agricultural practices through extensions services leading to strengthening of the local extension institutions
- Strengthen local institutions to adopt and take ownership of climate-resilient agricultural practices.
- Adoption of climate resilient practices and means to tackle GHG emissions and improve adaptation.
- Using high yielding, flood, and drought tolerant and pest and diseases resistant crop varieties to improve income, nutrition, and food security.

6.8 Incentives for good practices

7 Several elements of the VCN concept note lend themselves to incentivizing farmers for the adoption of best practices. Notably the project supports climate-resilience through the provision/rehabilitation of market infrastructure including farm roads and small

⁸¹ IFAD (2016) *Managing Risks to Create Opportunities. IFAD's Social, Environmental and Climate Assessment Procedures (SECAP)* (IFAD: Rome), p.12

irrigation structures to encourage multiple cropping seasons. This will encourage more women farmers to engage in the productive farming of the value chain crops. Equally, the support for value chains in resource efficiency will motivate more women to engage in livelihood opportunities created by climate adaptation and mitigation. Farmers will be motivated to participate in the FFS training in sustainable farming and processing best practices, including correct agrochemical use and preservation of outputs. Extension officers will adjust visits and trainings to be women-friendly and thus encouraging more women to participation.

6.9 Participatory processes

7 Participatory processes will be mainstreamed throughout project implementation starting from the selection of target beneficiaries. It will form the basis of all interactions with the beneficiaries, apex groups, farmers’ organizations, cooperatives, production and processing clusters, and the umbrella CAF. This will help to effectively support the target groups and foster social inclusion. In addition, the VCN will take measures to mitigate elite capture of project staff recruitment activities and selection of beneficiaries. The selection of the market- and production centre-connected farm roads to be constructed/rehabilitated will be made in full participation with the stakeholders. VCN will leverage on the community action planning approach under mainstreamed under CASP to elicit community participation especially as it relates to market infrastructure that will also serve the community. To ease the institutional encumbrances hampering access to markets, and real-time delivery of farm produce to processing and marketing sites, the VCN will deepen the existing stakeholder forum to include all relevant stakeholders including security, transport union, regulatory agencies (including NAFDAC) and others.

6.10 Analysis of alternatives

- 7 Environment and climate change mainstreaming in agriculture to build resilient, climate-smart and environment-friendly agriculture aligns with government policy intentions and well captured in government documents including: National Agricultural Technology and Innovation Policy (NATIP 2022-2027), National Development Plan (NDP, 2021-2025), Agricultural Sector Food Security and Nutrition Strategy (AFSNS 2016 – 2025), National Gender Policy in Agriculture, National Climate Change Policy Response and Strategy, Environmental Impact Assessment (EIA) Act (2004), Nigerian National Policy on Environment (revised 2016), National Agricultural Resilience Framework, Nigeria’s Third National Communication under the UNFCCC, and Nigeria’s Intended Nationally Determined Contribution (INDC) to GHG Emission Reduction Targets under the Paris Climate Agreement. The VCN will move in this direction of mainstreaming.
- 8 The final value chain crops for the VCN will be selected during the Project Design. However, the feedback from the various stakeholders during the concept Note consultation process in March 2023 gives priority to **rice, maize, sorghum, millet, and cowpea** at this stage. Opportunity crops such as **Onion (and Soybean)** that rated high in some states priorities (e.g., Onion in Sokoto) could also be considered.
- 9 Generally, the approach to cereals cultivation in Nigeria is to use any available seeds with little concern for quality. The VCN will focus on providing to the farmers high yielding, flood and drought tolerant and pests and insects’ resistant seeds varieties. Farmers will be encouraged to adopt climate-smart agronomic practices as set out in Table 5.

Table 3: Alternatives Promoted through Climate and Environment Mainstreaming

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
Cereals (Rice,	● Use of untested seedlings and uncertified seeds	● Encourage transplanting of tested seedlings and seeds from certified

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
Maize, Sorghum, and Millet,	<ul style="list-style-type: none"> ● Wrong application of soil amendments and agrochemicals ● Use of low yield and long gestation varieties ● Use of non-flood and drought resistant seed varieties ● Fertilizer spreading ● Tillage operations remove all trees and vegetation. ● Use of inorganic crop protection chemicals ● No risk transfer measures to mitigate losses. ● Farming activities not guided by agro-climatic information. ● Waste poorly managed and constituting a nuisance. ● Fuelwood as main energy sources for processing ● No access to irrigation ● Substantially limited to the short rainy season ● Farms mainly cultivated for subsistence. 	<ul style="list-style-type: none"> suppliers ● Encourage soil sample analysis for appropriate agrochemical applications. ● Train and certify spraying groups to carry out agrochemical spraying enterprise. ● Encourage the adoption of improved, high yield, drought and flood tolerant and pest resistant and early maturing varieties. ● Encourage deep application of urea at 6cm-10cm depth. ● Encourage minimum or zero tillage. ● Encourage the use of organic crop protection solutions like Neem oil. ● Encourage use of organic fertilizers and farmyard manure ● Encourage carbon sequestration activities (improving organic carbon levels in the soil) through agroforestry. ● Fence farms with hedges to reduce animal intrusion. ● Leverage stakeholder engagement to co-manage common resources. ● Encourage farmers to sign-on to agricultural insurance for 'no regrets and risk transfer. ● Strengthen collaboration to ensure farming activities are guided by agro-climatic information for better timing. ● Create value chain for resource efficiency and waste conversion to briquette. ● Intermediate processing requiring energy to be done with locally produced green energy technology such as briquettes made from waste, as well solar and other renewable and efficient energy sources. ● Construct small dams and irrigation structures for dry season farming. ● Train farmers on sustainable land management including soil and water management and landscape rehabilitation to retain water for longer cropping time. ● Encourage linkage with prefinance and offtakers out-grower schemes
Legumes and	<ul style="list-style-type: none"> ● Use of spent and low-quality seeds 	<ul style="list-style-type: none"> ● Encourage intercropping and strip cropping with cereals as applicable

Commodity Value chain	Predominant Common practice	Climate-resilient Agriculture practices
vegetables (cowpea, soybean, and onion)	<ul style="list-style-type: none"> ● Wrong application of soil amendments and agrochemicals ● Use of low-yield and long gestation varieties ● Fertilizer spreading ● Tillage operations remove all trees. ● Use of inorganic crop protection chemicals ● Waste poorly managed ● No risk-transfer mechanisms ● Production activities not guided by agroclimatic information. ● Vegetation on farmed land totally removed. ● Poor application of technology for erosion and flooding control 	<p>to improve soil conditions.</p> <ul style="list-style-type: none"> ● Create value chains around resource efficiency. ● Encourage soil sample analysis. ● Encourage the adoption of improved varieties. ● Encourage linkage without grower and prefinancing schemes. ● Encourage fertilizer application at 6cm-10cm depth. ● Encourage minimum or zero tillage. ● Use organic crop protection solutions like Neem oil. ● Encourage carbon sequestration activities (improving organic carbon levels in the soil) ● Leverage stakeholder engagement to manage common resources. ● Encourage farmers to sign on to agricultural insurance for 'no regrets and risk transfer mechanisms ● Strengthen collaboration to ensure farming activities are guided by agro-climatic information for better timing. ● Encourage agroforestry to maintain trees on farms, and replant trees along farm borders. ● Train farmers on sustainable land management including soil and water management and landscape rehabilitation to retain water for longer cropping time. ●

6.11 Budgetary resources and schedule

10The summary cost for SECAP monitoring costs is as shown on Table 6. The total monitoring costs is about USD2,630,000 representing about 2.31% of the proposed USD114million project financing cost.

Table 6: Summary of the SECAP monitoring costs for VCN

Monitoring Parameter	Average cost per state (in USD)	Total for 9 States (in USD)	Year 1 (in USD)	Year 2 -8 (in USD)
Site specific ESMPs and Environmental Screenings*	240,625	2,165,625	942,188	1,223,438
Environmental Monitoring**	14,931	134,375	68,750	65,625
Social monitoring costs	22,778	205,000	102,500	102,500
Other environmental and social monitoring costs	13,889	125,000	13,889	111,111
Total monitoring costs		2,630,000	1,127,326	1,502,674

11 The full detail of the cost is shown on Appendix IV.

7. Further studies Prepared.

~~164.163.~~ Based on the risk categorization which is SUBSTANTIAL, the additional documents have been prepared.

Table 4: Studies prepared with the PDR

1	Environmental, Social and Climate Management Plan (<i>ESCMP</i>)
2	Abbreviated Environmental, Social and Climate Management Framework (<i>ESCMF</i>) -
3	Targeted Adaptation Assessment
4	Stakeholder Engagement Plan (SEP)
5	Grievance Redress Mechanism (GRM)
6	Outline of the Integrated Pest Management Plan (IPMP)
7	Outline of the Labour Assessment and Management Plan (LAMP)
8	Outline of water pollution and management
9	Outline of waste management plan

~~165.164.~~ The Environmental, Social and Climate Management Plan (*ESCMP*) is on Appendix III of this SECAP. The other documents have been produced as separate documents.

8. Monitoring and Evaluation

~~166.165.~~ As part of the VCN results framework, the following indicators related to climate and environmental sustainability and resilience from the IFAD's Revised Evaluation Manual, 2022⁸² are relevant for tracking.

Core Outcome Indicators

● Access to Natural Resources

CI 1.2.1: Households (HH) reporting improved access to land, forests, water, or water bodies.

● Climate change

CI 3.2.1: **Mitigation:** Tonnes of greenhouse gas emissions (tCO₂e) avoided and/or sequestered.

CI 3.2.2: **Adaptation:** HHs reporting adoption of environmentally sustainable and climate-resilient technologies and practices.

CI 3.2.3: **Adaptation:** HHs reporting a significant reduction in time on collecting water or fuel.

Core Output Indicators

● Environmental sustainability and climate change

CI 3.1.1: Groups supported to sustainably manage natural resources and climate-related risk.

CI 3.1.2: Persons provided with climate information services.

⁸² IFAD Revised Evaluation Manual, Part I. Interim version, 2022.
<https://www.ifad.org/documents/38714182/45512776/IFAD+REVISED+EVALUATION+MANUAL+-+PART+1+%28interim+version%29.pdf/1241196f-de3e-0dc2-2c47-419de3f3d4a0>

CI 3.1.4: Hectares of land brought under restoration/ climate resilient management.

In the PDR Logframe, **CI 3.2.2, CI 3.1.2, and CI 3.1.4** have been included as part of the core indicators for reporting.

167.166. In addition, at the project results framework level, VCN will means of verification to track the climate-resilient activities and practices including:

- Awareness creation, training and other capacity building activities on climate change and environment
- Activities enhancing climate-smart agriculture.
- Activities enhancing climate mitigation and environmental sustainability through renewable energy and integrated waste management systems.
- Activities improving environmental and climate compliance and resilience through sustainable land and market infrastructure development, implementation of environmental management plans, small-scale irrigation structures/facilities, and erosion and flood control.
- Activities on soil and water conservation and landscape rehabilitation including agroforestry and use of cover crops.
- Stakeholders' engagement activities in conflict resolution and management
- Adoption of no regrets options to improve resilience.
- Etc.

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Appendix I to SECAP Review Note -Environmental and Social Safeguard Screening Checklist Results

Nigeria

Value Chain Programme in the North of the country Environmental and Social Safeguards Screening Checklist

Document Date: 22/04/2024

Project No. 2000003909

West and Central Africa Division
Programme Management Department

SECAP PROCUREMENT

Introduction

This document provides indication to the SPO on the SECAP risks to be incorporated into procurement plans. While the general integration of SECAP requirements into procurement documents is described into ANNEX 4, Volume 1 of the SECAP, the project specific risks are as identified by the SECAP online tool. The ES specialist has identified, through the SECAP environmental and social screening checklist, the issues in the table below that need to be mitigated through procurement. In case the SPO has ambiguity as to the guidance provided by the ES specialist in the rightmost column of the below Results Table, then the SPO will need to collaborate with the ES specialist and relevant members of the PDT in order to reach an agreement as to how these ES issues can be dealt with best through procurement mitigation measures that the Borrower must be required to put in place with respect to procurement parameters like:

1. Technical Specifications
2. Bidder Qualification
3. Bid Evaluation Criteria
4. Contract Clauses

For Example, if use of harmful types of pesticide is an issue in the project area, then it can be dealt with through the specifications of the pesticide and both the ES specialist and the SPO will agree that the project will use a "WHO-FAO approved pesticide and that WHO-FAO codes for safe labelling, packaging, handling, storage, application and disposals of pesticide are respected". If the project involves work in a sensitive cultural heritage area or an area where biodiversity is to be protected, then the successful past experience of the contractor in working in such zones is critical and the ES specialist will select "Bidder qualification" and "Bid Evaluation Criteria". If labour conditions or indigenous peoples' rights are often compromised in the project's area, then the ES specialist may select "Contract Clauses" and give whatever further guidance is possible for SPO. If deforestation or extensive use of natural resources in the project area is an issue identified by the ES specialist, then the ES specialist will chose "specifications" and "Bid Evaluation Criteria" and agree with the SPO to specify legally-harvested timber (or timber certified with the relevant label) and agree as to the evaluation criteria to be used to promote resource efficiency (e.g. evaluation criteria to favour energy efficient pumps, efficient transformer sub-stations, fuel saving equipment etc.).

The ES specialist, relevant members of the PDT and the SPO will need to consult together and pool their collective expertise in the various disciplines in order to arrive at the right mitigation measures to be reflected in the PRM. In this manner downstream work by the SPO in prescribing the project requirements for the Procurement Plan (PP) and PDR are facilitated and can be readily reflected in the PIM and the choice of bidding documents and contract provisions.

Environmental and Social Safeguards

Environmental and Social Safeguards Classification: Substantial

<u>Environmental and Social Safeguards</u>				
<u>Biodiversity conservation</u>	<u>Yes/No</u>	<u>Likelihood</u>	<u>Consequence</u>	<u>Risk Rating</u>
<u>1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?</u>	<u>Yes</u>	<u>Unlikely</u>	<u>Negligible</u> <u>No conversion or degradation of habitats</u>	<u>Low</u>
<u>1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?</u>	<u>No</u>			<u>Low</u>
<u>1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?</u>	<u>No</u>			<u>Low</u>
<u>1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?</u>	<u>No</u>			<u>Low</u>
<u>1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?</u>	<u>No</u>			<u>Low</u>
<u>1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?</u>	<u>No</u>			<u>Low</u>
<u>1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?</u>	<u>No</u>			<u>Low</u>

<u>Environmental and Social Safeguards</u>				
<u>1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?</u>	<u>No</u>			<u>Low</u>
<u>Resource Efficiency and Pollution Prevention</u>	<u>Yes/No</u>	<u>Likelihood</u>	<u>Consequence</u>	<u>Risk Rating</u>
<u>2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?</u>	<u>Yes</u>	<u>Possible</u>	<u>Minor</u> <u>Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.</u>	<u>Moderate</u>
<u>2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc)</u>	<u>Yes</u>	<u>Likely</u>	<u>Moderate</u> <u>Project is fully dependent on production of living natural resources. Project is sited in an existing agricultural area, with low environmental and/or social sensitivity.</u>	<u>Substantial</u>
<u>2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?</u>	<u>No</u>			<u>Low</u>
<u>2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?</u>	<u>Yes</u>	<u>Possible</u>	<u>Moderate</u> <u>The project will require consumption of raw materias, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.</u>	<u>Moderate</u>
<u>2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?</u>	<u>Yes</u>	<u>Unlikely</u>	<u>Minor</u> <u>The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extension.</u>	<u>Low</u>

Environmental and Social Safeguards				
<u>2.6 Could the project involve inputs of fertilizers and other modifying agents?</u>	<u>Yes</u>	<u>Possible</u>	<u>Moderate</u> <u>The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.</u>	<u>Moderate</u>
<u>2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?</u>	<u>Yes</u>	<u>Possible</u>	<u>Moderate</u> <u>The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.</u>	<u>Moderate</u>
<u>2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?</u>	<u>No</u>			<u>Low</u>
<u>2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?</u>	<u>No</u>			<u>Low</u>
<u>Cultural Heritage</u>	<u>Yes/No</u>	<u>Likelihood</u>	<u>Consequence</u>	<u>Risk Rating</u>
<u>3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?</u>	<u>No</u>			<u>Low</u>
<u>3.2 Could the project directly or indirectly affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?</u>	<u>No</u>			<u>Low</u>
<u>3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?</u>	<u>No</u>			<u>Low</u>

<u>Environmental and Social Safeguards</u>				
<u>3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)</u>	<u>No</u>			<u>Low</u>
<u>3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?</u>	<u>No</u>			<u>Low</u>
<u>3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?</u>	<u>No</u>			<u>Low</u>
<u>indigenous peoples</u>	<u>Yes/No</u>	<u>Likelihood</u>	<u>Consequence</u>	<u>Risk Rating</u>
<u>4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?</u>	<u>No</u>			<u>Low</u>
<u>4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?</u>	<u>No</u>			<u>Low</u>
<u>4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?</u>	<u>No</u>			<u>Low</u>
<u>4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?</u>	<u>No</u>			<u>Low</u>

Environmental and Social Safeguards				
<u>4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?</u>	<u>No</u>			<u>Low</u>
<u>Labour and Working Conditions</u>	<u>Yes/No</u>	<u>Likelihood</u>	<u>Consequence</u>	<u>Risk Rating</u>
<u>5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)</u>	<u>Yes</u>	<u>Possible</u>	<u>Moderate</u> <u>The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.</u>	<u>Moderate</u>
<u>5.2 Could the project use or operate in a value chain where there have been reports of forced labour? (Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain)</u>	<u>No</u>			<u>Low</u>
<u>5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?</u>	<u>Yes</u>	<u>Possible</u>	<u>Moderate</u> <u>The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.</u>	<u>Moderate</u>

Environmental and Social Safeguards

<p>5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)</p>	<p><u>Yes</u></p>	<p><u>Possible</u></p>	<p><u>Minor</u></p> <p>The project operates in a sector, area, or value chain where workers are occasionally exposed to significant OSH risks, and where regulation is known to be effective.</p>	<p><u>Moderate</u></p>
<p><u>Community Health, Safety and Security</u></p>	<p><u>Yes/No</u></p>	<p><u>Likelihood</u></p>	<p><u>Consequence</u></p>	<p><u>Risk Rating</u></p>
<p>6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?</p>	<p><u>Yes</u></p>	<p><u>Possible</u></p>	<p><u>Moderate</u></p> <p>The project is situated in an area where there is past evidence of negative impacts from water-borne or other vector-borne diseases, or communicable/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective.</p>	<p><u>Moderate</u></p>
<p>6.2 Could the project lead to unintended negative impacts on nutrition?</p>	<p><u>No</u></p>			<p><u>Low</u></p>
<p>6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?</p>	<p><u>No</u></p>			<p><u>Low</u></p>

Environmental and Social Safeguards				
<u>6.4 Could the project involve or lead to the construction or rehabilitation of dams?</u>	<u>Yes</u>	<u>Possible</u>	<u>Minor</u> The project involves the rehabilitation of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - less than 10 metre high wall; - less than 300m long crest; or - less than 1 million m3 reservoir capacity.	<u>Moderate</u>
<u>6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?</u>	<u>No</u>			<u>Low</u>
<u>6.6 Could the project lead to adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?</u>	<u>No</u>			<u>Low</u>
<u>6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?</u>	<u>Yes</u>	<u>Unlikely</u>	<u>Minor</u> Minor changes to community dynamics. Resulting serious recorded cases of gender-based violence and/or sexual exploitation. Gender-based violence protocols in place.	<u>Low</u>
<u>6.8 Could the project lead to increases in traffic or alteration in traffic flow?</u>	<u>No</u>			<u>Low</u>
<u>6.9 Could the project lead to an influx of project workers?</u>	<u>No</u>			<u>Low</u>
<u>6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?</u>	<u>No</u>			<u>Low</u>
<u>Physical and economic resettlement</u>	<u>Yes/No</u>	<u>Likelihood</u>	<u>Consequence</u>	<u>Risk Rating</u>

Environmental and Social Safeguards				
<u>7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?</u>	<u>No</u>			<u>Low</u>
<u>7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?</u>	<u>No</u>			<u>Low</u>
<u>7.3 Could the project present a risk of forced evictions?</u>	<u>No</u>			<u>Low</u>
<u>7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?</u>	<u>No</u>			<u>Low</u>
Financial intermediaries and direct investments	Yes/No	Likelihood	Consequence	Risk Rating
<u>8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?</u>	<u>No</u>			<u>Low</u>
<u>8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?</u>	<u>No</u>			<u>Low</u>
<u>8.3 Could the investment be granted to an institution that does not have an Exclusion List?</u>	<u>No</u>			<u>Low</u>

Environmental and Social Safeguards				
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Is there evidence that the institution does not comply with the local legal framework?	No			Low
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No			Low
8.7 Does the organization provide auxiliary or capacity building support services.	No			Low

Environmental and Social Safeguards Classification: Substantial

Environmental and Social Safeguards Classification: Substantial

Environmental and Social Safeguards				
Biodiversity conservation	Yes/No	Likelihood	Consequence	Risk Rating
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Yes	Unlikely	Negligible No conversion or degradation of habitats	Low

1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?	No			Low
1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?	No			Low
1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	No			Low
1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?	No			Low
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No			Low
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No			Low
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?				Low
Resource Efficiency and Pollution Prevention	Yes/No	Likelihood	Consequence	Risk Rating
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No			Low

2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc)	Yes	Likely	Moderate Project is fully dependent on production of living natural resources. Project is sited in an existing agricultural area, with low environmental and/or social sensitivity.	Substantial
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	No			Low
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Yes	Possible	Moderate The project will require consumption of raw materials, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Moderate
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?	Yes	Unlikely	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extension.	Low
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Possible	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Moderate
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Yes	Possible	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Moderate
2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	No			Low

2.9 Could the project involve livestock—extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	No			Low
Cultural Heritage	Yes/No	Likelihood	Consequence	Risk Rating
3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	No			Low
3.2 Could the project directly or indirectly affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?	No			Low
3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No			Low
3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No			Low
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low

3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No			Low
indigenous peoples	Yes/No	Likelihood	Consequence	Risk Rating
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	No			Low
4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?	No			Low
4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?	No			Low
4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No			Low
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No			Low
Labour and Working Conditions	Yes/No	Likelihood	Consequence	Risk Rating

<p>5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)</p>	Yes	Possible	<p>Moderate</p> <p>The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.</p>	Moderate
<p>5.2 Could the project use or operate in a value chain where there have been reports of forced labour? (Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain)</p>	No			Low
<p>5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?</p>	Yes	Possible	<p>Moderate</p> <p>The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.</p>	Moderate

5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)	No			Low
Community Health, Safety and Security	Yes/No	Likelihood	Consequence	Risk Rating
6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	Yes	Possible	Moderate The project is situated in an area where there is past evidence of negative impacts from water-borne or other vector-borne diseases, or communicable/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective.	Moderate
6.2 Could the project lead to unintended negative impacts on nutrition?	No			Low
6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No			Low

6.4 Could the project involve or lead to the construction or rehabilitation of dams?	No			Low
6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No			Low
6.6 Could the project lead to adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No			Low
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Yes	Unlikely	Minor Minor changes to community dynamics. Resulting serious recorded cases of gender-based violence and/or sexual exploitation. Gender-based violence protocols in place.	Low
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	No			Low
6.9 Could the project lead to an influx of project workers?	No			Low
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No			Low
Physical and economic resettlement	Yes/No	Likelihood	Consequence	Risk Rating
7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low

7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions — even in the absence of physical relocation)?	No			Low
7.3 Could the project present a risk of forced evictions?	No			Low
7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No			Low
Financial intermediaries and direct investments	Yes/No	Likelihood	Consequence	Risk Rating
8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	No			Low
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	No			Low
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Is there evidence that the institution does not comply with the local legal framework?	No			Low

8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No			Low
8.7 Does the organization provide auxiliary or capacity building support services.	No			Low

Appendix II of the SECAP Review Note: Climate Risk Screening Checklist Results

Climate Risk Classification: Substantial

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	No, Yes, TBD
River flood	Yes
Costal Flood	No
Urban Flood	Yes
Landslide	No
Cyclone	No
Water Scarcity (agricultural droughts and/or dry spells)	Yes
Extreme Heat	Yes
Wildfires	Yes
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity	No, Yes, TBD
Change in temperature (increase or decrease)	Yes
Change in rainfall (increase or decrease)	Yes
Climate variability (larger or smaller)	Yes
Intensity and frequency of extreme events (larger or smaller)	Yes
Is the project expected to have an impact on climate?	No, Yes, TBD
Is the project expected to be a significant emitter of greenhouse gases?	TBD
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	No, Yes, TBD

Low-lying areas (valleys, coastal zones, and small islands)	Yes
Very warm areas (subtropical)	No
Tropical areas (rainforests)	No
Arid and semi-arid areas (deserts)	Yes
Mountains zones and permafrost areas (tundra)	No
River banks	Yes
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	No, Yes, TBD
Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	No
Are fisheries frequently affected by ocean acidification, water salinity and changes in sea surface temperature due to ocean-atmospheric oscillations or climate change?	No
Is forest productivity frequently affected by wildfires, diseases, rainfall variability, prolonged droughts, or changes in temperature?	No
Is the biodiversity in the project area likely to be affected by changes in climate variables?	TBD
Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	Yes
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	No, Yes, TBD
Is conflict exacerbating the population's sensitivity to weather related hazards?	Yes
Is population displacement being exacerbated by climate change impacts?	Yes

Are diseases (e.g. COVID-19, malaria, cholera) increasing the population's vulnerability and affecting their capacity to address potential weather-related hazards?	Yes
Is the income of the target population predominately coming from agriculture?	Yes
Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	Yes
Is the Human Development Index (HDI) equal to or below 0.6?	Yes
Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?	Yes
Step 4: Adaptive capacity and climate resilience	
What are key adaptive capacities in the areas of project intervention?	No, Yes, TBD
Is the country well ranked in the Disaster risk reduction progress score?	Yes
Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	TBD
Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	No
Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	No
Is the target community carrying out (using their own means) agricultural adaptation?	Yes
Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	No
Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

Appendix III of the SECAP Review Note: Environmental, Social and Climate Change Management Plan (ESCMP)

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
CLIMATE MITIGATION PLAN						
Flooding	Substantial	The project area is exposed to pluvial and fluvial flood runoff from high intensity and short duration rainfalls and high floods from the major rivers and their local tributaries in the project area	<ul style="list-style-type: none"> ▪ Strengthen collaboration with the Nigerian Meteorological Agency (NIMET) and Nigerian Hydrological Service Agency (NIHSA) to improve climate services - capacity to generate forecast of extreme rainfall events and river flows and production and dissemination of weather information to farmers in local languages at regular interval. ▪ Support deployment of e-climate services app to improve dissemination of weather information to farmers. ▪ Promote e-extension to disseminate good agric and agronomic practices to farmers. ▪ Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. ▪ As much as possible discourage production around the river floodplain during the wet season. ▪ Ensure that input supports are provided to farmers ahead of time to enable them stave off the flood season. ▪ Support farmers with improved, flood-tolerant seeds ▪ Promote farmers adoption of climate-smart and good agricultural practices. ▪ strengthen extensions services to disseminate innovations and digital agriculture technologies that improve flood resilience. 	NPMU and SPU	<ul style="list-style-type: none"> ▪ Ability of NIMET and NIHSA to issue and deliver regular forecasts. ▪ Number of agro-entrepreneurs receiving and using agro-climatic information to guide farming operations. ▪ Number of farmers that signed unto agricultural insurance. ▪ Reduction in Number of farmers that lost crops to flooding. ▪ Number of farmers cultivating improved flood resistant crop varieties 	<p>Quarterly</p> <p>Quarterly</p> <p>Annual</p> <p>Annual</p>

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
						Annual
Heat/Heatwaves Extreme Heat, Dry spell and Drought	Substantial	All States	<ul style="list-style-type: none"> ▪ Strengthen collaboration with the Nigerian Meteorological Agency to improve climate services - to generate seasonal forecast of droughts and heatwaves, dry spells and disseminate information to farmers. ▪ Support deployment of e-climate services app to improve dissemination of weather information to farmers. ▪ Promote e-extension to disseminate good agric and agronomic practices to farmer. ▪ Sensitize farmers and private service providers to promote compulsory agriculture insurance for farms and processing facilities. ▪ Support farmers with small irrigation structures including earth dams, boreholes, tubewells, dug wells, and pumping machines to prepare for dry spell. ▪ In addition to agric extension officers, promote climate information advocacy through radios and text messages to disseminate weather and climate information to farmers in local languages. ▪ Promote integration of traditional forecasting knowledge with science knowledge through regular feedback from farmers ▪ Promote use of improved and drought and heat tolerant seeds/seedlings ▪ Promote soil and water conservation practices ▪ Deepen climate-smart and good 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Ability of NIMET to issue and deliver climate services and forecasts. ▪ Number of farmers receiving and using agro-climatic information to guide farming operations. ▪ Number of farmers that sign on to agricultural insurance. ▪ Number of farmers using improved drought and heat/dry spell tolerant varieties Number of farmers engaged in soil and water conservation practices. 	Quarterly Quarterly Annual Annual Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Wildfires	Low	All States	<p>agricultural practices</p> <ul style="list-style-type: none"> • Ensure that existing regulations against bush burning are adhered to. • Promote GAP to discourage slash and burn agriculture and land clearing with fire. 	NPMU, SPMU	<ul style="list-style-type: none"> • Number of farmers adopting GAP to discourage slash and burn agriculture and land clearing with fire. 	Annual
GHG emissions (especially from rice paddies and use of firewood for processing)	Moderate	All States	<ul style="list-style-type: none"> ● Promote and Train farmers on draining rice paddies in mid-season to reduce methane emission and improvement in nutrient management including the retention of rice residues. ● Encourage use of clean energy in processing activities ● Promote conversion of production waste into sustainable energy e.g. briquettes from rice husks, biogas from cassava effluents, etc. 	NPMU, SPU,	<ul style="list-style-type: none"> • Number of farmers trained in sustainable rice paddy management • Number of processing units using sustainable energy • Number of successful demonstrations of briquette and biogas production, and other waste to energy initiatives 	<p>Annual</p> <p>Annual</p> <p>Mid-term, End-Term</p>
ENVIRONMENTAL MITIGATION PLAN						
Biodiversity conservation	Low	All States	<ul style="list-style-type: none"> • Conduct environmental screening for all subprojects. Discourage activities around protected areas, forest reserves and important wetland areas of conservation significance. • Follow through activities outlined in the SECAP to protect ecosystems and 	NPMU, SPU,	<ul style="list-style-type: none"> • Number of subprojects screened for biodiversity conservation. 	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			biodiversity (including agroforestry, soil and water conservation, landscape rehabilitation, etc.) <ul style="list-style-type: none"> Avoidance of areas that infringe on known habitats and migration patterns of protected, endangered or rare species, and maintain known wildlife migration corridor Use nets and modern bird scaring equipment on rice field 			
Resource Efficiency and Pollution Prevention	Substantial	All States	<ul style="list-style-type: none"> Promote resource efficiency and integrated waste management – e.g., conversion of rice waste at processing sites to briquettes. <u>Monitoring systems related to air quality (dust, CO2 emission etc) as well as health and safety on the project sites.</u> Conduct periodic monitoring of the groundwater around farm clusters. Train farmers on appropriate use of fertilizers and pesticides. Promote farmers production and use of on-farm organic manure. Promote livelihood opportunities in waste valorization. 	NPMU, SPU	<ul style="list-style-type: none"> Number of livelihood opportunities created in waste valorization. Number of periodic monitoring conducted. Number of farmers trained on appropriate use of pesticide and insecticides. Number of farmers using organic manure 	Annual Annual Annual

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Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Cultural Heritage	Low	All States	<ul style="list-style-type: none"> Activate the procedure for chance finds and other protection and handling of cultural heritage. Discourage migrant-influx and ensure project beneficiaries are localized around their communities to reduce negative impact of alien culture diffusion into local culture to upset the traditional values. 	NPMU, SPU	<ul style="list-style-type: none"> State of the cultural heritage at baseline and project completion 	Inception and project completion
Indigenous peoples	Low	All States	<ul style="list-style-type: none"> Deepen social inclusion by considering all the social actors. Mainstream inclusion and equity through the targeting strategy. 	NPMU, SPU	<ul style="list-style-type: none"> Number of project beneficiaries from indigenous communities 	Annual
Labour and Working Conditions	⁸³ Substantial Moderate	All States	<ul style="list-style-type: none"> promote the implementation of the Gender Action Learning System (GALS) to support collaboration and cooperation between men and women for common goal. <u>So, VCN will promote a framework to encourage gender equality and inclusive participation and discourage child labour and unpaid women labour, sensitize on community health and safety, and establish an open and well publicized grievance reporting channel and redress mechanism.</u> sensitize project beneficiaries on the danger of using children labourers continually monitor beneficiaries to ensure compliance with labour and working conditions 	NPMU, SPU	<ul style="list-style-type: none"> State of the cultural heritage at baseline and project completion 	Inception and project completion
Community Health, Safety and Security	Moderate	All States	<ul style="list-style-type: none"> Promote nutrition-sensitive interventions. Promote livelihood opportunities in agrochemicals and application and waste valorisation by training youths to become experts in agrochemical applications. 	NPMU, SPU	<ul style="list-style-type: none"> Number of farmers and processors using PPE Number of people trained in fertilizers and agrochemicals applications. 	Annual

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⁸³ Employment of children on farm by parents/guardians or for daily paid labour is consistent with Nigeria's labour law (1990) and the Child Right Act (2003)

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> Promote use of appropriate PPE among farmers to safeguard human health. Conduct periodic and safety audit to ensure clean production and processing environment <u>Specific monitoring measures related to water borne diseases will be put in place as well as safety measures (because VCN could also involve or lead to the construction or rehabilitation of small earthdams)</u> 		<ul style="list-style-type: none"> Number of production and processing units maintaining clean and safe environment 	<p>Annual</p> <p>Annual</p>
Physical and economic resettlement	Low	All States	<ul style="list-style-type: none"> Screen subprojects to ensure no physical and economic displacement. Support the economic empowerment of internally displaced people (IDPs) and economically dislocated people within the project area. Advise farmers to avoid lands in designated grazing reserves and around known grazing routes. Promote compulsory agric insurance for producers and processors as a 'no regret' strategy. Promote policy dialogue on land and resource conflicts 	NPMU, SPU	<ul style="list-style-type: none"> Number of subproject screening conducted. Number of policy dialogue on land and resource conflicts 	<p>Annual</p> <p>Annual</p>
Financial intermediaries and direct investment	Low	All States	<ul style="list-style-type: none"> Request all Financial Intermediaries to show evidence of an ESG system that matches IFAD commitments. Where such does not exist, request the Financial Intermediaries to adopt IFAD's SECAP procedure 	NPMU, SPU	<ul style="list-style-type: none"> Number of FI with ESG systems 	Inception and project completion
Agrochemical Waste proliferation and water pollution	Moderate	All States	<ul style="list-style-type: none"> Support the use of improved and disease resilient crop varieties to reduce pest incidence and use of agrochemical. Promote training and certification of the 'spraying groups' in sustainable application of agrochemicals. 	NPMU, SPU	<ul style="list-style-type: none"> Number of farmers using improved and disease resistant crop varieties Number of youth trained 	Annual

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Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> Encourage use of organic manures Encourage service providers and agrochemical input suppliers to follow high standard of security and safety precautions in storage and transport of agrochemicals. Collaborate with NAFDAC and SON in training of 'spraying groups' and elimination of fake and expired agrochemicals Promote waste valorization to reduce waste proliferation 		and certified in integrate pesticide and agrochemical management	Annual
Erosion and landslide	Substantial	All States	<ul style="list-style-type: none"> Promote landscape rehabilitation and agronomic practices such as contour ploughing, terraces and contour bunds, etc to control soil erosion. Encourage the planting of cover crops and anchor crops with the main crop. Ensure that all farm to market roads constructed/rehabilitated must have drainage to prevent erosion. Design and construction of roads, bridges and culverts to be climate-smart and properly monitored to prevent inappropriate termination that can lead to erosion. Collaborate with other projects such as ACRESAL for synergy on erosion control. Support farmers with capacity building on soil and water conservation and landscape rehabilitation techniques Strengthen extension services to disseminate innovations and digital agriculture technologies that improve climate resilience. Promote nature-based solutions shrubs/grasses – e.g., Vetiver and Datura arboreal (Mahukachi) planting to check active erosion. 	NPMU, SPU and Service Providers	<ul style="list-style-type: none"> No of farmers adopting soil and water conservation strategies and sustainable agronomic practices including nature-based solutions. Kilometer of road constructed/rehabilitated with drainages. Kilometer of road constructed/rehabilitated that are climate-smart and with proper termination. 	Annual Mid-term, End-Term

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
						Mid-term, End-Term
Land/soil degradation and forest degradation	Substantial	All States	<ul style="list-style-type: none"> ▪ Require production of project specific ESMP by contractors for all feeder roads, small dams, and other market infrastructure construction ▪ Train farmers and service providers on sustainable land development and preparation methods including zero or minimum tillage. ▪ As much as practicable, encourage mixed cropping of target crops with cover crops and anchor crops where applicable. ▪ involve partners from the Ministry and research institutes in training of farmers on soil conservation techniques. ▪ promote agroforestry and farmers managed regeneration with economic and fertilizer trees 	NPMU, SPU	<ul style="list-style-type: none"> ▪ Number of ESMP produced for market infrastructures ▪ Number of farmers that received training on GAP, sustainable land management and integrated soil and water management. 	Annual Annual
Pest and diseases Infestation	Moderate	All States	<ul style="list-style-type: none"> ▪ Synchronized planting for all farmers to enable synergy in bird control. ▪ Promote use of pest resistant crop variety. 	NPMU, SPU,	<ul style="list-style-type: none"> ▪ Number of farmers that received training on integrated pest management. 	Annual

Impact	Significance Rating	Extent/Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> Strengthen partnership with research institutes and universities to improve capacity to predict pest infestation. 		<ul style="list-style-type: none"> Number of farmers using disease and pest resistant seed varieties 	Annual
<u>Waterborne and other vector borne diseases</u>	<u>Moderate</u>	<u>All States</u>	<ul style="list-style-type: none"> <u>ensure adherence to the mitigation measures in the integrated pest management plan (IPMP) to ensure no contamination of surface and groundwater resources through pesticides and agrochemical uses</u> <u>provision of water facilities for communities for plant watering to ensure access to safe water</u> <u>ensure the animal watering bowls are separated from human watering points to minimize the risk of zoonotic disease transmission</u> <u>enforce use of PPE (especially safety boots) for farmers especially during the rainy season to minimize risk of water and vector borne disease infection.</u> <u>step up awareness creation of water and vector borne diseases risk</u> 	<u>NPCO, SPCO</u>	<ul style="list-style-type: none"> <u>Number of human watering points provided</u> <u>number of farmers using safety boots</u> <u>number of awareness campaigns on water and vector borne disease</u> 	<u>Annual</u>

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Social Management Plan

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
SOCIAL MITIGATION PLAN						
Fragility and Resource conflicts especially farmers-pastoralists clashes	High	All States	<ul style="list-style-type: none"> Set up the CAF (to include traditional council and social and livelihood groups) to strengthen conflict resolution especially between farmers and pastoralists Facilitate regular dialogue meeting of the stakeholders to review conflict resolution issues. Outline clear grievance or complaint channels. Avoid investments along known stock grazing routes and in known grazing reserves. Promote policy dialogue on conflict resolution. Support compulsory agro-insurance for beneficiaries As much as possible, avoid investment in conflict hotspots. Deepen the use of digital tools for project monitoring. promote sustainable land management practices to make more arable lands available. 	State Government, communities, NPMU, SPU	<p>A functional CAF in each state</p> <p>Number of agro entrepreneur that signed on to insurance</p> <p>Number of conflict dialogue convened.</p>	<p>Annual</p> <p>Annual</p> <p>Mid Term</p>
Grievance Redress among group members	Moderate	All states	<ul style="list-style-type: none"> Maintain robust knowledge management, information dissemination and community engagements to keep everybody informed. Develop a clear complaints, grievances redress and dispute resolution framework and make this known to all stakeholders 	NPMU, SPU,	<p>Stakeholder engagement plan (SEP)</p> <p>Stakeholder meeting reports, project flyers</p>	Inception

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> Develop a clear and simple stakeholder engagement plan (SEP) Keep relevant stakeholders informed about project progress on a regular basis; Involve youth and women leaders as well as respected elders in key project decisions and sensitization activities. Publicly disclose relevant information on contracts and payments. Encourage contractors / service providers to give employment preference to local community members. Develop a code of conduct for all stakeholders. Sensitize women and particularly youth on what it's like to be an agri-entrepreneur (give a realistic picture of economic, social and environmental benefits but also challenges and responsibilities). Where feasible, involve locally trusted CSOs in community sensitization. 		<p>Complaints register.</p> <p>Meeting records, observation</p> <p>Service provision contract and employment lists</p> <p>Code of conduct</p> <p>Knowledge management materials</p>	<p>Quarterly</p> <p>Quarterly</p> <p>At every project activity</p> <p>Upon award of contracts and after payments</p> <p>Quarterly</p>
Land tenure and land access for women and youth	Substantial	All States	<ul style="list-style-type: none"> Support policy dialogue for land policy and land reform Deepen sensitization and advocacy across the states and participating communities on land tenure and access to land for intended beneficiaries. Make access to land by women and youth one of the preconditions for a community to participate in the project. 	NPMU, SPU	<p>Land reform promotion document and Policy dialogues</p> <p>Number of women and youth participating in the project</p>	<p>Annual</p> <p>Annual</p> <p>Annual</p>

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
					Number of people without access to land participating in the project Number of secure land access agreement signed.	Annual
Gender inequality	Substantial	All States	<ul style="list-style-type: none"> ▪ Engage women organizations and advocacy groups to mobilize women to participate ▪ Provide concessions/incentives to women farmers to enable them participate. ▪ Encourage men through advocacy to support women participation through guarantee of land and other resources required ▪ promote mainstreaming of the GALS strategy ▪ pursue implementation of the project targeting strategy ▪ promote more women-friendly (especially young married and unmarried women) activities including processing, waste to wealth, home gardens, home poultry and goat rearing, etc. ▪ promote activities that appeal to the youth, including opportunities in use of digital agriculture technology and labour savings technology 	NPMU, SPU	Number of women and youth participants	Quarterly

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
Social exclusion of women, youth and people living with disability due to limited access to land/or fund	Substantial	All states	<ul style="list-style-type: none"> Stick to the project targeting strategy Actively involve women and youth in all components and levels of decision-making within the project. Promote mainstreaming of the GALS strategy Encourage and support the submission of business proposals from more women-only groups. Ensure women hold at least 30-40% of leadership posts in the farmer apex organizations and project management team. When organizing meetings or events, ensure they are appropriate to women's time and venue constraints; Access to land for women and youth should be a precondition for community selection/participation. Ensure that people living with disability (PLWD) are allocated certain percentages and given priority in the businesses that suit their condition (especially in processing and marketing) To avoid obstructionism, ensure men are 'carried along' in sensitization activities. 	NPMU, SPU,	<p>Attendance lists</p> <p>Lists of approved projects and their beneficiaries</p> <p>Membership and staff lists</p> <p>Attendance lists at sensitization workshops and beneficiary / community feedback during site visits</p> <p>Community agreement on land access for women and youth</p> <p>Number of PLWD beneficiaries</p>	<p>At every project activity</p> <p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p> <p>Annual</p>
Managing expectations	Moderate	All States	<ul style="list-style-type: none"> The project targeting should be explicitly and transparently explained in the project implementation manual (PIM) Selection criteria, what the project offers and expectations from intended beneficiaries should 	NPMU, SPU,	Project implementation manual	<p>Before project commencement</p> <p>s</p>

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<p>be explicit and unambiguous (and translated into the local languages so that everybody will be carried along)</p> <ul style="list-style-type: none"> Carry the community and beneficiaries representatives along in the project implementation (and possibly the traditional leaders or their representatives) in every stage of project implementation Maintain robust knowledge management and information dissemination to keep everybody abreast of happenings 		<p>Project selection criteria in local languages</p> <p>Knowledge management and communication material</p>	<p>6months into project</p> <p>Quarterly</p>
Unsafe and non healthy working conditions and Health challenges	Substantial	All States	<ul style="list-style-type: none"> Incorporate environmental and social guidelines in contracts with service providers and ensure compliance. Sensitize project beneficiaries and their wider communities on health & safety standards, including safe use of production, processing and transport machinery, agro-chemicals and production machinery. Sensitization of selected communities on child rights and ensure that there is no child labour Train the 'spraying groups' on safe and healthy handling of agrochemicals 	NPMU, SPU	<p>Contractor Guidelines</p> <p>Health & Safety flyer or poster</p>	<p>Within 6 months of project start and half-yearly review thereafter</p> <p>Within 6 months of project start, half-yearly thereafter</p>

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
			<ul style="list-style-type: none"> Compulsory periodical health check for farmers and spraying gangs improve nutrition-sensitive interventions. create livelihood opportunities for youth in agrochemicals application and waste valorisation. promote use of appropriate PPE among farmers to safeguard human health. continually monitor beneficiaries to ensure compliance 		<p>Community meeting</p> <p>Number of spray groups that have undergone training.</p>	<p>Within 6 months of project start and half-yearly review thereafter</p> <p>Annual</p>
Elite and Political Hijack	Moderate	All States	<ul style="list-style-type: none"> Detailed screening of business plan proposals on commercial viability, conflicts of interest and corruption. Ensure compliance with pre-approved, objective selection criteria and transparent information-sharing and decision-making Sensitize communities on project objectives, target groups, beneficiary selection criteria, and risk of elite capture Agreement with traditional rulers and council of elders on community and beneficiary selection, and adherence to representative and transparent decision-making related to the project 	NPMU, SPU,	Completed proposal screening forms	Annual
Loss and Disturbance of Cultural Resources such as sacred	Low	All States	<ul style="list-style-type: none"> Do not approve projects to be sited in or around sacred forests and community groves and archaeological sites or that will impact biocultural resources of importance the procedure for chance finds 	NPMU, SPU,	Report on Inventory of cultural resources	Project Inception

Impact	Significance Rating (likelihood consequence)	Extent / Prevalence	Recommended Mitigation	Responsibility for implementing mitigation	Means of verification	Timing / frequency of verification
forest and archaeological site			and other protection and handling of cultural heritage should always apply			
<u>Labour influx</u>	<u>Moderate</u>	<u>All States</u>	<ul style="list-style-type: none"> ▪ <u>contractors and service providers to prioritize hiring of Labor from the host communities</u> ▪ <u>Maintain Labor relations with local communities through a code of conduct to be signed by all workers categories.</u> ▪ <u>Contractors and service providers will be required to conduct continuous sensitization and advocacy and training for their workers on the risk of STDs and risky behaviours.</u> 	<u>NPCO, SPCO</u>	<u>Number of people hired by contractors and service providers from the local communities</u> <u>number of training and sensitization conducted on workers risk of STDs</u>	<u>Annual</u>

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Appendix IV: SECAP Monitoring Costs for the VCN Project

Sn	Monitoring activities	Units	Qty /frequency	Costing index	Estimated unit cost/yr (Naira)	Total for cost index_per district	USD (1USD=N800)	Year 1 (USD)	Year 2 – 8 (USD)
1	Site specific ESMP for road construction/rehabilitation	5km for 10communities in 10LGAs in 9 states	4500km	4500	75,000	337,500,000	421,875	210,938	210,938
2	Site specific ESMP for processing facilities	1nos in 10communty in 10LGAs in 9 states	900units	900	200,000	180,000,000	225,000	112,500	112,500
3	Site specific Environmental Screening for water infrastructure rehabilitation	1nos in 10communty in 10LGAs in 9 states	900units	900	100,000	90,000,000	112,500	56,250	56,250
4	Site-specific ESMP for land development	50ha/10communities/10LGAs/9states	45000ha	45000	25,000	1,125,000,000	1,406,250	562,500	843,750
5	Environmental baseline and biodiversity survey,		2 time	2	7,500,000	15,000,000	18,750	9,375	9,375
6	Environmental monitoring - land and soil degradation assessment		3times	3	7,500,000	22,500,000	28,125	9,375	18,750
7	Monitoring Targeted Adaptation Assessment (TAA)		2times	2	10,000,000	20,000,000	25,000	12,500	12,500

Sn	Monitoring activities	Units	Qty /frequency	Costing index	Estimated unit cost/yr (Naira)	Total for cost index_per district	USD (1USD=N800)		Year 1 (USD)	Year 2 – 8 (USD)
8	Development of Integrated Pesticide Management Plan		1time	1	10,000,000	10,000,000	12,500		12,500	0
9	Integrated Pesticide management plan monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
10	Groundwater monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
11	Labour and working conditions monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
12	Cultural heritage and social inclusion (marginalised peoples) assessment		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
13	Community health and safety monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
14	Fragility and Security monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
15	Financial intermediaries monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
16	Grievance redress monitoring		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
17	Monitoring stakeholder engagement plan		2times	2	10,000,000	20,000,000	25,000		12,500	12,500
18	Policy engagement on IPDs and Gender and Women Empowerment		2times	2	12,000,000	24,000,000	30,000		15,000	15,000
19	Other environmental and social monitoring costs		9 states	9	5,000,000	45,000,000	125,000		13,889	111,111
	TOTAL					2,049,000,000	2,630,000		1,127,326	1,502,674

Nigeria

Value Chain Programme in Northern Nigeria

Project Design Report

Annex: Annex 13 Technical Note

Mission Dates: 23 November to 30 December 2023

Document Date: 19/07/2024

Project No. 2000003909

Report No. 6867-VN

West and Central Africa Division
Programme Management Department

Annex 13: Technical Notes

Annex 13.1: Technical Note: AGRICULTURAL PRODUCTION AND PRODUCTIVITY

(a) Leverage gender and fragility study

- Fragility and conflict disproportionately affect women, children, and IDPs and exacerbate gender inequalities because of a variety of factors, including poverty, limited resources, and low adaptive capacity. Studies have shown that women are disproportionately vulnerable to the effects of natural disasters, natural resource degradation, and climate change (including extreme weather events). For instance, in Northern Nigeria, women, children, and IDPs tend to bear the brunt of crop production risks from excess rainfall (flooding), dry spells (drought), and rising farmers/herdsmen conflict for land resources than men – primarily as they are more dependent for their livelihood on natural resources that are threatened by climate change. The Gender gap exists where women’s rights and socioeconomic status are lower than men’s, and where women have less voice and influence in shaping policies (World Bank 2020). VCN needs to build the capacity of farmers for effective conflict resolution at the community level. The VCN project also supports mechanisms to compensate farmers for conflict related damages. It will explore the option of supporting NAIC to develop insurance products (with state subsidies) or for states to allocate a specific budget to offset losses arising from conflict that were not foreseen by smallholder farmers. VCN will link farmers with NAIC for crop insurance cover against flooding and other extreme weather events. CAF will be supported to provide dedicated services to members in conflict mitigation measures, especially as it affects farmers/herders.
- VCN needs to work closely with the World Food Programme (WFP) that support vulnerable households in the fragile areas of Northern Nigeria with in-kind food distribution, cash-based transfers, nutrition interventions, food for assets to support livelihood, resilience building with income generating activities, and supporting food systems with employment creation along different nodes of the value chains.

(b) Alignment with national policies, including the Renewed Hope Agenda and the UN strategic cooperation framework

- The VCN project is well aligned with the Renewed Hope Agenda of the Federal Government of Nigeria (2023-2027), which focuses on food security, ending poverty, inclusive economic growth, access to capital, security, fairness, and anti-corruption efforts. VCN also aligns with the Nigeria Country Strategic Opportunities Programme Paper (COSOP 2024 - 2029), which aims at addressing key priority areas of the agri-food systems and supporting a rural economy in which the targeted population can derive prosperity from economic growth, especially the women and youth. It also aligns with the IFAD Strategic Framework 2016-2025 which emphasizes the increase of productive capacities, market participation, and climate resilience for the rural poor. VCN contributes to the achievement of SDG1 (no poverty) and SDG 2 (zero hunger). It also contributes to the empowerment of women of different ages and gender equality (SDG 5); to the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all (SDG 8), as well as supporting the adaptation to climate change (SDG 13). It is designed to leverage partnerships with the

private sector to enhance access to productivity services by smallholder farmers (SDG 17).

(c) Complementarity and synergy with IFAD projects, government and development partner projects or initiatives in the State and along the nexus of humanitarian, development, and peace

- The VCN project will establish close collaboration with ongoing IFAD projects and other programmes that have adopted a value chain approach in their operations such as the FGN/IFAD Value Chain Development Programme; FGN/IFAD assisted Livelihood Improvement Family Enterprises development in the Niger Delta (LIFE-ND) project; AfDB funded Agricultural Transformation Agenda Support Programme Phase 1; World Bank funded TRIMING and APPEALS projects in Northern Nigeria; (iii) World Bank Nigeria for Women Project (NfWP); World Bank funded FADAMA Development Project; and (iv) World Bank Rural Access Mobility Project (RAMP).
- VCN will also maintain partnerships with national and international research and development institutions (AfricaRice, IITA, ICRISAT, ILRI, National Cereals Research Institute), National Agricultural Seed Council, NiMET, development partners, and the private sector. It will also pursue collaboration with the All Farmers Association of Nigeria, private off-takers (i.e., Olam, Onyx, Popular Rice Ltd, etc.), the International Fertilizer Development Centre, National Agency for Food and Drug Administration and Control (NAFDAC), the Standards Organization of Nigeria (SON), NAIC, CBN (through Anchor Borrower and other schemes), NIRSAL, and the Agricultural Development Projects (ADPs). For financial inclusion for project beneficiaries, new partnerships will be considered with financial service providers to receive interest-bearing financing.

(d) Partnerships with local, national actors while specifying the purpose and justification of the partnership and the proposal of partner institutions

- Climate and Environment: VCN will partner with the crop index insurance companies and national meteorological agency (NiMET) for access to weather information to guide against crop failure arising from weather uncertainty/climate change, including flooding, dry spells, etc.
- Research institutions: VCN will partner with international agricultural research centers (IARCs) in Nigeria, such as IITA, AfricaRice, and ICRISAT, to source and promote the use of certified seed of climate resilient varieties. VCN will also collaborate with the IARCs on proven ICT4D, especially on digital extension advisory tools for productivity enhancement such as RiceAdvice Lite for optimal nutrient (fertilizer) management, an herbicide calculator for optimal herbicide application, a land area calculator for measurement of farm size for input targeting, etc.
- Agricultural Development Projects (ADPs)/existing CASP extension agents/lead farmers: VCN will partner with State government extension agents (ADPs), existing CASP extension agents and lead farmers to train large number of farmers on good agricultural practices.

- Agro-input dealers: VCN will also maintain partnerships with agro-input dealers operating close to the farming communities to reduce the cost of transportation and the distance that farmers travel to buy inputs.

(e) Leverage farmer organizations for support to delivery and policy support

- VCN to engage consultants in collaboration with local partners and SPCO to create a digitalized mapping of farmers organized in clusters (i.e., 20–25 farmers per FO) and land/production areas (ha) for technology targeting. The digital registration of farmers, digital record keeping, proof-of-sale records, and payment from off-takers, are all important requirements for FOs to access financial support. VCN will also build the capacity of FOs in the areas of group dynamics, good governance, farming skills (including field days and demonstration plots), bulk procurement of agricultural inputs, and business plan development skills to allow them to connect effectively with private off-takers and financial institutions.
- VCN will also support timely access to quality agricultural inputs using three sustainable models. (i) Matching grant model: This is a kind of support where the project pays a higher percentage of the input costs compared to the amount paid by the farmers (in this case, farmers receive inputs only after payment of their matching contributions); (ii) Off-taker-driven model: This is a cashless in-kind value chain financing where off-takers provide credit for inputs (i.e. buy inputs from agro-dealers), pass the inputs to farmers, and buy back farm produce after harvest at prevailing market price; and (iii) Producer-driven model: FOs to access seed and fertilizers through bulk buying by their cooperatives and proceed to pay for the inputs upon harvest. The cooperatives generate a profit by selling the products and paying the debt to the suppliers. In the off-taker-driven model, the motivation is access to land, supplies, increased volumes, supply niche markets whereas in the producer-driven model, the motivation is access to new markets, increased bargaining power, access to inputs, technical assistance, secure market position, and farmer empowerment.

(f) Institutional capacity needs and support for policy development, implementation, and coordination in line with their respective thematic area if and when relevant, indicate the link with other areas.

- VCN project conducts participatory needs assessment, through service providers, on the strengths/weaknesses/opportunities/threats (SWOT) and performance reviews of subcomponent actors to address areas that require urgent attention. Based on the results of the capacity assessment, the subcomponent can use a variety of approaches, such as coaching, mentoring, training, peer learning, networking, or online learning, to strengthen subcomponent actors with the knowledge, skills, and resources they need. For example, NPC/NPCO/CPAT can evaluate how subcomponent actors react to the training, what they learn from the training, how they apply it in their work, and how it contributes to the overall subcomponent results. Before the commencement of production and productivity activities, the service providers should be engaged to strengthen the capacities of subcomponent actors (Agricultural Production Specialist at NPCO NPMU, Agricultural Officers at SPCO, Extension Agents, and Lead Farmers at LGAs) to enhance their performance.

- VCN also needs to engage with the regulatory authorities (i.e., State and local government departments and agencies with statutory roles), private sector actors, and FOs through policy dialogue to influence the establishment of quality control of produce, grading, and standardization systems.

(g) Potential in-kind contribution by community, LGA, State, Federal levels in each area considering tightening fiscal space

- Irrigated land development for women and youth farmers: land is controlled by the government and traditional institutions (including Community Heads). VCN needs firm commitments from Community Heads, Local and State governments to provide access to irrigated land for landless women and youth in farming communities. The FOs are to negotiate with Community Heads to provide access to land through land rent on a lease basis (2-3 years) from Community Heads at proximity to high production areas and pay an annual lease fee to the concerned communities. VCN may also consider cost-sharing arrangements with the Local & State governments (at 30% VCN & 70% Government) to support the development of irrigated land for landless project beneficiaries.
- Support the development of new and rehabilitation of old irrigation facilities: VCN will enter into cost-sharing arrangements with State governments to support the development of new and rehabilitation of old irrigation facilities to guarantee all-year-round crop production. The VCN project will also support the construction of boreholes equipped with solar pumping systems. For short-term measures, VCN will introduce farmers to dry season agriculture by providing small-scale irrigation facilities (water pumps, tube wells, and wash bores) in the farming communities.

Reference(s)

World Bank Group. 2020. World Bank Group Strategy for Fragility, Conflict, and Violence 2020–2025. Washington, DC: World Bank.

Annex 13.2: Technical Note: SECAP AND ENVIRONMENT AND CLIMATE CHANGE MAINSTREAMING IN VCN

Environment and Climate Situation in VCN Project Area

The VCN project is to be implemented in 9 States (of the 13 states) of the semi-arid Sudano-Sahelian northern Nigeria. These proposed states spread from northeast to northwest Nigeria, consisting of Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe, and Zamfara States. The semi-arid northern Nigeria is substantially covered by the dry Sudan and Sahel savanna vegetation. This area corresponds to the agro-ecological subzones of dry sub-humid high plain, dry sub-humid plain, and semi-arid plain¹. The Sudan savanna is extensive from the Sokoto basin to the lower part of the Chad basin and covers much of semi-arid northern Nigeria. The ecology consists of a greater frequency of *Acacia albida*, *Tamarindus indica*, and *Schelorhynchus* and forest cover of up to 20% of the land area. The Sahel savanna is found mainly around the Chad basin and along Nigeria's northern fringes with Niger Republic. In addition to grasses, shrub species (*Combretum* spp.) and acacias predominate. Forest cover rarely exceeds 10% except along seasonal watercourses.

Project vulnerability to both climate impact and environmental conditions are Substantial. VCN is a natural resource-based 'green' programme which combines value chain development and agricultural intensification of rainfed arable crops. The project area consists of a difficult semi-arid ecology with widespread degradation conditions, including soil erosion, salinization, podzolization, etc. triggered by natural processes and unsustainable land management practices. Poor environmental conditions pose the risk of poor yields, crop losses and land conflicts.

The VCN project areas face the risk of climate uncertainty, especially with regards to rainfall and temperature. Unpredictability of rainfall in terms of onset and cessation dates as well as the length of growing season poses significant risks to small rainfed agricultural value chains. In recent years, water availability is an issue for cropping in the extended dry season. Flooding has also become a problem, wiping out farmers' investments during the short rainy season in the region. These uncertainties are even projected to increase in the future as the short rainy season gets wetter and the wide dry season also gets drier.

Smallholder agriculture in semi-arid northern Nigeria is predominantly rain-fed and depends on 3 to 4 months of summer rainfall. High exposure and sensitivity, coupled with low adaptive capacity, result in low productivity and high vulnerability to climate and environmental change with concomitant results on poverty, malnutrition, and food insecurity. Agriculture is exposed and sensitive to key climate and environmental risks including low rainfall and high temperature, uncertainty in rainfall onset, cessation, dry spell, and length of the growing season, drought, flood, heat stress/ waves, soil erosion, desertification, and windstorms. Unsustainable land-use practices, poor adaptive capacity, and a lack of knowledge on climate-smart agriculture perpetually drive land degradation and soil infertility, and constraint small-holder agricultural productivity. Water shortages for both human and animal watering, rangeland degradation, resource conflict, overdependence on fuelwood for domestic heating, poor market-connected farm roads, poor access to funding and inputs, and lack of modern farming production and processing skills, and lack of understanding of sustainable land management techniques undermine the resilience of the poor smallholder farmers and households. Household income is generally low among the rural poor especially among women. Lack of skills and access to funds and lack of alternative income sources widen inequality and increase poverty and social vulnerability among women, malnutrition among children, and the number of out of school children.

¹Cervigni, Raffaello; Valentini, Riccardo; Santini, Monia. 2013. Toward Climate-Resilient Development in Nigeria. Directions in Development--Countries and Regions; Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/15811> ."

Mean annual rainfall in the Sudan Savanna zone ranges between about 600-1000 mm and less than 600mm in the Sahel zone². Dry season in the Sudan savanna is about 4-6 months and exceeds 8 months in the Sahel. The inter-annual rainfall variability is high resulting in climatic hazards, especially flood and drought and relative humidity experiences considerable seasonal and diurnal variations³. Analysis of rainfall data from 1981 to 2020 shows a positive trend increasing at about 8.7% in the semi-arid northern Nigeria⁴. The Sahel savanna is projected to experience an increase in future rainfall by as much as 30%, and Sudan savanna by about 10% under both RCPs 4.5 and 8.5 for the 2050-time step⁵. Though the Sahel savanna could experience the highest percentage increase, this could be insignificant considering the annual mean precipitation, which ranges from 286 mm to about 400mm annual maximum historically over this zone (Fig 7)⁶. However, the warming trend is very clear with temperatures rising faster over the semi-arid northern Nigeria. The linear warming for a 30-year average on a decadal slice reveals changes in temperature by an average of 0.20°C with the last decade (2011-2020) emerging as the warmest since 1981. The maximum temperature increase since 1981 is about 4.8% annually for the semi-arid northern Nigeria (Fig. 6)⁷. Under the RCP4.5 for 2050 and 2070, temperature increases could range from a low of 1.48°C to 1.78°C to a high of 3.08°C to 3.48°C compared to the baseline for Nigeria, with the semi-arid northern Nigeria on the high end⁸.

Field Stakeholders Consultation on Environmental and Climate Change

Challenges: Field consultation and stakeholder discussions for SECAP were carried out during the Project Concept Note (PCN) and Project Design Report (PDR) in Sokoto (north-west), Borno, and Yobe States (north-east). The discussions across these represent a wide spectrum of opinions and knowledge on the climate and environmental issues of the semi-arid northern Nigeria.

The key climate, environmental and social issues raised during the stakeholders' consultations and discussions across the States are the same set of climate and environmental challenges pervasive in semi-arid northern Nigeria, which constrains the agricultural value chain in the north. Incidentally, these are the set of issues which CASP tried to address.

These include:

- Erratic rainfall – duration, intensity, late onset, and early cessation
- Heat wave and heat stress - from rising temperature
- Desertification and encroachment
- Deforestation
- Land degradation – especially soil erosion
- Pests and diseases – including locusts and quelea birds which significantly affect grains
- Wrong application and adulteration of agrochemicals
- Lack of improved seeds
- High cost of fertilizer,

² Average rainfall in Sudan Savanna zone where Kano State is situated range between about 600-1000 mm and dry season is about 4-6 months. The forest zone where Ogun State is situated has bimodal peaks (July and September) rainfall with mean average of about 1800mm.

³ State of the Nigerian Environment Report, 2008, SEDEC Associates for Federal Ministry of Environment and UNDP

⁴ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

⁵ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

⁶ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

⁷ State of Climate in Nigeria 2020, Nigerian Meteorological Agency

⁸ Federal Republic of Nigeria (2020): Third National Communication (TNC) of the Federal Republic of Nigeria under the United Nations Framework Convention on Climate Change (UNFCCC). Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/187563_Nigeria-NC3-1-TNC%20NIGERIA%20-%2018-04-2020%20-%20FINAL.pdf

- Access to land for women
- Fragility – insecurity and banditry
- Limited women participation in VCs
- Limited PWD participation in VCs
- Limited Land access for women
- Limited access to finance and insurance
- Insurgency
- Poverty
- Low productivity
- Climate Change
- Low capacity for good agricultural practices
- Lack of labour-saving technologies - High production cost due to labour shortages
- More peasants' farmers rely on their children and wives labour which is provided without compensation
- Unfavourable cross border trade -smuggling makes imported rice cheaper
- Challenges of storage facilities
- lack of support for value additions
- Innovation especially in storage, processing and value additions, packaging, seed improvement, etc

Proposed Intervention Suggested: Obviously, many of the stakeholders spoke against the backdrop of their experience in past projects (including CASP) around the region.

The interventions suggested including:

- Improved seed varieties- early maturing, drought resistant, flood tolerant
- Dams and small irrigation structures and equipment – borehole, tube well, wash bores, water pumps
- Nature based solutions – agroforestry, soil and water conservation, landscape rehabilitation,
- Climate and weather information dissemination for early warning
- Training in agrochemicals applications
- Promote home/backyard gardens – especially for women
- Timely provision and distribution of input - fertilizer and soil additives
- Training and advocacy
- Livelihood support for IDPs and Victims of insurgency
- Support for victims of GBV
- Support for PWDs
- Support for land access for women
- Promoting access to alternative finance (such as 'no interest' Islamic banking)
- Training and capacity building for youth
- Enlightenment through the community leader
- Diversify crop selection to improve nutrition
- Introduction of simple mechanization tools to encourage youth
- Promote animal traction
- Creation of fully led women group for more empowerment
- PWDs to be involved in marketing and processing
- Encourage Agroforestry to combat Climate Change
- Promote local food production and consumption
- Training in agrochemical applications
- Promote use of Personal Protective Equipment (PPE)
- Farm inputs including seed for vegetables are key to promote nutrition
- Training in food fortification, food value additions and proper handling of food including agrochemicals applications is critical
- More considerations to be given to PWDs as beneficiaries in the VCN

Other Environment, Climate and Social Safeguard Issues: Other environmental, climate and social safeguard issues raised during field discussions include:

Labour and working conditions –

- More peasant farmers rely on their children and wives labour which is more likely provided without compensation

- Many women lost their land to insurgency and now constitute about 60% of paid farm labourers (worked 8-12 noon for N1,200) in Borno
- Paid children labourers (10-15 years of age) are high
- GBV/SH/SEA common in different spaces
- Outline of Labour Assessment and Management Plan required – to safeguard exploitation

Grievance Redress Mechanism

- There appears to be no formalized channel for GR
- The community leader plays significant roles – even grievances that cannot be resolved at FO and CDA levels are escalated to the community leader – as the Patron of all associations
- Grievance Redress Mechanism (GRM) Plan required

Resource Efficiency and Pollution Prevention

- ❑ Waste generation - is significantly limited to biodegradable farm waste and Agric products processing waste
- Significant potentials for resource valorization – e.g. farmyard manure/compost, animal feeding, biochar, briquettes
- ❑ Some inorganic fertilizers and agrochemicals are not permitted for use due to insurgency
- Requires promoting the use of organic fertilizers including FYM
- ❑ Adulteration and wrong use of agrochemicals – is considered high – requires
 - Training youth and empower them as in agrochemical application as an enterprise
 - Promote use of Personal Protective Equipment (PPE)
 - Enforcement of existing regulations on agrochemicals is also needed
 - Outline of Integrated Pesticides Management Plan (IPMP) is required

Climate and environmental mainstreaming

Mainstreaming alignment

The mainstreaming of climate and environmental considerations into CASP was consistent with Nigeria's national priorities and aspirations to deliver on the 47% GHG emission reduction targets of the Nationally Determined Contributions (NDC) and the targets of the Sustainable Development Goals (SDGs), most especially as it relates to Goals 1 (no poverty), 2 (zero hunger) 5 (gender equality), 13 (climate action) and 15 (life on land). On the IFAD side, it is consistent with the core objectives and priorities of the IFAD 2016-2025 Strategic Framework⁹, IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025¹⁰, and IFAD11 Replenishment Consultation agenda for mainstreaming gender, youth, nutrition and climate finance tracking using the Multilateral Development Bank (MDB) methodologies to secure improved and more resilient livelihoods for all rural people, and strengthening national capacity to deliver on the Paris Agreement and SDGs.

Strategic orientations - VCN Design Recommendations to Minimize Climate and Environmental Risks and strengthen climate resilience

- ❑ The E&CC risks and mitigation plans would be documented in the SECAP, IPRM, ESCMF and ESCMP
- ❑ The design recommendations to mainstream E&CC and strengthen resilience include:
 - Deepening access to weather and hydrological information - leveraging existing partnerships for early warning to safeguard their investments.

⁹ IFAD 2016-2025 Strategic Framework. <https://www.ifad.org/documents/38714170/39132730/IFAD+Strategic+Framework+2016-2025/d43eed79-c827-4ae8-b043-09e65977e22d>

¹⁰ IFAD Strategy and Action Plan on Environment and Climate Change 2019-2025 <https://webapps.ifad.org/members/eb/125/docs/EB-2018-125-R-12.pdf>

- Deepening no regrets options – e.g. micro insurance.
- Investment in resilience-enhancing market infrastructure including small irrigation structures (borehole, tube-well, water pumps, etc.), water for human (and animal watering), and market-connected farm roads.
- Upscaling NBS- sustainable land management training and activities from CASP including soil and water conservation and landscape rehabilitation techniques.
- Strengthen rural institutions established by CASP including CDAs for conflict resolutions and sustainability.
- Capacity building – FFS and extension (including e-extension)

The design recommendations are aligned to Component 1.1: Promote sustainable agricultural systems, improved technologies, and climate resilient agricultural production practices.

Output 1: Promote climate and hydrological information for early warning

1. Agricultural business and livelihoods in the VCN project area significantly depend on the performance of climate-sensitive natural resources. VCN project area is predisposed to significant risks of severe climate extreme including flood, drought, heatwaves, and climate-driven pest infestations with concomitant negative impacts on the investment and livelihoods of smallholder farmers. The former CASP project was strong on climate information for resilience through a partnership with NIMET. VCN will build and sustain this partnership. The specific activities under climate and hydrological information for early warning include:

(i) Climate information production and Seasonal Rainfall Prediction (SRP) downscaling and dissemination with NIMET to the communities

VCN will leverage on the partnership with NIMET to continue to produce and disseminate seasonal climate information forecasts (rainfall onset and cessation dates, dates of dry and wet spells, heatwaves, and total expected annual rainfall) to smallholder farmers. The information produced will be downscaled, translated into local languages, and used to produce local crop calendar at CDA levels and communicated to farmers to aid preparedness and resilience.

(ii) Hydrological information production and downscaling with NIHSA

VCN will establish partnership with the Nigeria Hydrological Services Agency (NIHSA) with the view to producing and disseminating periodic information on expected hydrological risks (especially flooding) across the project area. This involves collation and modeling/modelling of river flow data on the major river catchments across the project area as well as projected rainfall data to estimate/ model the expected monthly flood situation. Thus, NIHSA will disseminate monthly river flow and flood situation forecast across the project area to help farmers to prepare for flood emergencies ahead of occurrence.

(iii) Support for NIMET and NIHSA to equip meteorological and river gauge stations and roll-out of app-based hydrometeorological information dissemination

VCN will support both NIMET and NIHSA to expand their meteorological and hydrological stations across the project area through installation of Automatic Weather Stations and water gauge measurement equipment to improve the density of their networks and improve the accuracy of their forecasts.

Output 2. Promotion of nature-based sustainable land management solutions including soil and water conservation, landscape rehabilitation, and erosion control measures

2. Flash flood and wind induced erosion exacerbated by poor and unsuitable land and soil management significantly contribute to low yield, poor land productivity, land degradation and unsustainable dependence on inorganic soil additives. The VCN

will promote activities designed to significantly improve on-farm erosion control and soil management. The specific activities to be implemented include:

(i) Technical capacity building in soil and water conservation and landscape rehabilitation techniques

VCN will support technical capacity building and mass adoption of simple and proven landscape rehabilitation and soil and water conservation techniques that worked well under CASP. Evidence from the stakeholder engagements across the project area shows that these measures, which include planting pits (Zai), halfmoon (Tassa), contour ridges, contour bund, tie ridges, stone lines, were well adopted during the CASP Project. VCN will continue to provide technical support for smallholder farmers to upscale adoption.

Contour bunding is a soil and water conservation measure consisting in establishing earth embankments aiming at runoff control. It aims at preserving land from water erosion. VCN will promote construction of earth bunds, stone bunds and vegetative bunds. Bunds will reduce run off speed and carrying away of soil particles, improve soil moisture and reduce surface crusting, reduce wind speed and carrying of soil particles by wind, and improve retention of moisture and nutrients on fields.

(ii) Nature Based erosion remediation with shrubs and grasses and agroforestry

VCN will promote nature-based erosion remediation including planting of grasses and shrubs such as cover grasses (*Vetivera* species), *Datura arborea*, and Gamba grass (*Andropogon gayanus*) which has proven to be very effective in checking active gully erosion on farmland. This nature-based solution to soil erosion which was promoted in the former CASP will be scaled-up in the target areas to improve soil remediation. VCN will also promote fertilizer tree (*Faidherbia albida* and *Alcacia albida*) agroforestry. These are well-adapted to the region and possess high ecological importance.

(iii) Integrated soil fertility management technologies

Since the Russia-Ukraine war, the price of inorganic fertilizers and other farm additives have increased dramatically. This price increase was also compounded by Nigeria's rising price inflation. Access to fertilizers has also become problematic due to the fragility and insecurity of the situation across the project area. Inorganic fertilizers are being hijacked from farmers by bandits and insurgents to produce improved explosive devices (IED). This has made access to inorganic fertilizers more difficult. Feedback from stakeholders during the fieldwork for VCN design suggests that farmers are increasingly shifting to the use of organic fertilizers and farmyard manure. VCN will promote the production and usage of organic fertilizers by training farmers on different methods of composting. This, together with conservation agriculture will improve soil fertility while improving climate and environmental benefits.

Output 3. Investment in rehabilitation of market infrastructure that strengthens resilience

3. Lessons learned from IFAD projects have shown that construction/rehabilitation of basic market infrastructure improves resilience. This includes rehabilitation of climate-vulnerable market connected farm roads, provision of small earthen dams for crops and animals, tube-wells and water pumps for smallholder irrigation and motorized and solar power boreholes and water infrastructure for human and animal watering. The specific activities include:

(i) Rehabilitation of climate-vulnerable market connected farm roads

VCN will invest in rehabilitation and climate proofing of market-connected farm roads to enhance access to market. This will improve communication between the rural producer communities and the outside world and ensure prompt evacuation of farm products to market, processing and offtaking centers. This worked well on CASP and will be upscaled in the VCN project.

(ii) Small irrigation structures

Small irrigation structures are extremely important to improving productivity and resilience of smallholder farmers in the VCN project area due to the extreme climate conditions to enhance their response to drought and water scarcity through dry season farming. VCN will support farmers with irrigation structures including tube wells, wash bores, earthen dams, and water pumps.

(iii) Water infrastructure for human and animal watering

VCN will invest in the provision of water infrastructure including motorized and solar powered boreholes. This is critical to supporting provision of water for human drinking and animal watering in the communities as well as water for home gardens for women. This infrastructure is especially critical around IDP camps, new returnees to their communities, and areas where water for drinking in the community is a great challenge.

Output 4. Supporting farmers with climate-resilient planting materials

4. Flood, drought, and heatwaves are serious climate risks in the VCN project areas. They significantly impact agricultural productivity. In the last couple of years, these risks have become common, leading to loss of investments. The activities here are designed to support farmers with improved (early maturing, high yield, drought, and flood tolerant and disease-resistant) varieties seeds. The specific activities are:

(i) Support farmers with climate-resilient seeds: through this activity, farmers will be supported with new improved, high yield and flood tolerant seeds (e.g. FARO 44, and FARO 67 and 68 for rice which can flood withstand submergence for two to three weeks). For many of the farmers, VCN will be providing them with their first use of improved, flood tolerant varieties.

(ii) Support women farmers with Nutrition crops: through this activity, women farmers and those with home gardens will be supported with seedling for leafy vegetables. This will improve nutrition of women and their children, and the household members in general.

Output 5. Awareness and capacity building through extension services

5. Awareness and capacity building are critical to effective support delivery and sustainability of the VCN climate mainstreaming activities. This intervention is targeted at improving the awareness of beneficiaries with regards to the nexus between Climate Change resilience and the activities being promoted. It will also embark on capacity building to ensure that the activities are carried out correctly and appropriately to ensure results delivery and sustainability. The capacity building activities will be anchored through extension support services including the Farmer Field Schools (FFS) and Training of Trainers (ToOT) to ensure that the targets are reached. The specific activities include:

(i) Awareness and capacity building in sustainable land management and GAP: VCN will carry out training in good agricultural and agronomic practices to deliver activities listed in 1,3 and 4. The technical and human capacity activities will be driven through extension support and FFS. E-extension will be strongly promoted to enable wider and timely reach of beneficiaries.

(ii) Capacity building in waste valorization and sustainable agrochemical applications: VCN will provide capacity building in waste valorization including briquettes and biochar production from rice, maize, sorghum, and millet husks, animal feeds production from the hails husks/straw, rice bran conversion to poultry feed, rice husk conversion for litter, handicrafts, etc. These training will strengthen the capacity of the women and women groups especially to improve their income and thus become more resilient. VCN will also train youth to create enterprises in correct agrochemicals applications.

Fragility and conflicts

Situation: The fragility and conflict situation in the VCN project area has been described as a “complex crisis” with a “very high” risk index (at 6.5) by the INFORM Risk Index Report for 2021¹¹. This is significantly due to Insurgency in the north-east and growing banditry in the north-west.

Insurgency and banditry pose high risk to project investments and infrastructure. Yet, the people who live under insurgency and banditry conditions are the most vulnerable to poverty. Large population in those areas have been downgraded from poor to poorest of the poor, living under internal displacements in refugee camps, away from their land and assets. These people lost virtually everything and indeed need the project’s assistance perhaps more than any other target people. In Borno State, discussions during the stakeholder engagement suggestsuggests that prime agricultural lands more than 10km outside the garrison towns (also called super camps) are considered unsafe areas. As in any conflict situation, women (and children) have been the most affected - losing lives and livelihoods. With little capacity to migrate or relocate, they form the majority population in the IDP camps.

VCN should consider:

- How do we support people under fragility – is it possible to provide support that does not involve ‘infrastructure’?
- Supporting women in IDPs is critical especially in Borno State
- Give some considerations to supporting women IDPs home gardens (crops may not align with the mainstream recommendations)
- Land acquisition for women for farming
- Monitoring project under fragility – we need to evolve how this can be done – ICT can help here, resource pooling with third party too

Interaction with the Commissioner for Agriculture in Borno State design mission reveal the following:

- The VCN design must consider fragility in Borno
- IDPs and New Returnees to their settlements are very important.
- Farmers lost everything to insurgency, and many are trying to get back to their feet.
- It will be great to talk to IDPs, and the Borno State Emergency Management Agency (BOSEMA)
- The Federal Ministry of Agric and Food Security has instituted a Multisectoral Farm Recovery Project in Borno – they provide free interventions to farmers in Borno State
- VCN should explore the full VC - explore opportunity for Value Additions and storage facilities to reduce post-harvest losses
- ADP should be engaged in project implementation.

Fragility Stressors: Field scoping suggests that resource conflicts linked to climate, environment and natural resource management is a strong stressor of fragility with significant impact on the smallholder farmers. Substantial fragility stressors have been identified to include flood, drought, land degradation, conflicts over land, soil, water, and biodiversity losses. Social-economic stressors including politics, state of the economy, migration, security, and safety also pose considerable stress on fragility.

Fragility Drivers: Poverty, unemployment, lack of youth empowerment, and failed policies are significant fragility drivers across the nation. Others include climate change, resource decline, grazing lands and routes, population, family value, poor infrastructure, ungoverned spaces, political activities, activities of non-state actors, development imbalance, inequality, and corruption. These have significant impacts on the smallholder

¹¹ Inter-Agency Standing Committee and the European Commission, INFORM REPORT 2021; Shared evidence for managing crises and disasters, EUR 30754 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-39355-9, doi:10.2760/238523, JRC125620.

farmers in multiple ways with resultant low productivity, loss of investments, lack of access to funds and heightened insecurity.

Addressing the issues: Addressing fragility in the country requires multisectoral and cross-cutting policy implementation and across government levels. It is generally believed that policy and institutions to address State fragility are present in Nigeria. These include policies on national security, youth employment and empowerment, agriculture, social development, etc. However, implementation of policies and activation of institutions to address fragility have not been effective. In addition to continuing with mainstreaming environment, natural resource management, Climate Change, and social inclusion (including community participatory actions) into projects and programs delivery, VCN can contribute to addressing the drivers and causes of fragility through deepened policy dialogue and engagements aimed to strengthen policy implementation and institutional service delivery across sectors.

Climate and Nutrition

The Nigeria's National Agricultural Technology and Innovation Plan (2022-2027)¹² has designed programs (and projects) to promote nutrition in the Nigeria agricultural sector. The programs which aim to directly improve and strengthen adaptation and increase production, productivity and diet diversity of the smallholder farmers include: National food and nutritional security program (promote bio-fortification of food crops and promote homestead/backyard gardening and urban agriculture), national action on reduction of pre- and post-harvest food losses (promotion of adoption of certified seeds and Good Agronomic Practices, provision of community-based shared storage facilities and establishment of food processing clusters farming communities), National food production and consumption sensitization and awareness campaign (enlighten households on food quality), and Livestock Productivity and Resilience Support (promote domestic production of meat, milk, eggs and honey, and establish livestock centres and provision of community-based shared livestock production and processing facilities).

The projects or activities for the programs under the NATIP are consistent with the Nutritional activities that have been mainstreamed in IFAD projects in Nigeria. The VCN project is also expected to deepen and upscale nutrition mainstreaming with activities including home stead/backyard gardening, food fortification and training in food recipes and value additions, advocacy and awareness campaigns of clean production and processing systems, as well as use of certified seeds and promotion of good agronomic practices. This will contribute to fulfilling the objectives of strengthening adaptation of the smallholder farmers and improving their nutrition and dietary diversity.

ICT4D and Innovation

The VCN will have a lot to learn from the achievements and limitations of the CASP project. Involvement of ICT in CASP was limited and did not come on-time. VCN will need to leverage ICT and innovations to deepen digital climate solutions (including e-extensions, e-insurance, climate information delivery, solar pumps, digital finance, digital input delivery systems, etc.) and digital tools for project monitoring and evaluations. VCN will need to quickly adapt an integrated database (driven by a GIS) to integrate spatial and other datasets for project management. This is critical to tracking of project activities across spaces, data management and reporting and data integration and harmonization to get the complete picture on project impact and outputs. To ensure effective usage of the technologies in fragile areas tools that integrate SMS, USSD, QRcodes for E-voucher as well as Near Field Communication will need to be explored. For M&E systems, offline data collection will be used and data synced back to the M&E system when connectivity is restored. These strategies will ensure that access to internet connectivity is not a barrier towards access to ICT4D services

¹² Federal Ministry of Agriculture and Rural Development (2022): National Agricultural Technology and Innovation Policy 2022-2017.

Innovations and deployment of digital agricultural tools is also critical to ensuring that farmers have access to latest tools and information in improved and certified seeds, storage and post-harvest losses reduction, processing, and value additions, etc. Innovation in storage and value additions (e.g. drying technology, grinding technology, packaging technology, etc.), is especially critical for the profitability and resilience of smallholder farmers to make them less vulnerable to postharvest losses and volatile prices regimes driven by weather.

Climate Risk Adaptation Options

The Table below shows the climate risk adaptation options evaluated in the Targeted Adaptation Assessment (TAA) and their suitability.

Scoring Adaptation Options

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
1	Capacitate extension staff with knowledge on cClimate cChange in order to support SHF deal with climate risks	3	3	3	3	3	3	3	3	Suitable	24
2	Reduction of soil erosion, nutrient leaching from soil and minimized wind damage. (Soil erosion control and water holding structures)	3	3	3	3	3	3	3	3	Suitable	24
3	Develop knowledge and decision-support systems including improved monitoring and early warning systems (Climate and weather	3	3	3	3	3	3	3	3	Suitable	24

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	information advisories)										
4	Climate and weather information dissemination to SHF for early warning	3	3	3	3	3	3	3	2	Suitable	23
5	Implement Agroforestry techniques	3	3	3	2	3	3	3	3	Suitable	23
6	Promote soil and water conservation techniques	3	3	3	2	3	3	3	3	Suitable	23
7	Promote landscape rehabilitation techniques	3	3	3	2	3	3	3	3	Suitable	23
8	Support land access for women	3	3	2	3	3	3	3	3	Suitable	23

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
9	Improved drainage, improved soil organic matter content and farm design to avoid soil loss and gullyng.	3	3	3	3	3	2	3	3	Suitable	23
10	Use intercropping.	3	3	2	3	3	3	3	3	Suitable	23
11	Use of shade trees and plantation of leguminous varieties for nitrogen fixation	3	3	2	3	3	3	2	3	Suitable	22
12	Promote home/backyard gardens	2	3	2	3	3	3	3	3	Suitable	22
13	Livelihood support for IDPs and Vulnerable groups	2	3	2	3	3	3	3	3	Suitable	22
14	Promote use of bio-fertilizer or organic fertilizers	3	3	2	3	3	3	3	2	Suitable	22

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
15	Consider increasing crop insurance cover against extreme events.	3	3	3	2	3	2	3	3	Suitable	22
16	Reduced tillage to lessen water loss, similarly the incorporation of manures and compost, and other land use techniques such as cover cropping increase soil organic matter and hence improve water retention	3	3	2	3	3	3	3	2	Suitable	22
17	Provide dams and small irrigation structures in areas that are facing severe climate impacts - tube wells, boreholes, wash bores, water pump, etc	3	3	3	3	3	2	2	2	Suitable	21

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
18	Training in sustainable agrochemical applications	3	3	2	2	3	3	2	3	Suitable	21
19	Promoting access to alternative finance (such as 'no interest' Islamic banking)	2	3	2	3	3	2	3	3	Suitable	21
20	Creation of fully women-led group for more empowerment	3	3	2	3	3	2	2	3	Suitable	21
21	Diversify crop selection to improve nutrition	3	3	2	3	3	2	2	3	Suitable	21
22	Agricultural disaster risk reduction and management (DRR/M)	2	3	3	3	2	2	3	3	Suitable	21
23	Water conservation measures are particularly valuable at times of drought (larger storage/dams)	3	3	2	2	3	3	2	3	Suitable	21

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	and water harvesting infrastructure)										
24	Promotion of Off-farm enterprise	3	3	3	3	3	2	2	2	Suitable	21
25	Improve existing irrigation systems to reduce water losses (e.g. drip irrigation)	3	3	2	3	3	2	2	2	Suitable	20
26	Develop and implement Integrated Pest Management Plan	2	3	2	3	3	2	2	3	Suitable	20
27	Training in food fortification, food value additions and proper handling of food	3	3	2	3	3	2	2	2	Suitable	20

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
28	Strengthen capacity to generate new forms of empirical knowledge, technologies and agricultural support services that meet emerging Climate Change and variability challenges	2	3	3	2	2	2	3	3	Suitable	20
29	Drilling boreholes to supplement surface irrigation water	3	3	2	3	3	1	3	2	Suitable	20
30	Promote Innovative risk transfer programs such as agricultural insurance at the farmer level	3	3	2	3	3	2	2	2	Suitable	20
31	Timely provision and distribution of input to help farmers adjust planting season	3	3	2	3	3	1	2	2	Suitable	19

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	to stave off flood										
32	Introduction of simple mechanization tools to encourage youth	3	3	2	3	3	1	2	2	Suitable	19
33	Research into seasonal viable production systems for different farmers	2	3	3	2	2	2	3	2	Suitable	19
34	Increased diversification of varieties or crops to hedge against risk of individual crop failure (Use flood, drought and/or saline resistant varieties)	3	2	2	3	2	2	2	3	Suitable	19

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
35	Make use of integrated systems involving livestock and/or aquaculture to improve resilience.	2	3	2	3	2	1	3	2	Suitable	18
36	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	3	3	2	2	1	2	3	Suitable	18
37	Promote animal traction	3	3	2	3	2	1	1	2	Suitable	17
38	Search for integrated solutions to disease and pest control that are cost effective	2	3	3	2	2	1	2	2	Suitable	17
39	Shifting cropping calendars; when to plant, which varieties to plant and	2	2	3	3	2	2	2	1	Suitable	17

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
	which inputs to use										
40	Use expertise in coping with existing pests and diseases, including post-harvest management	3	2	2	2	2	1	2	2	Suitable	16
41	Promote balanced fertilizer application	2	2	2	2	2	2	2	2	Suitable	16
42	Reappraise economic viability of proposed infrastructure designs based on climate projections over lifetime of assets	2	2	2	2	2	1	2	2	Suitable	15
43	Farmers Field School for GAP and climate-resilience information sharing	3	3	3	3	3	3	3	3	Suitable	24

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
44	Promote enlightenment on climate change through the community leader	3	3	3	3	3	3	3	3	Suitable	24
45	Implementation of climate smart agriculture practices and environmentally sustainable practice (e.g. Greenhouses, shadenets)	2	3	3	1	2	2	2	3	Unsuitable	18
46	Develop standards to enable flood proof infrastructure development	2	3	2	1	2	2	2	2	Unsuitable	16
47	Change post-harvest practices, for example the extent to which grain may require drying and how products are stored after harvest.	3	2	2	1	2	1	2	2	Unsuitable	15

No	Adaptation Option	Technical Feasibility	Cost Benefit Analysis	Addresses Climate Risk	Accessibility for SHF	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability to HEEP	Total Score
48	Provide cooling systems for mid/post-harvest horticulture produce management	1	3	2	1	2	1	2	2	Unsuitable	14
49	Expand Agricultural areas to regions with lower climate risk	1	3	3	1	1	1	1	2	Unsuitable	13

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Annex 13.3a: Technical Note: Matching Grant



**Federal Government of
Nigeria**



FEDERAL REPUBLIC OF NIGERIA

Value Chain Programme in Northern Nigeria (VCN)

ANNEX 13 Matching Grant Technical Note

1.0 Introduction

The Value Chain Programme in Northern Nigeria (VCN) aims to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in nine out of the 13 states in the northeast and northwest geopolitical regions of Nigeria¹³. It is basically a scaling up and sustainability measure for the Climate Change Adaptation and Agribusiness Support Programme (CASP), which was implemented in seven out of the nine States of VCN. The State (Kano) is included to strengthen the linkage of the VCN value chains with a robust market, as Kano is a major regional market for agricultural produce. VCN targets 456,000 direct beneficiaries, equivalent to 3,109,920 rural households members in the nine States and will be implemented over an eight-year period at a total cost of USD 158.15.5 million. IFAD is providing a Performance Based Allocation System (PBAS) loan of USD 56.7 million and Borrowed Resource Access Mechanism (BRAM) resources of USD 30 million. The Agence Francaise de Developpement (AFD) is co-financing VCN with USD 50.8 million, FGN and States providing USD 20.656 million. The Federal Ministry of Finance (FMF) and the Federal Ministry of Agriculture and Food Security (FMAFS) provide oversight at the national level to VCN. The FMAFS is the Lead Programme Implementing Agency.

Goal. The goal of the VCN is to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northern states of Nigeria.

Programme Development Objective (PDO). The PDO is to improve food and nutrition security and income of households (HHs) in northern Nigeria through inclusive and sustainable value chain (VC) development as an enabler for rural transformation. The PDO is aligned with:

- (i) the IFAD COSOP (2024-29) strategic objectives of *Sustainably increase rural people's productive capacities, and strengthen the organizational and policy frameworks, for inclusive and resilient agricultural VCs*;
- (ii) the three 2016-2025 IFAD Strategic Objectives (SOs): SO1: Increase poor rural people's productive capacities, SO2: Increase poor rural people's benefits from market participation, and SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities;
- (iii) the four mainstreaming priorities of gender, youth, nutrition and climate change; and
- (iv) the AFD Country Intervention Strategy¹⁴ of financing solutions that contribute not only to the development of a competitive economy that creates jobs and wealth, but also to shared, inclusive, and resilient development, seeking complementarity with other donor investments.

The core indicators for assessing the PDO of the VCN are: (i) HHs reporting increased income; (ii) Women reporting minimum dietary diversity (MDDW); (iii) HHs satisfied with project-supported services; (iv) HHs reporting they can influence decision-making of local authorities and project-supported service providers; and (v) Individuals demonstrating an improvement in empowerment.

2.0 The Concept of a Matching Grant

A matching grant is a one-off, non-reimbursable transfer to project beneficiaries. It is based on a specific project rationale for particular purposes and on the condition that the recipient makes a specified contribution for the same purpose or subproject. Grants and matching contributions can

¹³ The targeted States are all States already covered by CASP (Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara) plus Kano and Bauchi. This last one was identified as targeted State by AFD and its coverage will be confirmed or not at start up.

¹⁴ AFD (2021). AFD and Nigeria. <https://www.afd.fr/en/ressources/afd-and-nigeria>. Globally, for the agriculture and rural development sector, AFD works to strengthen the autonomy, sustainability and resilience of the sector through an integrated strategy that combines the objectives of preserving natural resources and biodiversity, agricultural economic development, territorial development in rural areas, and gender equality. <https://fundit.fr/en/institutions/french-development-agency-afd>

be either in cash or in kind, or a combination of both. They may or may not be provided together with other financial services, such as loans, or linked to them¹⁵.

Within community-driven development projects, matching grants are typically used to finance social and economic infrastructure, productive assets, income generating and livelihood-diversification activities by groups, and sometimes by individuals. Within rural and agricultural business development projects, they are used to develop agricultural value chains, promote innovation and technology, enhance access to extension and support services, and support farm diversification.

2.1 Use of MG.

Provided on demand, the MG will be used to supplement the finances of the beneficiary for a particular purpose. The MG engenders ownership and sustainability of the subproject/enterprise by the beneficiary. It helps draw private investments and investors into growing or underserved markets by addressing specific barriers to market entry for certain target groups, technologies, or service providers. It can thus stimulate market development and be part of public policies for making markets work for poor people.

In line with IFAD inclusive rural finance policy, the matching grant will also promote linkages with financial service providers, funds for youth, women and other vulnerable target groups, through: capacity building of the demand for rural financial services through training on financial literacy; linkage of SHFs with financial institutions (FIs); capacity building of the supply of rural financial services, by strengthening the FSAs and linking to financial institutions, developing through training of FIs on the development of new financial products including for; de-risking lending to farmers.; and linking FSAs to commercial financial service suppliers to scale up financial inclusion of the target groups. Fragility of access to financial services will be mitigated through promotion of weather-based index insurance, FSA and CDA capacity building of stakeholders, and access to the RED subcomponent in case of disaster.

This should not distort markets and private investments or compete with alternative uses of public funds.

2.2 Purpose of the Co-financing Rules

The general purpose of this technical note is to provide rules and controls that will guide the implementation of the MG facility in the Programme. It is to be used by all stakeholders – the beneficiaries, the implementers of the fund, and the service providers at the local and national levels.

3.0 The Grant Strategy

3.1 Rationale

The MG is aimed at cushioning the programme target group - farmer organizations (FOs), PwDs and small-scale processor groups – against the constraints they face in access to financial services. The MG modality will be a transitional mechanism for financing assets and services for the participating farmer groups. The strategy will be to use short-term financing instruments to promote adoption of technologies and enable target groups to carry out productivity-enhancing investments and ultimately get included in the financial sector. The level of indicative grant financing is based on:

- (i) the guidelines provided in the draft IFAD publication on Matching Grants,
- (ii) the parameters being used in Government and donor projects providing similar assets and services in Nigeria, such as the World Bank-financed National Fadama Development Project, the IFAD funded Value Chain Development Programme (VCDP), and the closed CASP project.
- (iii) Draw from the lessons learned from IFAD inclusive rural and agricultural finance experiments in West and Central Africa.

¹⁵ IFAD's Matching Grant Technical Note, 2012

3.2 Targeting

As confirmed during the consultation process in the field, the target beneficiaries under the VCN will need additional support to access future, expanded opportunities to access agricultural finance services. With little or no credit history, absence of securable collateral, high poverty rate and multiple fragility issues, most of the targeted beneficiaries do not represent attractive, potential clients to banks or MFIs from the start. The MG is aimed at the programme's target group, the rural poor, especially women, youth, and vulnerable groups.

4.0 VCN Financing categories and co-financing rules

Table 1 presents the contribution ratios applicable to different items under the VCN MG scheme.

Expenditure category / Activity	Project matching grant funding %	Target people counterpart funding¹⁶
Production inputs		
Pro-poor kick-start package for target VCN farmers: provided <u>only for 2 seasons</u>	60% male adult +IDP Returnee	40% male adult+IDP Returnee
	80% women/ youth+IDP Returnee	20% women/ youth+IDP Returnee
	90% PWDs	10% PWDs
Production equipment		
On-farm individual investments (e.g. tillers, sprayers, harvesting)	70% male adult +IDP Returnee	30% male adult +IDP Returnee
	80% women/ youth+IDP Returnee	20% women/ youth+IDP Returnee
	90% PWDs	10% PWDs
Collective productive assets	60% Mixed Organization or SMEs	40% Mixed producers Org or SME
	80% women/youth groups or micro-enterprises	20% women/youth groups or micro-enterprises
Post-production equipment		
Investments on post production equipment (e.g., processing machinery)	90% Mixed Producers Organization or SMEs/Women/Youth Groups or Micro-Enterprises	10% Mixed producers Org or SMEs/Women/Youth Groups or Micro-Enterprises/Host
	80% women/youth groups or micro-enterprises	20% women/youth groups or micro-enterprises

¹⁶ Either with their own funds or by borrowing from an FI

Expenditure category / Activity	Project matching grant funding %	Target people counterpart funding ¹⁶
Production and Post-production infrastructure		
Investments on production infrastructure (e.g. small irrigations farms) and Post-production infrastructure (e.g storage facilities, processing centres)	90% Mixed producers Org or SME/ women/youth groups or micro-enterprises	10% Mixed producers Org or SME/ women/youth groups or micro-enterprises /Host Community ¹⁷ to be contributed in-cash or in-kind (in-kind could include: land, labour,material,etc.)

4.1 Implementation of Matching Grants

4.1.1 Implementation modalities for Production Inputs

- (i) **Project-driven**- where VCN provides a matching grant by paying a percentage of the input costs for up to two seasons, with the rest of the amount to be paid by the farmers. Farmers receive inputs only after payment of their matching contributions (see Table 1 above for details);
- (ii) **Off-taker-driven** - In the off-taker-driven model, the motivation is access to land, increased volume of supplies, and supply niche markets. Very poor farmers who are unable to pay their matching contribution upfront, can benefit from the VCN MG. The off-takers pre-finance the farmers' matching contribution and recover their investment at harvest time; and
- (iii) **Producer-driven** - where FOs can access their matching contribution through the FSAs/FIs and pay back at harvest time. The motivation here is that the farmer begins to build trust and credit worthiness within the community and FIs, and is determined to succeed in order to pay back the borrowed funds from the FSA/FI.

Positive and Negative lists for production inputs

The following activities are on the **positive list** for MG under the Programme:

- a) farm inputs based on technical recommendations (fertilizer, chemicals, seeds, etc.).
- b) Land preparation by tractor/tiller or animal traction service providers

The inputs would be assessed to be early maturing, flood/drought resistant, insect/disease tolerant varieties, and fertilizers (inorganic/organic).

The following activities on the **negative list** are not eligible for inputs MG under the Programme:

- a) use of prohibited agro-chemicals that would affect human health and encroach upon critical ecosystems, including riverbanks and residential and public houses;
- b) inputs supporting farming activities that would have a high risk of disturbing fragile ecosystems, including agricultural expansion into or the pollution of fragile ecosystems; and
- c) inputs for farm activities that would violate traditional and cultural norms and beliefs.

Grant Limits – Thresholds for Production Input

¹⁷ MoU is usually signed between the project and host communities, Local government and State government for the in-kind contribution

Each beneficiary will receive a grant for production input as kickstart package (to be provided only for 2 seasons), equivalent to 60% for male adult, 80% for women and youth, and 90% for PwDs, of the cost of inputs for a maximum of 1ha in a production season, with the remaining balance due as the beneficiary counterpart contribution.

4.1.2 Implementation of Matching Grant for Production Equipment

Positive and Negative Lists for Equipment

The following activities are **eligible for equipment MG** under the Programme:

- a) power tillers;
- b) sprayers;
- c) weeders
- d) smart weather devices
- e) Urea Deep Placement (UDP)/Urea Super Granule (USG) Applicator for rice producers
- f) seed cleaning unit for certified rice seed producers;
- g) threshers
- h) reapers
- i) water pumps (especially solar powered)
- j) harvesters
- k) other simple hand-held farm mechanization equipment relevant to selected VC crops

The equipment would be assessed and approved by the relevant staff of the programme management, including Agricultural Production Specialist.

The negative list for equipment includes large size equipment and equipment NOT relevant for production of selected value chain crops.

Grant Limits – Thresholds for production equipment

For on-farm individual investments, each beneficiary will receive a grant for production equipment (to be provided only for a season), equivalent to 70% for adult men, 80% for women and youth, and 90% for PwDs, of the cost of equipment, with the remaining balance due as the beneficiary counterpart contribution.

However, for collective productive assets, Mixed Producer Organizations or SMEs will receive a grant from the programme for production equipment equivalent to 60%, and 80% for women/youth groups or micro-enterprises with the remaining balance due as the beneficiary counterpart contribution. The Programme contribution will be a **one-off contribution** for the purchase of the equipment.

4.1.3 Implementation of Matching Grant for Post-production Equipment

Positive and Negative lists for Equipment

The following activities are eligible for equipment Matching Grant under the Programme:

- a) Value addition technology equipment – grater, miller, hydraulic presser, dryer, pelleting machine, flash drier, rice parboiling plant, rubber roller, destoner and other context appropriate processing equipment relevant to the selected value chain crops.

The equipment would be assessed and approved by the relevant staff of the programme management.

The negative list for equipment includes large size equipment and equipment NOT relevant for post-production activities of selected value chain crops.

Grant Limits – Thresholds for post-production equipment

Mixed FOs or SMEs will receive a grant from the programme for production equipment equivalent to 70% for men, and 80% for women/youth groups or micro-enterprises, with the remaining

balance due as the beneficiary counterpart contribution. The Programme contribution will be a **one-off contribution** for the purchase of the equipment.

4.1.4 Implementation of Matching Grant for infrastructure

Positive and Negative Lists for Production Infrastructure

The following production infrastructure are eligible for Matching Grant under the programme:

- a) Rainwater harvesting ponds for supplemental irrigation or off-season planting
- b) Small irrigation facilities (boreholes, tube wells, wash bores, and small earth dams)
- c) Land Development

The choice of irrigation facility to be developed largely depends on the potential water sources and will be made under the expertise and guidance of relevant programme staff.

The negative list for production infrastructure includes large irrigation facilities such as dams, and range land improvement

Positive and Negative lists for Post-production Infrastructure

The following infrastructures are eligible for Matching Grant under the programme:

- a) Post harvest storage & value addition
 - Market stalls with storage space and solar powered borehole water supply for human consumption and sanitation services
 - Aggregation/bulking facilities with solar powered borehole water supply for human consumption and sanitation services
 - Agro Processing facilities constructed or rehabilitated with solar powered borehole water supply for human consumption and sanitation services
- b) Rehabilitation of last-mile rural roads and drainage infrastructure including culverts, bridges, etc.

The choice of infrastructure to be developed, the design will be made under strict guidance of relevant programme staff, especially the Rural Infrastructure Specialist.

The negative list for infrastructure includes very large infrastructures

Grant Limits – Thresholds for infrastructure

The financing of agro-infrastructure subprojects would be in form of grants with the Programme contributing a maximum of 90% (disbursed in tranches, depending on the project cost, implementation period and capacity of the Cluster/FO) of the total cost of the subproject and the beneficiaries contributing a minimum of 10% of the total cost through up-front cash or in kind (provision of labour, materials, or both).

5.0 Group Equity Development

- a) To ensure sustainability of the production process, the Individual/FO is required to save 10 - 20% of sales from its production at the end of the first year. Such savings shall be deposited in an escrow account in a Financial Institution (FI)/FSA through which the Group or individual can access credit in future for expansion or diversification. The FI/FSA must be approved by the Programme Management to guarantee its authenticity. Private service providers, NGOs and other rural stakeholders will be encouraged to facilitate the link between the FIs and the Farmer/FOs to graduate after a maximum of 2 seasons, under the supervision of the relevant staff of the programme management, who will carry out periodic checks. Through this savings instrument, the farmers' groups would increase their bargaining power and credit worthiness for securing credits, negotiating for inputs and services as well as stimulate market development.
- b) To ensure the sustainability of the supported enterprises, before the purchase of the equipment, the beneficiaries will be assisted to link with financial institutions through

capacity building support, in order to open escrow savings accounts wherein not less than 20% of the replacement value of the equipment will be deposited annually throughout the lifespan of the equipment. Such savings shall be derived from the user fee charged to members and non-members of the beneficiary group. The money shall be used for maintenance and operation, and serve as collateral or equity contribution in accessing loans from FIs/FSAs for replacement of the equipment. Private service providers, NGOs, and other rural stakeholders will be encouraged to facilitate the link between FIs and the FOs/Enterprise Groups, under the supervision of the programme management. In addition, by linking the grant to a savings instrument, the FO/Enterprise Group would increase their bargaining power vis-à-vis equipment suppliers and stimulate market development.

6.0 Disbursement of Matching Grant

Matching Grants to recipients under the VCN shall be disbursed strictly according to the provisions in this section. Before disbursement to any Individual/Group/SME, the Programme Management must ensure that members have received training on the following: (i) appropriate procurement methods and rules; (ii) simple bookkeeping; (iii) opening and operating a bank account; (iv) safe maintenance and storage of materials; (v) procedures for environmental impact screening, and (vi) valuation of benefit-in-kind.

Annex 13.3b: Technical Note: FINANCIAL INCLUSION

INTRODUCTION

Financial inclusion can be described as the delivery and effective use of a full range of (formal) financial services at affordable costs to all (bankable) households and targeted small- and medium-scale companies, including the disadvantaged and low-income segments of society.

It is necessary for high productivity and gives rise to economic development of any nation. Financial Inclusion helps in assisting small holder farmers in raising funds for purchase of high -quality farm inputs, adoption of best practices in crop production as well as achieving an increase in their operational scale using modern farming techniques. It is against this backdrop that the VCN project considers this one of the thematic areas to be addressed with the demand for the following requirements to be met: a review of the existing financial inclusion strategies and relevant government policy documents relevant to financial inclusion in Nigeria; assessment of the existing financial inclusion infrastructure in Nigeria and identification of the gaps and areas of improvement with specific reference to the north of the country; assessment of the financial inclusion status of the project area beneficiaries and identification of how best they can benefit from the programme; assessment of the beneficiary financial literacy capacity needs/gaps and proposition of interventions that will address the same; assessment of other key players in the same space and lessons on how VCN could leverage and build synergies with them; identification of barriers and constraints that have been limiting the uptake of women, youth and marginalized groups to financial/digital financial products and services. Others are to: identify constraints and barriers in accessing formal financial services by MSMEs, propose sustainability approaches to be inbuilt into the programme interventions for continuity, and develop a roadmap and strategic interventions/instruments that will address the beneficiary's felt financial need.

METHODOLOGY

In meeting the requirements of this thematic area, the study used mostly secondary data obtained from past studies and documents published on the net. However, to complement the secondary data, primary information was also obtained from the target beneficiaries in the selected States in the north during the field trip with IFAD teams. Structured questionnaires were used to obtain the information. Descriptive statistics were used to analyze the responses obtained.

RESULTS AND DISCUSSION

These are presented along the line of the major activities pursued in this thematic area thus:

The existing financial inclusion strategies and relevant government policy documents on financial inclusion in Nigeria.

Financial Inclusion Strategies in Nigeria is developed into a document called National Financial Inclusion Strategy (NFIS 3.0). This document sets a target of 95% financial Inclusion for Nigeria by 2024. It aims to increase adoption and usage of financial services in priority demographics, ensure robust enabling financial services infrastructure, expand digital financial services and platforms and improve financial inclusion coordination, capacity, and governance. Under the National Financial Inclusion Strategy, it was agreed that focus will be on the vulnerable groups, which include smallholder farmers, women, rural dwellers, youths, Northern Nigeria and Micro, Small and Medium Enterprises (MSMEs). The VCN project aligned properly with this in focusing on women, youths and the vulnerable in northern Nigeria.

The existing financial inclusion infrastructure in Nigeria and the gaps and areas of improvement with specific reference to the north of the country.

Both hard and soft infrastructure exist in Nigeria and the northern part to support financial inclusion. Hard infrastructures are tangible facilities used to support financial inclusion. The existing ones and their descriptions are presented in the table below:

S/N	EXISTING HARD INFRASTRUCTURE	DESCRIPTION/PURPOSE	IDENTIFIED GAPS/AREAS OF IMPROVEMENT WITH REFERENCE TO THE NORTH
1	Deposit Money Bank Branches	These are Branch offices of Commercial Banks from where financial services are delivered to customers. They play a crucial role in financial inclusion in Nigeria. Banks are intermediaries between depositors (who lend money to the bank) and borrowers (to whom the bank lends money).	Gap still exists in the development of diversified products that meet the needs of the various categories of the population in the North. The location gap is higher. The gaps between urban town and rural areas are high and the north has lower transaction intensity compared to the other parts of the nation.
2	Automated Teller Machine (ATM)	These are electronic banking outlets that allow customers to complete basic transactions without the aid of a branch representative or teller. The ATMs (some solar-powered) serve as a tool to drive financial inclusion: it offers efficiency and affordability for the financial institution, while helping consumers to improve their understanding and control of their financial matters.	Despite the growth, their locations are still concentrated in the urban centres creating a wide gap between urban and rural areas. The distance from their locations is still far for the vulnerable groups. Access by the vulnerable groups still very limited in the north
3	Microfinance banks/	Microfinance banks are private financial companies providing financial services on micro levels within the economy. They have emerged as a vital component of Nigeria's financial landscape, driving financial inclusion, promoting small business growth, and empowering rural communities.	In the north, their locations are still limited to the urban areas. They need to be extended into the rural areas as well. Gaps also exist in the development of diversified products.
4	Financial Service Association (FSA)	FSA is a form of Rural Finance which tends to combine the attributes of Investment Company, Microfinance and Community based financial outfit. The attribute in relation to Investment Company is its emphasis on capital and a high return on same. Being microfinance arrangement, its operations rest equally on its financing of small-ticket transactions on which interests' receivable are not capped. It is community based.	In the north, CASP has helped set up several FSAs in rural areas. They have filled the gaps due to the limited presence of classic financial institutions (i.e. banks) and microfinance banks in rural areas. VCN will strengthen the FSAs and enhance the link with larger financial institutions.
5	Nigeria National Information and Communication Technology Infrastructure Backbone (NICTIB) Project.	This is a connectivity facility. In a bid to bridge the connectivity gap across the country, the Nigerian government, through its public enterprise Galaxy Backbone Limited signed a commercial contract worth \$117 million with Huawei Technologies to commence the first phase of the Nigeria National Information and Communication Technology Infrastructure Backbone (NICTIB) Project	Gaps still exist in widespread access to rural areas in the North, thus excluding the vulnerable. The declaration of the Executive Director of Nigerian Communication Commission that the network gap has been reduced by 53.2% at the end of 2020 attests to this.
6	The Nigerian Inter-Bank Settlement System NIBSS	The Nigerian Inter-Bank Settlement System NIBSS is a private agency that provides real-time payment platform for facilitating inter-bank transactions. It ensures that all terminals used in the e-payment industry and all devices deployed in Nigeria would accept all cards issued by banks and other licensed card schemes without discrimination. NIBSS ensures technical and operational standardization of all devices deployed in the financial system.	While Internet penetration is driving financial inclusion and development in rural communities, delays with interbank transfers have affected the trust of people in Internet banking. Due to poor or inadequate infrastructure, a high influx of transactions affects the performance of inter-bank transfers. This needs to be improved upon. The Nigerian House of Representatives had asked, last year, the Central Bank of Nigeria (CBN) to address delays arising from instant (inter-bank) electronic funds transfer services in Nigeria, especially in the north with a

S/N	EXISTING HARD INFRASTRUCTURE	DESCRIPTION/PURPOSE	IDENTIFIED GAPS/AREAS OF IMPROVEMENT WITH REFERENCE TO THE NORTH
			view to finding a lasting solution to the problem.
7	National Broadband Plan 2020 - 2025	This is a project in support of the refreshed NFIS, the National Broadband Plan 2020 - 2025 aims to improve telecommunication and data network coverage to at least 90% of the population, while the National Identity Management Commission (NIMC) and its global coalition led by World Bank 1D4D aimed to increase the number of persons with a National Identification Number (NIN) to 150 million by 2022.	Gap still exists in widespread access to the rural areas in the North, thus excluding the vulnerable. The declaration of the Executive Director of Nigerian Communication Commission that the gap in network has been reduced by 53.2% at the end of 2020 attested to this (Isaac, 2023).
8	Digital banks like Opay, Palmpay and Moniepoint.	These are platforms used to offer digital financial services. Platforms of organizations under the FinTech Association of Nigeria including mobile money and digital banks are greatly in use. To avoid inter-bank transfer challenges with traditional banks, many people opted for digital banks like Opay, Palmpay and Moniepoint.	Gap still exist in limited services and non-preferred services offered by digital banks, mostly payments, but no credit facilities
9	Mobile Money Operators	A Mobile Money Operator is a licensed mobile money service provider that develops and deploys financial services through mobile phones and mobile telephone networks. Mobile money is an electronic wallet service. This is available in many countries and allows users to store, send, and receive money using their mobile phone. The safe and easy electronic payments make Mobile money a popular alternative to bank accounts. It can be used on both smartphones and basic feature phones	In the north, gap still exists in usage as transaction intensity of mobile money accounts is still very low and needs to be scaled up.
10	Agent banking	Agent banking refers to the use of third parties for the provision of banking and other financial services to the public. It enables banks and other financial institutions extend their services to locations where they may not have physical presence. These agents can be individuals or businesses that are authorized to conduct transactions such as deposits, withdrawals, transfers, bill payments etc.	Gap still exists in the locations and there is need to address gaps in the agency network, as well as in the coverage of mobile and data networks which is currently estimated at 92.3% (Adepetun, 2023)
11	The Shared Agent Network Facilities (SANEF) Limited	The Shared Agent Network Facilities (SANEF) Limited (an initiative of the CBN, supported by the Deposit Money Banks (DMBs), NIBSS and Licensed Supe-Agents, serves as an enabler in the Financial Inclusion ecosystem in Nigeria, collaborating with various Stakeholders to expand the frontiers of Financial Inclusion which includes Agent Expansion, Financial Literacy, Public Enlightenment, Policy Advocacy and Technological Solutions for Products and Services to increase Agent Business viability and Agent Network sustainability. SANEF collaborates with partners to ensure Agents are present in all the 774 Local Government Areas to provide financial services to Nigerians by deepening financial inclusion	Access to the infrastructure is still very low at rural level and among the vulnerable, contrary to the expectation.
12	Telecommunication Companies	These are companies that provide connectivity for communication. Most	Network availability and access remains a gap in most of the rural communities in

S/N	EXISTING HARD INFRASTRUCTURE	DESCRIPTION/PURPOSE	IDENTIFIED GAPS/AREAS OF IMPROVEMENT WITH REFERENCE TO THE NORTH
		of them are now delving into mobile banking. Last year, the Central Bank of Nigeria (CBN) granted MTN the final approval to operate as Momo Payment Service Bank Limited (Momo PSB), allowing its Nigerian customers to create accounts, pay bills, send and receive money. Aside from MTN, other top telcos, including 9mobile and Glo, have launched mobile banks to bring financial services to their subscribers, especially in rural communities.	the north limiting operations that require network availability
13	Payment Service Banks	These are Digital Financial Services Banks that provide services through digital platforms. Payment Service Banks remain a high potential opportunity to directly deliver as well as to enable other players in the sector to deliver financial services.	A relatively progressive payment system infrastructure is in place; however, challenges remain in how far this payment system has been able to reach low-income and excluded communities and address concerns about the cost of digital transactions in the north. Further interventions will be made to expand availability of KYC services for low income and rural customers, ensure adequate consumer protection and responsible digital finance practices, and conduct financial education campaigns.
14	Capital Market	Capital markets are financial markets that bring buyers and sellers together to trade stocks, bonds, currencies, and other financial assets. Capital markets include the stock market and the bond market. The Capital Market mobilizes savings from surplus economic units for channeling into deficit units for the purpose of industrial and economic development. By carrying out these functions, the capital market plays an important role in promoting a nation's socio-economic development	Gap exists in the location of these infrastructures. They are mostly located in urban areas. Thus, the location gap is higher. The gap between urban towns and rural areas is high

The soft infrastructures are intangible programmes/schemes used in promoting financial inclusion. These are presented below:

S/N	SOFT INFRASTRUCTURE	REMARKS
1	<ul style="list-style-type: none"> ➤ Commercial Agricultural Credit Scheme (CACS) ➤ Refinancing and Rediscounting Facilities for SMES ➤ Small, and Medium Enterprises Credit Guarantee Scheme ➤ Micro, Small and Medium Enterprises Development Scheme Fund (MSMEDF) ➤ Anchor Borrowers Programme (ABP) 	These are all credit schemes targeted at providing credit facilities for various sectors of the economy
2	<ul style="list-style-type: none"> ➤ Agricultural Credit Guarantee Scheme (ACGS) ➤ Nigerian Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) 	These are insurance schemes designed to minimize risks associated with providing credits for agricultural projects thereby encouraging financial institutions to lend to agriculture.

The financial inclusion status of the project area beneficiaries and the best way they can benefit from the programme.

The project area beneficiaries are considered as marginalized people. This is because they are not privileged like other members of society in terms of income level, standard of living, access to modern facilities etc. Majority of them are far removed from access to appropriate financial services that can help improve their resilience and reduce their vulnerability to financial shocks. They are normally reported as being financially excluded. Our findings, however, is contrary to the positions reported in literature from past studies,

probably because our respondents were mostly chosen from the State capital, and most of them are already members of Financial Service.

Financial Services Associations are types of Village Savings and Loans Associations (VSLAs): These are local bodies that organize and run savings and loan activities in rural areas or villages. They are easily accessible to vulnerable/marginalized groups and their services are within the reach and understanding of these categories of people. Integration of digital channels into their service delivery will be a veritable means of improving the financial inclusion of rural dwellers.

VCN will partner with FSA/other rural community FIs to enhance access to financial services (i.e. savings, working capital and asset loans, guarantees and risk-sharing facilities, insurance) in combination with the project’s capital grant for FSAs loan revolving funds for youth, women and other vulnerable target groups. FSA will be strengthened to increase their support to existing CDAs and to enhance the capacity of newly formed CDAs and FSAs. This will help increase the outreach of the project among poor SHF, advance the uptake of financial services, and scale up agribusiness among youth and women.

The Beneficiary Financial Literacy Capacity Needs/Gaps and the Interventions that will address the same

Financial literacy is the possession of the basic skills needed to manage income, keep debts under control, spend wisely, and invest for the future. The target beneficiaries lack this and need to be assisted to build capacity in these areas.

Provision of financial literacy education/training in both English and local languages and delivered through both physical and digital channels will be a good initiative to build their capacity. This initiative should have content that is tailored and specific to the identified needs and delivered through digital platforms. For example, the education content should be developed and sent to the mobile phones of the beneficiaries, who will be encouraged to listen to it at home and while on their project locations.

Other key players in the same space and lessons on how VCN could leverage and build synergies with them.

There are some key players working in the northern States that VCN project can leverage on. These are presented in the table below:

S/n	Key Player	Projects Implemented in same space	Activities carried out	Leverage by VCN Project
1	USAID	Advancing Nutrition Nigeria. The project is aimed at improving nutrition for a healthy, productive, and resilient Nigeria. It entails strengthening technical assistance and strategic nutrition integration to improve links between nutrition; health; water, sanitation, and hygiene; agriculture; family planning; and gender interventions. Also to support a cohesive and sustainable plan to facilitate increased coordination and collaboration and to generate evidence and test innovative approaches to improve nutrition programming and inform future program designs.	Promotion of the adoption of the community-based management of acute malnutrition (CMAM) in the country. CMAM is an approach where the majority of children diagnosed with severe or moderate wasting without medical complications can be treated in the home using ready-to-use foods in paste form, such as the RUTF (ready-to-use therapeutic food), and RUSF (ready-to-use supplementary food).	One of the major focuses of the VCN project is on nutrition. Thus, IFAD can leverage and synergize with this project by adopting this method of addressing malnutrition to successfully implement the proposed project.

	GIZ	<p>1. Digital Transformation Centre Nigeria: Fostering innovative and economic growth is a project implemented by GIZ to digitize the nation's economy in order to achieve growth</p> <p>2. AgFIN: Islamic Finance for Smallholders and Agri-based Enterprises in northern Nigeria is a partnership project between Jaiz Bank and GIZ AgFin project to build a bridge linking the agricultural and financial sector by providing demand driven advisory and facilitating access to suitable financial services.</p>	<p>Public and private service providers and consultants were empowered by the project to support MSMEs with their digitalization efforts.</p> <p>2 To ensure proper implementation and risk management, staff of the partner bank was trained in agricultural financial product design. For example, financing farmers and processors needs to be aligned with their cash flows. While input financing for farmers follows a balloon structure, processors repay per quarter. The bank decided to adjust the cost-plus financing scheme for agricultural clients, both farmers and processors. This method reduced the approval process and time for agricultural facilities. The bank staff now successfully negotiates with input suppliers, which greatly reduces the cost of production. E.g. rice farmers under this save between 10 and 14% - compared to buying seeds on the open market."</p>	<p>1. VCN project has a digitalization component and can leverage this project by encouraging the beneficiaries of VCN project to adopt the digitalization packages promoted by GIZ.</p> <p>2. Since access to financial services is part of VCN project, VCN project can train the partner financial institutions and the farmers in financial product design and literacy, as done in this project by GIZ and JAIZ Bank.</p>
	The Propcom+ program	<p>The Propcom+ program was announced last August by the UK's Foreign Secretary, James Cleverly, as part of the UK International Climate Finance program aimed at supporting climate-resilient and sustainable agriculture and forestry that benefits people, climate, and nature.</p> <p>The eight-year programme, which kicked off in May 2023 is implemented by The Palladium Group and is currently in its inception phase till January 2024. The programme has initial focal states in Kano, Jigawa, and Kaduna in the North West, and some states in the North East to address critical issues around animal health vaccination, bio-fortified and climate-smart crop variety, innovative and digital financial services, ICT-based tools for extension and climate-smart agricultural technologies/innovations.</p>	<p>The project adopted the Making Markets Work for the Poor (M4P) strategic framework, among others and provided access to: 1) agricultural machinery, (2) access to fertilizer for smallholders, (3) mobile banking to increase access to financial services, (4) rice parboilers to increase quality of rice in order to facilitate growth and alleviate poverty in Nigeria by improving performance of agricultural market systems.</p>	<p>This is one project that VCN can leverage on and synergize with. Some aspects of the project align with VCN project and it will be beneficial and supportive for the success of VCN project if farmers are provided access to: 1) agricultural machinery, (2) access to fertilizer for smallholders, (3) mobile banking to increase access to financial services, (4) rice parboilers to increase quality of rice under the VCN project</p>
	OLAM GROUP	<p>The seed for the Future Foundation which focuses on supporting farms and farmers, strengthening local wheat production, ensuring wider education and skills development for young people, empowering women in farming communities and promoting health and nutrition across the country.</p>	<p>As part of initiatives for women empowerment OLAM launched a baking academy in Kano state to train and deepen women's participation in the country's economy. The academy is an empowerment initiative that is meant to equip women with baking skills and enhance their earnings while enabling them to contribute meaningfully to</p>	<p>Women under the VCN can receive training in baking at this academy as part of the food processing package. Successful implementation by women and young people in agricultural activities was achieved in this project and it provides valuable lessons that VCN can</p>

			their communities and the national economy.	leverage on and synergy can also be built with this organization because of similarities in some aspects of the project with the VCN.
DFID UKAID / FCDO	DFID FCDO-funded LINKS – Powering Economic Growth in Northern Nigeria programme. This project supported the development of a vibrant and diversified economy in the three key northern Nigerian states of Kano, Kaduna and Jigawa. The front-line components of LINKS activity are (1) investment promotion and facilitation and (2) private sector innovations that increase competitiveness, productivity and transformational economic inclusivity. Two further supporting components address (3) business environment challenges impacting investment and innovation, and (4) Monitoring and Evaluation (M&E). Ultimately, the programme focused on increasing incomes and creating jobs for the poor in Northern Nigeria. LINKS work across high potential pro-poor value chains, supporting them to become productive, competitive and attractive for investment, and then encouraging actual investment into them.	The project designed and delivered online training on disability inclusion and a disability inclusion guide tailored to LINKS areas of activities and to the context of North Nigeria. Also, the project provided technical assistance to domestic large and small and medium enterprises in accessing finance to grow their businesses, establish new operations in northern Nigeria or reach export markets. This has included the facilitation of access to finance for over 340 micro, small and medium enterprises between 2021 and 2022. So far, this has facilitated over £14m in investment and working capital finance. <ul style="list-style-type: none"> • Also supported the strengthening of local actors such as investment promotion agencies to create an enabling environment in which to promote investment into LINKS priority states. 	VCN project can leverage this by sourcing beneficiaries or value actors from among the enterprises assisted by this project. The practice of assisting beneficiaries to assess finances etc can also be adopted as done in this project. Investment promotion and facilitation and private sector innovations that increase competitiveness, productivity and transformational economic inclusivity are components of this project that align with VCN project and beneficial synergy and leverage can be achieved with this project.	
NOTORE Fertilizer Distribution project	Notore initiated this project to assist impoverished farmers in remote areas with limited access to quality fertilizers. The project aimed to educate small-scale farmers on appropriate fertilizer application methods and provide them with affordable pack sizes.	They recruited and trained 180 unemployed youths as Village Promoters in the target communities to implement this project. Their responsibilities included training farmers through practical demonstration plots and promoting the sales of affordable 1kg pack fertilizers. They recruited and trained 180 unemployed youths as Village Promoters in the target communities to implement this project. Their responsibilities included training farmers through practical demonstration plots and promoting the sales of affordable 1kg pack fertilizers.	VCN project can leverage this in the supply and provision of fertilizers for beneficiaries under the new project.	

Lessons Learnt are presented below:

S/n	Lessons Learnt	Note
1	The right use of the matching grant should be promoted	In line with the IFAD’s Inclusive Rural Finance Policy, matching grants should be used in combination with asset subsidies, matching grants, technical assistance on production and market access, value chain development, public and private infrastructure development, and other interventions to develop sustainable climate IRF markets in developing Member States ¹⁸ . Matching grant should be used properly to ensure that it supports the business plan, and that the user is trained to use it, to enhance their productivity production and profitability. There must be monitoring of the use of the matching grant. The matching grant should serve as a steppingstone to connect farmers to the financial sector through opening of accounts, savings, and receiving payments in the accounts to establish a track record or revenue. Also to build a relationship between them and the Fis. Prior and post review and control as well as participatory approach help minimize the risk of elite capture. The MG should provide also an opportunity for FI’s to improve the knowledge of farmers needs in order to design and deliver services that are more tailored
2	The right set of participants should be used	It is important that the right participants be chosen for projects to ensure commitment that will lead to success
3	Neutrality of project sponsor to all the stakeholders	This is necessary to have more open participation and discussion from all stakeholders

Barriers and constraints that have been limiting the uptake of women, youth and marginalized groups to financial/digital financial products and services.

The following are the barriers and constraints that limit the uptake of financial /digital financial products and services by women, youth and marginalized groups

S/N	BARRIERS	NOTE
1	Socio-economic status of the women, youth and the marginalized people	These relate to issues like income level, literacy level etc as they concern this category of people. They normally have a lower income, education level, which limit their participation in financial inclusion
2	Cultural, social or religious norms.	These are factors relating to people’s ways of life and belief systems. Some of them are adverse and discriminatory to women, youth and marginalized people, affecting their participation in financial inclusion
3	Technological factors	These are factors that touch on issues like the use of modern gadgets, networks. Etc

Developed Roadmap and strategic interventions/instruments that will address the beneficiary's financial needs.

The roadmap is based on these two pillars: Capacity building and Financial Empowerment.

Proposed Strategic Instruments to achieve the first pillar-Capacity Building

- Skill Training Programme:

A need based customized capacity-building programs that caters for the unique needs of women and challenges faced by different groups across the northern areas should be part of the project. These programs should be culturally sensitive and designed to empower women both economically and socially to improve their means of livelihood. The focus is vulnerable women, youths, and marginalized people in the northern States.

- Mentorship Programme:

¹⁸ IFAD Inclusive Rural Finance Policy 2021. Page 7, paragraph 19

This should be established as part of the project at the grassroots level to connect experienced women/youth leaders with emerging project beneficiaries. This peer-to-peer support system will provide guidance, motivation, and a platform for sharing experiences and knowledge.

- Digital Messaging Platform

A customized digital financial education message for the beneficiaries in their native languages should be incorporated into the project and this is to be delivered through the beneficiaries' mobile phone. The content should be tailored and specific to the identified needs and delivered through a digital platform. Example, the education content should be developed and sent to the mobile phones of the beneficiaries, who will be encouraged to listen to it at home and while on their project locations.

- Partnership and Collaboration Programme.

This is another instrument to be employed to build the capacity of the beneficiaries. VCN will need to collaborate with national and international organizations to integrate gender-sensitive curriculum and training modules that empower women and youths with skills for their personal growth. The project should partner with key stakeholders and adopt the Train the Trainer model to further cascade information to beneficiaries across the affected states.

Implementation Plan for pillar 1-Capacity Building

The implementation plan for pillar 1 is presented below:

Plan	Activity	Action	Responsibility
Beneficiaries' training need assessment	Conduct a thorough need assessment to identify the specific skills, knowledge, and empowerment gaps among beneficiaries in different communities	This will be done by gathering a baseline data on current levels of education, skills, and awareness among target groups	IFAD and Consultants
Stakeholder Engagement	Engage with women's organizations, NGOs, community leaders, educational and institutions	The objective is to establish partnerships that will leverage expertise, resources, and support.	IFAD and Consultants
Skills Training Programs	Implement targeted skills training programs that align with the needs of beneficiaries' skills in financial literacy	This will be achieved by offering workshops, training sessions, and practical hands-on experiences.	IFAD and Consultants
Mentorship and Coaching Programs	Establish mentorship and coaching initiatives to provide guidance, support, and role models for beneficiaries	Select stakeholders and successful beneficiaries to form a round table discussion on related issues.	IFAD and Stakeholders
Digital Messages Platform	Create digital financial messages and record them	This will be achieved by engaging media practitioners to develop the messages	IFAD
Networking and Peer Support	Create networking opportunities for beneficiaries to connect, share experiences, and support each other's growth.	Establish beneficiaries' forums, groups, and mobile phone platforms for ongoing interaction	IFAD
Evaluation and Impact Assessment	Develop a mechanism to assess the impact of empowerment programs on beneficiaries lives, economic status, and overall well-being.	Use feedback to continuously improve program effectiveness.	IFAD
Resource Allocation	Allocate budget and resources for the design, implementation, and evaluation of these initiatives	Provide funding	IFAD
Documentation and Knowledge Sharing	Document success stories, best practices, and lessons learned	Share this knowledge with stakeholders, partners, and the wider community	IFAD and Beneficiaries
Scaling Up and Sustainability	Explore strategies to scale up to reach larger population.	Develop plans for sustaining initiatives beyond initial implementation.	IFAD and Beneficiaries

PILLAR 2. Financial EMPOWERMENT

Financial support for farmers organizations and producers' groups, and other beneficiaries of the project is necessary to help them maintain solvency and liquidity needed for the project. Two components are contained in this pillar. These are:

- ✓ Loans
- ✓ Grant

Loans: This component focuses on providing the beneficiaries with soft and starter pack loans that will enable them to meet the requirements for the implementation of the VCN project package.

Grant: The grant component will serve to address the limitations of the marginalized and less privileged beneficiaries ability to take up the project and advance to the stage of loan utilization.

Proposed Strategic Instruments to achieve the second pillar

- Credit Scheme:

A beneficiary-friendly credit scheme that caters for the financial needs of women and youths with respect to the VCN project will be part of the project. The scheme will disburse the credit both in kind and cash depending on the peculiarities of the purpose. At the village level, in the absence of commercial banks or MFIs, community-based Financial Institutions will be the strategy to reach out to rural farmers.

- Grant Scheme

This component will provide funds for the marginalized and less privileged beneficiaries who may not be able to raise anything reasonable on their own to participate in the project. They are expected to graduate from the use of grants to access the credit component.

Since majority of the rural dwellers, most especially women, have been financially excluded hitherto, there is a need to adopt a graduation approach in which members of savings and credit groups are trained through financial education programmes to increase their financial literacy and management capacities. Members who receive financial education become financially literate and can open a savings account with a formal FI and use it to leverage their savings to get access to larger loans.

At this stage, the local groups may be used by formal MFIs to increase their outreach to rural people and broaden their savings base.

These relatively less mature farmer organizations (FOs) are to be further supported with Grants in the credit arrangement.

For more mature FOs, the use of Grant is not recommended, so as to prepare them for sustainability after the intervention programme, as dependence on grants limits the knock-on effect on access to and use of credit.

VCN will provide Matching grants for Climate Smart and environmentally friendly production, processing, value addition inputs, equipment and infrastructure for the beneficiaries. This will help mitigate climate and environmental risks, strengthen resilience and reduce impacts while simultaneously improving the adaptive capacity of the beneficiaries for improved productivity, production, income and food security.

The financing instrument to be adopted will be the Producer-Public-Private Partnerships (4P) using banks and MFBs for a wider reach.

In addition, two other de-risking instruments that could help to reduce the financing cost for farmers will be mobilized in the project design. One is the use of partial credit guarantee funds to cover some of the possible losses for FSPs. A partial credit guarantee fund is a de-risking incentive to encourage participating FSPs to lend more of their own resources to agriculture, especially smallholder agriculture. The second is the range of insurance products (weather index, area index and multi-peril crop and/or livestock insurance, etc.) that are perceived as financial risk management solutions.

Producer-Public-Private Partnerships (4P)

Facilitating access to finance, for example value chain finance, through the 4P approach, securing market access.

Producer-Public-Private Partnerships, also known as Producer-Driven Public-Private Partnerships, are collaborative arrangements between public and private sector entities with the goal of promoting economic development and addressing social issues.

A matching grant as an incentivizing tool is used to facilitate partnerships between players along the value chain and to support the inclusion of smallholders. The private sector off-takers that source directly from farmer organizations are interested in expanding their supply base and strengthening their supply chain. The focus is very much on connecting farmers to potential buyers, but also to the market. This approach, which seeks to engage the downstream private sector (processors, agribusinesses and buyers), is geared towards securing a sustainable access to the market for farmers through incentivizing buyers to commit in the long term.

From a simple short-term contract between producer and buyer, smallholders have access to finance through matching grants that can contribute to the costs of investment subprojects to support a one-off arrangement with agribusiness firms and off-takers. There is no particular focus on sustainability; it is expected only that the contract will be subsequently renewed if it goes well.

But in the case of the 4P, the partnership is not based only on a simple contract; partners share a co-investment (usually referred to as a public-private-producer partnership [4Ps]) in which each party has a stake and an interest in positive outcomes. It is thus supposed to be built to last beyond the initial contract. Under such a scheme, private companies also benefit from grants from the project along with the FOs to support the implementation of the partnership.

Implementation Plan for Pillar 2-Financial Empowerment

The implementation plan for pillar 2 is presented below:

Plan	Activity	Action	Responsibility
Beneficiaries' financial needs assessment	Conduct a thorough need assessment to identify the financial needs of the beneficiaries in different communities	This will be done by meeting the beneficiaries to identify their specific financial needs among target groups	Project
Stakeholder Engagement	Engage with financial institutions and financial service providers.	The objective is to establish partnerships that will leverage on expertise, resources, and support.	Project
Credit Scheme	Implement the targeted friendly credit scheme that meets the beneficiaries' financial needs	This will be achieved by engaging financial institutions and service providers with experience in credit delivery at the rural level.	Project
Grant Scheme	Implement a grant package to provide financial support for beneficiaries	Set aside certain percentage of the project fund to serve this purpose	Project
Access to Financial Resources	Collaborate with financial institutions to facilitate beneficiaries' access to credit, loans, and financial resources.	Provide loans and grants for disbursement to beneficiaries	Project
Evaluation and Impact Assessment	Assess the performance of the credit scheme	Use feedback to continuously improve the scheme's effectiveness.	Project
Resource Allocation	Allocate budget and resources for the design, implementation, and evaluation of these initiatives	Provide funding	Project
Documentation and Knowledge Sharing	Document success stories, best practices, and lessons learned	Share this knowledge with stakeholders, partners, and the wider community	Project
Scaling Up and Sustainability	Explore strategies to scale up to reach larger population.	Develop plans for sustaining initiatives beyond initial implementation.	Project

A Value Chain Financing Model through 4Ps Strategy is proposed for the financing of the beneficiaries under the project. This will include both credit and grant components. A graduation process will be employed to serve the different categories of beneficiaries involved.

Partnerships will be established with financial institutions, which will be selected based on criteria such as network of branches in the north, level of NPL ratio in relation to the industry benchmark etc.

Based on the characteristics of the beneficiaries, different approaches will be adopted for financing them. Additional study will be done to develop guidelines for facilitating a strong linkage between FSA and Fis and for promoting the financing of marginalized and disabled beneficiaries.

Annex 13.4: Technical Note: MONITORING AND EVALUATION AND KNOWLEDGE MANAGEMENT

Strategic Planning

M&E System. The VCN M&E System will outline the concepts, tools, and process that will be used by the project M&E function. The overall System will define what needs to be measured (IFAD COIs and project level indicators) and what will need to be produced (relevant data to be processed as information for key decision-making. Additionally, the VCN M&E System will provide data and feedback and answer the following: (i) effectiveness – is the project being implemented according to the PDR and are the indicator objectives being met? (ii) efficiency - how are the inputs (activities) being converted to results? (iii) relevance - is the project consistent with beneficiaries' needs and priorities?

M&E Plan. Ultimately, this system will be operationalized with the development of a thorough M&E plan that will define these operational details throughout the project document and will serve as a living document to guide the core M&E functionality of planning, tracking and assessing results. The M&E plan will include, but not limited to the following; (i) a description of the M&E approach; (ii) thorough details of the processes and activities to be implemented; (iii) the tools to be used for data collection and processing (iii) indicate the deliverables to be produced and; (iv) define the responsibilities. Moreover, it will provide the necessary data collection forms, report templates, the progress report outline, survey terms of reference (ToRs) and questionnaires. The National Project Management Unit (NPMU) will leverage the current implementation experiences of past and current portfolio projects to develop the M&E plan and ensure that it is validated at start-up. This will ensure a smoother process to transitioning to VCN implementation in the early stages. A guideline of development of an M&E Plan has been provided in the annexes.

MIS. Another key component that will feed in the VCN M&E System and will be the core basis for planning, data collection and reporting at the field level will be the Project Management Information System (MIS). VCN will develop standardized data collection and reporting templates that will allow data collection through digital mobile data collection applications (through tablets) to improve the efficiency and timeliness of data collection and reporting. The MIS will have a digitized logframe and also a project results framework that will capture additional indicators important at Project Level and to other stakeholders. It will also have a digitized beneficiaries database that will link each beneficiary to the all support provided to them. Furthermore, specific standardized output data collection templates from FOs and other implementing partners will need to be developed and digitized into the MIS. It will be important for the NPMU to develop these data collection templates in the early stages (within 6 months) for them to be available for migration in the MIS, when it is developed. In addition, the MIS will have the capabilities of having innovative GIS application where a geodatabase with spatial data on beneficiaries and interventions will be collected and allow the creation of different layered maps. These maps will be giving visual spatial presentations of analysis of interventions to stakeholders.

An example of the proposed MIS approach and reporting can be seen in the Figure below.

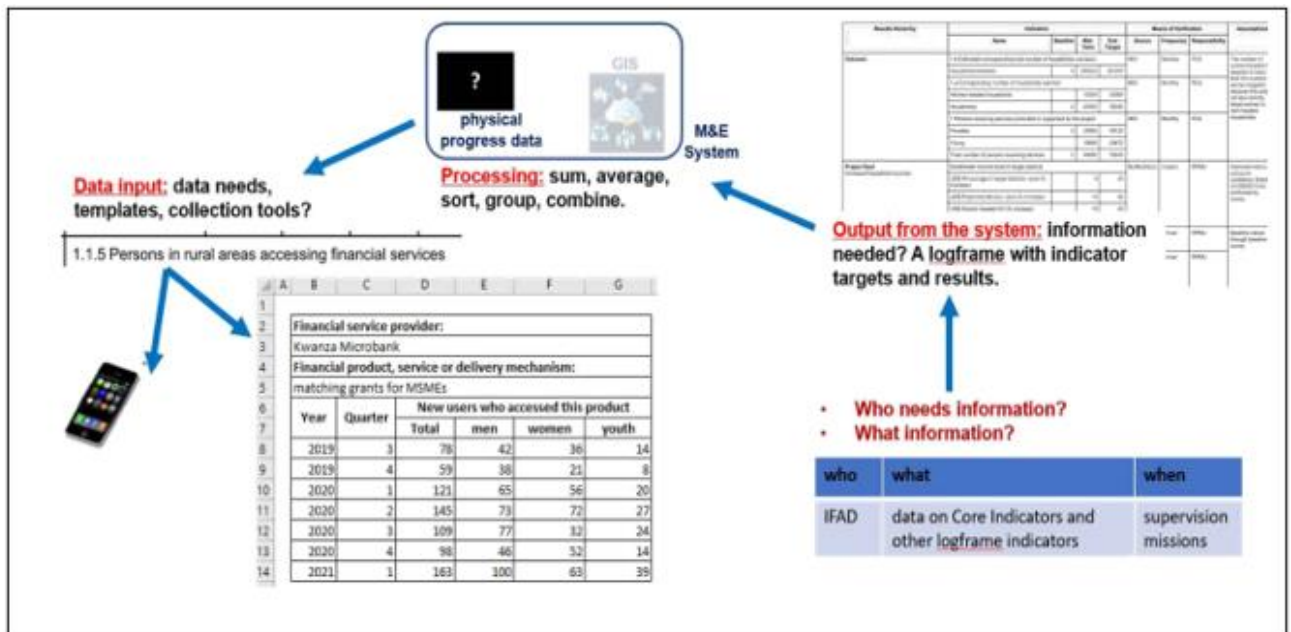


Figure 12: MIS Design

To achieve this, VCN will recruit an MIS Developer to conduct the following: (i) develop an MIS for M&E with GIS integration; (ii) create an MIS and GIS operations manual; (iii) train VCN teams on its use; and (iv) conduct routine maintenance on the MIS and GIS software as allocated in the cost tabs.

Planning and Reporting.

Planning. VCN planning will be a participatory process guided by the project's strategy, Theory of Change and logframe, which will inform the development of annual work plans oriented towards planned outputs. The AWPB will follow the fiscal year, as per planning systems in Nigeria. AWPBs will be cleared by the Project Steering Committee and sent to IFAD 60 days prior to the end of each project year for No Objection. The AWPB will be prepared in the format described in the IFAD guidelines for AWPBs by the States and National Project Management Unit with substantial participation of other implementing partners. Each AWPB shall include a detailed description of planned Project activities by component, sub-component and activity, and a procurement plan for eighteen months. The NPMU will establish the funds available for the AWPB for a particular year as per cost tables. Below are samples of the annotated AWPB Outline and Activity Workplan and Budget that the VCN will follow.

<ul style="list-style-type: none"> 1. Introduction <ul style="list-style-type: none"> 1 1 Project outline 1 . 2 The annual planning process 	<p>A brief summary of the project, as a reminder for people</p> <p>who do not deal with it on a day-to-day basis; and a brief</p> <p>description of the planning process (steps, stakeholders, sources of information).</p>
<ul style="list-style-type: none"> 2. Implementation progress and performance <ul style="list-style-type: none"> 2 1 Overall performance 2 . 2 Progress by component 	<p>A brief summary of where the project is in terms of its</p> <p>targets.</p>
<ul style="list-style-type: none"> 3. Project strategy and focus for the coming year <ul style="list-style-type: none"> 3 . Constraints, lessons learned and strategic focus 3 . Summary of planned activities 2 by component 	<p>Description of any shift in focus or strategy, based on past</p> <p>experience or external changes. Also, a narrative</p> <p>description of the main activities under each component.</p>
<ul style="list-style-type: none"> 4. Consolidated annual budget 	<p>The total budget for the year, with budget summary tables (by component, category, source of funds, etc.)</p>
<ul style="list-style-type: none"> Annex 1. Updated logical framework 	<p>The logical framework with indicators, targets and up-to-date results information</p>
<ul style="list-style-type: none"> Annex 2. Activity and budget details by component 	<p>Tabulated activity details (what, when, by whom, quantities, cost)</p>
<ul style="list-style-type: none"> Annex 3. Procurement plan 	<p>Details on procurement items and methods</p>

Figure 13: Annotated Sample AWP

Activity		Unit	Qty.	Resp.	Schedule				Expenditure	Financier						
Code	Description	Indicator			Q 1	Q 2	Q 3	Q 4	Cost	I	II	III	IV	IFAD	Gov.	Benef. Contrib.
Component 1																
Subcomponent 1.1																
Output 1.1.1																
Activity																
Activity																
Activity																
...																

Figure 14 Sample Activity Workplan and Budget

Reporting. The reporting structure of VCN will similarly follow the reporting arrangements for IFAD-funded projects in the portfolio. In terms of M&E, standardized progress reporting templates will be developed for the following: (i) FOs, Groups, Implementing Partners (tailored to each), States and LGAs. All reporting templates will be digitized in the MIS to allow digital data collection at field level. As per the Project Annual Report, the NPMU will develop a template that will consolidate planned activities and results to report to the National Coordinator, the Government of Nigeria, IFAD and AFD to provide evidence-based strategic guidance in the decision-making process. In addition, the Annual report will also provide the following, but not limited to, annexes: (i) updated logframe and project-level results framework; (ii) detailed financial report; (iii) physical progress measured against AWPB; (iv) actions on previous supervision mission; (v) GIS Maps showing spatial locations of interventions. To provide more guidance, the figure below provides a sample Annual Report outline.

Annual Report	
<ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> 1.1 Project outline 2. Summary of implementation progress to date <ol style="list-style-type: none"> 2.1 Physical/technical progress summary 2.2 Financial progress summary 3. Implementation progress by component <ol style="list-style-type: none"> 3.1 Component 1. 3.2 Component 2. 3.3 Component 3. 4. Performance assessment <ol style="list-style-type: none"> 4.1 The project environment 4.2 Implementation performance and constraints 4.3 Stakeholder feedback and lessons learned 4.4 Project outcomes and impact 5. The way forward 	Updated logframe Annex 1. Detailed financial report Annex 2. Physical progress based on the AWPB Annex 3. Procurement and contracts Annex 4. Action on supervision mission recommendations Annex 5. Detailed AWPB-based progress review Annex 6. Maps showing project interventions

Data Flow Design. The flow of information with the several different stakeholders will be important as it will allow the NPMU and its M&E function to understand the flow of information and what is the expectation from each stakeholder. The development of a flowchart will also be important to all other stakeholders for them to know what is required from them in Project implementation.

Core Outcome Indicator Surveys and Assessments

As per the IFAD requirements, VCN will be required to conduct surveys at baseline, mid-line and endline for all outcome indicators. In particular, the Project will contract an external Evaluation Consulting Firm to conduct the surveys in line with the mandatory IFAD COI guidelines and methodologies. The COI guidelines and online video trainings can be found on the following links:

- COI guidelines: https://www.ifad.org/documents/38714170/42870514/coim_guidelines_e.pdf/be6d6993e-1a1a-6683-bd3c-6fc9bb0e5aac?t=1619708052741
- COI appendices of Questionnaires and Survey ToRs: https://www.ifad.org/documents/38714170/42870514/coim_guidelines_appendix_e.pdf/9982a2d3-e38f-5b88-e0f7-81baf5e509a0?t=1619708054014
- COI training video modules: https://www.ifad.org/en/web/knowledge/-/core-outcome-indicators-measurement-guidelines-coi-online-training?p_l_back_url=%2Fen%2Fweb%2Fknowledge%2Flearning

Survey Methodology. It essential for the whole VCN team to learn and thoroughly understand the COI guidelines and the provided tools are key for this learning process. For the survey questionnaire design, the COI appendices are the most important resource as these is where all questions of each indicator must be derived from and should be contextualized appropriately to the Project Interventions. It will be important and more effective for the Project to conduct the surveys on the same sample throughout baseline, mid-line and endline; if feasible. Furthermore, the sample will contain the treatment and control groups where the treatment are those beneficiaries who are accessing support and the control group are those that have not received any VCN intervention, either directly or indirectly. This will be important data when conducting a comparative analysis to ascertain attribution of VCN interventions in the survey reports at mid-line and endline.

VCN Logframe COIs. Regarding Core Outcome Indicators, the VCN team and the chosen Evaluation Consulting Firm will review COIs in the logical framework to document the indicator definitions and means measure as per the guidelines, before the survey. This will ensure that the indicators are being captured correctly in the VCN M&E MIS and also in the Survey's. Along with the project-level outcome Indicators, the following IFAD Core Outcome Indicators will be measured to ensure proper reporting for IFAD in at the Global level:

- 1.2.8 Women reporting minimum dietary diversity (MDDW)
- SF.2.1 Households satisfied with project-supported services
- SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers
- IE. 2.1: Individuals demonstrating an improvement in empowerment
- 2.2.1 Persons with new jobs/employment opportunities
- 3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices
- CI 1.2.2: Households reporting adoption of new/improved inputs, technologies or practices
- CI 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities
- 2.2.6 Households reporting improved physical access to markets, processing and storage facilities
- 1.2.5 Households reporting using rural financial services
- 2.2.3: Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities

The quantitative survey will be taken for these core indicators strictly following the guiding questions in the appendices. In addition, Policy Core Outcome Indicator - Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment, will be through a stakeholder qualitative survey within the evaluation as outlined in the COI guidelines.

Project M&E Plan. As outlined in an earlier section, VCN team will develop an operational/procedural Project specific M&E Plan for Project use. This will be a 'living' document that will guide how M&E will be conducted throughout the Project implementation period. This development will be led by the VCN National M&E Officer with close collaboration from the entire National and State Project Management Units and inputs from CPAT and the PSC. Development of the M&E plan will not be contracted out as it defeats the purpose of M&E ownership of the Project team. The VCN National M&E Officer and the NPMU Coordinator and component technical leads must first analyse and interpret the PDR and the ToC. This will allow them to check whether the necessary M&E activities are included and resources are adequately budgeted; and also, will allow them to solidify exactly how Participatory M&E will work under VCN. The draft M&E Plan is to be developed at Start-Up and final within 6 months of implementation. This will allow smoother implementation of M&E, in the early stages. IFAD OPR have recently developed a guideline

with an outline of an M&E Plan of which the VCN will use as they develop the Project Specific M&E Plan. This is attached as Appendix 1.

Development of a Project Outputs Results Management Framework

In addition to the logframe, VCN is recommended to develop a broader project level outputs results management framework to measure output indicator that will also be digitized in the MIS. The rationale to develop such a results management framework stems from lessons in previous projects where there have been challenges in reporting specific requested output indicators that are not in the logframe but are part of the overall stakeholder's interest. This additional framework will support to capture the following: (i) improve the standardization and reporting of the broader project output indicators; (ii) allow additional important country-specific and project level output indicators to be captured in the M&E-MIS; and (iii) provide VCN the opportunity to add project level disaggregation's to IFAD COIs that may not be captured in the IFAD ORMS. This responsibility will be for the VCN National M&E Officer. At start-up, the NPMU will coordinate and work with the entire VCN teams at all levels to add relevant project and country level output indicators in the results management framework. In addition, they will decide on the yearly targets of all the identified indicators in the results management framework. The following are very few of some of the of the additional output indicators that were identified at design that can be incorporated in the project level results framework:

- 1.1.7: Persons in rural areas trained in financial literacy and/or use of financial products and services
- Number of persons accessing digital extension services to increase production and productivity
- 3.1.1: Number of groups supported to sustainably manage natural resources and climate-related risks
- CI 2.1.3: Rural producers' organizations supported
- Policy 1: Policy-relevant knowledge products completed

It should be highlighted that this list is not exhaustive and the Project should add important Country level output indicators that are relevant to VCN interventions contributing to the achievement of the Country level outcome indicators. Furthermore, the outputs results management framework will be, firstly designed in excel and then migrated to the MIS after finalization.

Glossary of VCN IFAD Core Indicators' definitions

Lessons from previous and current project data reporting has shown evidence that the M&E and Implementation teams require further capacity in fully understanding the definitions of IFAD Core Indicators that are in the logframe. Indeed, the IFAD Core Indicators guidelines provide the general indicator definitions of what can and cannot be captured pertaining to the indicator. However, it is important to contextualize the definitions to align with the project development objectives, the ToC and interventions. With this, VCN will ensure that all Project Staff and Implementing partners understand what they need to capture when conducting routine monitoring of activities. This will be done through providing continuous capacity to implementation teams on contextual definitions of the Project Core Indicators.

A guideline to the Project indicator definitions can be found in Appendix 2. As the PIM is a 'living document', the VCN team will require to review these definitions and add further details at project start-up. This session will be important because it will ensure that all component teams understand what they will need to capture. Moreover, these definitions will have to be digitized and linked to each indicator in the Management Information System. This linkage will also allow the Officers and implementing partners capturing data

at the field level to validate the outputs being captured are aligned with the VCN indicator definitions.

This glossary of core indicator definitions will also be important for Service Providers who will be contracted to conduct the baseline, midline and endline COI surveys. A glossary of elaborated project core indicator definitions can support in the understanding of what needs to be captured and what questions need to be contextualized in the IFAD COI questionnaires.

KNOWLEDGE MANAGEMENT, COMMUNICATION AND LEARNING

Knowledge Management (KM) will be an integral part VCN to ensure that Project implementation is a continuous learning process in which evidence-based data will continuously be collected on innovations, technologies and will be analysed, disseminated as KM Products that will mainly target beneficiary adoption of improved practices and policy influence. The VCN KM function will be complemented by, (i) M&E Management Information System (MIS, routine field M&E visits and thematic studies) on policy-level KM Products (policy, briefs, strategies, working papers), (ii) beneficiary success stories; (iii) training manuals on technologies; and (iv) lessons learned. The foundation of VCN Knowledge Management will depend on the development of an Integrated Knowledge Management, Communication, and Visibility Strategy that will guide the VCN team in improving Project performance and results through the following: (i) enhanced learning; (ii) sharing and communication; (iii) using communication strategically and systematically to reach and engage different stakeholders, key implementing partners and District Facilitation Teams, to fulfil the Project goals and development objectives through established feedback mechanisms.

Communication will be a key part of the integrated KM Strategy that will outline specific activities on how information is to be obtained, analysed, and disseminated. The plans to support each aspect of the Integrated Knowledge Management, Communication, and Visibility Strategy will be integrated in the Project's AWPB. Due to budget challenges in KM in previous mission, it was important to ensure that KM is adequately allocated. Specifically, the following key activities will be part of VCN KM, Communication, and Visibility implementation: (i) upgrading the SPIU website to develop an integrated and KM and Communications portal; (ii) recruitment of consultants to support in producing and publishing high level KM products; and (iii) development of visibility products of the IFAD-funded interventions. Moreover; The KM strategy shall include an outline how knowledge will be disseminated using, but not limited to, the communication channels. Effective communication at all stakeholder levels (especially direct beneficiaries and policy-makers) will be critical to beneficiary learning and adoption of innovative practices, and policy influence at the National level. Moreover, VCN will leverage the expansion of the IFAD South-South and Triangular Cooperation (SSTC) initiatives in Nigeria through the support of the IFAD Country Office. SSTC initiatives help IFAD 'double and deepen its impact by identifying and disseminating knowledge and innovations, and supporting policy engagement to enhance poor rural people's productive capacities, market access and resilience.' This will mainly be done through close project collaboration with SSTC grants within the portfolio and fostering exchange visits and lessons learned.

Appendix 1: M&E PLAN OUTLINE

Introduction

- Explain what an M&E plan is and describe its purpose:
The M&E plan operationalizes the M&E system and spells out all the necessary operational details, ensuring smooth and proper functioning of the M&E system. Its purpose is to define how M&E will be conducted throughout the project period. It includes a description of the M&E approach, details the processes and activities to be carried out, describes the tools to be used for data collection and processing, indicates the deliverables to be produced and defines responsibilities. It provides all the necessary data collection forms, report templates, the progress report outline, survey TORs and questionnaire, etc.

1. PROJECT BACKGROUND

1.1. Project summary

- Briefly describe the project's main characteristics (ideally not more than two pages).
- This part may not be needed if the M&E plan is included in the PIM and these elements are already described there.

1.1.1. Project goal, objectives and expected outcomes

1.1.2. Project components and main activities

1.1.3. Implementation period/duration

1.1.4. Project financing

1.2. Targeting strategy

The targeting strategy is determined at the project design stage and should be validated at start-up. However, it may evolve during implementation (for instance, because of a reduction in geographical scope, abandoning of selected value chains, etc.). If this is the case, this paragraph, as well as the M&E system and plan, should be revised accordingly. The subsequent sections dealing with project area, target groups and outreach should indicate their link with and involvement in M&E activities and processes.

1.2.1. Project area

- Indicate the different areas or regions covered by the project and describe their particular social and agroecological characteristics.
- Identify the selection criteria and implementation approach (phasing, for example) for selected project areas.

Both aspects are important for M&E purposes: For instance, key project area characteristics and selection criteria are required for development of the sampling strategy (outcome and other surveys requiring sampling) to ensure the representativeness of the sample. Distances/access and overall size of the project area may also be problematic for field monitoring and require decentralized M&E staff.

1.2.2. Target group(s)

- Clearly define the different subgroups targeted for each project activity and whether the beneficiaries of various activities overlap.
- Identify and describe the selection criteria. This is important, as this aspect is at the core of the surveys' sampling methodology.
- Detail each subgroup of beneficiaries (a chart can be prepared to visualize the overlaps; see example below).

1.2.3. Outreach

- Based on the description of the project area, target group(s) and the chart below, explain who the people corresponding to the three outreach core indicators (CIs) are and how their targets were set. This information is also presented in the M&E matrix (see appendix 1: M&E matrix).
- Explain how the calculations for CI 1a and 1b will be made and describe how overlap/double-counting will be handled (estimation or MIS data form).

1.3. ToC and logframe

The ToC and logframe are prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members. They may evolve during implementation, however, in which case the related sections should be revised accordingly.

1.3.1. ToC

The ToC section explains how and why the project is expected to effect change. It is a visual, structured way of outlining the steps needed to achieve project outcomes.

- Include the ToC diagram and related explanatory narrative (see ToC and logframe guidance for details)

1.3.2. Logframe

The latest version of the logframe matrix and the original logframe from the PDR are included in appendix 2 of the M&E plan. This section discusses the following aspects:

- Preparation and validation process
 - Explain how the logframe was prepared and validated based on the theory of change and how it reflects the ToC. The logframe (as well as the ToC) is prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members.
- Modifications
 - Present and justify modifications to the original logframe, if any. Some aspects of the project may change during implementation (the indicators and targets originally set in the logframe may be revised and adjusted to ensure that they remain relevant and useful), and the M&E plan should be adjusted accordingly. Note that justification for logframe modifications must be provided and IFAD clearance obtained.
- Alignment with IFAD requirements and systems
 - Explain the link with and functioning in the Operational Results Management System (ORMS) (IFAD system) and briefly describe the IFAD CI framework and corporate requirements (gender- or nutrition-sensitive, etc.), if any.
- Integration in the MIS
 - Explain how the logframe is integrated in the project MIS: measurement of logframe indicators, automatic reporting, logframe reports generated, etc.
- Logframe results reporting
 - Explain how and when the logframe is updated:
An assessment of progress toward achievement of the intended results as described in the logframe should take place during every supervision mission for the preparation of the annual report. Outcomes associated with project output indicators and the related targets should be included for all indicators and all project years. With regard to outcome indicators, the outcomes and target levels should be provided at midterm and completion. After the midterm review (MTR) and until new

data are available (at completion), results from the years following the MTR should use the MTR value for each outcome indicator.

1.3.3. Use of ToC and logframe

The logframe and ToC are the key references for developing the project M&E system, processes and tools. This section describes how the ToC and logframe are used in the preparation and execution of the M&E plan.

- Project's visualization and communication

The ToC diagram is a visual representation of the project. It can be used as a communication tool and shared with project implementers and other stakeholders to explicitly show how the project works and create a shared understanding of it.

- Planning

The ToC and logframe serve as the basis for the preparation of the AWPB. In fact, as schematized in the ToC, activities (planned for in the AWPB) are converted to results (outputs and outcomes). This link should be made clear, and targets, in terms of activities, outputs and outcomes, must be consistent.

- Progress monitoring and presentation

The logframe represents a roadmap for project implementation, determining what to monitor and how and enabling progress of the indicators toward set targets at all levels to be monitored by visualizing them on an annual basis and throughout the course of the project.

- Data collection tools and templates

The logframe serves as the basis for the development of data collection tools and templates, which should include all the information required for measuring the logframe indicators.

- Effectiveness and achievement of the objectives

The ToC and logframe are the basis for evaluation. They show the progress toward achievement of the results and indicate whether changes have occurred as expected, making it possible to assess the project's effectiveness.

2. PURPOSE AND SCOPE OF THE M&E SYSTEM

2.1. Guiding principles

This section presents the main conceptual underpinnings of the project M&E system (the list below is neither mandatory nor exhaustive and can be modified).

2.1.1. Results-based management (RBM)

Explain briefly how RBM is applied in the project, for instance:

- How the management strategy and implementation of activities are guided by the commitment toward achieving results.
- How it ensures interconnection of the planning, M&E and decision-making processes (more details are provided in a specific section of the M&E plan).
- How it relies on clear accountability and effective communication for timely resolution of any issue encountered.
 - How performance/feedback reporting is used to improve implementation and extract lessons for future operations.

-

2.1.2. Participatory approach

Explain how the project incentivizes and implements a participatory approach, for example:

- How it ensures the different stakeholders' participation during the design, planning, implementation, monitoring and evaluation of the project.
- How it ensures that the needs of the different stakeholders are taken into account and how they are addressed in decision-making.
- How information and knowledge are regularly and openly shared with different stakeholders.

2.1.3. Geographic information system

- Describe GIS, if used, and which data are collected and how. Explain how GIS data are used, as well as their value added and implications – for example for data management.

-

2.1.4. M&E for decision-making

- Describe how the project M&E system informs decision-making at different levels:
 - How relevant information is generated and shared;
 - How it is used to support project management in decision-making and improve services delivered by the project.

2.1.5. Alignment with the national system

Explain whether/how the project M&E system:

- Is designed in close collaboration with government;
- Is aligned and compliant with national and local systems, if any;
- Integrates government milestones and data needs;
- Facilitates logframereporting;
- Assists project management.

2.2. M&E steps

2.2.1. Planning

Process

- describe the (annual) planning process, which culminates with government clearance and IFAD approval of the AWPB, by describing participants, indicating the main implementing partners, describing the steps in the consultative process and noting deadlines.
- In particular, provide a detailed description of the planning workshop and its purpose, since it is the key step in the planning process. In fact, the planning workshop is intended to determine the expected outputs (physical targets) for the coming year for each project component. The AWPB then describes the activities to be implemented to deliver these outputs and the financial resources (financial targets) required to do so.

Structure of the AWPB

Present the overall structure of the AWPB and main aspects addressed by the AWPB, for example:

- Explain the AWPB's link and consistency with logframe indicators and targets and the procurement plan.
 - Indicate how the annual budget has been prepared based on current costs, and note budget constraints/limited absorption capacity, if relevant.
 - The AWPB template is provided in appendix 4 of the M&E plan and includes an indicative table of contents, workplan and budget template table.

2.2.2. Monitoring

- This section provides a general description of the monitoring process and its characteristics. Details are provided in the following sections: 3. Roles and responsibilities; 5. Tools; and 6. Project reports and deliverables.
- Describe the main tasks: assess rates of physical execution of yearly planned activities against targets; verify compliance with agreed calendar and deadlines; and assess rate of financial execution against planned targets.
- Present what is measured: activities, inputs and outputs, and to some extent outcomes, in the AWPB and logframe against physical targets
- Briefly explain how and when the data collection is carried out: monitoring sheet and/or annual surveys, COI surveys for outcomes.
- Explain how the data collected is analysed and presented (logframe as key reference).

2.2.3. Evaluation

- Describe the evaluation's scope, strategy and objectives. Provide information on the evaluation criteria or performance standards (relevance, effectiveness, efficiency, sustainability, impact) used and the rationale behind it. Specify the questions that the evaluation would address and the indicators against which it would be assessed.
- Describe the evaluation method: quantitative surveys and compliance with IFAD requirements (COI baseline, midterm and completion surveys, if applicable) and use of a comparison group.
- Describe qualitative study/survey for aspects/performance questions that may require investigation.
- Explain who conducts and analyses the evaluation: internal and/or external evaluators, use of procurement processes, etc. When feasible, mention whether RIA(IFAD's Research and Impact Assessment Division) is expected to conduct an impact assessment. Explain how the data collected is analyzed: comparison with baseline situation.
- State when the evaluation is conducted (according to IFAD's rules, the process can begin any time after 85 per cent of the project funds have been disbursed).
 - Describe project completion report requirements: make reference to IFAD's project completion report (PCR) guidelines; indicate who prepares the PCR and other reports required by the government.

2.2.4. Knowledge management

This section explains the importance of the information gathered by the M&E system for knowledge management (KM) purposes, the planned methods that will be employed to process it and the tools that will be used for its dissemination, provided that a separate KM plan/manual is created.

- Specify the link with M&E activities and how evidence-based information generated by M&E system is used for KM purposes.

- Explain which and how data/knowledge/lessons are gathered and shared with different stakeholders: methods, type of product (website, print, video, platform, etc.).
- Describe how KM supports capacity building among beneficiaries and within government and IFAD.
- Explain how KM contributes to greater effectiveness and efficiency and promotes scaling up.
- Describe the main KM activities (especially those to be implemented during the initial years of project execution).

3. ROLES AND RESPONSIBILITIES

3.1. Roles of stakeholders involved in M&E

- List the main M&E actors and other stakeholders involved in planning and M&E activities.
 - Describe the roles and responsibilities of the main M&E actors and other stakeholders involved in planning and M&E activities.

3.2. Flow of information

3.2.1. Flow of information approach

- Explain how the monitoring data flows from the place where it is collected to the management team and on to other stakeholders, including the government and donor(s) (bottom-up approach).
 - Describe how the information is entered in the M&E system.

4. M&E budget and activities

4.1. Budget and resources

- Provide the overall budget for PM&E activities.
- Describe how M&E activities are integrated into the AWPB and procurement plan.
- Present M&E line items and budget amounts. The line items and budget amounts can be taken from the PDR (cost tables) but must be adapted, if needed. Include additional resource requirements that were not anticipated or planned for. The description of the M&E budget items should be clear and brief, since all those items are detailed in other sections of the M&E plan.

4.2. M&E activities and workplan

- Present main planning, monitoring and evaluation activities, distinguishing between annual and recurrent activities and ad hoc ones occurring at specific point during the life of the project.
 - Include M&E workplan including ad hoc activities from start-up to completion and recurrent activities with deadlines.

5. Tools

5.1. Management information system (MIS)

This section presents the main characteristics of the project MIS (the data collection tools are presented in the next section). Note that the MIS may be set up after preparation of the M&E plan; in that case, this section will need to be updated once the MIS is effectively defined and set up. If the MIS comes with a separate manual, this section could be shortened and should refer to the manual.

- Explain how the M&E officer has designed and set up the MIS and whether it is aligned with the national M&E system.
- Describe how information is inputted in MIS (web-enabled) and who is responsible for data entry and quality check.
- Describe how the collected M&E data is stored (spreadsheet/database, etc.) and backed up and explain how it can be accessed.
- Present the link and integration with the project's financial system to facilitate the comparison of physical and financial progress.
- Indicate whether a GIS is used to provide geographic location data for project interventions (infrastructure, beneficiary groups, land under conservation, etc.)
- Indicate which software/tools are used to analyse the data and transform large quantities of data into usable information (SPSS, Stata, Excel, Tableau Public, etc.). Note that the complexity of the MIS should depend on the resources available (human and budgetary), and that a complex MIS is not necessarily the best option if capacities are limited.
- Explain how the MIS incorporates project reporting requirements, such as logframe and AWPB.
- Describe tables/reports/dashboards automatically generated by the MIS, such as the AWPB monitoring table, logframe, etc.
 - Explain how the MIS provides the project coordinator and other PMU members with timely, accurate information on implementation progress and results so that they can make informed decisions.

5.2. Data collection formats

This section describes the formats and tools used for collecting and recording data. It provides an overview with consolidated basic information. It is supplemented with the templates of the main data collection formats in Appendices.

- For each data collection tool, describe:
 - The approach and methodology used for data collection;
 - The person/group/organization responsible for data collection;
 - The form used to collect and record the data (paper forms, electronic templates, mobile apps on phones or tablets);
 - The people/group interviewed and the composition of the sample (if any); Data entry in the MIS (if any) and data verification mechanism;
 - The periodicity/timing of data collection;
 - The type of information collected.

Project reports and deliverables

This section describes the formats of project reports and deliverables. It provides an overview with consolidated basic information and is supplemented with the templates of the main reports and deliverables

- Describe the contents, format, and frequency of internal and external reports. Indicate who the reports are intended for (the users of information produced by the PM&E function) and who is responsible for preparing each type of report.

Appendix 2: VCN IFAD CORE INDICATOR DEFINITIONS GUIDELINE

Indicator	Project Context Definition
1 Persons receiving services promoted or supported by the project	Refers to the number of new individuals who have received services or participated to activities promoted or supported by the project during the considered period (annual reporting). In the case of VCN, these will be categorized as: (i) Members in Farmer Groups, CAF members supported. Please note: When rural enterprises receive services promoted or supported by the project: only owners and co-owners of the enterprises are counted as persons receiving services.
1.2.8 Women reporting minimum dietary diversity (MDDW)	Women surveyed claiming that they are consuming a diversified diet, which means that they are consuming at least 5 out of 10 prescribed food groups common in Nigeria. It is a proxy indicator to judge adequacy of micronutrient (e.g., vitamins, minerals) consumption by women. It is also a proxy to gauge the adequacy of nutrition intake of the household members. MDDW is expected to provide a broader picture of a household's nutrient intake, taking into consideration that in most societies women are more likely to be nutritionally vulnerable because of their disadvantaged position in relation to intra-household distribution of nutritious foods in resource-poor settings, which are the primary targets for IFAD operations. Additionally, women, and in particular women of reproductive age (15-49 years), are more vulnerable due to their higher physiological demand for nutrients compared to adult men.
SF.2.1 Households satisfied with project-supported services	Households reporting that they: (a) easily accessed or used the services provided by the public/private entities (CAFs and Rural Enterprise organizations, etc) supported by the project, and (b) were satisfied with the quality of the services provided by the public/private entities supported by the project. The indicator aims at determining whether the main services delivered by the public/private entities supported by the project adequately meet target groups' productive/business/employment/livelihood needs. The indicator indirectly assesses (1) the responsiveness of the project in reflecting target groups' views and needs during the design, delivery and adaptation of services, and (2) the impact of the project's capacity building support to the service providers towards improving their service delivery capacities.
SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers	Households that participate in project-supported groups/organizations (Farmer Organizations, Community Groups, CAFs, etc) reporting that: (a) they have influence over decisions taken in the project-supported group/organization in which they participate; and (b) the project-supported group/organization they participate in can influence decision-making of local authorities and project-supported service providers
2.2.1 Persons with new jobs/employment opportunities	Number of new full-time or recurrent seasonal on-farm and off-farm jobs created thanks to project activities since project start-up, either as independent individuals (self-employed) or as employees of micro, small and medium-sized enterprises. Jobs created within farmers' organizations that received project support are also included, but temporary jobs created for a limited period (e.g., for road construction) shall be excluded. For VCN, full time employment as per this IFAD definitions especially for youth and women will be required to be measured across all components will be measured.
3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient	Refers to the percentage of surveyed project beneficiaries who were trained in environmentally sustainable practices and/or the management of climate-related risks, and who claim that: (a) they have fully mastered these practices; and (b) they are now routinely using these technologies and practices.

Indicator	Project Context Definition
technologies and practices	
1.2.2 Households reporting adoption of new/improved inputs, technologies or practices	Beneficiary households interviewed who claim that: (a) they are fully satisfied with the inputs, practices or techniques promoted; and (b) they are now using those inputs, practices and technologies instead of previous ones.
1.1.3 Rural producers accessing production inputs and/or technological packages	Refers to dairy farmers who received support to access production inputs (e.g. improved seeds, etc.) or technological packages (e.g. processing and water-harvesting equipment from VCN support etc.) thanks to project interventions.
2.2.6 Households reporting improved physical access to markets, processing and storage facilities	Beneficiary households interviewed who claim that, as compared to the pre-project situation: (a) they can now more easily access the required market, processing or storage facilities; and that (b) these facilities are fully functional.
1.2.5 Households reporting using rural financial services	Beneficiary households interviewed who state that they are fully satisfied with and are using the financial products and services facilitated by the project, in order to invest in a productive or income-generating activity (i.e., as opposed to being used for consumption or other non-productive purposes).
2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities	Surveyed producers' organizations that have established contractual or other types of arrangements with other value chain stakeholders and/or public entities, with project support. Includes upstream and downstream arrangements (e.g. input provision or selling arrangements) and partnerships with public and/or private entities.
2.1.2 Persons trained in income-generating activities or business management	Persons who during the considered period, have received training in topics related to income-generating activities, including post-production handling, processing and marketing. Such activities include small-scale processing conservation of agricultural products, agro-processing techniques, handling in compliance with safety (use of chemicals, pesticides) and other quality requirements, packaging, market information and procedures. Training is also included. Business management training includes organizational management, accounting and bookkeeping, cash flow management and marketing.
IE.2.1 Individuals demonstrating an improvement in empowerment	IFAD's empowerment indicator is an index that IFAD has developed building on the project-level Women's Empowerment in Agriculture Index (pro-WEAI) developed by IFPRI, OPHI and USAID. Similarly, to the pro-WEAI, IE2.1 reflects a framework of empowerment ²³ in which empowerment is a process of change on the interrelated dimensions of resources, agency, and achievements. This indicator focuses on measuring agency, i.e., the ability of individuals, who were unable to do so previously, to make strategic choices.
2.1.1 Rural enterprises accessing business development services	Rural enterprises that have accessed business development services promoted by the project during the considered period. Rural enterprises are structured businesses that have a well-defined physical location, normally with legal status, a bank account and some employees. They include pre-entrepreneurial activities such as self-employment initiatives and microenterprises with semi-structured activities. Both formal and informal enterprises can be considered, only upstream and downstream

Indicator	Project Context Definition
	activities processing and marketing are to be included but production activities are excluded.
2.1.3 Rural producers' organizations supported	First-level groups of farmers or other rural producers, whether formally registered or not, that have been newly formed or created, or strengthened with project support during the considered period, in order to enhance agricultural, processing or marketing, and provide services to their members. These rural producers' organizations should be distinguished from groups formed to manage natural resources (natural resource management groups are reported only under SO3).
2.1.6 Market, processing or storage facilities constructed or rehabilitated	Market facilities are the structures used to sell produce, such as market places and shading structures. Processing facilities include equipment and machinery that are used for the transformation of dairy where value is added. Storage facilities include structures used for mid- to long-term storage or preservation of dairy produced.
1.1.5 Persons in rural areas accessing financial services	<p>This refers to the number of individuals who have accessed a financial product or service specifically promoted/supported by the project and its partner financial service provider (FSP), at least once during the considered period (annual reporting). Such services include loans and micro-loans, saving funds, micro-insurance/insurance, remittances, and membership of a community-based financial organization (e.g., savings and loan group).</p> <p>Note: When rural enterprises access financial services promoted/supported by the project, only owners and co-owners of enterprises receiving financial services are counted as persons accessing services.</p>
1.1.8 Households provided with targeted support to improve their nutrition	<p>It refers to the number of people that have directly participated in project-supported activities designed to help improve nutrition during the considered period. Note that the nutrition-sensitive activities are not generic but that they are tailored to address context-based nutrition problems. Activities may include people participating in nutrition related trainings, exchange visits, behaviours change communication campaigns, integrated dairy production, technical assistance on the use of inputs and technologies intended to improve nutrition outcomes (e.g., bio-fortified seeds, livestock, etc). Also note that based on the typology of the nutrition-activity, they may target household members and not individuals e.g., vegetable gardens. It is important to note that not all nutrition-sensitive activities will be reported under this indicator. For example, mass media campaigns (e.g., radio) and/or other open sessions where it is difficult to quantify the number of people reached should be excluded. While counting beneficiaries, care should be taken not to double count individuals or households benefiting in more than one activity or the same activity more than once in the same year.</p>

Appendix 3: Terms of Reference for the VCN M&E OFFICER

Position: VCN M&E OFFICER

Place of assignment: Abuja, Nigeria

Duties and reporting lines: Under the direct supervision and authority of the NPC, the VCN M&E Officer will be in charge of all VCN M&E activities carried out under VCN overseeing States and LGA levels. The M&E Officer will also be responsible compiling, validating and reporting M&E results and progress through collaboration with Government District Teams and Project Implementing Partners and providing a timely submission in reporting.

Tasks and responsibilities:

- Develop a Project-Specific M&E Plan that will clearly detail: (i) description of the VCN M&E approach; (ii) VCN processes and activities to be implemented; (iii) the tools to be used for data collection and processing (iii) the deliverables to be produced and; and(iv) M&E responsibilities of all project teams to ensure smooth collaboration;
- Support MIS Developer in the development of the VCN M&E Management Information to ensure that data collection, beneficiaries database and reporting templates are consistent with the project M&E plan;
- Coordinate with State teams and implementation partners to collect and report data of project activities using the MIS as per the appropriate project data collection and tools that are outlined in the M&E Plan;
- Provide technical support to project, State staff and partners on M&E and MIS related issues, including data collection, analysis and reporting;
- Submit a timely updated Project Logframe and Physical progress performance and submit to IFAD before annual supervision missions;
- Ensure the quality of data collected and reported by conducting quality assurance checks and providing feedback to project staff and partners;
- Guide the service providers contracted to conduct COI survey by ensuring survey methodology and questionnaire adheres to the IFAD COIs;
- Ensure compliance with IFAD and Project requirements and ethical considerations related to data collection and use;
- Provide capacity to project, LGA and State staff and partners on M&E and MIS related issues including data collection, analysis and reporting;
- Manage project information; particularly the beneficiary database, documentation and other project related information;
- Collaborate with the VCN KM Officer by providing evidence-based data of the impact of project interventions to guide the development of KM products;
- Carry out any other assignment or relevant duties in the field of his/her competences as may be assigned by the Project Coordinator and/or other Authorities.

Outputs:

- Elaborated VCN contextual Project Specific M&E Plan by project start up (Q1 2025);
- Fully operational M&E Management Information System by project year 1,
- Fully Developed data collection tools by project start up (Q1 2025);
- Quarterly data analysis reports to inform implementation;
- Quarterly monitoring reports to support decision-making;
- Technical assistance to project and implementation partners;
- Capacity building materials (training material, guidelines, toolkits) to build capacity of project and implementation partners on M&E related issues;
- Management of the beneficiaries' database to ensure outreach is up to date reporting avoids double counting;

Competencies:

- Technical expertise: Possess a strong understanding of M&E concepts, methods, and tools. This includes ability to design and implement M&E plans, develop data collection tools and analysedata;
- Communication Skills: Excellent communication skills to effectively communicate project progress, results and recommendations to stakeholders such as donors, partners and project staff;
- Analytical Skills: Strong analytical skills to analyse data and identify trends, patterns, and areas of improvement. This includes the ability to use statistical software and other analytical tools to analysedata;
- Project Management skills: Strong project management skills to effectively manage M&E activities, including developing plans, coordinating data collection, and ensuring timely reporting;
- Teamwork and collaboration: Ability to work closely with project staff, implementing partners and stakeholders to ensure that M&E activities are integrated into VCN implementation;
- Problem solving skills: Proven ability to identify issues and challenges related to M&E and to develop solutions to address them;
- Ethical and professional conduct: Demonstrate ethical and professional standards in all aspects of work, including data collection, analysis and reporting. This includes maintaining confidentiality and respecting the rights of beneficiaries;

Qualifications and experience:

Education: First level university degree in statistics, demographics, public policy, international development, economics, or related field. Advanced certificate in M&E, statistics or economics preferred.

Experience

- Minimum of three (3) years of professional experience in an M&E position responsible for implementing M&E activities of international development projects and performing M&E in conflict and fragility zones;
- Experience in designing, implementing, and operating project M&E systems and plans from project initiation to closeout stages;
- Experience in designing and managing beneficiary monitoring and database systems;
- Experience in manage project level M&E Management Information Systems (MIS);
- Knowledge of the major evaluation methodologies (e.g. qualitative, quantitative, mixed-method, and impact) and data collection and analysis methodologies;
- Experience in developing and refining data collection tools;
- Experience with data quality assessments and oversight;
- Extensive knowledge of IFAD COI guidelines and policies is an advantage;

Language Requirements

- Fluency in written and spoken English and Northern Nigeria local languages;

Duration of the assignment: The duration of the assignment will be one year, renewable depending on satisfactory performance.

Annex 13.5: Technical Note: NUTRITION AND FOOD SECURITY

Background: Nigeria has the highest population in Africa with an estimated 223.8 million people by the year 2023 according to UN data (UNFPA,2023)¹⁹. The country has one of the highest fertility rates, currently estimated at 5.1 children per woman resulting in a rapid population surge with an annual growth rate of 2.6 percent²⁰. The population is projected to reach approximately 440 million by the year 2050 but the human development index (HDI) remains low at 0.534 ranking it 158th out of 189 countries and territories²¹. As of 2022, approximately 47.7% of the Nigerian population lives in rural areas, while 52.3% live in urban areas²². This means that the majority of Nigerians are now urban dwellers, although the gap is still relatively close²³. Nigeria faces a complex and multifaceted food insecurity situation, with significant regional variations in severity, particularly affecting rural populations in the Northern States²⁴. Furthermore, limited food access, nutrition deficiencies, poverty and inequalities remains major challenges due to protracted insecurity, soaring food prices and climate shocks among other factors²⁵. The food and nutrition security situation in Nigeria remains fragile and dynamic. While ongoing interventions provide crucial support, continued multi-sectoral efforts are needed to address the underlying causes of food and nutrition insecurity and build long-term resilience.

Policy Framework and Strategies for Food and Nutrition Security: There is recent evidence to show that malnutrition and nutrition related issues remain a major public health concern in Nigeria²⁶. The country recognizes that reducing malnutrition is an important goal of development as spelt out in the National Development Plan (NDP,2021-2025) which aims at improving food and nutrition security, achieving dietary diversity and access to quality food with an emphasis on food safety practices. Among key efforts of the Federal Government of Nigeria to fight against malnutrition in all its forms, is the provision of the National Policy on Food and Nutrition which guides all investments by government and partners on nutrition. Moreover, the National Multi-Sectoral Plan of Action for Food and Nutrition (NMPFAN) 2021-2025²⁷, sets out strategies and interventions for improving the nutritional status of all Nigerians with specific emphasis on the most vulnerable groups. By 2022, 21 states had adopted the food and nutrition plans and contextualized to local level with the establishment of Local Government Area Committees on Food and Nutrition. These committees are expected to trickle down to Ward and Community levels. Further, Nigeria is in a quest to accelerate the achievement of the Sustainable Development Goals (SDGs) on nutrition by the year 2030 as demonstrated by the government's commitment to the implementation of priority actions spelt out in the National Action and Communication plan for the implementation of the Food Systems Transformation Pathways²⁸ and Priority Actions (2021-2030)²⁹. The overarching goals of this plan is reduction of poverty, hunger, food insecurity, malnutrition, unemployment among the youth and to increase Women's Empowerment in Agriculture Index as well as increase Environmental Performance Index score.

¹⁹ United Nations Population Fund, World population dashboard. <https://www.unfpa.org/data/world-population/NG>

²⁰ National Population Commission. <https://www.nationalpopulation.gov.ng/>

²¹ National Multi-sectoral plan of action for food and nutrition (2021-2025)

²² World Bank Nigeria population data set, 2022. <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=NG>

²³ Nigeria urbanization from 2021-2022, Statista data set; <https://www.statista.com/statistics/455904/urbanization-in-nigeria/>

²⁴ Cadre Harmonize for Identification of Food and Nutrition Insecurity Risk Areas and Vulnerable Populations in 26 States of Nigeria and Federal Capital Territory (FCT), November 2023.

²⁵ Ibid

²⁶ Preliminary report (September 2022) of the National Food Consumption and Micronutrient Survey, 2021

²⁷ The NMPFAN aims to reduce stunting among children under five to 18% by 2025 by scaling up high impact nutrition-sensitive interventions

²⁸ National Action and Communication Plan for Implementation of the Food Systems Transformation Pathways in Nigeria, 2023.

²⁹ National Food Systems Transformation Pathways for Nigeria- Priority Actions (2021-2030)

Moreover, the agriculture sector in Nigeria recognizes nutrition as a multisectoral issue as evidenced by the Agriculture Sector Food Security and Nutrition Strategy (ASFSNS) (2016 - 2025) which responds to the national, regional and global call to ensure that agriculture actions systematically address nutrition. The ASFSNS therefore responds to The Comprehensive African Agriculture Development Programme (CAADP), the Malabo Declaration and the Sustainable Development Goals among other frameworks relevant to nutrition and food security. ASFSNS specifies eight priority areas, four of which incorporate nutrition into hard investments in the agricultural sector and food system. These include: enhanced food value chains; diversified food production targeting women; improved food safety along the value chains; and resilience and social protection nets for vulnerable groups. The other four priority areas focus on creating an enabling environment for planning and implementing nutrition-sensitive actions, and they include nutrition research and information systems; improved institutional capacity and human resources; nutrition education, behaviour change communication and advocacy; and monitoring and evaluation. In addition, the ASFSNS operationalizes the National Agricultural Promotion Policy spelt out in the Green Alternative pillar; the agriculture and food security component of the National Policy for Food and Nutrition; and the Economic Growth and Recovery Plan of the Federal Government of Nigeria³⁰.

The Zero Hunger Initiative, launched in 2016 aims to eliminate undernutrition by 2025 ahead of the UN SDGs deadline of 2030. It is chaired by the former President, Chief Olusegun Obasanjo³¹. In 2022, Nigeria reviewed and launched the National Strategic Plan of Action for Nutrition (NSPAN), the National Guidelines for Micronutrient Deficiency and Control, the National Policy on Maternal Infant and Young Child Nutrition (MIYCN), and the National Guidelines on Integrated Management of Acute Malnutrition³².

Nutrition Governance: The responsibility of coordinating nutrition in Nigeria rest with the multi-sectoral National Committee on Food and Nutrition (NCFN) which is chaired and facilitated by the National Planning Commission. At the State level, the NCFN is replicated as the State Committee on Food and Nutrition. There exists a Nutrition Division in the Department of Family Health in the Federal Ministry of Health which is mandated with the responsibility of Scaling Up Nutrition and acts as the convener for line government ministries and departments including the Ministries of Agriculture, Health, Education, Women Affairs, Finance, Information, Science and Technology Water Resources, and the National Planning Commission. Besides, the Nutrition Partners Forum (NPF) acts as a platform where all relevant ministries engage with development partners on matters nutrition and meets four times a year. The NPF comprises partners external to the government and includes UN agencies, national and international non-governmental organizations, donors, the private sector and media³³.

Nigeria is a signatory to the Scaling Up Nutrition (SUN) Movement since 2011 and partners the government to host the National Multi-Stakeholder Platform (MSP) for Nutrition. The SUN Movement Secretariat is positioned in the Federal Ministry of Health, with the Head of the Nutrition Division as the SUN Government Focal Point. The SUN Government Network is led by the Federal Ministry of Finance, Budget and National Planning, which is the coordinating ministry for all nutrition activities in the country, as well as the secretariat for the National Council on Nutrition (NCN) and the National Committee for Food and Nutrition (NCFN). Both work in alignment with the SUN Networks (Business, Academia, Donor, Civil Society) and nutrition stakeholders across relevant sectors, providing the leadership required for robust collaboration. Recently (2022), the Federal Ministry of Finance, Budget and National Planning established nutrition departments in all MDAs

³⁰ Federal Ministry of Agriculture and Rural Development, Agriculture Sector Food Security and Nutrition Strategy (ASFSNS) (2016 - 2025).

³¹ IITA Press Release, 2017. Accessed at: <https://reliefweb.int/report/nigeria/nigeria-launches-plan-end-hunger-2030>

³² Nigeria SUN Country Profile, 2022

³³ Nigeria Federal Ministry of Health, Family Health Department. 2014. Health Sector Component of National Food and Nutrition Policy: National Strategic Plan of Action for Nutrition. Abuja, Nigeria: Nigeria Federal Ministry of Health.

(Ministries, Departments, Agencies) relevant to nutrition, an initiative that is aimed at enhancing financing for nutrition activities³⁴.

Nutrition Situation Analysis: In spite of the robust policy environment for nutrition improvement in Nigeria, the country still grapples with the triple burden of malnutrition³⁵. According to NDHS (2018)³⁶, 37% of all children under five years are stunted which is higher than the Africa average of 30.7%³⁷. Additionally, 7% of children under five years are wasted while 22% are underweight. Children are mostly affected by undernutrition during the first 1000 days of life as evidenced by increase in prevalence of stunting from 19% by 6 months of age to 47% by 24 months of age. High prevalence of malnutrition is more predominant in the Northern states where stunting rates are higher than country average (figure 1). Generally, the prevalence of stunting, wasting, and underweight is almost twice as high among children in rural areas (45%, 8%, and 27%, respectively) as among those in urban areas (27%, 5%, and 15%, respectively)³⁸.

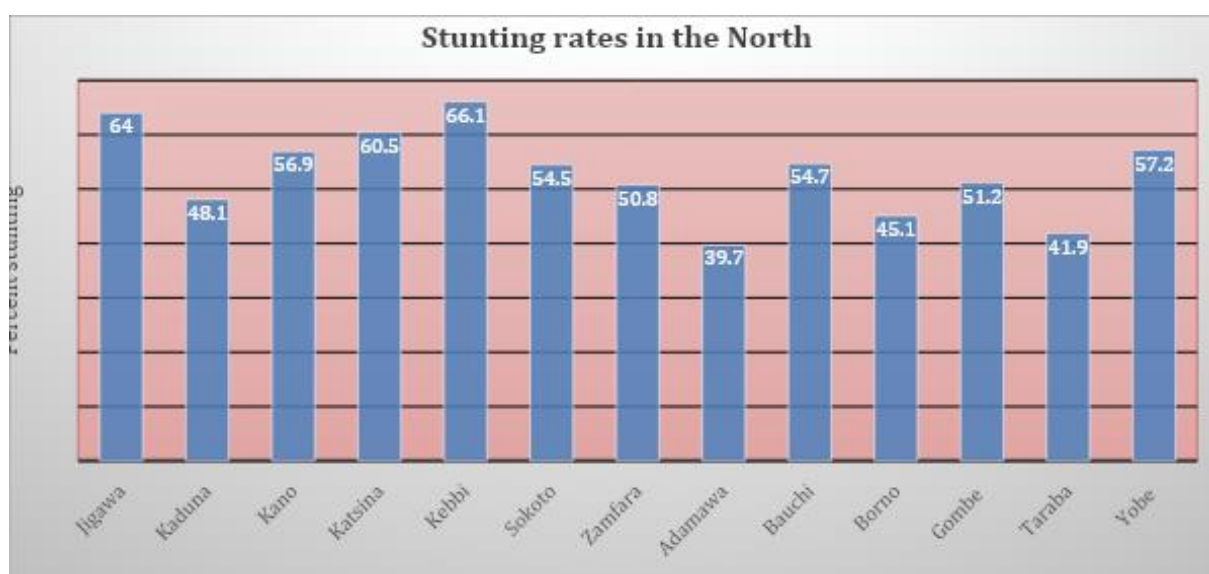


Figure 1: Prevalence of stunting among children under five years in the Northern states (source: NDHS, 2018)

Anaemia affects children and women in the rural areas more than in urban areas. The NDHS shows that 68% of children below five years and 58% of women of reproductive age (15-49) are anaemic³⁹. The report confirms that children in rural areas (73%) are more likely to be anaemic than those in urban areas (62%). The north western states (Zamfara, Kebbi and Sokoto) are the most affected by anaemia in the country with very high prevalence rates (78%-84%). Dietary diversity is poor among women and children while feeding practices are sub-optimal. Only 11% of all children under five years were fed a minimum acceptable diet. The proportion of women who consumed five or more food groups is lower in the northern zones⁴⁰ than in the southern zones⁴¹ with the lowest

³⁴Nigeria SUN Country Profile, 2022

³⁵ Triple burden of malnutrition comprises under-nutrition, over-nutrition and micronutrient deficiencies.

³⁶Nigeria Demographic Health Survey, 2018

³⁷ Global Nutrition Report for Nigeria, accessed online in December 2023 at <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

³⁸Nigeria Demographic Health Survey, 2018

³⁹Ibid

⁴⁰ Northern zones include North Central, North East, and North West

⁴¹ Southern zones include South East, South South, and South West

proportion reported in the North Central zone (47%). Children in the northern zones consume fewer foods rich in vitamin A and iron than those in the southern zones.

Women in urban areas are substantially more likely than those in rural areas to consume meat, fish, and poultry (84% versus 59%); eggs (22% versus 11%); sugary foods (19% versus 13%); and sugar-sweetened (32% versus 13%). Consumption of biofortified crops (yellow cassava, orange fleshed sweet potatoes and orange maize) by women of reproductive age is generally low⁴². Nigerian rural households consume much less than 20% of fortified foods compared to urban households⁴³. The proportion of women who consumed five or more food groups generally increases with increasing education and wealth. For example, 48% of women with no education consumed five or more food groups, as compared with 70% of women with more than a secondary education. Complementary feeding is mainly characterized by consumption of foods made from grains (78% and 90% among breastfeeding and non-breastfeeding children age 6 to 23 months respectively). There is low consumption (27%) of meat, fish, and poultry among breastfeeding children as well as fruits and vegetables rich in vitamin A (37%) and eggs (13%). (source: NDHS 2018). Diet related non-communicable diseases (NCDs) have been on the rise in Nigeria with limited progress towards achieving the NCD global targets. About 16% adult women and 6% adult men are living with obesity. At the same time, about 7% adult women and 8% adult men are affected by diabetes⁴⁴. There is a dearth of data on obesity in Nigeria that is sensitive to sociodemographic factors particularly those assessing prevalence in rural areas. However, recent studies show a rising trend in obesity, although the rise is higher among urban than rural women⁴⁵.

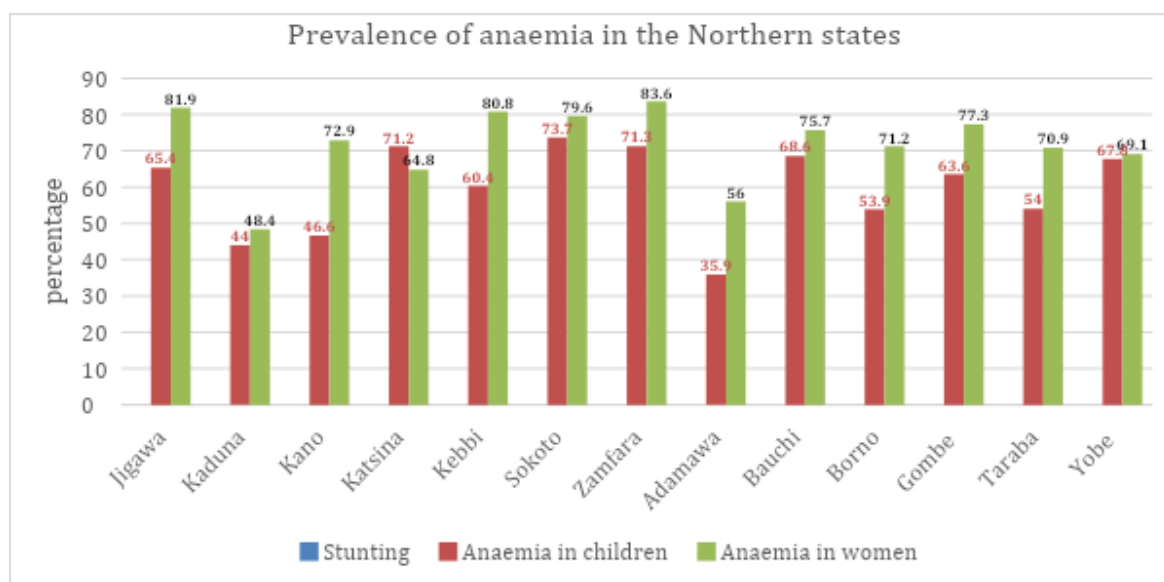


Figure 2: Prevalence of anaemia in Children under five years and women 15-49 years in the Northern states (source: NDHS, 2018)

The 2023 Global Hunger Index ranks Nigeria 109th out of 125 countries with sufficient data to calculate GHI scores⁴⁶. The ranking is informed by a score of 28.3 which places Nigeria in a level of hunger that is serious. At the national level, 79% of households in

⁴² According to the NFCMS 2021, only three percent of women consumed yellow cassava, five percent consumed orange-fleshed sweet potato and 13 percent consumed orange maize

⁴³ Rural versus urban consumption of: vegetable oil (20 percent vs. 48 percent), wheat flour (8 percent vs. 27 percent), semolina flour (7 percent vs. 40 percent), sugar (15 percent vs. 31 percent), NFCMS 2021

⁴⁴ Global Nutrition Report, 2022. Accessed at: <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/nigeria/>

⁴⁵ Prevalence and Trends of Adult Overweight and Obesity in Nigeria — A Systematic Review and Meta-Analysis. Authors: Ramalan, MA; Gezawa, ID; Musa, BM1; Uloko, AE1; Fakhraddeen, YM2. Nigerian Journal of Clinical Practice 26(1):p 1-15, January 2023. | DOI: 10.4103/njcp.njcp_1903_21

⁴⁶ Global Hunger Index report, 2023. Accessed at: <https://www.globalhungerindex.org/pdf/en/2023/Nigeria.pdf>

Nigeria are food insecure. More than half of households in the North East (57.3%) and North west (51.5%) zones experience stressed food consumption whereas a significant proportion of households in the North are considered to be in a crisis food consumption state⁴⁷. A detailed food security situation analysis for Nigeria with a focus on Northern states is included in subsequent sections in this technical paper.

A complex web of factors contributes to food insecurity and malnutrition in Nigeria. Inadequate care for infants and young children leaves them vulnerable to illness and poor nutrition, especially before their second birthday. Access to healthcare, clean water, and proper sanitation remains limited, further hindering basic health and wellbeing. For instance, sanitation and hygiene practices are poor with less than standard toilets and open defecation still common. Usage of unimproved toilets is more prevalent in the Northern zones⁴⁸ with 21.5 per cent of households practicing open defecation system. The practice is more prominent in the rural areas (34.5 percent) than in the urban areas (7.4 percent)⁴⁹. Anecdotal evidence from field visits in the North revealed frequent occurrence of water borne diseases as a result of water contamination.

Armed conflict, primarily in the north, disrupts food production and access, while erratic rainfall patterns wreak havoc on harvests. Widespread unemployment and poverty trap many in a cycle of food insecurity. While chronic and seasonal food shortages plague the entire country, volatile food prices exacerbate the situation. In the northeastern zone, frequent conflicts further worsen these pre-existing vulnerabilities, pushing food insecurity to acute levels. In most instances, food insecurity is inversely related to the level of education of women at household level⁵⁰. There is generally poor implementation of nutrition and food security related policies at State and Local Government levels⁵¹. The rise of diet-related non-communicable diseases (NCDs) in Nigeria can be attributed to several factors associated with globalization and increased urbanization, including lifestyle changes, socio-cultural influences, the growing availability of obesogenic diets, and inadequate maternal, fetal, and infant nutrition practices⁵².

Food Security Situation analysis: According to the Food security early warning report⁵³, Nigeria is facing acute food insecurity crisis with the Northern states mostly affected with severe outcomes (figure 1a). The prolonged dry spells in July and August 2023 affected surplus producing regions of the north leading to lower cereal production (particularly maize, sorghum and millet) than the five-year average. National cereal production is lower than previous year by between 6 to 25%. Dry spells coupled with high cost of agricultural inputs, ongoing conflict and localized flooding have negatively impacted 2023/2024 main season crop. Low cereal production has led to a reduction in labour opportunities associated with harvesting activities. As of November 2023, the macro economy continued to deteriorate due to multiple factors including poor national revenue generation, increasing headline inflation⁵⁴, decreasing value of the Nigerian Naira (NGN)⁵⁵, diminishing national reserves, limited crude oil production and increasing domestic oil prices owing to removal of oil subsidy. This macroeconomic crisis has severely impacted household purchasing power, heightened economically-driven crime, diminishing financial access to food and increasing food consumption deficits⁵⁶.

⁴⁷ Households in crisis food consumption in North west (42.3%) and North East (36.7%) zones (NFCMS, 2021)

⁴⁸ 40 per cent in North West zone and 20 per cent in North East zone.

⁴⁹ National Food Consumption and Micronutrient Survey (NFCMS), 2021

⁵⁰ Ibid

⁵¹ National Policy on Food and Nutrition in Nigeria, 2016

⁵² Nigeria Nutrition Profile, 2018. United States Agency for International Development

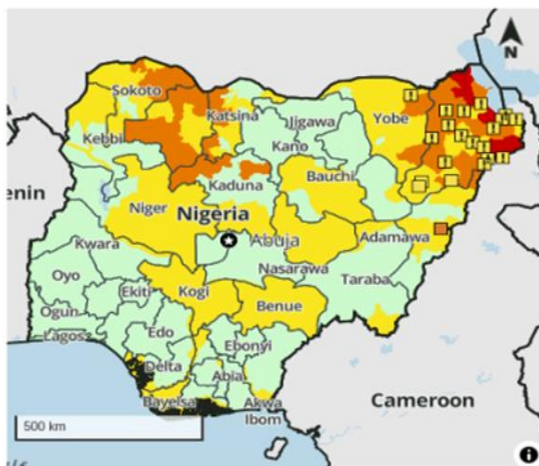
⁵³ FEWS NET. Nigeria Key Message Update November 2023: Below-average harvest and poor macroeconomy sustain Crisis (IPC Phase 3) or worse outcomes in north, 2023.

⁵⁴ Annual headline inflation reached 27.33 percent in October 2023 up from 26.73 percent in September.

⁵⁵ The value of NGN against foreign currencies has continued to free fall at 810NGN per USD official rate and 1,155 NGN per USD on parallel market.

⁵⁶ Famine Early Warning Systems Network, November 2023.

Northeast Nigeria faces a dire food security crisis, exacerbated by a surge in civilian-targeted attacks during the crucial harvest season. This year, insurgents have ramped up raids and crop theft, likely driven by economic hardship. Households in Borno state, particularly in Bama, Abadam, Damboa, Gwoza, Mafa, and Monguno, struggle to access their land, hindering harvests and limiting food availability. Insecurity also intensifies competition for scarce urban jobs. The combined effect of heightened violence and unusually high staple food prices severely restricts access to food, particularly for those who couldn't cultivate, internally displaced persons, returnees, and households in inaccessible areas. Crisis-level food insecurity (IPC Phase 3) is expected to persist throughout 2023 and worsen in early 2024 as households deplete their meager harvests. In isolated areas like Bama, Marte, Guzamala, and Abadam, limited mobility, dysfunctional markets, and depleted coping mechanisms will likely trap households in Emergency (IPC Phase 4) conditions until May 2024 (figure 1b).



Northwest and North-central Nigeria continue to grapple with widespread insecurity, primarily driven by banditry, kidnappings, and farmer-herder clashes. These events are causing significant displacement, disrupting livelihoods, and impacting food access. In Maru LGA, Zamfara state, a single incident on November 24, 2023 saw over 100 abductions, reflecting a trend of similar attacks reported throughout October and November across Benue, Kaduna, Katsina, Kebbi, Sokoto, and Zamfara. This ongoing violence has severely hindered harvest activities in the worst-affected areas, leading to reduced income generation and limited food availability. The decline in cross-border trade with Niger further disrupts market functionality, exacerbating food insecurity. In major urban areas of the northwest, internally displaced persons (IDPs) reside in makeshift shelters, heavily dependent on limited community-based food assistance, domestic labor, and even negative coping strategies like begging and prostitution to secure sustenance. Their depleted household assets and lack of cultivable land contribute to significant food consumption gaps. Despite the ongoing harvest, food consumption gaps and Crisis (IPC Phase 3) outcomes are projected to persist in the northwest and north-center through May 2024 (figure 1b). Notably, a subset of extremely vulnerable households in the most conflict-ridden areas, unable to cultivate due to the insecurity, are resorting to bartering, foraging, and begging for food, pushing them towards Emergency (IPC Phase 4) food insecurity.

Food prices: Despite the recent harvest season (October to December 2023), staple food prices remain stubbornly high in many areas, exceeding typical seasonal patterns. In

Maiduguri, mid-November saw maize prices 4% higher than the previous month and a staggering 66% higher than the same period last year. Similar spikes were observed in Kaura Namoda (Zamfara) and Dawanau (Kano) markets. While millet prices in Maiduguri dipped slightly compared to October, they remained 47% above November 2022 levels. This atypical price surge stems from several factors including high transportation costs, ongoing conflict in key surplus-producing areas, and increased demand for cereals due to below-average harvests. This confluence of factors tightens the grip on household food access, particularly for those who rely heavily on purchases. In particular, these elevated staple food prices are projected to persist throughout the ongoing harvest and even into the 2024 lean season.

Food and Nutrition Insecurity Risk Areas and vulnerable populations: According to Cadre Harmonize (CH) analysis report published in November 2023⁵⁷, 18.6 million of the analyzed populations in 26 states are in the critical (Crisis to Emergency) Phases of Food and Nutrition Insecurity (FNI) for the period between October to December 2023. Moreover, the FNI situation is projected to deteriorate going into the lean season (June to August 2024) thus increasing the number of vulnerable populations to an estimated 26.5 million. Out of the 26 states covered in the CH report, 10 states from North East and North west are represented namely: Adamawa, Bauchi, Borno, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara. In the period between October to December, 46 LGAs in Borno (10), Zamfara (4), Katsina (11), Yobe (7) and Adamawa (2) were classified under crisis. The number of LGAs classified under crisis may increase to 120 during the projected period (June to August 2024) if no interventions in the form of food aids, emergency agricultural support and resilient livelihood intervention initiatives are availed to cushion evolving food and nutrition insecurity crises among vulnerable populations. The primary and secondary outcomes of food and nutrition security in Nigeria are described in the paragraphs below.

Food consumption status: Several states faced stressed food consumption (Phase 2) conditions. However, Internally Displaced Persons (IDPs) in Borno, Sokoto, and Zamfara states experienced a direr situation, with fluctuating food access. In Katsina, Benue, and Niger states, the general population grappled with persistent food challenges. The situation worsens for partially and fully inaccessible populations in Adamawa and Borno, ranging from Crisis (Phase 3) to Emergency (Phase 4) levels. This trend is expected to continue through June-August 2024, with more people falling into worse food consumption categories due to inadequate nutritious food intake. Atypical spikes in staple food prices during this period, coupled with rising inflation and high farm input and food distribution costs, are likely to further negatively impact food consumption patterns and outcomes.

Livelihood dynamics: Over 75% of the analyzed states faced moderate livelihood change (Phase 2) challenges. However, several local government areas (LGAs) including in Katsina, Zamfara, and Borno entered Phase 3 (Crisis) due to prolonged insecurity. In other states, fuel subsidy removal, inflation, and high business operating costs also disrupted livelihoods. The agricultural sector particularly struggled, with soaring farm input prices (fertilizer, agrochemicals), labor wages, and transportation costs all contributing to higher operating costs and reduced activity. Livelihood conditions are expected to remain volatile in the coming months due to unpredictable macroeconomic trends. While livelihood support packages from the government and humanitarian communities may offer some relief in high-risk, food-insecure LGAs (particularly in Borno, Zamfara, Katsina, Sokoto, and Yobe), a significant short-term recovery to offset these challenges is unlikely. Livelihood disruptions are therefore likely to persist.

Nutrition insecurity status: Available data from Adamawa, Borno, Katsina, Sokoto, Yobe, and Zamfara revealed acute malnutrition levels ranging from moderate (Phase 2) to severe (Phase 3). Worryingly, these same states, particularly Katsina and Zamfara, are projected to experience significant deteriorations, potentially reaching critical (Phase 4) or emergency (Phase 5) levels by June to August 2024 due to evolving food insecurity

⁵⁷Cadre Harmonize for Identification of Food and Nutrition Insecurity Risk Areas and Vulnerable Populations in 26 States of Nigeria and Federal Capital Territory (FCT), November 2023.

challenges. Several factors driving this nutritional decline include unhealthy food consumption patterns, social barriers, including poor health-seeking behaviors by caregivers, limited access to functioning healthcare facilities and services, inadequate access to water, sanitation, and hygiene (WASH) services, including poor infant and young child feeding practices and low exclusive breastfeeding rates.

Mortality: While death rates in Zamfara, Katsina, and Sokoto remained relatively low, hovering between 0.1 and 1.27 per 100 people across all analyzed areas, concerns for children under five persist. Under-five mortality and overall crude death rates are expected to remain stable in the coming months. Despite the absence of major epidemics during the analyzed period, malnutrition and high prevalence of diseases like malaria, diarrhea, and measles continue to pose significant challenges to child health and survival.

The potential impacts of contributing factors to the outcomes of food and nutrition insecurity above are summarized in the table below:

Factors	Impacts on livelihoods	FNI Outcome status
<ul style="list-style-type: none"> -Protracted insecurity. -Economic factors (fuel subsidy removal, effects of naira-redesign, cashless monetary policy). -Climate shocks. -Soaring prices of staple food and basic essential commodities. -Post COVID economic crisis. -War in Ukraine. 	<p>Negative impact on livelihoods, agricultural input prices and supply.</p> <p>Increases in prices of farm inputs (fertilizer and agrochemicals) (150% to 236% increase).</p> <p>Negative impact on households capacity to increase cultivated cropland area Inability to apply the recommended fertilizer rate needed for optimum crop performance.</p>	<p>Poor food and nutrition insecurity outcomes</p>
<ul style="list-style-type: none"> -Banditry -Kidnapping 	<p>Negative impact on livelihoods by depriving HHHs' access to agricultural inputs (lands and labour) and functional markets to acquire seeds, fertilizer, agrochemicals and also sell their harvested crops in several communities of Benue, Zamfara, Katsina, Niger, Sokoto (East) and Kaduna States.</p>	
<ul style="list-style-type: none"> -Floods 	<p>Resulted in population displacement, losses of assets and washing away of ready-to-harvest crops in several communities along river belts</p>	
<ul style="list-style-type: none"> -Conflicts 	<p>Limited HHHs access to farmland leading to high livelihood vulnerability in several affected communities.</p>	
<ul style="list-style-type: none"> -Poor coping strategies. 	<p>At least 50% of HHHs across the analyzed areas adopted stress to crisis coping strategies (Begging, debt and selling of their productive assets) to acquire food. These was reflected in their inability to consume sufficient calories and quality of nutritious meal to meet acceptable food consumption levels.</p>	
<ul style="list-style-type: none"> -Flash floods, pests and diseases. 	<p>Poor crop performance year on year Yield losses (15% to 65%)</p>	
<ul style="list-style-type: none"> -Insecurity, increased cost of fertilizers and agrochemicals 	<p>Limited agricultural production activities</p>	

Factors	Impacts on livelihoods	FNI Outcome status
-Severe dry spell	<p>Affected early planted cereal crop (Maize, rice and sorghum) Depletion of stocks at HH level (54% of the population) Low HH stock availability. Negative impact on food consumption Undermined potential supplies from 2023/24 dry season farming</p>	
-Increased staple food prices	<p>Negative impact on household's capacity to sustain acceptable food consumption thresholds. Led to between stress to crisis food consumption score, household dietary diversity and hunger scales. Reduced Coping Strategy Index (rCSI) was observed to be under stress (Phase 2) in at least 50% of the analyzed population, and more severe (Phase 3) in areas with protracted insecurity.</p>	
-Removal of fuel subsidies	<p>Led to more than 225% rise in Premium Motor Spirit prices. Increased cost of haulage and transportation. Affected trade flows and the overall optimal performance of markets across states</p>	
-Rise in Consumer Price Index (CPI) rate.	<p>Affected the prices of staples and complementary food items such as cooking oil, dairy, condiments and vegetables.</p>	
-Rise in the dollar to Naira exchange rate	<p>Affected essential items like pharmaceuticals, WASH and general HHs living cost.</p>	
-Atypical spikes in food prices	<p>To continue in the lean season (June to August 2024). However, late harvest from the 2023 wet season and early harvest from the 2023/24 dry season farming may cushion the undue spikes in food prices, reduce the pressure on producer HHs dependence on the market and boost food access among the general population. Nonetheless, vulnerable populations in risk areas with limited access and non-access to production assets (Land and farm inputs) may continue to rely on food aids to sustain acceptable FNI outcomes.</p>	
-Limited access to safe and portable water sources for drinking and WASH purposes.	<p>50% of HHs have poor WASH facilities. Increased incidences of water borne diseases (cholera & diarrhea) in rural communities.</p>	
-Insecurity	<p>Poor access to road networks and communication channels; access to optimum health care facilities and delivery services remained a challenge</p>	
<p>-Delayed onset of rains early cessation of rains. -Incidence of severe dry spell (above 15 days)</p>	<p>Unstable production calendars poor Normalized Difference Vegetative Index (NDVI) affecting livestock production</p>	
-Flash floods	<p>population displaced, properties destroyed, ready to harvest cropped fields washed off</p>	

Factors	Impacts on livelihoods	FNI Outcome status
-Removal of fuel subsidy. -High cost of transportation and service delivery. -High inflation, CPI and Naira-Dollar exchange rates.	Negative impact on livelihoods. Slowed growth of economic indices. increased food prices and basic essential non-food items. Adoption of poor coping strategies. Borderline Food consumption score, hunger scale and dietary diversity thresholds.	
-Low yields, failed crop from previous season.	Affected stability of food availability for all staple crops Low HH stock levels (50% of population analyzed have stocks to last only 3 months). Output from 2023/24 dry season farming may help HHs to augment depleted stocks. Otherwise, food availability instabilities will result during the lean season.	
-Spike in fertilizer and agrochemicals prices by 200%.	Limited engagement in dry season farming among HHs constrained production by dry season farmers	
-Rising inflation rates, high haulage and transportation costs.	Increases in staple prices. Spiked cost of living. Eroded purchasing power of producer households despite gains earned from sale of their farm produce.	
-Insecurity	Low purchasing power among displaced populations Severe difficulties in maintaining acceptable FNI outcomes. Unsustainable coping strategies among IDPs in the absence of humanitarian food aid and emergency agriculture support and resilient livelihood re-building interventions.	

Risks to monitor affecting nutrition as informed by recent reports: The IPC analysis report, October 2023, has enumerated important risk factors that are imperative to monitor to effectively combat the burden of malnutrition and improve nutritional outcomes for the affected population in the Northern geopolitical zones. VCN will consider these risks to inform the development of mitigation plans. The table below presents the proposed risks and potential mitigation approach for VCN:

	RISK FACTORS TO MONITOR	POTENTIAL VCN MITIGATION APPROACH
North East Nigeria	Flooding and its effects – particularly in LGAs and communities bordering Cameroon Republic	Include flooding mitigation measures in VC environmental plans
	Seasonal trends of common childhood illnesses particularly malaria, respiratory infections, diarrhea and early warning signs for outbreak of cholera, diphtheria and Meningitis	Participate in multisectoral information dissemination platforms for timely response. Include preventive measures and education in WASH SBCC activities
	Evolution of trends in crude death rate and under-five mortality rate.	Use trend analysis reports to modify VCN interventions approach particularly for nutrition vulnerable HHs
	Changes in weather patterns in the three periods related to malnutrition.	Enhance timely dissemination of weather information to farmers

	RISK FACTORS TO MONITOR	POTENTIAL VCN MITIGATION APPROACH
	Practice of early initiation of breastfeeding and exclusive breastfeeding within the first two days after birth, as well as household food consumption patterns (MAD and MDD).	Strengthen nutrition education and SBCC targeted at HHs with children under five
	Population movements in LGAs and communities bordering Niger Republic that may be induced by the political crisis	Build mitigation plans that anticipate population movements. Promote community cohesion to support resilience during such occurrences.
	Comprehensive aid coverage from both humanitarian and government sources. Accessibility of humanitarian assistance and availability of basic services including food, WASH, nutrition, protection and health services in hard-to-reach areas	Strengthen food environment elements in VCN value chains. Invest in robust last mile food distribution mechanisms.
	Market stock and food prices, and the economic impact of recent monetary and fiscal policies like the removal of fuel subsidy, floating of the naira.	Advocate for implementation of farmer cushioning mechanisms while identifying policy opportunities for VCN's engagement.
	Civil unrest may result from conflict between farmers and herders and communal clashes.	Build mitigation plans in anticipation for farmer herder conflict. Include continuous community engagement mechanisms to reduce conflicts. Provide timely and clear feedback mechanisms between relevant actors and communities affected.
	Sub-optimal coverage of preventive and curative nutrition services and public health campaigns to optimize the impact.	Strengthen delivery of preventive nutrition activities through VCN's SBCC and nutrition education strategy.
	Household food insecurity, particularly in the tail end of the postharvest season when food stocks are expected to be depleted.	Strengthen market-oriented nutrition interventions such as improved storage, processing and value addition. Improve production and productivity elements of VCN to ensure increased quality and quantity of food in the market and at households.
North West Nigeria	Insecurity such as banditry, kidnapping, and farmer-herder clashes. These are likely to increase protection-related issues such as Gender-based Violence, Sexual Exploitation and Abuse, limited movement of people, attrition of healthcare workers and hampering of economic-related activities.	Promote interventions that occupy the youth to reduce banditry incidences. Promote community dialogue spaces to encourage youth in crime to reform. Provide community recreational services for the youth. Support initiatives that strengthen availability of entrepreneurship opportunities for the youth. Promote interventions geared at community cohesion.
	Disease outbreaks (cholera/acute watery diarrhoea, measles, acute respiratory infections etc.), in addition to malaria/ fever, due to seasonal changes, low vaccination coverages and increased population against the limited health and WASH facilities.	Participate in multisectoral information dissemination platforms for timely response. Include preventive measures and education in WASH SBCC activities

	RISK FACTORS TO MONITOR	POTENTIAL VCN MITIGATION APPROACH
	Niger political crisis: this has led to border closures, with the attendant toll on trading activities and a possible influx of refugees into neighboring LGAs should the situation further deteriorate	Build mitigation plans that anticipate population movements. Promote community cohesion to support resilience during such occurrences.
	Food insecurity due to limited access to farmlands, caused by heightened insecurity and depletion of household supplies because of the influx of displaced persons who are majorly accommodated within the host communities.	Explore collaboration with States to allocate alternative farming land to affected HHs in the Farm Estates established by policy to settle displaced persons.
	Poor Maternal, Infant, and Young Child Nutrition (MIYCN) and their impact on caring and feeding practices, especially among pregnant women and children under five, as reflected in sub-optimal breastfeeding and appropriate complementary feeding indicators	Ensure nutrition education and SBCC approaches are effective in addressing barriers to nutrition.
	Erratic changes in government policies, such as removal of fuel subsidies and other financial policies related to foreign exchange rates, have led to increased cost of living.	Advocate through policy engagement avenues
	Flooding leads to loss of agricultural produce, reduced food availability at the household level and limited access to market, health and nutrition services	Build mitigation measures in anticipation of flooding in flood prone areas.
	Population displacement resulting to the over-bearing effects of the influx/migration of Internally Displaced Persons (IDPs) on the limited structures such as health, nutrition, and WASH facilities at both Primary Health Centers (PHC) and community levels will likely exacerbate the existing poor health-seeking behavior	Build mitigation plans that anticipate population movements. Promote community cohesion to support resilience during such occurrences. Develop value chain products through processing and value addition to target the displaced to ensure prolonged shelf life and hence availability of food throughout the year.
	Funding gaps for humanitarian interventions limiting access to health, nutrition, WASH services and food security and livelihood by the affected population.	Build synergies with relevant actors working in the North.
	The sale of farm produce meant for household consumption to meet other needs as coping mechanisms are likely to impact food security at the household level.	Address negative coping mechanisms through SBCC and nutrition education. Promote market-oriented nutrition approaches to ensure food availability throughout the year. Build infrastructure required to support a better food environment e.g. feeder roads to the markets.

LESSONS LEARNT FROM FOOD AND NUTRITION SITUATION ANALYSIS: VCN intends to be Nutrition-Sensitive. In keeping with food and nutrition insecurity recommendations from the most recent studies done in Northern Nigeria, VCN will seek to leverage opportunities presented in these multi-sectoral recommendations to define entry

points and impact pathways to nutrition. The most relevant recommendations to inform nutrition and overall interventions for VCN from these reports are summarized in the table below:

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
NORTH EAST NIGERIA	Sustain the existing response capacity and modalities throughout the lean season and utilize risk monitoring indicators and early warning systems to adjust (scale-up or scale-down) the response to fit the evolution of the situation in the projection periods.	<ul style="list-style-type: none"> i) Understand risk monitoring indicators that are of interest to value chains and develop mitigation strategies. ii) Utilize the season classification to inform production schedules and marketing approaches. iii) Leverage the early warning systems to inform market approaches including food environment improvement approaches.
	Continue the scale-up of targeted supplementary feeding programs using available specially formulated foods (RUSF, Blended Flour such as Tom Brown, etc.) aimed at closing the existing gaps in MAM treatment.	<ul style="list-style-type: none"> i) Explore opportunities presented by Blended Flour supplementary feeding programs particularly Tom Brown and promote utilization at HH level for prevention of malnutrition. ii) Empower Farmer organizations to have voice in nutrition by participation in Tom Brown value chain activities. iii) Explore relevant partnerships particularly with RBAs (FAO, WFP, UNICEF) to build synergies for Tom Brown supply chain.
	Tailor support and messaging on MIYCN and other Social and Behavioral Change (SBC) interventions to emphasize early initiation of breastfeeding, exclusive breastfeeding, continuation of breastfeeding, caregivers' health seeking behavior, personal hygiene and use of locally available food items to prepare and feed children with nutritious foods that contain the required macro and micronutrients.	<ul style="list-style-type: none"> i) Integrate recommended messaging into SBCC strategy and include the elements of feeding practices and care giving into project progress monitoring indicator system. ii) Promote locally available food items through cooking demonstrations and through backyard gardening to increase diversity of nutrient rich foods at HH level. iii) Review existing recipe books (where available) or develop (where needed) and update with additional nutritious recipes to promote utilization of locally available foods.
	Advocate for programs to address epidemics of malaria and diarrheal diseases that have been a recurrent event in the period of peak malnutrition. Ahead of the period of peak malnutrition, implement sets of malaria prevention interventions as well as programs to improve soft and hard components of WASH, especially at the household level.	<ul style="list-style-type: none"> i) Leverage small water infrastructure interventions to improve hard components of WASH at HH and community level. ii) Explore partnership with actors in WASH sector to improve 'hardware' components e.g. facilities to improve sanitation and hygiene such as toilets or latrines. iii) Integrate WASH soft components in nutrition education and SBCC strategy.
	Prioritize programs to address maternal and adolescent malnutrition.	<ul style="list-style-type: none"> i) Include poor women and adolescent girls in nutrition target groups ii) Target women at risk of malnutrition with nutrition interventions. iii) Integrate nutrition in GALS modules and FFS modules.

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	<p>Strengthen the existing mechanisms for early identification and referrals such as the family MUAC approach, routine screening by community health influencers promoters and services such as community nutrition mobilizers, and comprehensive mass MUAC screening either quarterly or in each of the three seasons.</p>	<p>i) Leverage the already existing community health influencers/promoters' structures, (particularly the community nutrition mobilizers) to reach more HHs targeted to receive support to improve their nutrition. ii) Explore the avenue of community nutrition mobilizers (CNM) as an entry point for Nutrition Education and SBCC. Target CNMs as ToTs for nutrition training iii) Explore CNM avenue as an entry point for marketing and distribution of value added nutritious products by VCN's Farmer Organizations.</p>
	<p>Leverage the provisions of the guidance on Cash Voucher Assistance (CVA) for nutrition in Nigeria to utilize cash and voucher approaches to strengthen preventive and curative nutrition interventions e.g., supplemental nutrition assistance (including using locally available food items), feeding options for infants without breastfeeding support, food fortification, MAM and SAM treatment.</p>	<p>i) Identify lessons from the Cash Voucher Assistance for nutrition in Nigeria to inform VCN's digital approach to nutrition. ii) Explore how VCN's VCs can fit into the pool of locally available food items to promote improvements in availability of nutritious foods in the local markets. iii) Identify food fortification opportunities from the pool of VCN's priority value chains per state.</p>
	<p>Advocate for the operationalization of non-functional health facilities (primary and secondary health care centers) through rehabilitation of dilapidated infrastructure, health workforce development, and provision of pharmaceutical and non-pharmaceutical supplies to deliver an integrated package of health (including MNCH), nutrition and WASH services.</p>	<p>i) In LGAs where open defecation is rampant, advocate for relevant ministry to provide support in building latrines. ii) Assess policy gaps in this regard and include as actions under policy engagement interventions.</p>
	<p>Engage in multi-risk emergency response preparedness and/or contingency planning ahead of the next lean season and possible population movements that may result from the political crisis in Niger Republic and possible flooding due to the anticipated opening of dams in Cameroon. Advocate for flexibility of grants to finance emergency response and rapid response actions.</p>	<p>Develop multi-risk mitigation strategies to cushion VCN beneficiaries from crisis likely to affect those near border countries (particularly Niger and Cameroon).</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	<p>Prioritize multi-sectoral programs and strengthen the integration and/or mainstreaming of livelihood components, protection (including GBV), education, WASH, food security and health interventions into nutrition programs and vice versa.</p> <p>Advocate for and promote initiatives and actions that will provide and/or encourage social protection, economic empowerment and income generation (including saving schemes, skills acquisition, credit facilities, etc.), increased land-space for farming, SMART agronomy, micro and macro-gardening, dry season agriculture/irrigation farming, post-harvest management (processing, storage, preservation, etc.) and peacebuilding and conflict mitigation.</p>	<p>i) Assess existing multisectoral programs that support nutrition and identify actors in the multisectoral space for partnership e.g. with WASH activities</p> <p>ii) Integrate livelihood components such as small livestock (goats, sheep, local chickens) targeting most vulnerable poor women.</p> <p>iii) Integrate gender transformative approaches to address harmful norms like GBV at HH and community levels.</p> <p>iv) Identify nutrition interventions that support food and nutrition security by amplifying dietary diversity e.g. promotion of Moringa oleifera for nutrition</p> <p>i) Support economic empowerment and income generating activities for the poorest, vulnerable HHs through specific value chain opportunities.</p> <p>ii) Map value chain opportunities for economic empowerment and income generation for women and youth to strengthen their agency e.g. through village saving schemes, capacity development, participation in farmer cooperatives, access to tailored credit facilities etc.</p> <p>iii) Leverage the Farm Estate model introduced by the government to advocate for increased land for farming particularly for the youth and poor women.</p> <p>iv) Promote SMART agronomy practices that can be compatible with the farming context in the North to increase quality and quantity of crops.</p> <p>v) Promote climate smart gardening technologies e.g. in enhancing micro and macro gardening; and for dry season agriculture/ irrigation farming including support for tube wells to facilitate all year production in the Fadamas, support to community nurseries for agro-forestry with carefully selected trees for enhanced environmental value, livestock fodder and human food; establishment or rehabilitation of large water infrastructure such as earth dams to support large scale irrigation.</p> <p>vi) Promote context appropriate post-harvest management practices including in processing, storage and preservation of value chain crops.</p> <p>vii) Support peace building initiatives targeting the youth and include conflict mitigation approaches targeting herders and farmers.</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	<p>Promote early recovery and resilience building approaches in the nutrition sector and other sectoral programs, targeted at MMC and Jere which host a number of out-of-camp IDPs, and other locations where IDPs have been, or will be resettled</p>	<p>i) Apply lessons learnt from previous projects like IFAD funded CASP, AFDB funded ATASP-1, World Bank funded Accelerating Nutrition Results project, WFP's Out of Conflict to Resilient Programme that targets complementary livelihood for people in crisis, UNHCR's Resilience Building Programme in Borno and similar others. ii) Apply the lessons learnt above to integrate resilience building approaches in VCN's strategic direction on creating sustainability of project interventions. iii) Identify scalable resilience building approaches compatible with VCN's mandate.</p>
<p>NORTH WEST NIGERIA</p>	<p>Scale-up existing humanitarian program for the prevention and treatment of malnutrition, such as strengthening Maternal Infant and Young Child Nutrition (MIYCN), Micronutrient Deficiency Control (MNDC) and Integrated Management of Acute Malnutrition (IMAM) services.</p>	<p>i) Promote malnutrition preventive approaches through tailored VCN nutrition activities targeting the most nutritionally vulnerable HHs. ii) Identify scalable malnutrition preventive approaches compatible with VCN's mandate and leverage existing actors for potential partnership building.</p>
	<p>Strengthen active case finding and referral of acutely malnourished children (severe and moderate) through house-to-house screening of children aged 0-59 months by Community Health Influencers, Promoters, and Services (CHIPS) agents and the scale-up of family-led Mid Upper Arm Circumference (MUAC) screening.</p>	<p>i) Utilize existing local knowledge by engaging the CHIPS agents during targeting for nutrition to identify nutritionally vulnerable HHs or groups to be supported through VCN project. ii) Leverage the existing CHIPS agents infrastructure to implement VCN's SBCC and Nutrition Education strategy.</p>
	<p>Increase access to basic amenities such as shelter, food, health, nutrition, WASH and protection services for displaced populations.</p>	<p>i) Where relevant to VCN's mandate, integrate displaced populations in targeting for small water infrastructure at community level as an entry point for soft WASH interventions. ii) Identify opportunities in the existing social protection services in the North and leverage them for social enterprise development by linking to value chain opportunities. iii) Develop context appropriate models for sustainability of interventions targeted at IDPs.</p>
	<p>Strengthen disease surveillance, emergency preparedness and response plans to aid in timely response, including the fall-out from the ongoing political crisis in Niger Republic.</p>	<p>i) Participate in multisectoral platforms that disseminate real time information related to disease outbreaks, emergency preparedness and response plans to inform timely development or adjustment of mitigation plans for VCN beneficiaries. ii) Assess opportunities to link VCN's ICT4D strategy to multisectoral ICT platforms for</p>

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
		real time access to crucial information to inform timely response.
	Scale up of social protection services such as the National Social Investment Program (NSIP), cash transfer, food distribution, and other income-generating activities to cushion the existing economic impact on food security and well-being at household levels.	<ul style="list-style-type: none"> i) Assess potential opportunities presented by the scale up of social protection services particularly the National Social Investment Program to link with relevant VCN's VC interventions. ii) Use the above activity as an entry point to develop a cushioning strategy for vulnerable HHs from the impacts of economic instability on food security and well-being.
	Scale up of food systems and large-scale agro-economic investment such as multi-seasonal farming (irrigation), access to improved seedlings (early maturing and drought resistant variety seedlings), fertilizers, homestead gardening and livestock rearing, school farms, and storage of farm produce to enhance food availability and accessibility.	<ul style="list-style-type: none"> i) Map out existing food systems and large scale agro-economic investments to inform synergy building with VCN interventions such as: ii) Build or strengthen large scale (for commercial level) and small scale (for subsistence level production) irrigation infrastructure. iii) Improving access to improved seedlings that combine early maturing and drought resistant properties. iv) Promote high nutrient fertilizers with restorative capabilities including promotion of organic fertilizers. v) Promote integrated homestead gardening including promotion of water efficient technologies such as cone gardens. vi) Support small livestock rearing targeting most vulnerable poor HHs/women. vii) Identify major actors in school farms and explore opportunities for partnership to promote nutrition in VCN through schools to reach a wider community. viii) Promote market-oriented nutrition interventions such as proper storage of farm produce, value addition and processing to enhance availability and accessibility of safe, nutritious foods throughout the year. ix) Provide support for storage facilities/ equipment and/or support for processing equipment as appropriate to enhance sustainability of food availability and access throughout the year.

Geopolitical zone	Recommendations from recent studies	Opportunities for VCN
	<p>Robust sensitization and awareness creation on food consumption, caring and feeding practices using contextualized Social Behavioral Change Communication (SBCC) materials to increase appropriate complementary feeding for children 6-23 months which will improve Minimum Dietary Diversity (MDD), Minimum Acceptable Diet (MAD), and Minimum Meal Frequency (MMF).</p>	<p>i) Conduct a desk review to synthesize evidence available on knowledge gaps, practices and attitudes affecting food consumption, caring and feeding practices. ii) Carry out a formative assessment to triangulate evidence generated in the above desk review and contextualize for VCN States. iii) Develop a comprehensive SBCC and nutrition education strategy to guide awareness creation on food consumption, caring and feeding practices targeting improvement in women's and adolescent girl's nutrition as well as those households with children under five years.</p>
	<p>Strengthen health systems to improve integration and delivery of quality routine services to the beneficiaries and sensitize communities through existing structures such as CHIPS agents and Ward Development Committees (WDCs) for improved access and uptake of these services.</p>	<p>i) Explore possibility of working with existing structures such as the CHIPS agents and Ward Development Committees (WDCs) for improved and access and uptake of VCN interventions. ii) Explore partnerships with existing structure to implement nutrition interventions on the demand side of the value chains, to promote GALs approaches and SBCC/NE activities.</p>
	<p>Improve access to potable water, sanitation and hygiene (WASH) facilities.</p>	<p>i) Prioritize support for motorized boreholes for home consumption and water provision for livestock at village level. ii) Provide support for harvesting and pumping of on-farm rain water harvesting ponds targeting households affected by water shortage for home consumption. iii) Harness on-farm rain water for watering backyard gardens by making provision for pumping. iv) Combine small water infrastructure interventions with soft WASH interventions e.g. SBCC education programme on water safety, good hygiene practices and proper sanitation. v) Advocate for zero open defecation policy formulation or review of similar existing policy including implementation of anti-open defecation policies.</p>
	<p>Put in place pragmatic measures such as price regulation to control inflation</p>	<p>Advocate for policy level interventions on price regulation to cushion VCN beneficiaries and FOs from inflation (address drivers of inflation affecting farmers e.g. high cost of inputs, dysfunctional market systems, poor food environments, etc.)</p>

LESSONS LEARNT FROM FORMER CLIMATE CHANGE ADAPTATION AND AGRIBUSINESS SUPPORT PROGRAM (CASP) IN THE SAVANNAH BELT OF NIGERIA.

This section documents lessons drawn from two sources: i) CIAT assessment of CASP & VCDP Projects through the strategic support on mainstreaming nutrition in IFAD's investments using Nutrition Sensitive Value Chain Approach (NSVC) ii) VCN design mission field visits to the former CASP States. It also includes recommendations from VCN wrap up meeting with stakeholders.

PART 1: Lessons from CIAT's assessment:

1. Improved income through sale of commodities does not necessarily lead to improved nutrition amongst households benefiting from the program. This is particularly relevant to gender and women empowerment as a mediator for nutrition impact. VCN will build on this fact to implement interventions related to improvement of nutrition at household level through the income pathway.
2. A previous study done by the Royal Tropical Institute (KIT) in 2017 on CASP value chains showed that the five value chains selected (cowpea, groundnut, soybean, millet and sorghum) could contribute at various degrees and through different pathways to improving nutrition as well as livelihoods for smallholders. VCN will define clear pathways to nutrition to build on contributions of CASP value chains to nutrition.
3. Promotion of production and consumption of the five crops could help improve and lay the foundations for a more nutritious local food system, and could also be used to promote women's empowerment and resilience in the face of climate change. Importantly, these crops also make business sense for smallholders and value chain development. VCN will integrate this learning to ensure selected value chains are nutrition sensitive and still make business sense for smallholder farmers.
4. Although nutrition training manuals were developed, the content was not effective as it was theoretical in approach. During VCN design field interactions with CASP beneficiaries, this challenge was evident as beneficiaries could not recall the tenets of nutrition training received thus hampering practice. VCN will aim to improve the approach on nutrition trainings to ensure they include simplicity in presentation, are practical given the vulnerabilities context in the North and integrate local scenarios to aid adoption of desired nutrition practices.
5. Although CASP was not nutrition sensitive at design, CASP MTR recommended that nutrition should be mainstreamed in the project. At the time, CASP did not have a nutrition specialist and relied heavily on outsourced support through consultancies. The recommendations by consultants were still difficult for CASP PCU to implement as they lacked a focal specialist on nutrition. VCN will provide nutrition specialists at the national and state levels for effective implementation and mainstreaming of nutrition activities.
6. People's nutrition and diet diversity can be enhanced through several entry points, including crop selection, farming practices, post-harvest handling, food environment improvements and nutrition awareness, based on the results of analysis of some staple VCs supported by VCDP (rice) and CASP (cowpea, groundnuts). VCN will promote these entry points.

PART 2: Lessons from VCN's Design Field Visits to Former CASP States:

7. Providing start-up packs for nutrition activities proved to be a valuable catalyst for positive change. These starter kits, tailored to specific needs like backyard gardening or poultry/small ruminants rearing, equip families with the resources and knowledge needed to improve their diets and generate income. The initial boost empowers communities to take ownership of their nutrition and build sustainable food systems for long-term well-being. VCN's nutrition approach will integrate start-up packs for nutrition.
8. Investing in women's economic empowerment and fostering male engagement emerged as powerful tools for reducing intrahousehold conflicts and strengthening

- families. When women have income and decision-making authority, they can ensure nutritious food for their children and invest in the family's well-being. Engaging men as partners in these efforts, encouraging their support for women's economic activities, and addressing traditional gender roles can break down harmful power dynamics and create a more harmonious household environment. VCN's will adopt a nutrition sensitive GALS approach to maximize nutrition impacts at HH level.
9. Targeting women directly with program interventions, providing backyard poultry for their families' consumption and income generation, and promoting small ruminant rearing should be a key focus of the new project. These initiatives empower women economically and improve household nutrition and food security. Labor-saving technologies like energy-saving stoves can empower women and improve time management. VCN's targeting strategy for nutrition will prioritize poor women.
 10. Targeted interventions for vulnerable groups are crucial. Targeting households with mothers of young children for complementary food for children, training on Infant and Young Child Nutrition (IYCN), and integrated home gardens rich in diverse, nutrient-dense foods will ensure healthy development for the next generation. Including nursing mothers and the most vulnerable families in small ruminant interventions, using the "pass on" model for sheep and goats, and focusing on egg-laying chickens will ensure equitable access to nutritious food and income opportunities. VCN's targeting strategy for nutrition will consider households with young children and adolescent girls.
 11. Sustainable agriculture approaches are essential for long-term success. Promoting short-season-early-maturing varieties, food trees like *Moringa oleifera*, backyard gardening, and organic farming with manure from integrated livestock rearing, will build resilience against environmental degradation and enhance food security. VCN will promote these approaches.
 12. Promoting diverse food sources is crucial. Targeting fish farming in suitable locations, horticulture crops relevant for nutrition, and fruit production and consumption will offer a wider range of essential nutrients for the community. Local production of soybean should be explored to enhance diet diversification. [However, VCN will not promote aquaculture activities since the water infrastructure developed under VCN is targeted at promoting irrigation.] But horticulture crops, fruits and soybeans will be promoted in line with context specific agronomic characteristics.
 13. Capacity building and education are vital components. Trainings and re-trainings with gender-differentiated approaches at both technical and village levels, combined with nutrition education, will empower communities to make informed choices about their food and health. VCN will promote these initiatives.
 14. Community support structures are also important. The project should consider opening community centers, modeled after existing UNICEF centers, or seek collaboration with existing centres, to provide mothers with essential support and resources. Targeting men to encourage their support for women's roles in feeding families will further strengthen the project's impact. VCN will assess possibilities of partnership with UNICEF and opening community centres for nutrition promotion.
 15. Supporting local processing with equipment like groundnut processing machines, improved storage and processing techniques to reduce post-harvest losses will add value to crops, generate income, and diversify food options. VCN will promote cottage industry development among targeted communities.
 16. Interventions such as water treatment initiatives, sanitation promotion strategies, capacity building for farmer groups can create a healthier and more prosperous future for these communities. VCN will promote relevant WASH and food safety interventions.

PART 3: Recommendations from stakeholder meeting during VCN wrap-up workshop:

The wrap-up stakeholder meeting highlighted the importance of promoting nutrient-dense crops, food safety, sustainable interventions, and livelihood opportunities for women as summarized below:

- I. **Prioritize Nutrient Dense & Biofortified Crops:** Incorporate biofortified crops into the VCN project to optimize nutrient intake for consumers while addressing deficiencies at the supply chain level. Promote nutrient-rich crops like Moringa, already present in the project areas, to further diversify and enrich diets.
- II. **Strengthen Food Safety & Value Chain Resilience:** Prioritize food safety throughout the value chain, including improved post-harvest management and addressing water safety and sanitation concerns identified in the North. Implement off-season interventions, including small ruminant rearing, to ensure sustainable access to nutritious food and income generation, especially for women.
- III. **Balance Value Chain Focus with Livelihood Opportunities:** Integrate small ruminant and poultry rearing into the VCN project design to the extent possible, considering its potential for both nutritional benefits and women's economic empowerment. Explore the potential of incorporating additional crops like Moringa oleifera, hibiscus, and jute, based on their local relevance and value chain compatibility.

Nutritionally vulnerable beneficiaries/groups: VCN will target the most nutritionally vulnerable groups along the selected value chains. As such, nutrition target groups will include children under five, adolescent girls and boys, pregnant and lactating women in addition to men and women involved in the selected staple, legume and horticulture value chains. A mix of nutrition pathways will be used to deliver the desired nutrition outcomes through defined intervention pillars as described in the sections below.

Targeting for nutrition in VCN: Nutrition targeting for VCN will follow the overall targeting approach for the project. Additional criteria for nutrition targeting will be as follows:

1. Direct targeting of Households with children under 5 years
2. Direct targeting households with women of reproductive age (15-49 years)
3. Direct targeting of adolescent girls
4. People with additional vulnerabilities such as persons living with disabilities, the elderly and IDPs.
5. The actual selection criteria for nutrition beneficiaries will consider prevalence of malnutrition (stunting levels and anaemia) per state to allow for more direct targeting of affected households where malnutrition levels are higher.

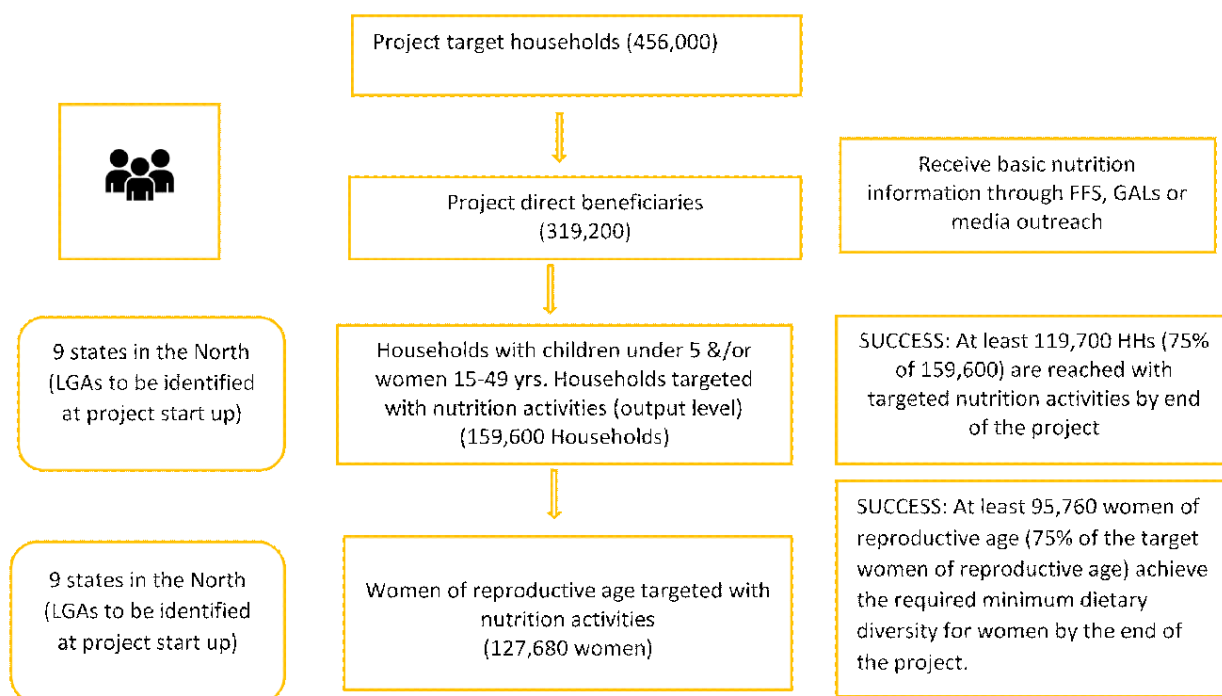


Figure 1: Targeting households and women for nutrition activities

Impact pathways and the contribution of VCN to nutrition:

Malnutrition stems from several food-based factors, including food availability, access, and diet quality. Improving diet quality requires addressing specific nutrient gaps and ensuring access to a diverse and high-quality diet. Traditionally, value chain development focuses on specific commodities, posing a challenge for addressing overall dietary needs. The VCN project aims to overcome this limitation through two key strategies: 1) Diversification: VCN will incorporate a range of commodities into its program, providing beneficiaries with access to a wider variety of nutritious foods and promoting dietary diversity; 2) Geographic scope: Covering nine states in the Northern region, VCN fosters the development of diverse value chains tailored to local contexts and food systems. This approach encourages the production, distribution, and consumption of a wider range of nutritious foods across the project area.

VCN recognizes the widespread nature of malnutrition in the Northern states and extends its impact beyond producer households. The project incorporates strategies to improve the nutrition of consumer households as well, focusing on: i) Affordability: VCN aims to make nutritious foods more affordable and accessible for consumers through various interventions; ii) Availability: The project will work to increase the availability of nutritious foods in local markets, ensuring wider access for consumers; iii) Demand stimulation: VCN will promote consumer awareness and demand for nutritious foods, creating a ripple effect that benefits both producers and consumers.

By implementing these strategies, VCN strives to reshape the entire food system, making nutritious foods more available, affordable, and desirable for all. This comprehensive approach strengthens the food system and contributes significantly to improved dietary outcomes across the project region. VCN aims to significantly improve the diets and nutrition of beneficiary households through a multi-pronged approach focused on three key pathways:

1. Own Production pathway: VCN will empower households to cultivate and consume more nutritious crops, increasing food security and income through potential surplus sales. This income can then be used to further diversify diets by purchasing additional nutritious options.

2. Income pathway: VCN will support income generation through various initiatives, enabling households to purchase a wider variety of nutritious foods and improve overall dietary quality.
3. Market pathway: VCN will work to strengthen market systems, ensuring consistent availability and affordability of nutritious options. This involves increasing efficiency in production, processing, and transportation to ultimately deliver greater food diversity and lower costs for everyone.

VCN's impact on nutrition will further be amplified by two crucial mediators: i) Women's empowerment: VCN will leverage existing GALS tools and create targeted initiatives to empower women, ultimately leading to improved nutrition within their households; ii) Nutrition awareness: VCN will launch comprehensive nutrition awareness campaigns, educating beneficiaries about the importance of healthy diets and equipping them with the knowledge to make informed choices.

This multi-layered approach, addressing both individual household capacity and broader market systems, will create a sustainable and lasting impact on the dietary habits and nutritional well-being of beneficiary communities in the targeted States.

The nutrition strategy of VCN is therefore 3 pronged and will seek to increase supply, add nutrition value and increase demand of nutritious foods. The figure below summarizes VCN's impact pathways to nutrition, the main target groups for each pathway and the mediators of impact. The main contribution of VCN to nutrition will occur through improvements in diet quality by increasing consumption of nutritious and safe foods, both on farm by producer households and off farm by consumers within the broader food system in which the value chains operates. The combination of the three approaches in the nutrition strategy of VCN will support changes in consumption of nutritious foods.

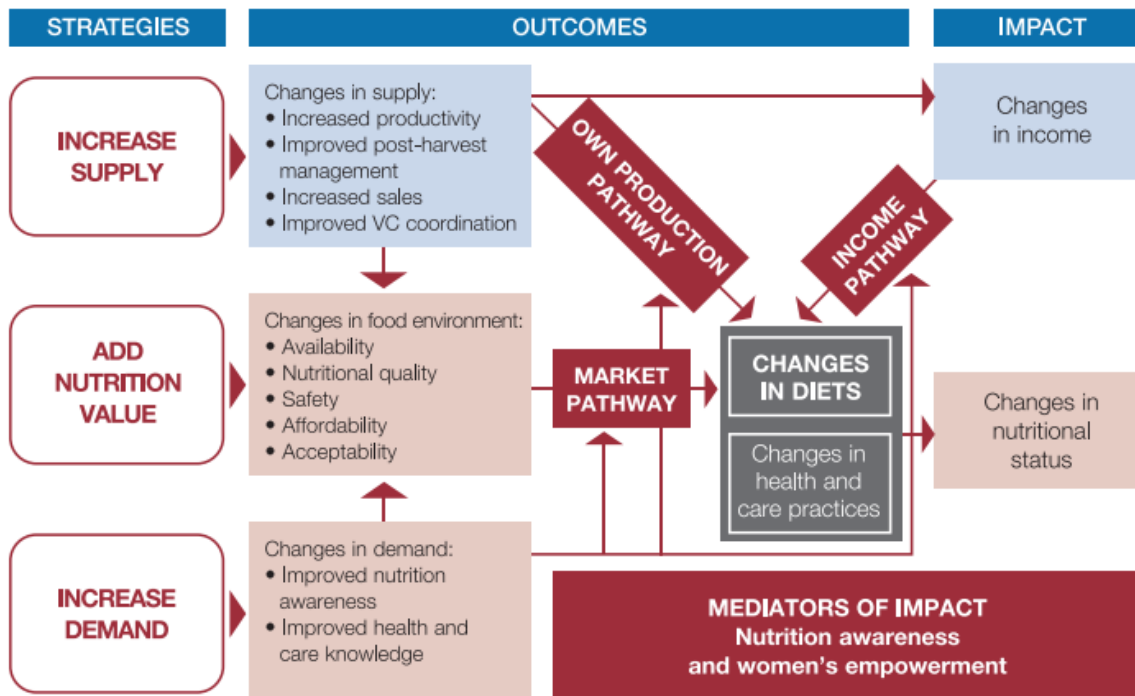


Figure 2: VCN's Agriculture to Nutrition Impact pathways and strategies

Adopted from: Nutrition sensitive value chains from a smallholder perspective- A framework for project design, 2018 by Isabel de la Pena et al

VCN's entry points for nutrition:

VCN's design has relied heavily on lessons learnt from CASP project. Being a nutrition sensitive project, VCN has applied a nutrition lens during design of technical components. This was done by identifying critical entry points which will provide the basis for mainstreaming. These include: a) Leveraging value chain opportunities to ensure diversified agricultural production of nutrient rich crops b) food environment improvements c) resilience building for sustainable nutrition security through integrated homestead production d) expanding markets for nutrient rich products and market access for vulnerable groups e) fostering climate resilient approaches f) gender sensitive nutrition education and social behaviour change mainstreaming across components h) policy engagements. This design proposes delivery mechanisms and partnership arrangements which will be validated at the project inception stage. Insights from the gender fragility study in the North will be used to inform VCN's Nutrition education/SBCC strategy. In order to triangulate nutrition nuances emanating from the fragility study, a nutrition formative study is proposed to inform geographical SBCC typologies for sustained impact.

Nutrition Mainstreaming through VCN technical components:

Component 1: Foster climate resilient and nutrition sensitive production:

This component aims at achieving two outcomes: (i) improved productivity, climate adaptive capacity and resilience of smallholder farmers (SHFs) farming systems in the target VCs; and (ii) improved diet quality and nutrition awareness of target rural HHs. The component consists of three subcomponents. Nutrition will be mainstreamed through subcomponent 1.2.

Subcomponent 1.2: Promote nutrition and gender awareness and practices: This subcomponent contributes to programme output 1.2.1: Increased targeted action to improve nutrition and diet diversity. Through this sub component, high impact interventions will be prioritized to improve diet quality and nutrition awareness of targeted rural households. Nutrition mainstreaming under this subcomponent will address production and consumption related constraints affecting supply and demand of nutritious foods. The activities under this sub-component include: (a) promotion of nutrition sensitive value chain crops; (b) gender sensitive social behavior change communication and nutrition education targeting awareness creation and knowledge transfer for nutrition at household, community and value chain levels; (c) promotion of context appropriate homestead food production including: (i) backyard gardens for nutrient rich vegetables and other foods in areas with adequate water, (ii) adoption of climate-resilient backyard gardening technologies in areas with water challenges and, (iii) support with starter packages for small livestock targeting very poor women; and (d) Promotion of market oriented nutrition sensitive approaches along value chains and among value chain actors (e) promotion of policy dialogue for nutrition at state and local levels. The key actors for this subcomponent are: Line government ministries relevant to nutrition (Ministry of Agriculture, Ministry of Health, Ministry of Budget and Economic Planning, etc), extension service providers (both government and private), partners operating in nutrition sector with presence in the North, and Farmer Organizations. The project will conduct a partner assessment at inception to identify other relevant implementing partners from among RBAs, INGOs and Local NGOs. Mainstreaming approach for each intervention is highlighted below:

- (a) **Promotion of nutrition sensitive value chain crops:** Under this intervention the VCN project will prioritize value chains with the highest nutrition advantage for each state coupled with commercial viability and at the same time meeting the rest of criteria set forth for selection of value chains. In the interest of ensuring dietary diversity, selection of value chain crops will take into consideration representation of crops from each category (staple crops, cash crops and horticulture crops). Through this intervention, nutrition will be mainstreamed throughout each value chain by articulating actions that enhance nutritive value at production, processing, marketing, distribution and consumption. These nutrition mainstreaming actions for specific value chains include: for supply side: i) Scale up improved high-yield varieties developed for different agro-ecological zones. This applies to commodities whose high -yield varieties already exist such as cowpeas; ii) Sensitize smallholder

producers to the dangers of unregulated chemicals when storing harvested produce; iii) Promote safe storage practices, such as use of PICS bags and improved hygiene; iv) Promote pest-resistant varieties to reduce loss; v) Explore the use of biofortified varieties as they are developed and released; vi) Introduction of an efficient, appropriate, and affordable drying technology to assist in drying commodities like groundnut, hence reducing/avoiding rancidity, contamination and nutrient leakage; vii) Promote processing methods that prevent discoloration, which is associated with nutrient loss for VCs like soybeans; viii) Promote labor-saving technologies for hulling and milling to free up women's time and reduce drudgery ix) Promote diversification of food production through integrated farming systems, incorporation of additional varieties, intercropping, agroecology, etc.; For demand side: i) Nutrition education and behaviour change communication on consumption and appropriate cooking methods to avoid nutrient loss ii) Develop products of different types -including blended formulations, targeting different consumers —e.g. children under five and women; iii) VC related cross cutting issues on WASH (water, sanitation and health) as well as gender and women empowerment through nutrition sensitive GALS trainings.

- (b) **Gender sensitive social behavior change communication and nutrition education:** Insights from the gender fragility study in the North will be used to inform VCN's Nutrition education/SBCC strategy. In order to triangulate nutrition nuances emanating from the fragility study, a nutrition formative study is proposed to inform geographical SBCC typologies that effectively address existing barriers to good nutrition for sustained impact. Through this intervention, VCN will support increased production efforts by creating adequate demand for more nutritious foods. This will involve awareness creation and knowledge transfer for nutrition at household, community and value chain levels. The intervention will focus on building demand for the selected commodities particularly in the targeted VCN states. Delivery of activities under this intervention will encompass various dimensions of consumption, such as food preparation methods and recipe development using VC commodities aimed at nutrient preservation and food safety promotion (to avoid contaminations that can lead to food poisoning). Given the important roles women play in household food preparation and care practices, they will be a major target group of this intervention, particularly those of reproductive age. Men and school children will also be targeted as consumers to strength VCN's efforts to improve household and community nutrition. To strengthen the role of gender dynamics at household level, nutrition sensitive GALS tools will be applied. Activities under this component will include: i) Conduct a nutrition formative study to validate findings of the gender fragility study and inform the context specific nutrition SBCC strategy for each targeted state ii) Targeted nutrition education for community's household members and communities; iii) Nutrition education for extension workers and integration of nutrition modules in Farmers Field Schools; iv) Cooking classes for nutrient retention and promotion of healthy diets; v) Collaboration with local media for breastfeeding, maternal and child care and supplementary feeding practices campaigns vi) Hygiene, health and Water, Sanitation and Hygiene (WASH) campaigns leveraging VCN's HH and community level small water infrastructures vii) Consumers' awareness campaigns viii) promotion of domestic labour reduction technologies targeting women
- (c) **Promotion of context appropriate homestead food production:** This intervention is aimed at increasing diversification efforts of household diets through additional production of nutritious foods particularly horticultural value chains for home consumption and income generation. This will be coupled with integration of small livestock to build nutrition resilience for nutrition through livelihood support. Activities under this intervention will include: (i) backyard gardens for nutrient rich vegetables, tubers, fruits and food trees in areas with adequate water, (ii) adoption of climate-resilient backyard gardening technologies (such as multi-storey cone gardens) in areas with water challenges but served by VCN's small water

infrastructure and, (iii) support with starter packages for small livestock (goats, sheep, local chickens) targeting very poor women.

- (d) **Promotion of market-oriented nutrition sensitive approaches along value chains and among value chain actors:** Through this intervention, VCN will provide linkages between smallholder's production and the market by leveraging food environment opportunities to amplify nutrition value from value chain commodities and surpluses from those foods produced for own consumption. VCN will explore value addition and processing activities for income generation under this intervention targeted at cottage to community level Small-scale Food Enterprises (SFEs) for various value chain commodities. These SFEs will produce a variety of food products high in nutritional value, that are low risk from a food safety standpoint. The VC commodities promoted by VCN will provide raw ingredients for these enterprises. VCN will develop Commodity Aggregation Centres for nutrition (N-CACs) to facilitate ease of supply to these enterprises. The N-CACs will include aggregation of subsidiary nutritious commodities promoted by VCN such as Moringa oleifera which will provide dried leaf powder that will serve as one of key ingredients in value chain products' development. Value added products from value chains will be traded in markets within communities and across states in the North.

Activities under this intervention will target the youth and women who will be empowered with basic business skills to run the enterprises. In addition, VCN will explore market linkages for nutritious commodities that present higher demand in the North such as the Tom Brown complementary food. Strategic opportunities from VCN's value chains relevant to Tom Brown complementary food will further be explored, particularly to link Farmer Organizations in respective value chains to already established market (at community level-food voucher kiosks, nutrition centres and organizational/institutional levels). Potentially, N-CACs will be capacity built to supply key ingredients to WFP for their locally promoted complementary food (Tom Brown) which relies on locally grown foods such as ground nuts, maize, sorghum, millet and soybean.

Through such linkages, formulations of high nutrition value composite blends, developed by SFEs using VCN's commodities, will be promoted and made available to local markets. Value addition and processing activities will address intrinsic and extrinsic factors affecting safety and quality of value chain products and as such prolong shelf life of nutritious commodities enhancing year-round availability. These food transformational approaches will in turn increase availability of nutritious food in the markets thus enabling smallholder households in the project areas to easily access foods (access also to be enhanced by VCN's interventions on market-feeder roads rehabilitation). This SFEs approach to value addition ensures efficiency of food processing by cutting down on high costs typical of foods manufactured in distant locations, thus promoting affordability of nutritious foods. Besides, since product development is informed by local context, the processed foods will be highly acceptable thus making them equally desirable hence galvanizing demand for nutritious and safe foods. Through targeted nutrition education and social behaviour change communication, VCN will amplify behavior change to ensure that increasing incomes as a result of increased economically viable VC activities, subsequently result in increased nutrition related consumption expenditure.

Activities under this intervention will include: i) promotion of post-harvest practices aimed to preserve and enhance nutrient quality of food produced at farm level and at aggregation centers; ii) Support with appropriate equipment/technologies and training to FOs/SFEs on cottage/community level processing for increased year round availability; iii) support for food safety, quality control, certification and implementation of hygienic standards for food preparation and commercialization iv) awareness creation on nutritious products/foods for consumption by HHs and social marketing to increase consumer's food and nutrition awareness; v) Support with public, private, and farmer organizations partnerships to increase market linkages with a focus on nutrition, for example targeting VC based food fortification,

and establishing institutional markets for nutritious food products including nutrient rich varieties;

- (e) **Promotion of policy dialogue for nutrition at state and local levels:** VCN will build on CASP's local institutions to promote the voice of FOs at policy level through fostering participation in nutrition fora and multisectoral platforms. Through the existing Community Development Associations (CDAs), VCN will support establishment of FOs Nutrition Dialogue Centres (FONDiCs) which will provide a platform for nutrition engagement at community level aimed at capacitating CDAs for greater participation in transformative nutrition activities sustainably. These activities will be captured in the Community Action Plans for ownership and resource allocation. Activities under this intervention will include: i) Establishment of FONDiCs in all targeted LGAs; ii) Support FOs to have a voice in nutrition fora at local and state levels; iii) Policy engagement and advocacy on food security and nutrition; iv) Promotion of policy dialogue for nutrition at state and local government levels; v) Support policy domestication at state and LGA levels contributing to improved nutrition.

Potential Implementing partners for Nutrition in VCN with proposed partnership arrangements

This section proposes delivery mechanisms and partnership arrangements which will be validated at the project inception stage. The owner of nutrition implementation in VCN is the Federal Ministry of Agriculture whose structure is replicated at state level through the State Ministry of Agriculture. Given the context of VCN, it is proposed that VCN will collaborate closely with the Ministry of Health to leverage synergistic opportunities arising from already existing nutrition centres and provide a basis for establishment of the proposed VCN farmer oriented nutrition centres (FONDiCs). The rationale for establishment of FONDiCs is that existing nutrition centres run by the ministry of health and funded by UNICEF are curative in nature while FONDiCs are envisioned to be preventive in nature. Both will be complementary in the sense of addressing the multi-layered causes of malnutrition which mirrors best practices in alignment with multi-sectoral approach for nutrition. VCN will also explore potential collaboration with the Ministry of Education to leverage market opportunities for nutritious foods through the school feeding programme. This will provide an additional market opportunity for the established SFEs who through the support of VCN will add value to VC commodities with targeted products for school feeding. In this regard, VCN will explore off take opportunities directly with MOE and/or indirectly with MOE School feeding programme partners.

An important partnership to consider is WFP. Given WFP's presence in the North and the nature of programmes already implemented (including specialized nutritious food provision to vulnerable women and children; and food assistance), VCN will explore market oriented opportunities with WFP to leverage their supply chain for nutritious food whether as raw food ingredients or processed products including the potential to collaborate on fortified VC foods such as rice and staple flours. From a value chain perspective, WFP has a focus on rice value chain aiming to improve the nutrient value of rice (by adding folic acid, B-complex vitamins, iron and zinc) through fortification during milling. They have recently carried out a VC analysis to inform the process. VCN should explore partnership with WFP on rice fortification targeting rice farmers in the northern states and the enterprise development opportunities for nutrition through VCN SFEs. In addition, WFP will be piloting a local complementary food popularly known as Tom Brown in 2024 whose ingredients align with VCN's target VCs (groundnuts, soybeans, maize, sorghum). VCN can leverage this opportunity through the Nutrition-Commodity Aggregation Centres (N-CACs) that will serve as business centres to link farmers with WFP commissioned off-takers.

Other potential partners proposed include: The Food and Agriculture Organization (FAO) particularly to explore market opportunities with Tom Brown complementary food interventions; ICRISAT for provision of biofortified varieties (with Iron and Zinc) of sorghum and millet; Heifer international on small ruminants: UNDP; World Bank; Research

institutions; relevant local and international Non-Governmental Organizations. The project will conduct a partner assessment at inception to identify relevant implementing partners from among RBAs, INGOs and Local NGOs.

Programme Coordination & Management related to Nutrition:

To ensure effective nutrition coordination and management, VCN will recruit one National Programme Coordination Office (NPCO) nutrition specialist and a nutrition specialist at each State Programme Coordination Office (SPCO) level. This is informed by the geographical scope of the project and in consideration of the fragility context. The nutrition team in VCN will be responsible for implementation of nutrition activities as guided by a national VCN nutrition strategy to be drawn by the NPCO nutritionist which will be contextualized at State level by the SPCO nutritionists. VCN has factored nutrition costs in the cost tabs to ensure seamless and timely implementation and monitoring of nutrition indicators.

Nutrition Monitoring and Evaluation/ Knowledge management: The Ministry of Agriculture, through VCN NPCO, is one of the institutions with key responsibilities working towards the achievement of nutrition outcomes in Nigeria and will provide logistical support and relevant staff to monitor, collect and analyze the routine nutrition outcome related data. To contribute to the strengthening of the dietary diversity and other national nutrition outcomes indicators, the Programme will engage with relevant partners with demonstrated capacity in analysis of nutrition outcomes, working specifically on food and nutrition evaluation assessments and related surveys. VCN design has factored in monitoring of nutrition-related outcomes as part of the overall M&E budget for sustainability of nutrition-related intervention.

Monitoring of nutrition COI indicator (CI 1.2.8) will be done during baseline, mid-line and endline through planned COI surveys. Nutrition output indicator 1.1.8 will be monitored annually through progress reports. VCN M&E and nutrition specialist will be recruited and trained on nutrition monitoring requirements to adequately support quality assurance during MDDW surveys and also ensure accuracy during annual progress monitoring. The Programme M&E system will factor in all the mandatory multipliers for respective outcome and output nutrition indicators. Nutrition knowledge generated through VCN interventions will be documented to capture good practices and lessons learned. These will be disseminated through context appropriate channels that may include fact sheets, reports, publications, meetings and workshops with subject relevant stakeholders. VCN will seek to establish knowledge sharing platforms at local and State levels.

APPENDICES

Appendix 1: Summary of nutrition mainstreaming through VCN components:

Component	Subcomponent	Activities
<p>Component 1: Foster climate-resilient and nutrition-sensitive production to be achieved through:</p>	<p>1.1 Promoting sustainable agricultural systems, improved technology and climate-resilient agricultural practices.</p>	<p>Promote food and feed tree planting to include moringa oleifera tree for vegetables and associated enterprises; and variety of fruit trees. Fodder trees with high nutrition value will be promoted targeted at households supported with small ruminants.</p> <p>Moringa is drought resistant, nitrogen fixing and fast growing hence will support nutrition while at the same time contributing environmental restoration.</p> <p>At the nexus of climate, nutrition and resilience building, Moringa will be an avenue for targeted communities to derive multiple benefits including soil fertility, diet diversification and incomes.</p> <p>Targeted communities will be supported to produce Moringa oleifera leaf, which will be harvested, dried and made available to HHs during the lean/dry season. Also, this will be used as an additional source of income for HHs or FOs who will be capacity built to convert surplus leaf into a nutrition supplement powder to be sold to the existing nutrition clinics or promoted to community members through CHIPS.</p> <p>Cooking demonstration on how to incorporate moringa into family diets will be done. Emphasis will be made on multiple ways of utilization of powdered moringa leaf to combat hidden hunger at household level and at the community nutrition centres. This is an approach to PREVENT rather than treat malnutrition.</p> <p>Farmer Organizations Nutrition Dialogue Centres (FONDiCs) will be established to provide an avenue for promoting moringa for nutrition leveraging the existing local networks of multisectoral actors and policy actors for nutrition. This will give our FOs voice in nutrition fora.</p> <p>Develop recipe book for moringa based recipes to encourage utilization by communities and as a tool for behaviour change.</p> <p>Promote Moringa leaf powder as a food based fortificant into locally made Tom Brown.</p>
	<p>1.2 Promoting nutrition awareness and practices</p>	<p>Promote social behaviour change communication and nutrition education to increase awareness of nutrition knowledge and good practices for nutrition at household level</p> <p>Promotion of context appropriate homestead food production including backyard gardens for nutrient rich vegetables and other foods in areas with adequate water.</p> <p>Promote adoption of climate resilient backyard gardening technologies in areas with water challenges hence enhance water smart technologies for backyard gardens.</p> <p>Support with starter packages for small livestock targeting very poor women</p> <p>Conduct targeted nutrition demos and trainings at household level and through VCs farmer field schools</p>

Component	Subcomponent	Activities
		Integrate nutrition in the delivery of GALS to empower women to make decisions for nutrition and enable them to access and control resources for enhanced household nutrition
	1.3: Promoting an enabling Policy and institutional framework	Policy engagement and advocacy on food security and nutrition. Promotion of policy dialogue for nutrition at state and local government levels. Support policy domestication at state and LGA levels contributing to improved nutrition. Support FOs to have a voice in nutrition fora at local and state levels
Component 2: Enhance profitable inclusion of target groups in VCs through:	2.1: Improving post-harvest and value addition	Promotion of market-oriented nutrition sensitive approaches along value chains and among value chain actors including: Promotion of nutrition sensitive value chains with a focus on nutrient rich varieties; Promotion of nutrient retention approaches such as through fortification; Promotion of post –harvest practices aimed to preserve and enhance nutrient quality of the food produced; Support with appropriate equipment or technologies and training to farmers for safe home storage and food preservation for increased shelf-life; Provision of equipment and training to farmers on home processing for increased year-round availability; Promotion of appropriate food safety, quality control, certification (packaging/ labelling) initiatives and implementation of hygienic standards for food preparation and commercialization.
Component 3: Programme Coordination & Management		Nutrition officers recruited at National and State levels to oversee implementation of nutrition strategy. Nutrition to be factored adequately in the cost tabs Monitoring of nutrition indicators to be factored at baseline, midline and end-line for core outcome indicators; regular monitoring through Project M&E system

Appendix 2: Examples of climate resilient backyard gardening technologies - 1



Appendix 3: Examples of climate resilient backyard gardening technologies- 2



Annex 13.6: Technical Note: FARMERS’ ORGANIZATIONS, RURAL INSTITUTIONS AND POLICY & INSTITUTIONAL DEVELOPMENT SUPPORT

INTRODUCTION

The Value Chains North Programme is conceived as a follow-up phase of the CASP⁵⁸ program completed in 2021. Hence it will target the same northern area of Nigeria and expand to an additional state of Kano⁵⁹. AFD will be the co-financing agency.

The overall goal of VCN is to contribute sustainably to poverty reduction, enhanced nutrition, and better resilience of rural populations in the northern states of Nigeria.

The Development Objective is to improve food and nutrition security and income of households in northern Nigeria through inclusive and sustainable value chain development as an enabler for rural transformation.

The expected Outcomes are the following:

- Improved productivity, climate adaptive capacity, and resilience.
- Improved diet quality and nutrition awareness,
- Improved post-harvest handling, value addition, and access to markets,
- Improved entrepreneurship and self-employment opportunities
- Improved policy and institutional framework.

SUMMARY OF COMPONENTS, OUTCOMES, AND ACTIVITIES

Component/ Subcomponent	Outcome	Activities
1. Foster climate-resilient & nutrition-sensitive production		
1.1 Promoting sustainable agric. systems improved technology & climate-resilient practices	Improved productivity, climate-adaptive capacity & resilience of SHFs farming systems	Development of small irrigation; provision of quality climate-resilient seeds, organic fertilizers, GAPs/ water-smart practices
1.2 Promoting nutrition & gender awareness & practices	Improved diet quality & nutrition awareness	Nutrition education/Social Behavioral Change, intercropping for diversity, promotion of bio-fortified varieties, cooking demos
1.3 Promoting social cohesion and an enabling policy, and institutional framework	Improved policy & institutional framework for poverty reduction, food and nutrition security & gender equality	Strengthen territorial dialogue spaces, Facilitate inclusive processes to identify policy/regulation issues affecting the target VCs, Support to enhanced extension services, Support for nutrition, gender & youth orientation, Support platforms for interaction among VC actors and conflict resolution, strengthen voice of women/youth, institutional strengthening of FOs & other key actors

⁵⁸ Climate Change Adaptation and Agribusiness Support Programme in the Savannah Belt covered Kebbi, Sokoto, Zamfara, Katsina, Jigawa, Yobe and Borno states

⁵⁹ included to provide market opportunities

Component/ Subcomponent	Outcome	Activities
2. Enhance inclusive & profitable value chains for target groups		
2.1 Improving post-harvest, value addition, market linkages and partnerships with VC actors	Improved post-harvest handling, value addition & access to the market in the target value chains	Market infrastructure (storage/processing, sheds, last mile roads), Nutrition-sensitive VC (nutrient retention, avoidance of contamination), packaging, labelling, certification
	Professional partnerships/linkage and professionalization of the actors are developed and consolidated. Youth and women are trained and supported with business packages for entrepreneurship..	Replication & and scaling up of CAF platform, facilitate market access for VCN graduates with Babban Gona
2.2 Promoting entrepreneurship for women and youth	Entrepreneurship opportunities	Training & business start-up support
2.3 Improving access to finance & scale access to digital financing	Feeds into the two outcomes	Financial literacy training, link with FIs, ICT4D/digital products to facilitate access to financial services
3. Programme Coordination & Management		
3.1 Programme management	Effective and efficient support of program implementation	Programme coordination
		Monitoring and evaluation (M&E) & Knowledge management (KM)
		Financial management

FOs AND RURAL INSTITUTIONS: LESSONS LEARNED FROM PREVIOUS FGN/IFAD's INTERVENTIONS THAT WILL BE USEFUL FOR THE DESIGN AND IMPLEMENTATION OF THE VCN.

1. Lessons from the completed Original Value Chain Development Programme (VCDP)

The completed original VCDP has engendered the following key changes in rural institutions development and FOs strengthening in targeted States.

(a) Agricultural development

- The most salient achievement in this area is: (i) government's buy-into VCDP's inclusive, private sector driven value chain approach to developing the smallholder agriculture sector; (ii) mobilization of state government support to VCDP land development initiative in all states; (iii) establishment of cooperative registration office in States' ministry of agriculture for better proximity to farmers

(b) Policy engagement strategy

- Strategy focusing on influencing government action in the following areas among others: (i) defining norms and standards for produce quality, packaging, weights and measures and formulating guidelines for enforcing/controlling the standards; (ii) developing a rural regulatory framework that will address the abuse (especially produce diversion) of farmers/off-takers agreement; (iii) engaging the key actors to improve the business environment for investors in terms of security of investment and market enhancement; (iv) strengthening the framework for the establishment and operational scope of CAFs' states; and (v) adoption of land development as one of the key functions of the government

to improve access to agricultural land by Smallholder farmers, including women and youth.

2. Lessons from the ongoing VCDP AF (for which a MTR has been done).

- Strategic Partnerships built by VCDP with key stakeholders, namely the private sector, through the 4Ps model (CAFs), alongside VCDP's quick gain approach, are pivotal and significantly elucidate the achievements in the value chains development across the beneficiaries States.
- The significant contribution of VCDP is Nigeria's strategic objective of food security. VCDP is also a finance model aiming at transforming Nigeria's food systems.
- Area of improvement

Reporting.

Significant achievements in the field are unfortunately not adequately documented in the implementation reports. There are things you cannot count that need to be acknowledged and communicated effectively. VCDP should move beyond the routine log frame-oriented reporting and emphasize the processes and qualitative transformational dynamics taking place on the field. Technical notes be appended to the report will provide a piece of useful information and lessons for knowledge sharing.

3. Lessons from CASP, captured in the PCR

- CASP succeeded to establish two principal institutions - the community development association (CDA) composed from the leadership of farmer groups, and the financial services association (FSA), to channel financial resources to the rural people and promote a savings culture among the community. CASP was envisioned to scale up the foundation of community cohesion and voice built by the CDAs and the FSAs to entrench a culture of agribusiness, and to take advantage of emerging market opportunities.
- CASP promotion of women only groups and awareness-raising through GALS methodology has contributed substantially to women economic empowerment as evidenced by the performance of women rice processors in Enugu or women cassava processors in Niger State.

QUICK ASSESSMENT BY QUESTIONNAIRES OF FARMERS ORGANIZATIONS AND RURAL INSTITUTIONS FOR VCN DESIGN IN SOKOTO, KEBBI, ZAMFARA.

As part of my participation in the design of VCN as expert in charge of Farmers organizations, rural institutions, Policy and Institutional Development Support, a rapid questionnaire⁶⁰ survey was conducted alongside discussions with key stakeholders during my mission to Sokoto, Kebbi and Zamfara states from December 02 to 10, 2023. The survey aimed at deepening understanding of challenges faced by smallholder farmers and FOs in accessing markets and agricultural value-added opportunities. The purpose of this technical note is to outline the findings of the survey, the aspirations and expectations of smallholder farmers and members of rural institutions which are critical for the design of VCN.

Methodology

Sampling and data collection

- A quick survey was conducted in Sokoto and Kebbi, targeting members of fifteen associations bringing together 241 smallholder farmers, including 102 women.

⁶⁰ The questionnaires are appended to this note.

According to these farmers, 47.3% of their associations or production groups are very effective and 52.6% are somehow effective.

- All the smallholder farmers are part of the 1612 N-agripreneurs trained and supervised by CASP. They are also part of the 315 CDAs established in the states of Sokoto (121), Kebbi (97) and Zamfara (97).
- They are also part of the 132 FSAs in the three states. Sokoto State (36 of which 21 are linked to microfinance institutions), Kebbi State (39 of which 18 are linked to microfinance institutions), and Zamfara State (57 of which 26 are linked to microfinance institutions).

Key Informant Interviews were conducted during meetings with purposively selected respondents who were persons considered critical stakeholders who had appreciable knowledge on CASP and the value chain development dynamics. While it's true that time constraints prevented us from diving deeper into our survey, it's equally true that the judicious choice of respondents and their mastery of the issues involved in the inclusive and sustainable development of agricultural value chains in Northern Nigeria enabled us to identify the major trends and challenges.

PRELIMINARY RESULTS OF GROUP DISCUSSIONS WITH STAKEHOLDERS

1. Discussions with stakeholders of Sokoto – Kebbi & Zamfara.

Key challenges	Interventions recommended
<ul style="list-style-type: none"> • Access to financial resources for poor & vulnerable groups (women – youth – PWDs – IDPs etc.) • Climate change • Nutritional challenges • Access to land for women, youth, Pwds • Poor mechanization of agricultural practices. • Poor Access to agricultural inputs • Youth unemployment <ul style="list-style-type: none"> • Fragility & conflict. 	<ul style="list-style-type: none"> ▪ Involving the community head in the profiling and mapping process to ascertain identity, field location, and farmland size before registration. ▪ Using Private-Public extension services for GAP training. ▪ Promoting Community nutritional centers and partnership with UNICEF – Gain - NI. ▪ Promoting gender transformative approach and financial inclusion of rural poor. ▪ Promoting State Agency and sustainability funds for VCN's achievements. ▪ Deploying climate-resilient seeds & weather predicting gadgets in collaboration with Nimet. ▪ Provisioning organic fertilizers and other agricultural inputs. ▪ Involving youth in VC activities such as seed production enterprises, mechanization, transport, insurance coverage risk, ITC4D. ▪ Promoting peace & strengthening conflict resolution mechanism

ANALYSIS OF THE SHF'S RESPONSES TO THE QUESTIONNAIRES

DEMOGRAPHICS

Age: 50% of respondents fall within the 40-49 age group, indicating a relatively mature population. Around 28% are in the 50-59 age range, reflecting a significant portion of middle-aged individuals. The 30-39 age group constitutes 11%, and the 60 and above category also makes up 11%.

Gender: This gender distribution indicates a predominantly male representation, constituting 78%, while females make up 22% of the respondents.

Years of Farming Experience: This distribution suggests a diverse range of farming experience, with a notable portion (33%) having 30 years or more of engagement.

CURRENT INVOLVEMENT IN FARMER ORGANIZATIONS

Membership of Smallholder Farmer Organization: In the study, 83.3% are members of smallholder farmer organizations while 16.7% are not.

Management Team of Smallholder Organizations: About 16.67% of groups are all-female, indicating a focus on women's leadership. In 33.33% of cases, women constitute the majority, showcasing a commitment to gender diversity. Additionally, 22.22% maintain a balanced representation with an equal distribution of male and female members. In 27.78% of instances, the majority of the team is male, suggesting a potential area for improvement in gender inclusivity. This overview reflects a varied approach to team composition, with different levels of emphasis on gender diversity within the management structures.

PERCEPTION OF EFFECTIVENESS OF POs/FOs AND ENTERPRISES BY THEIR MEMBERS

Services to Members of Organization: 52.6% of respondent described the effectiveness of services to members of smallholder organization as somewhat effective whereas 47.3 as very effective.

Challenges of Farmer Organizations: Financial challenges, including insufficient funds, financial problems, and a lack of financial support, collectively account for 28.13%. Issues related to farming activities, inadequate funds, and knowledge gaps on modern farming techniques contribute 15.63%. Insecurity, poor road networking, and economic challenges make up 18.75%. The need for inputs, farm equipment, and efficient training constitute 15.63%, while concerns about sustainability, orientation, and member contributions collectively represent 9.38%. Overall, financial constraints, insecurity, and knowledge gaps emerge as prominent challenges, indicating a need for comprehensive support in these areas.

INTEGRATION IN THE VALUE CHAIN: ACCESS TO RESOURCES

Access to Arable Farmlands: In this study, 94.7% of respondents have access to arable farmlands whereas 5.3% do not.

Government Initiatives Supporting Rural Farmers: 78.9% are aware of government programs or initiatives supporting smallholder farmers in their area while the remaining 21% are not aware.

Access to Agricultural Inputs: 73.6% are aware of obstacles in accessing agricultural inputs (seeds, fertilizers, etc.) while 26.3% are not aware.

MARKETING AND INCOME

Marketing Agricultural Produce: Local markets are a common avenue, with 11.11% utilizing this method. Challenges such as lack of access roads and water facilities prompt 5.56% to sell locally. Open markets, both traditional and recent off-taking, contribute 11.12%. Direct approaches, including taking produce to markets or selling directly, are reported by 11.11%. Middlemen play a role for 5.56%, while 5.56% opt for nearby markets. Advertising, both through traditional methods and media, is utilized by 11.11%. Engaging with agents or brochures, as well as selling directly from the farm, each represent 5.56%.

Off-takers and Price Challenges: Predominant issues, each at 14.29%, encompass a lack of water facilities, poor access roads, climate/natural concerns, insufficient market information, and difficulty finding off-takers, especially in saturated markets. Additional challenges, each at 7.14%, involve open market prices exceeding off-taker prices, absence of off-takers, low pricing compared to local markets, off-taker prices being too low with issues related to loan repayment in kind, transportation challenges, scarcity of off-takers, lack of customers, hoarding of goods, and off-takers setting prices through their union.

Average Annual Farming Income: The analysis of average annual income from farming reveals a diverse distribution among respondents. A notable percentage (11.11%) reports an income of ₦500,000, while another 11.11% fall within the range of ₦100,000. The bracket of ₦2 million and above per annum is also represented by 5.56% of respondents.

TRAINING AND SUPPORT

Training Support: Out of the 19 respondents for this study, 95 received training or support related to farming practices in the past while the remaining 5% did not.

Training Support Received: Farmers field school training holds the highest percentage at 15.38%, indicating a significant focus on this form of capacity building. Other forms of support include agricultural input support and capacity building on agricultural production, each representing 7.69%. Various specific trainings, such as FFBS establishment, animal traction, tube well, water pump, and power tiller training, among others, are reported by 3.85% each.

Additional Trainings to Benefit Smallholder Farmers: Approximately 7.69% of respondents expressed the need for farming production support, such as fertilizer, certified seeds, and skills acquisition training on modern farming techniques. Additionally, 3.85% highlighted the importance of training in processing commodity marketing, post-harvest handling, and processing. Other identified needs include government support with loans or grants, value chain knowledge, effective resource management, agro-chemical use, and post-harvest management, each representing 3.85%. A subset of respondents (7.69%) emphasized the desire for more training on farming and financial support.

Extension Skills for Farmer Organization: The most notable areas of interest include weather information management (14.29%), followed by various topics such as training on irrigation farming, financial management, computer appreciation/ICT, improved production techniques, irrigation water efficiency, malaria prevention during the rainy season, support for farmers with training and facilities, good agricultural practices, improvement of new agricultural skills and marketing strategies, post-harvest losses, constant training, rural development, modernized skills, effective agricultural practices through improved technologies, and modern farming methods, each representing 7.14%.

DESIRED IMPROVEMENTS

Improvements in Existing Smallholder Farmers: The improvements desired in existing smallholder farmer organizations include implementing all activities related to farming, transforming smallholder farmers into large holders through knowledge and equipment, achieving high yields for increased investment, and experiencing economic improvement with higher returns. Additionally, desires include group cohesion, increased support from organizations like IFAD, regular training and retraining, agricultural research linkages, extension visits, enhanced input support from government and donors, and the direct funding of smallholder organizations for subsidized agricultural inputs. The aspiration is for smallholder farmers to grow into

large-scale operations, supported by modern facilities, resulting in high-yield products and income.

Strategies for Revitalizing Smallholder Farmers: To revitalize inactive farmer organizations, a comprehensive strategy is essential. This includes involvement in new farming activities, provision of adequate farm implements and improved seeds, financial support through linkages and training, programs like IFAD and NIRSAL, inter and intra-visit for knowledge sharing, training and retraining, regular training, financial support, additional and timely support, government assistance with equipment, effective resource utilization, assistance with farming tools, enlightenment, encouragement, and incentives, support with improved input at the right time, engagement through improved technology, and community mobilization.

SUPPORT AND SERVICES

Support to Smallholder Farmers: Smallholder farmer organizations should provide diverse support, including improved seeds, modern farming technology, training, and grants. They play a crucial role as intermediaries for sensitization, training, and communal responsibilities. Supporting members in farming activities, offering grants, loans, input packages, capacity building, and financial access are vital. Ensuring member involvement, linkages for better production, and regular meetings are essential.

External Strengthening Support to Smallholder Farmers: External entities such as government agencies or NGOs can support smallholder farmer organizations by providing diverse assistance, including capacity building, financial sourcing, constructing accessible structures, fostering linkages, and offering social amenities. Additionally, support in capacity building, provision of adequate farming resources, and guidance on resource management, as well as supplying required goods to improve farming systems, promoting cooperation among members, and facilitating training, sensitization, and input support, are crucial for enhancing productivity and sustainability.

FUTURE NEEDS AND RECOMMENDATIONS

Needs for Strengthening Smallholder Farmers: The most pressing needs for strengthening smallholder farmers in Northern Nigeria include a significant emphasis on addressing the lack of access to agricultural finance through a combination of training programs and soft loans, with a notable call for government and NGO support. Additionally, the need for modern agricultural techniques and skills development is underscored, along with collaboration with research institutions to improve seeds and mechanization knowledge. Security concerns, proper funding, and awareness creation are also identified as crucial, along with the importance of occasional training, affordable financing, and the involvement of local figures in the loan process.

Government/Organizations Improving Smallholder Farmers: The recommendations emphasize the need for comprehensive rural development, with priorities on providing affordable agricultural financing, modern production techniques, improved seeds, and extension services, alongside promoting conflict resolution awareness and ensuring effective government intervention and support. Additionally, there is a call for intensive security measures coupled with financial support, including proper funding linkages, agricultural program emphasis, and improved funding and disbursement mechanisms. The recommendations also stress the importance of training on modern facilities, enhancing security through capital and modernized tools, and addressing government funding and disbursement improvements, including affordable storage facilities and provision of funds and equipment to meet farmers' needs.

CURRENT STATUS OF FARMERS' ORGANIZATIONS (FOS) AND RURAL INSTITUTIONS OF SOKOTO – KEBBI & ZAMFARA ACCORDING TO RESPONDENTS.

A quick survey was carried out with fifteen associations bringing together 241 smallholder farmers, including 102 women. According to these farmers, 47.3% of their associations or production groups are very effective and 52.6% are somehow effective.

The tables below summarize the results of our quick survey by questionnaire, field consultations with stakeholders in the development of rural institutions as well as the recommendations made.

DEMOGRAPHY

Gender	18-25	26-35	36-45	46-55	56 & above	Occupation	No formal education	Pri. Sch	Sec. sch	Voc./Tech . training	Higher Edu. (specify)
F				✓		Farming			✓		
M			✓			Civil servant					Diploma
M		✓				Processing and marketing			✓		
F				✓		Civil servant					B.AD Islamic Studies
F				✓		Civil servant					B.Sc
F			✓			Poultry farmer			✓		
F		✓				Farming	✓				
M		✓				Rice processing			✓		
M				✓		Farming		✓			
M			✓			Rice production					NCE
M					✓	Civil servant					University
M				✓		Farming		✓			
F	✓					Farming and marketing			✓		
M					✓	Civil servant			✓		B.Sc Sociology

COMMUNITY AND INSTITUTIONAL DEVELOPMENT

Community	How long have you been living in the community?	Are you a member or do you belong to the management team of any local institution or organization in the community	If yes, pls specify the name and nature of the organization in the community	What are the major challenges faced by the local institutions in your community	Are you a member or do you belong to the management team of any of the following local institution development and supported by CASP in the past
Magajin Gari CDA Sokoto North LGA	At birth	Yes	Kungiyar Mata Manoma Shiyar M/Gari	Non-inclusion and dominance by men and capacity building	CDA
Wajake	20 years	Yes	Rice Farmers Association	Poor infrastructure facility such as light, poor road, irrigation	FSA
Rara/Rarah	At birth	Yes	Wheat processing association (Dibila) processing and marketing	Bandit and poor processing centres	FSA
Wajake Gidan Boka	50 years	Yes	Millet Farmers Association	No electricity enough and bad roads	
Gagi	40 years	No			
Danchadi/Bodinga	45 years	Yes	Danchadi Development Association	Lack of modern farming techniques	CDA
Gambuuta village area	35 years	Yes		Funds and awareness creation	CDA
Labara village area	35 years	Yes	Lambara Rice Processing Association	Processing materials	CDA
G/Boka, Wajakke	Above 50 years	Yes	Wajakke Community Development Association	Technical know-how on modern farming techniques	CDA
Riji/Riji	Since birth	Yes	Farmer, Rice and Millet	Lack of security and inputs	CDA
Dandin Mahe	58 years	Yes	Community Development Association	Underemployment, out of school children	CDA
Wajake	50 years	Yes	Wajake Community Development Association	Finance and capacity building on grouped community management	CDA
Gandi	25 years	Yes		Money and autonomy to execute activities	CDA
Saida village area	58 years	Yes		Lack of funds	FSA and CDA

INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING

In your opinion, how can the capacity of local institutions to which you belong be improved to better serve the community	Are there existing programs for members of your institutions and for your community	If yes, pls describe the nature of these training program
All inclusive fair play and capacity building through trainings, workshops etc	Yes	Training onbook keeping at CDA, on maintenance and nutrition
By empowering the community through financial, human and natural resources	Yes	Training on planting of improved rice farming and also how to reduce lost of product due to pest/birds' infestation
By providing and adequate money to CDAs decentralization and support to smallholders' organizations	Yes	FSA management and funds disbursement
Assisting the community with capitals	No	
By training and retraining of the community members	No	
To provide them with farming support	Yes	Mobilization and sensitization Awareness creation
Involvement of women in decision making process	No	
Effective sensitization. Training	No	
Training and retraining of farmers on how to engage in mechanized farming	Yes	Sensitization on how to keep records Knowledge on how to plant economic trees
By giving adequate money to CDAs direct funding and support to smallholder organization	Yes	CDA management and fund disbursement
Awareness creation	No	
Give them adequate training on capacity building on management of human resources, community resources and linkages with financial institution for easy farming	Yes	Mobilization on:i) training on village and community projection and participation ii) training on record keeping
By direct disbursement of money to CDA and FSA	Yes	FSA management skills and disbursement
Regulate members i.e. farmers in getting loans and training on their activities	No	

COMMUNITY PARTICIPATION AND EMPOWERMENT

How can community members be more actively involved in the decision-making processes of your local institution	What role do you think women and youth can play in strengthening your institutions and other rural institutions	Are there specific strategies that can enhance the participation of youth and women in local institutions
Through participatory approach and recent approach of GALS	By delegating responsibilities to each category of people including women and youth in the community	Inclusion in decision making, enterprises, support women and youths' activities and seed capital support
By sensitization on the benefit to derive by contributing to the decision making	By being self-employed and being educated	i) Training; ii) encouraging the girl's child education
Direct funding of FSA and CDAs and local leaders' inclusiveness	Very active in farming and processing	By providing soft loan to them through FSA/CDAs and ensure usage and starter packs for processing associations
Through mobilization	By educating them	Allowing women/girls to participate in school
	By giving them or involving them in all activities of the community	Through skills development
Through community participatory approach and community driving approach	To participate fully in decision making processes	Imparting knowledge and skill to the farmers
Awareness creation Improvement support	Reasonable percentage of women should be involved in decision making. Awareness creation by women in the group	Involvement of traditional leaders in awareness creation. Support improvement programme to women as a priority
By attending regular meetings and involvement in every aspect of group activities with no bias	By giving them specific roles in the group so as to carry them along	Women should be given 30% and youth 30% in membership composition
Through mobilization and sensitization. Awareness creation to participate fully in all the activities	Participate fully in decision making processes Involve all members to participate actively	Impart knowledge and skills to all categories of members of the community
Direct funding of FSA and CDAs and local leaders inclusiveness	Very effective in farming and marketing	By providing soft loan to them through FSA/CDAs and ensure usage and starter packs for processing association
Capacity building	Capacity strengthening and inclusiveness	No.
Through participatory approach	Assign responsibilities of management members to support the development communities	Engage women and youth in various entrepreneurship development or establishment. Support women and youth with productive skills
By direct funding of CDAs and FSA and involvement of local leaders	Activity participation and ensure involvement in all programme	To fund FSA and CDA directly and provide adequate supervision of funds allocated
Through reinforcement of members to their activities and regular meetings	60% involvement in all aspects of decision-making processes	Giving them special training with regards to their field

RESOURCES AND INFRASTRUCTURE

What are the main resources (financial, human, natural) available for your institutions in your community	Are there any infrastructure challenges hindering the effective functioning of your institutions
There are both human and natural resources with little or no finance to harness them	There is infrastructure deficit in all ramification including security
Human – availability of the villages who are ready to work/farm. Natural – the abundance of land which requires little manure	i) Storage facilities; ii) lack of capital; iii) poor irrigation
Human and natural resources are available and poverty is increasing	Poor transportation and network facilities
Human for those that needs to farm in their community	Yes. Lack of storage facilities
Human and natural resources	Lack of facilities and access roads
Human and natural resources	Yes. Office base
Human and natural resources	Provision of offline structure and administrative facilities
Bot human and natural resources are available in the community but lack of adequate financial resources	Poor access to roads, lack of health facilities, no portable water and lack of market stall etc.
Human and natural resources are available and poverty is increasing	Poor transportation and network facilities
Human and natural	Financial
There is availability of human and natural resources	There are challenges of poor road network, market and health facilities. Challenges of insecurity
Natural and human resources are available but limited or lack of financial supports	Poor roads from farm to villages and poor processing centers or inadequate centers
Human and natural resources	Yes

SUGGESTIONS AND RECOMMENDATIONS

Bases on your experience, what recommendations do you have for improving and strengthening rural institutions in Northern Nigeria	Are there successful examples of institutional development in nearby communities that can serve as models
Women and youth empowerment; identify and support genuine enterprises and develop institutions responsible for development	
i) Sensitization; ii) provision of roads/power supply; iii) modernized farming tools; iv) provision of boreholes	Yes. YARLABE
By giving them autonomy and ensuring utilization	Yes. Rabah CDA and FSA
Sensitization and provision of roads	Yes. Gidan Boka
i) Through giving the community members the opportunity decision making ii) Through training	No
Empowering youth and women	
Broader and regular sensitization. Linkages to financial institutions, donors and government agencies	
Involvement of women and youth to a 60%. Government support and other donors. Sensitization and training	
Empower women and other vulnerable groups in the society. Provide micro credit and skills acquisition programmes	
By giving them autonomy and ensure utilization	Yes. Rabah CDA and FSA
Awareness creation, engagement and participatory rural approach	No.
i) Women empowerment should be accorded priority. ii) Community mobilization ad support iii) Provision of micro credit to women and youth enterprises	
After giving training, there should be starter packs or soft loan for start up	Very limited but Rabah FSA and Yartsakuwa are models
Linkages to financial institutions Wider mobilization for acceptability of the institutions	

ANALYSIS OF THE RESPONSES OF SHFs, CDA's AND FSA's MANAGEMENT TEAMS TO THE QUESTIONNAIRES

Demography

Gender: Females (F) account for 42% of the study and Males (M) make up the remaining 58% of the study.

Occupation: Farming and Civil servants are the most common occupations, each representing approximately one-third (33.33%) of the study. Specialized roles such as Processing and Marketing, Poultry farming, Rice Processing, Rice Production, and Farming and Marketing each make up around 6.67% of the study.

Educational Qualification: The educational qualifications are diverse, with B.Sc being the most common, making up 16.67% of the study. Other qualifications such as Higher Education (Specify), Diploma, B.AD Islamic Studies, NCE, University, and B.Sc Sociology each represent 8.33% of the study.

COMMUNITY AND INSTITUTIONAL DEVELOPMENT

Duration of Living in the Communities:The majority of individuals (35.71%) have been living in the community since birth. Residents with durations of 30 years, 40 years, and 50 years each make up significant portions of the study, with 14.29% each. Those with 20 years and above 50 years of residence constitute 7.14% each.

Membership of Community Organization:The majority of individuals (86.67%) are members or belong to the management team of a local institution or organization in the community. A smaller portion (13.33%) answered "No" to being a member or belonging to the management team.

Major Challenges of Local Institutions: Challenges are diverse, covering issues related to gender dynamics, infrastructure, fragility and security, farming techniques, funds, and community management. The most frequently mentioned challenges include poor infrastructure facilities, funds, fragility/security and awareness creation.

Membership of Organizations Supported by CASP: The majority of individuals (91.67%) are members or belong to the management team of CDA, which has been developed and supported by CASP. There is one instance (8.33%) where individuals are associated with both FSA and CDA.

INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING

Fragility and insecurity in northern Nigeria is a complex and interconnected issue. The answers recorded in the questionnaires under challenges and opportunities heading highlight three major challenges faced by agripreneurs in this part of the country: (a) climatic challenges; (b) security challenges; and (c) socio-cultural challenges. Under the future needs and recommendations, the responses also highlight a number of mitigation measures proposed by respondents.

- 1. Climatic Fragility.** Changes in climate patterns, including increased temperatures and irregular rainfall, Insufficient water resources are factors contributing to desertification, land degradation and exacerbating agricultural challenges as well as contributing to conflicts over access to water and grazing lands.
In terms of recommendations, SHFs/agripreneurs suggest improving and strengthening farming practices that are adaptable to changing climate conditions, water management strategies and irrigation systems, planting of trees to combat desertification and reduce the impact of climate change, establishing effective mechanisms for resolving inter-community and farmers-herders conflicts and grievances.
- 2. Security fragility: Insurgency and terrorism.** Groups like Boko Haram have caused widespread insecurity, leading to displacement and economic disruption. In addition, deep-seated ethnic and religious divisions contribute to conflict and violence.
In terms of recommendations, SHFs/agripreneurs suggest strengthening security measures to combat insurgent groups; fostering dialogue between different ethnic and religious groups to promote understanding and unity; address root causes of terrorism by investing in education and creating economic opportunities to reduce recruitment into extremist groups.
- 3. Cultural and gender fragility,** the causes of which are to be found in discriminatory social norms and women's exclusion from decision-making and voice; women's and youth's difficult access to land and control over productive assets, such as land, credit, inputs, machineries and technology.
In terms of recommendations, respondents suggest Supporting women's organizations and networks that advocate for women's rights and participation in political and economic spheres. Enhancing women's access to and control over productive assets, such as land, credit, inputs, machineries and technology.

Capacity Improvement of Local Institutions: The suggestions cover a diverse range of strategies, including capacity building, financial empowerment, support to local institutions, and training initiatives. The most common theme is providing adequate money to CDAs and supporting smallholder organizations, which represents 17.65% of the responses.

COMMUNITY PARTICIPATION AND EMPOWERMENT

Involvement of Community Members in Decision-making: In this study 20% of participants suggested participatory approaches and Gender Action Learning System (GALS), 15% on sensitizing members about the benefits, 20% on direct funding for FSA and CDAs with local leaders' inclusiveness, 15% on mobilization efforts, 10% on community-driven approaches, 10% on awareness creation, and smaller allocations for improvement support, regular meeting attendance, capacity building, and member reinforcement.

Role of Women and Youth in Strengthening Local Institutions: Delegating responsibilities to women and youth, promoting self-employment and education, and ensuring active engagement in farming and decision-making (60%) enhances institutional strength. A reasonable percentage of women in decision-making fosters inclusivity, supported by awareness creation and specific roles. Their effectiveness extends to farming, marketing, and capacity building, creating a comprehensive approach for holistic rural institution growth.

Strategies to Enhance Participation of Women and Youth in Local Institutions: 20% of responders were for decision-making inclusion and seed capital, 10% for girls' education, and 15% for soft loans through FSA/CDAs. An additional 5% of allocations cover school participation, skills development, traditional leader involvement, and improvement programs for women. Also, 5% each for 30% membership allocation, knowledge impartation, entrepreneurship engagement, and specialized training. The final 5% addresses direct funding of FSA and CDA with supervision, completing a comprehensive approach for increased participation.

RESOURCES AND INFRASTRUCTURE

Resources for Local Institutions: Human and natural resources are the primary assets in the community, with varying financial constraints. Approximately 25% of respondents emphasize the abundance of land requiring minimal manure for farming. Another 25% highlight the availability of villagers ready to work or farm. However, financial constraints hinder resource utilization in 30% of cases, leading to an increase in poverty. Despite this, 20% of respondents note the existence of both human and natural resources in the community. In a few instances, about 10%, limited financial support poses a challenge to tapping into available natural and human resources.

Infrastructure Challenges in Local Institutions: Infrastructure challenges are prevalent, with respondents highlighting various issues. Approximately 20% mention a deficit in all infrastructure aspects, including security. Storage facilities, capital, and irrigation pose challenges for 20% of participants. Poor transportation and network facilities hinder 20% of respondents. Lack of storage facilities is reported by 10%, while inadequate facilities and access roads affect another 10%. A few (10%) mention challenges related to office space. Offline structure and administrative facilities are indicated by 10%. Poor access to roads, health facilities, water, and market stalls affects 10%. Financial infrastructure challenges are noted by 10%, and specific issues like poor roads, inadequate processing centers, and insecurity are highlighted by 20% of respondents.

WAY FORWARD WITH THE VCN

- The lack of social cohesion between production groups is coming up in the response of smallholder farmers. According to the respondents, this is affecting their annual income and savings.

- Most of the production groups formed based on mutual trust between members are doing well. This is the case of a few groups that existed and was functional before CASP. Their average annual income is substantial and the level of their saving is growing at the FSA, enabling them to make regular loan disbursements for their productive activities.
- According to the Development Exchange Center (DEC), a CASP's strategic partner in providing support to CDAs, FSAs and CAFs as well as granting loans, the following rural institutions across the three states will play a key role in the implementation process of the VCN.
 - 65 FSAs across Sokoto, Kebbi, and Zamfara are functional and could serve as driving forces for the promotion of financial inclusion.
 - 315 CDAs are functional across the three States and could as well serve as driving forces for the promotion of the community driven development planning.
 - CAFs need to be strengthened in the 315 functional CDAs as they were set up towards the end of CASP.

POLICY AND INSTITUTIONAL SUPPORT UNDER SUBCOMPONENT 1.3 OF VCN.

The objective of this sub-component is to advocate for supportive policies at the local, State and national levels that promote sustainable agriculture and value chain development. It is also to empower local communities to take ownership of their development by involving them in decision-making processes. Under this component, VCN will (i) support the development of enabling policies and regulatory frameworks for agricultural Value chain, (ii) facilitate local policy dialogue for conducive and inclusive market linkages, (iii) strengthen quality control, grading and standardization systems, (iv) Establish and strengthen conflict management mechanisms. The expected outcomes of sub-component 1.3 are (i) Improved policy & institutional framework for poverty reduction, food, and nutrition security & gender equality; (ii) Dialogue spaces supported at the territorial level; (iii) Rural producers Organizations strengthened in their governance, management, and inclusivity.

Activities under sub-component 1.3 include:

- Support to development of policy, legislation and regulation enabling business environment and incentives to support private sector investments in the VCN;
- Investment promotion, branding and marketing of the VCN;
- Policy and regulatory reform to improve smallholder farmers, women and youth access to land, finance and quality technical and material inputs;
- Facilitate local policy dialogue for conducive and inclusive market linkages (support to the setup/ institutionalization of the CAF contributing to an enabling local policy and investment environment that ensures that target group can benefit from the opportunities created by the VCN. Policy dialogue at CAF level will aim to bring out key policy and regulatory issues affecting the activities and businesses of the direct beneficiaries of VCN investments. This may involve specific studies. CAF and its members will be capacitated in advocacy for an improved business environment for VCN target groups. Building on the policy dialogue facilitated through the CAFs, VCN will develop with FMAFS a policy guidance note to provide an environment conducive of market linkages with off-takers, creating opportunities for vulnerable smallholders and small VC actors to increase incomes and employment.
- Strengthen quality control, grading and standardization systems: The program will support the establishment of quality control, grading and standardization systems, which are a precondition for credible and transparent markets, and smallholders' participation in them. It will also facilitate collaboration among relevant state and local regulatory authorities with statutory roles and responsibilities in establishing and enforcing agricultural commodity quality norms, grades, and standards.
- Establish and strengthen conflict management mechanisms: VCN will support mechanisms to compensate farmers and processing centres for conflict related damages. The program will develop an action plan to support conflict resolution in

the participating LGAs, which will be validated by the CAF. The action plan will be based on lessons learned from VCDP

- develop insurance products for states to allocate a specific budget to offset losses arising from conflict– and on best practices in the field of violence prevention in Nigeria such as: i) community-level conflict management and resolution, and ii) the use of Information, Communication, and Technology (ICT). CAF will be supported to provide dedicated services to members in conflict mitigation measures especially as it affects farmers/herders.

VCN will also Strengthen territorial dialogue spaces; Facilitate inclusive processes to identify policy/regulation issues affecting the target VCs; support enhancement of extension service; strengthen the voice of women/youth, ensure the institutional strengthening of FOs and other key actors; support platforms for interaction among actors aiming at finding solutions to problems affecting VC.

A. Phasing of sub-component 1.3 activities

Promoting an enabling policy and institutional framework for agricultural value chain development requires ongoing commitment, adaptability, and collaboration among all stakeholders involved. Key phases include:

1. Assessment and analysis of the existing policies related to agricultural value chain development in fragile as well as insecure beneficiary States of VCN.
2. Stakeholder Engagement: (i) involve key stakeholders, including farmers, processors, government agencies, NGOs, and private sector players; gather input from these stakeholders to understand their needs, challenges, and aspirations within the agricultural value chain.
3. Policy Development: (i) develop policies that support the entire agricultural value chain, from production to marketing and addressing issues such as farmers/herders conflict, access to credit, market infrastructure, land tenure, and incentive measure for technology adoption; (ii) ensure that policies are flexible enough to accommodate the diverse needs of different value chains and States.
4. Legal and Regulatory Framework (i) develop and enforce a supportive legal and regulatory framework; (ii) revise existing laws or create relevant new ones to address fragility, insecurity and other emerging challenges and opportunities in the agricultural value chain development.
5. Promotion and Communication: (i) develop a communication strategy to raise awareness about the benefits of the new policies and institutional changes; (ii) engage in advocacy efforts to gain support from various stakeholders.

B. Implementing mechanism and partners

Development of a supportive policy and institutional framework for agricultural value chains in Northern involve engaging the following implementing mechanism with key stakeholders:

Policy Advocacy and Formulation:

- Key Mechanism: Establish a robust policy advocacy platform that brings together representatives from government agencies, research institutions, farmer associations, and the private sector. This platform should advocate for the development and implementation of supportive policies for agricultural value chains.
- Key partners: (i) MDAs, beneficiary States to ensure that policies are aligned with their development; (ii) agricultural research institutions to provide evidence-based insights and recommendations for policy formulation; (iii) farmer organizations to work closely with production groups to incorporate the perspectives of smallholder farmers, women and youth into policy discussions and ensure that policies meet their needs; (iv) NGOs and development agencies with experience in agricultural training and capacity building; (v) private sector; (vi) financial institutions;

(vii) trade associations Work to strengthen market connections and advocate for the interests of agricultural businesses in regional and national markets.

C. Exit strategy

The following exit strategy aims at building local capacity, ensure ownership, and create a sustainable ecosystem for value chain development in Northern Nigeria.

1. Policy and Institutional Development:
 - Work closely with government agencies to develop and implement supportive policies.
 - Strengthen existing institutions and establish new ones if necessary
2. Local Ownership:
 - Gradually transition project ownership to local institutions and communities.
 - Ensure that local stakeholders are actively involved in decision-making processes.
3. Exit Plan:
 - Develop a phased exit plan outlining the gradual withdrawal of external support.
 - Ensure that local institutions have the capacity to sustain the initiatives independently.
4. Documentation and Reporting:
 - Document the entire process, challenges faced, and lessons learned.
 - Share this information with relevant stakeholders and the wider development community.
5. Advocacy and Policy Influence:
 - Continue to advocate for supportive policies at the regional and national levels.
 - Use success stories and evidence from the project to influence broader policy changes.

D. Main risks and mitigation

Policy and regulatory framework issues, social cohesion issues and weak institutional capacity pose the following significant risks to effective achievement of sustainable poverty reduction and resilience of rural population in Northern States of Nigeria.

1. Social isolation and discrimination:
 - Risk: Individuals or groups may feel discriminated, leading to social exclusion who hinders the cohesiveness of a community.
 - Mitigation: promote policy and regulatory framework fostering inclusivity, creating spaces for open dialogue, addressing concerns and building connections.
2. Economic Disparities:
 - Risk: Economic inequality can contribute to social fragmentation, as vulnerable groups (youth, women, PWDs, IDPs) may feel marginalized or disadvantaged.
 - Mitigation: Implement VCN programs and promote policy that create opportunities for all community members, support initiatives that address poverty, unemployment, and provide access to education and skills training.
3. Political Instability & insecurity:
 - Risk: Political instability at the local level can contribute to social unrest and division.
 - Mitigation: Promote transparent and inclusive governance policy, enhancing civic participation, empowering community members to have a voice in decision-making processes and fostering a sense of civic responsibility.
4. Cultural barriers and Social Exclusion
 - Risk: Cultural barriers may contribute to gender inequality and social exclusion within the community, fostering stereotypes and prejudice.
 - Mitigation Measures:
 - Promote inclusivity and gender transformative approach through GALS methodology. Encourage events and activities that celebrate diversity and inclusion, fostering a sense of belonging for all community members.
 - Diverse representation: Ensure that decision-making bodies and community leadership reflect the diversity of the population, preventing the marginalization of specific groups.
5. Limited Access to Services and Opportunities:

- Risk: Cultural barriers and social exclusion may result in certain community members facing obstacles in accessing essential resources, services, educational opportunities, or employment.
- Mitigation Measures: promote enabling environment policy ensuring that resources and opportunities are distributed equitably among different cultural groups, addressing disparities and promoting equal access to benefits.

INSTITUTIONAL STRATEGY AND OUTCOME

The institutional strategy for the development of an agricultural Value chain in Northern Nigeria include:

1. Stakeholder engagement consisting of:
 - Identifying and engaging key stakeholders, including farmers, government agencies, NGOs, private sector entities, and research institutions.
 - Facilitating collaboration and partnerships to enhance the select value chains.
2. Capacity building which consists of:
 - Investing in training programs for farmers, extension workers, and other stakeholders to improve agricultural practices, technology adoption, and business skills.
 - Establishing farmer cooperatives and provide support for collective action.
3. Infrastructure development which consists of:
 - Improving transportation, storage, and processing facilities to reduce post-harvest losses and enhance the overall efficiency of the value chain.
 - Investing in irrigation systems and water management to mitigate the impact of climate variability.
4. Market access, consisting of
 - Developing and implementing market-driven strategies to ensure farmers have access to local, regional, and international markets.
 - Facilitating the establishment of market linkages between farmers and buyers through the CAFs 4Ps model.
5. Technology adoption consisting of
 - Promoting the adoption of Good Agricultural technologies practices, including improved seeds, precision farming, and mechanization.
 - Supporting research and development initiatives focused on addressing region-specific challenges.
6. Policy advocacy consisting of
 - Advocating for policies that support agricultural development, including land tenure reform, access to credit, and incentives for private sector investments.
 - Engaging with government agencies to create an enabling environment for sustainable agriculture.

Outcomes: the outcomes of the institutional strategy are the following:

1. Increased productivity: adoption of modern farming practices and technologies leads to increased agricultural productivity.
2. Income generation: improved market access and better value chain integration contribute to increased income for smallholder farmers and other stakeholders.
3. Employment opportunities: expansion of agricultural value chains creates employment opportunities along the entire value chain, from production to processing and marketing.
4. Food security: enhanced productivity and market access contribute to improved food security at both household and regional levels.
5. Sustainable practices: implementation of sustainable agricultural practices helps preserve the environment and ensures the long-term viability of the agricultural sector.
6. Social development: capacity building and community engagement contribute to social development by empowering local communities and improving their overall well-being.
7. Private sector Investments: creation of a conducive business environment attracts private sector investments, fostering economic growth in the region.

8. Resilience to climate change: implementation of climate-smart practices and infrastructure development enhances the resilience of the agricultural sector to climate change impacts.

APPENDIX 1: Questionnaires for assessing SHFs, FOs and Rural Institutions.

Field Survey Questionnaire for Assessing & Strengthening Smallholder Farmers (VCN)

Thank you for participating in this survey.

1: Demographics

Name (Optional):

Age:

Gender:

Location (Village/LGA):

Number of years engaged in farming:

2: Current Involvement in Farmer Organizations:

- a. Are you currently a member of any smallholder farmer organization in your community? (Yes/No)
- b. If yes, please provide the name of the organization and your role within it:
- c. Do you belong to any of the following production groups/FOs and activities developed and supported by CASP in the past? If yes tick the group to which you belong:
 1. Production group/FO? Specify the group/Organization, the community and the LGA
 2. Enterprises? Specify the community and the LGA
 3. Market warehouse? Specify the community and the LGA
 4. Processing centers? Specify the community and the LGA
 5. Input shops? Specify the community and the LGA
 6. Post-harvest handling processing centers? Specify the community and the LGA
 7. Others? specify
- d. How many people make up the management team of your group or activities? How many women? How many young people?

3: Perception of effectiveness of POs/FOs and enterprises by their members:

- a. How would you describe the effectiveness of services to members of your organization, groups, and enterprises in your community? In your LGA? At your State level?

(Very Effective, Somewhat Effective, Not Effective)

- b. What challenges do you think the group to which you belong are currently facing?

4: Integration in the value chain: Access to Resources

- a. Do you have access to arable land for farming?

Yes

No

- b. Are you aware of government programs or initiatives supporting smallholder farmers in your area?

Yes

No

- c. Are there any obstacles in accessing agricultural inputs (seeds, fertilizers, etc.)?

Yes

No

5: Marketing and Income

- a. How do you market your agricultural produce?
- b. Are there challenges in getting off-takers and fair prices for your products? Please explain.
- c. What is your average annual income from farming?

6: Training and Support

- a. Have you received any training or support related to farming practices in the past?

Yes

No

- b. If yes, what kind of training or support have you received?
- c. What additional training or support do you think would benefit you as a smallholder farmer?
- d. What topics or skills do you believe should be covered in extension programs for these organizations?

7: Desired Improvements:

- a. What improvements would you like to see in existing smallholder farmer organizations?
- b. Are there specific strategies you think would help in revitalizing inactive farmer organizations?

8: Support and Services:

- a. In your opinion, what types of support and services should smallholder farmer organizations provide to their members?
- b. How can external entities like government agencies or NGOs support the strengthening of these organizations?

9: Challenges and Opportunities:

- a. What are the main challenges faced by smallholder farmer organizations in your community?
 - b. Are there specific opportunities that could enhance the effectiveness of these organizations?

10: Future Needs and Recommendations

- a. What do you believe are the most pressing needs for strengthening smallholder farmers in Northern Nigeria?
- b. Do you have any recommendations for the government or organizations to improve the livelihoods of smallholder farmers in your region?

11: Additional Comments

Please feel free to provide any additional comments or suggestions that you think are important.

Field Survey Questionnaire for Assessing Developing & Strengthening Rural Institutions (VCN)

Introduction:

Thank you for participating in this survey. Your responses will contribute valuable insights to the development and strengthening of rural institutions in Northern Nigeria. Please answer the following questions to the best of your knowledge and experience.

1: Demographic Information

- a. Name of Respondent (Optional): _____
b. Gender:

Male Female

- c. Age:

18-25

26-35

36-45

46-55

56 and above

- d. Occupation: _____
e. Educational Background:

No formal education

Primary school

Secondary school

Vocational/Technical training

Higher education (please specify) _____

2: Community and Institutional Information

- a. Name of the Village/Community: _____
b. How long have you been living in this community? _____
c. Are you a member or do you belong to the management team of any local institution or organization in the community?

Yes

No

- d. If yes, please specify the name and nature of the institution: _____
e. What are the major challenges faced by the local institutions in your community?
f. Are you a member or do you belong to the management team of any of the following local institutions developed and supported by CASP in the past? If yes tick the group to which you belong:
1. CAF
2. CDA
3. FSA

3: Institutional Development and Capacity Building

- a. In your opinion, how can the capacity of local institutions to which you belong be improved to better serve the community?
b. Are there existing training programs for members of your institutions and for your community?

Yes

No

- c. If yes, please describe the nature of these training programs.

4: Community Participation and Empowerment

- a. How can community members be more actively involved in the decision-making processes of your local institutions?

- b. What role do you think women and youth can play in strengthening your institutions and other rural institutions?
- c. Are there specific strategies that can enhance the participation of youth and women in local institutions?

5: Resources and Infrastructure

- a. What are the main resources (financial, human, natural) available for your institutions in your community?
- b. Are there any infrastructure challenges hindering the effective functioning of your institutions?

6: Suggestions and Recommendations

- a. Based on your experience, what recommendations do you have for improving and strengthening rural institutions in Northern Nigeria?
- b. Are there successful examples of institutional development in nearby communities that can serve as models?

Annex 13.7: Technical Note : VALUE CHAIN INFRASTRUCTURE

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Acronyms and Abbreviations

BoQs	Bills of Quantities
CASP	Climate Change Adaptation and Agribusiness Support Programme
CN	Concept Note
COSOP	Country Strategic Opportunities Programme
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FGN	Federal Government of Nigeria
FOs	Farmer Organisations
Ha	Hectare
IFAD	International Fund for Agriculture Development
IWUOs	Irrigation Water User Organisation
Km	Kilometer(s)
LGA	Local Government Areas
LGCs	Local Government Councils
MMC	Market Management Committee
MOU	Memorandum of Understanding
m ²	Square Meters
M ³	Cubic Meters
NBC	Nigerian National Building Code 2006
NPMU	National Project Management Unit
O&M	Operation and Maintenance
PWD	People With Disabilities
RMCs	Road Maintenance Committees(s)
VCN	Value Chain Northern Nigeria Programme
SECAP	Social, Environmental and Climate Assessment Procedures
SP	Service Provider
SPMU	State Project Management Unit
SVCIO	State Value Chain Infrastructure officer
USD	United States Dollars
UO	User Organization
VC	Value Chain
VCDP	Value Chain Development Programme
WUOs	Water User Organisation

Background

1. The Federal Republic of Nigeria and IFAD are currently in operation under the Country Strategic Opportunities Programme (COSOP) 2016-2023. The COSOP has the objectives of supporting smallholders, small processors and traders to derive wealth from tapping into the national food market through an integrated value chain approach; and, to foster the economic empowerment of rural youth and women along agricultural value chain. Towards meeting the two objectives, the COSOP has been implementing, among others the Climate Change Adaptation and Agribusiness Support Programme (CASP) and the Value Chain Development Programme (VCDP). The CASP has been implemented in the North of the Country and is now complete and closed while the VCDP has been implemented in Anambra, Benue, Ebonyi, Niger, Ogun and Taraba states. While CASP has demonstrated favourable results in climate resilience, it was short in value chain activities support. VCDP, on the hand, has been strong in the value chain activities especially the post harvest value chains while not being as strong on resilience support. This design draws lessons from the two Projects and other projects, among them being the French Development Agency (AFD) supported Rural Access and Agricultural Marketing Project (RAAMP).
2. The infrastructural development implemented under CASP, VCDP and RAAMP has been shown to have improved livelihoods and stimulated business engagements between farmers and the private sector. Roads constructed through the projects have remarkably reduced post-harvest losses and improved connection to markets and processing centres. The Value Chain North (VCN), therefore, will learn from these projects and build on the results and lessons therefrom, particularly the two projects CASP and VCDP. Thus, the design will be drawing a lot from the success in production and climate resilience for dry areas demonstrated in CASP and RAAMP while at the same time leveraging on the successes of VCDP on value chain infrastructure.

Rationale

3. The VCN is to be implemented in Northern Nigeria where poverty levels are among the highest in the country. Key among the causes of the poverty is that the people are lacking in many of the necessary inputs for profitable production. For instance, while the population lives in region where climate change, including extreme weather events is normal, the greater majority of households are reported to be engaging in rainfed agricultural activities. They lack production infrastructure including irrigation water and other production inputs such as quality seeds, extension services, and so on. Additional to that is that they are using poor natural resource management practices, and have limited access to post harvest value chain infrastructure which results in high post harvest losses.
4. The VCN is, therefore, aimed at supporting value chain infrastructure with a view to redressing these critical infrastructure constraints that limit smallholder farmers' ability for production, productivity and access to market. This will be achieved through the provision of irrigation facilities to reduce reliance on unpredictable rains; provide on-farm climate resilient soil & water management technologies as well as support to floods and erosion control. The Project will also address post-harvest challenges through the rehabilitation/construction of last mile access roads, support market infrastructures such as market stalls, infrastructure for aggregation/bulking of produce, as well as infrastructure for local grading and processing. Another key intervention will be to equip the farmers with the skills and knowledge to sustainably operate and maintain the infrastructure.
5. The value chain infrastructure will be implemented through a participatory approach whereby smallholder farmers will be supported to form Farmer Organizations (FO) for each of the target value chains. The FOs will then be supported with a flexible package of interventions proposed in the infrastructure sub-component of the Project. The interventions, as observed above, are aimed at responding to the main

needs of the target groups as identified and assessed during project appraisal process, the mission field visits, as well as lessons learnt from projects cited above. The proposed mix of infrastructure is an indicative package which can be further adjusted and refined during the implementation. However, any adjustments/refinements would require the concurrence of Project steering committee and IFAD. It would also be based on actual field experience but without compromising the basic principles of equitable distribution of resources, participatory principles, smallholder focus, efficient use of available resources and sustainability.

Proposed Investments

6. The Project will fund irrigation infrastructure under sub-components 1.1 which will enable farmers engage in year-round production; and, supporting infrastructure under sub-component 2.1 which to address infrastructure-related constraints such as storage and processing facilities, market sheds and last mile roads. This will be achieved through investments in climate resilient value chain infrastructure as summarized in Table 1 below. A brief description of the activities that will be undertaken for the different categories of infrastructure follow the summary.

Table 1: Summary of Value Chain Infrastructure

Infrastructure Category	Unit	Unit cost (USD)	Budget Allocation (USD)	No of Unit
Small Scale Irrigation Systems				
Tube wells for irrigation with solar pumps	No.	500	2,372,000	4,744
Wash bore wells for irrigation with solar pumps	No.	400	592,800	1,482
Construction/Rehabilitation of small earth dams with solar irrigation pumps	No.	5000	1,785,000	357
On-farm lined ponds for supplemental irrigation	No.	2000	1,066,000	533
Small flood control works	No.	200	106,800	534
Post harvest and Value addition Infrastructure				
Studies/assessments, designs & supervision	item		1,150,000	
Facility Users capacity building for O&M	item		460,000	
Market stalls	No.	45,000	3,600,000	80
Aggregation/bulking centers	No	50,000	5,000,000	100
Agro Processing facilities constructed or rehabilitated with solar powered bore hole for human consumption and sanitation services	No	65,000	2,405,000	37
Rehabilitation of last mile rural roads				
Project implemented access roads	Km	25,000	5,725,000	229
Community implemented access roads	Km	10,000	1,720,000	172
Drainage infrastructure including water storage ponds, culverts, drifts etc.	No.	7,000	3,108,000	444

7. Selection of the infrastructure categories that will be supported will be with of consultations with a wide range of stakeholders, including the government, both federal and State, local communities, market players such as traders and processors.

The selection is also informed from experience and lessons gained from the IFAD portfolio as well as from other development projects. The selection and the numbers of the different categories of infrastructure, however, should not be considered as prescriptive. The States can adjust the numbers depending on their needs and priorities. Such adjustments would mean that output numbers may differ, although it is not expected to differ radically.

Sub-Component 1.1 Development of Irrigation Systems

8. Irrigation: In addition to the improved rainfed production, the VCN will also support irrigation infrastructure. The provision of irrigation water has the objective of providing water for irrigation to enable all year production where the water sources are sufficient or supplemental irrigation where the water may not be enough for all year irrigation. A key criterion in selection of where the irrigation infrastructure will be provided is that the land has potential of having water sources. It is the potential water sources that will determine the type of irrigation facilities to be developed. Thus, where there is potential for water is above 15 deep, a tube well will be implemented; where the water table is high below 15 meters a wash bore well will be constructed, and so on. On farm water harvesting ponds will be provided to poor household to produce both for sale and for improved nutrition. Other criteria would include availability of surface or sub-surface source of reliable water supply; and, where the infrastructure will be serving more than one farmer, they be willing to organize into an Irrigation Water User Association (IWUA), collect fees for maintenance of the system and establish required systems for sustainable operation and maintenance of the system. The Project will support those that meet these criteria with the necessary capacity building to gain knowledge and skills in organization and management to enable them sustainably operate and maintain their irrigation infrastructure.
9. As observed above, the irrigation water provision will be through different technologies depending on the availability and reliability of the water source. A total of 7,707 ha of land will be irrigated through the combination of technologies as follows include:
 - 4,744 tube wells equipped with pumps each capable of irrigating 1 ha of land, thus are total of 4744 ha irrigated using tube wells;
 - 1,482 wash bore wells equipped with solar pumps each capable of irrigating one ha of land, thus are total of 1482 ha irrigated using wash bore wells;
 - 357 small earth dams with pumps, capable of irrigating 4 ha of land or more thus are total of 1428 ha irrigated using small earth dams; and,
 - 533 on-farm water harvesting ponds each having a potential of irrigating 0.1 ha of land thus are total of 53 ha irrigated using on-farm rainwater harvesting ponds
10. From the combination of all these irrigation technologies, it is expected that the output will be 7,707 hectares of land under irrigation. Over and above the irrigated land the Project will support the construction of small flood control works such as drainage channels to evacuate water from areas that are susceptible to flooding. About 534 structures which would be about 300-meter length on average will be constructed.

Sub-Component 2.1 Post Harvest Value Chain Infrastructure

11. Investments in post harvest infrastructure are meant to support the farmers with infrastructure and equipment to reduce post harvest losses; aggregate/bulk produce; and, package and sell produce. The infrastructure to be supported include close-to-producer infrastructure for bulking, aggregation, basic processing, grading and packaging to ease access to larger aggregators and final processors. The expected outcome is to reduce post-harvest losses, address quality and volume challenges that farmers currently experience in order for them to get better prices for their produce. VCN is focusing on five commodities i.e. rice, maize, sorghum, millet, and cowpea and will provide value chain equipment and infrastructure suited to these crops. These will be physical facilities in designated spaces whereby land

will be provided by LGAs and the VCN will support different local entrepreneurs, primarily the small-scale processors, to invest in the necessary processing machines and equipment.

12. Aggregation/village bulking centers: Objective of this intervention is to enable the farmers to preserve the quality of products, reduce post-harvest losses and ease the pressure to sell immediately after harvest when prices are usually low. Additionally, the centers can help provide a direct link between the producers and the bulk buyers thereby cutting out middlemen which would result in higher price for their produce. The centers also enable the creation of market linkages between buyers and producers. The selection criteria for aggregation centers will be accessibility and proximity to the production area to enable the farmers to easily deliver the farm produce. They are basically warehouses constructed closer to the production sites or FO clusters. They would have a store/warehouse with basic facilities including, concrete drying floor, reception area, office and product storage space/stalls.
13. The capacity of each center in terms of covered area and product storage will be between 300 to 400 square meters (m²) depending on the crop. The center would also be provided with auxiliary facilities such as weighing scales and toilets which would be a ventilated improved pit latrine where waterborne toilet is not feasible. Management of the center and its facilities will be in the hands of the beneficiaries who have three options: a) the beneficiaries form a committee for the day-to-day management; b) they hire a manager; or c), the lease out the facility. The beneficiaries will be paying a user fee to sustainably manage the facilities. The output from this activity will be 100 aggregation centers.
14. Processing facilities: The objective of investing in processing facilities is to enable farmers to add value to their produce and improve on efficiency of operation, quality, and the return on investment. The selection of the sites will be based on their proximity to the aggregation centers. The Project will support a private-based management model. Depending on the locations – culture/social setting and business environment (to be determined during the value chain study) – two models will apply, i.e.
 - Model 1: A complete line of processing activities, owned/managed by one entrepreneur; or
 - Model 2: Different business segments in the processing chain owned or managed by separate individual entrepreneurs.
15. In the case of the first model, the processing facilities (machineries and related applications) will be owned/managed by one entrepreneur who will provide services to clients. In the case of the second model, the different entrepreneurs will own different processing facilities in the center. The cluster FOs will have full ownership of the business premises comprising the building, electricity, water borehole and physical environment funded by the project. FOs will collect the maintenance levy and utilities bills from the users (entrepreneurs) for sustainability.
16. Women FOs and youth will be specifically targeted to own the business premises as a strategy to increase their participation in commodity value chain and to gain business management skills. The Project will support the construction of the physical facilities in which different entrepreneurs, primarily the small-scale processors, will invest in the necessary processing machines and equipment with support from the Project. The NPMU will engage consultants to carry out assessments on the demand for the facilities for the different value chains and undertake the designs based on the demand.
17. The facilities would have different footprints depending on the commodity, but it would be about 500-600m² and would have the appropriate spaces such as: washing/peeling area (as needed); processing area (wet & dry); finished product store; office; changing room, toilets (segregated male/female) and a proper drainage system. For each of these facilities, a borehole will be provided to avail the water needed for maintaining proper hygiene and sanitary standards. The boreholes would be boreholes/tube wells equipped with solar pumping systems including submersible

pump, solar panels, control panels, overhead storage tank, and piped distribution the points of use within the facility. Because the entrepreneurs spend most of their time within these facilities, they will include a special baby care room, a creche, to enable even nursing mothers participate in the activities, a ramp for the people with disabilities (PWD) as well a toilet for PWDs. Output from this activity will be 37 processing facilities.

18. Marketing and storage facilities: The objective of these facilities is to avail marketing outlets in the clusters where production will be taking place. The market facilities will comprise of five (5) 2.5*2.5-meter stalls in the front and similar ones on the back side. For each of these facilities, a borehole will be provided to avail the water needed for maintaining proper hygiene and sanitary standards. The boreholes would be boreholes/tube wells equipped with solar pumping systems including submersible pump, solar panels, control panels, overhead storage tank, and piped distribution the points of use within the facility. The facilities located in selected sites in close proximity to the aggregation centers.
19. It is expected that the facilities will bring more women into the programme, as about 60 per cent of the stores will be allocated to women using selection criteria to be established by the Project in collaboration with other relevant stakeholders. Management of facilities will be in the hands of the beneficiaries who have three options like the aggregation centers: a) the beneficiaries form a committee for the day-to-day management; b) they hire a manager; or c), the lease out the facility. The beneficiaries will be paying a user fee to sustainably manage the facilities. The expected outputs from this activity will be 80 markets.

Access Roads

20. In the areas where production will be taking place, the Project will invest in last mile access roads. The objective of the access roads will be to improve the delivery of production inputs as well as improving market access for the produce. The roads will be constructed in sites that will be selected in such a manner that they link the production areas with the nearest post harvesting facilities. These will be the centers where there would have been constructed market stalls, processing/aggregation or processing facilities or connecting to a main road.
21. While evacuation of the farm produce will be the main objective of the access roads, this mission proposes that the access roads be designed in a way that they also be used for water harvesting. The approach referred to as Green Roads for Water (GR4W) is recommended because the access roads so constructed would contribute to the resilience of the land by enabling rainwater harvesting. They do this by taking advantage of the road drainage structures which are designed in such a manner that they contribute to rain water harvesting. In that way, the runoff from the roads, rather than being a nuisance by causing erosion, is deliberately directed into ponds in the farms or into gravel/laterite quarry borrow pits for storage. Thus, the roadside drainage infrastructure: cut-off mitre drains, cross-drains or diversion from cross culverts, gabions, check dams, non-vented river drifts/road crossings, and so forth are all designed, to the extent possible, to support rainwater harvesting.
22. International development agencies such as the World Bank and many international non-governmental organisations (NGOs) are increasingly adopting this approach when supporting rural roads construction. The World Bank has gone further and developed guidelines that explain the techniques that can be used to make access roads instruments for water management. The guidelines "Green Roads for Water: Guidelines for Road Infrastructure in Support of Water Management and Climate Resilience" is available for use by the Project during the design of the access roads⁶¹. Another useful document is a handbook developed by the Royal Danish Embassy in Kenya that describes techniques to use for harvesting water from roads. The

⁶¹ <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/102951623742853259/green-roads-for-water-guidelines-for-road-infrastructure-in-support-of-water-management-and-climate-resilience#:~:text=The%20concept%20of%20Green%20Roads,without%20sacrificing%20or%20diminishing...>

handbook "Water from Roads: A handbook for technicians and farmers on harvesting rainwater from roads", is also available for use by the Project⁶².

23. The Project will support the construction/rehabilitation of 229 km of roads directly by the Project, 174 km of roads done by the community and 444 road drainage structures. The NPMU in consultation with the SPMU will determine the kilometers of roads and the number of road drainage structures that will be allocated to the different States using criteria that they will have agreed upon. Once the numbers are agreed upon, the SPMUs will engage consulting firms to carry out the assessments to identify the specific road section that will be rehabilitated and carry out the engineering design of the roads. The maintenance of the constructed roads will be by the LGAs and the local communities through a roads maintenance system that is described under the sustainability section.

Implementation Arrangements & Process

Overall

24. The National Project Implementation Unit (NPMU) will have oversight responsibilities for all the infrastructure works but the actual implementation in the States will be led by the State Project Implementation Unit (SPMU). The implementation will be guided by the principle of working in close collaboration and participation of all stakeholders. This implies that the SPMU will have to work with relevant stakeholders in all the categories of VC infrastructure and in coordination with applicable federal/state ministries and agencies, LGAs and the local communities/FOs.
25. The NPMU in consultation with the SPMU will determine the numbers of the different categories of infrastructure that will be allocated to the different States using criteria that they will have agreed upon. Once the numbers are agreed upon, the SPMUs will engage consulting firms to carry out the assessments and feasibility of the proposed infrastructures. For the selected sites, the SPMUs will engage consulting firms to carry out the designs of the infrastructure that will be found to be feasible. The designs will include the Bills of Materials (BoMs) and tender documents which the SPMUs will use to tender the works to private contractors to carry out the construction works. The maintenance of the constructed will be through a combination of different arrangements is described under the sustainability section.

Institutional framework

26. The institutional framework for implementing the VC infrastructure sub-components will be as presented in the Box 1 below.

Box 1: Institutional Arrangements

The State Value Chain Infrastructure officer (SVCIO) of the SPMU will be responsible for supervising all civil works, supported by the Engineers from the respective LGAs.

For each of the infrastructure, the SPMU will form a user' organization that will assume responsibility for O&M. These will be organizations such as Irrigation Water Users Association (IWUA), Market Management Committee (MMC), Road Maintenance Committees (RMCs) etc.

For the feeder roads, the SPMU will also sign an MOU with the concerned State Ministries so that they assume full responsibility for recurrent, periodic and emergency maintenance which are beyond the capacity of the LGAs and communities, to ensure a stable financial base for maintenance. The SPMU action will be aligned to the Federal Government of Nigeria (FGN) Draft National Transport Policy, which proposes to give top priority to effective routine, periodic and emergency maintenance of rural roads in all LGAs and communities using RMCs that will be created at LGA level.

⁶²https://www.samsamwater.com/library/Book6_Water_from_roads.pdf

The SPMU will ensure that MOU are developed and signed by relevant parties including community representative and representative of Fos before execution of work commences.

If applicable, the SPMU will also collaborate with the Ministry of Commerce and Industry, municipalities and/or Local Government Councils (LGCs) to facilitate the construction or rehabilitation of assemble markets and processing infrastructures in the target LGAs.

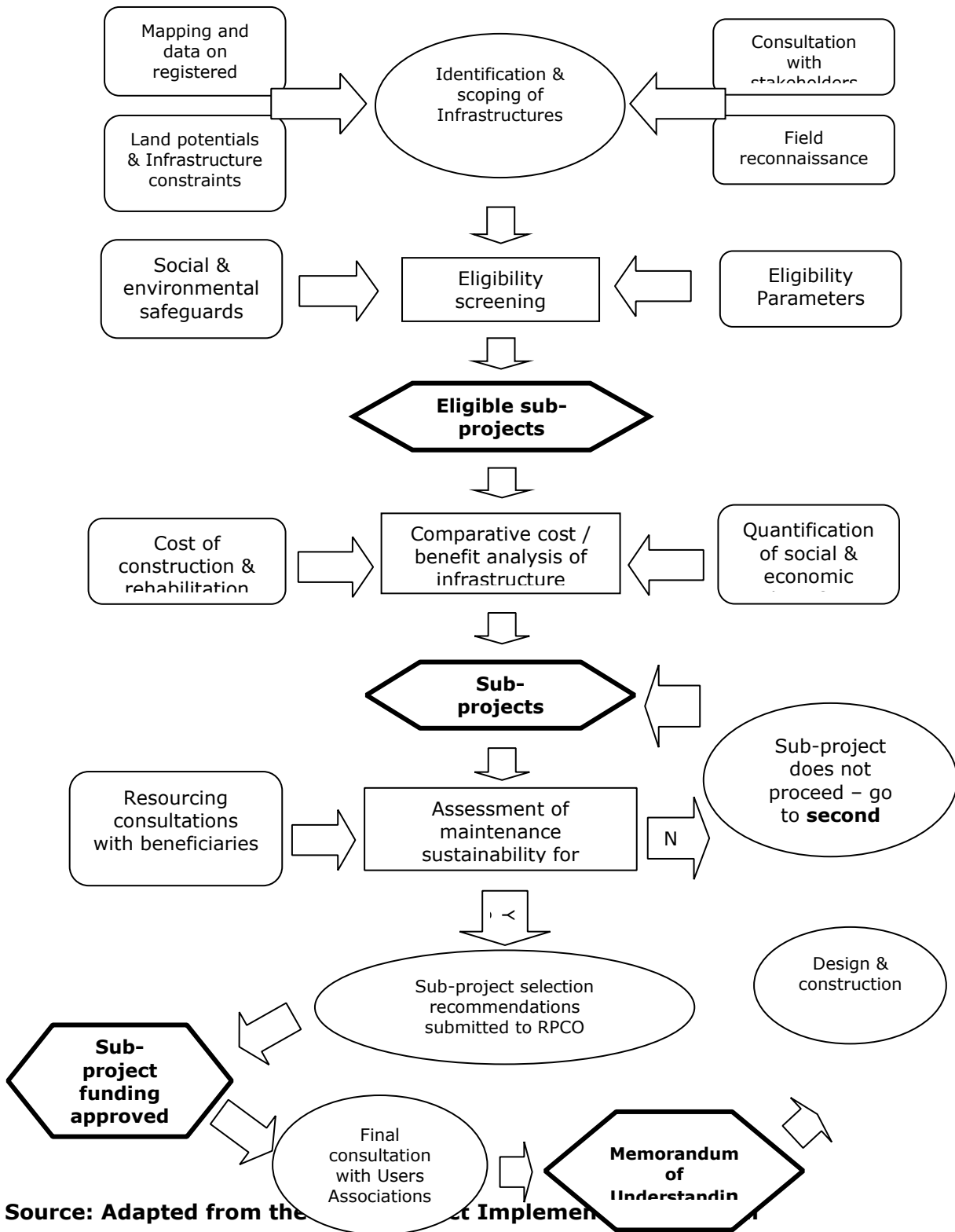
The Project will support the training of each of the users' organization on the Organization and Management necessary for the organization to carry out the Operation and Maintenance of physical infrastructures.

Source: Adapted from the VCDP Project Implementation Manual

Identification and Selection of the Sub-projects

27. As noted in earlier paragraphs, the first activity in the implementation is to carry out field assessments in the States to determine where the different infrastructure will be constructed. As noted above the NPMU/SPMU will contract consultants to undertake the assessments and feasibility studies of the infrastructure. The consultants will carry out studies in close consultation with the LGAs and the local communities to ensure that the finally selected infrastructure is what the community truly needs and is aligned to their VC development requirements. The process of identification and selection of the sub-projects that will be supported is as depicted in the Flow Chart 1 below.
28. Identification and scoping: The first step in the process will be the identification and scoping of the potential demand for value chain infrastructure in relation to the land potential and farmers in the target areas. This will be done through a combination of secondary data collection and field reconnaissance to confirm the accuracy of secondary data. The output of this data collection and field reconnaissance will be a listing of the possible VC infrastructure, both new ones and existing ones that would require rehabilitation.
29. While the identification and scoping will be carried out by contracted consultants, the relevant SPMU's staff would be working alongside the consultants, both as a learning experience and to ensure that the process is participatory. This will involve consultations with all the potential private and public sector stakeholders that might have an interest in the selection of infrastructure sub-projects. This would be stakeholders such as the investors, agro-processors and market operators, local authorities as well as the community leaders. The participation of these stakeholders will not only be to disseminate information but also to ensure that all parties contribute and buy in to the infrastructure development process.
30. Selection of eligible sub-projects: The infrastructure identified above will undergo an initial screening to ensure that those selected for further screening have fully covered the scope to meet the Project's objective. The considerations at this stage would be that the candidate infrastructures broadly fit within the framework envisaged to enhance production and processing and to serve the target stakeholders. Further, the screening will ensure that the selected infrastructure would be:
 - possible to be maintained at community level.
 - would not result in any land compensation claims; and,
 - would not result in serious adverse social or environmental impacts.
31. Ranking of sub-projects: A ranking will be done by means of comparative cost/benefit analysis that will be based on the assessed whole-life cost of construction/rehabilitation and maintenance against the assessed value of social and economic benefits accruing from the investments. The construction/ rehabilitation cost will be estimated from the visual condition survey undertaken as part of the identification process above, while the maintenance cost will be taken over the lifetime of the different assets.

Flow Chart 1: Process of Identification and Selection of Sub-Projects



Source: Adapted from the ... Project Implementation

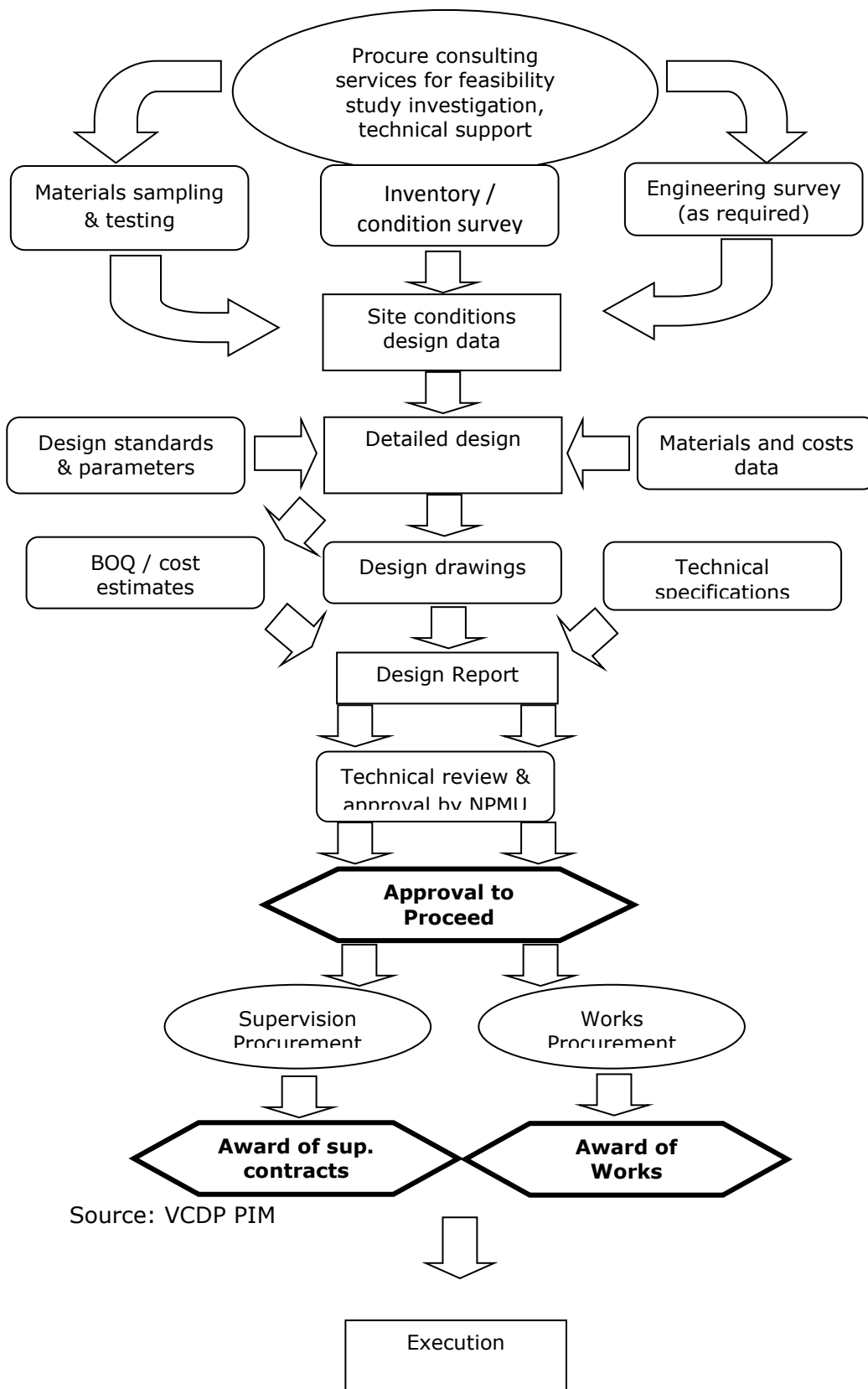
Assessment of Sustainability. Final criteria will be the assessment of sustainability of the ranked infrastructure. The SPMU will consult with all the stakeholders of the ranked infrastructures to obtain a commitment from all parties to setup an operations and maintenance system for their infrastructure. The system should be responsive to the routine, periodic and emergency maintenance that is envisaged for each infrastructure.

32. Approval by the NPMU and MOU: The infrastructure that will thus have qualified will be submitted to the NPMU for approval of funding. Once the funding approval is secured, the SPMU will facilitate the formalization through an MOU. The MOU negotiated between the Project and the Users should clearly set out the roles and responsibilities of each party and particularly the O&M responsibility of the users.

Design of the Sub-projects

33. The NPMU/SPMUs will contract qualified consultants to carry out the required technical designs including the Bills of Quantities (BOQs) and tender documents. After approval of the design and cost estimates, the works will move on to the tender stage. The entire process up to the tender stage will be as per the Flow Chart 2 below.

Flow chart 2: The Design and Tender Process



Source: VCDP PIM

Construction of the Sub-projects

34. With the tender documents prepared by the consultants the NPMU/SPMU will tender for construction of the infrastructure. The construction process will take the approach described in the following paragraphs for the different categories of infrastructure. It is recommended that as much as possible the contractors to use labour-based methodologies except for such tasks for which the use of machinery is unavoidable. The use of labour-based methodologies is meant to: (i) ensure employment of the local women and youth during the construction which would inject money in the community; and (ii) impart construction/technical skills among the community members, which skills will be used during the operation and maintenance phase of the infrastructure.
35. The markets and processing facilities will be provided with a borehole water supply whose construction would be a separate contract given that drilling and equipping of boreholes is a specialized field. Development of a borehole-based water supply system entails a number of steps and processes. For each of the sites that will have been selected, a hydro-geological study will first be carried out. This study is meant to establish the possibility of striking ground water at that site as well as establishing an estimate of the water the borehole is likely to produce. This study is carried out by a hydro-geological professional. The hydro-geologist would also be the one to supervise the drilling and equipping of a fulltime basis.
36. The next step is the actual drilling of the borehole which is undertaken by the contractor with the appropriate drilling equipment, primarily a rotary drilling rig with the necessary equipment. When the hole is drilled to the recommended depth and water is struck, then the casings will be installed still with the rig, gravel pack installed, the hole developed/cleaned and protected. The drilling equipment are then demobilized and, on a later date, a test-pumping unit is mobilized to establish the yield of the borehole and the appropriate depth for the pump to be positioned. The pump capacity will be determined using the borehole yield and the pump positioning thus established in combination with the height at which the storage tanks will be mounted.
37. The next step will be the equipping of the borehole. In this Project the proposal is to equip each of the boreholes with solar pumping units delivering water to elevated storage tanks. The size of the pumping units and the storage capacity will be determined as observed above by the yield of each of the boreholes and the height of the elevated storage tanks. The final key activity will be the construction of distribution system from the storage tank to the points of use within the facility.

Phasing

38. The Project is planned to be implemented over a period of 8 years. For the VC infrastructure there will be need to carry out the pre-construction activities (assessments, establishing feasibility, engineering designs etc.) before construction is undertaken. These are expected to start in year one and be spread over five years. Thus, construction is expected to start from year two through to the seventh year to allow for remedial works during the defect's liability period and user trainings to take place in throughout to eighth year.

Table 6: Activity Phasing

Activity	PY1	P Y 2	P Y 3	P Y 4	PY5	PY6	P Y 7	P Y 8	TOT AL
	Physical Quantities by Year								
Assessments/ studies & designs									
Community capacity building									
Tube wells		1245	9 4 9	9 4 9	1,423	1,423			4,744
Wash bore wells		389	2 9 6	2 9 6	445	445			1,482
Construct ion/ Rehabilita -tion of small earth dams		47	3 6	7 1	107	107	3 6		357
On-farm lined ponds		70	5 3	1 0 7	160	160	5 3		533
Small flood control works		78	5 9	1 1 9	178	178			534
Market stalls		8	8	1 6	24	16	8		80
Aggregati on/bulkin g centers		10	1 0	2 0	30	20	1 0		100
Agro Processin g facilities		4	4	7	11	7	4		37
Project implemen ted access roads		23	4 6	4 6	6 8	46			229
Communi ty implemen ted access roads		16	3 1	3 1	47	47			172
Drainage infrastruc -ture.		44	8 9	8 9	133	89			444

General

39. A key prerequisite for sustainability of infrastructure is setting up a functional O&M system and adequately building the capacities of persons responsible to manage the system. For all categories of infrastructure, the functionality is depended on availability of O&M funds. All categories of infrastructure will raise the O&M funds from the users through various approaches as will be discussed for each of them. In the case of access roads, however, since the roads are not "owned" by the community and are open for use by the wider public, it would be unrealistic to expect the community to meet the maintenance costs. Their maintenance arrangements are discussed in detail in paragraphs later in this chapter. For the other categories of infrastructure, a management committee will be formed for each facility and be adequately capacity build to manage the O&M of their infrastructure. The Project will, therefore, support the formation and capacity building of a UO for each facility. The UO will be composed of the entire membership of users who will elect a management committee to manage the day-to-day O&M of the facility. It will be necessary to create awareness among all the users for them to understand the requirements for O&M and especially the rationale behind setting the user fees. For the management committees, however, it will be necessary to build their capacity in the two aspects necessary to sustain the facilities: (a) Organization & Management; and, (b) Operations and Maintenance
40. Under Organization & Management the committee would be capacity build to become effective in managing the O&M requirements specific to their facility. Among the topics they would be trained on would include areas such as:
 - Governance, including aspects such as: leadership; making and using by-laws to guide/govern the operations of their scheme; roles and responsibilities of the different users of the facility; how to organize meetings including records keeping and decision making, communication, conflict management, etc;
 - Financial Management, including areas such as: understanding the costs involved in maintaining the facility to guide in setting user fees and preparing budgets that cover both management costs and O&M costs; collecting and managing user fees, etc.
41. Under Operations and Maintenance, the committees would be capacity build to understand the technical aspects of their facility. Depending on the complexity of the facility there are aspects they would be trained to manage at their level and others, such as repairing a submersible pump, which would require engaging external technical service providers. The committee would be trained to understand the day-to-day operational routines of their facility and the maintenance requirements of the technology including estimated costs of such maintenance.
42. The committees would also be capacity build to effectively participate in the supervision, monitoring and evaluation of the scheme operations from the onset so that they would be part of oversight of contractors during construction as well as to ably monitor the performance of their scheme once it becomes operational.
43. A requirement of the Nigerian National Building Code 2006 (NBC) is that contractors develop a maintenance manual for each facility they construct. The construction contract should, therefore, include a clause requiring the contractor to develop an O&M manual for each of the facilities and train the management committee or hired technicians for the more complex maintenance routines.
44. At the Project level, community capacity building is provided for under sub-component 2.2, output 2.3.2 "Rural producers Organizations strengthened in its governance, management and inclusivity". However, this capacity building is geared towards building the capacity of the Farmer Organizations (FOs) to better manage the production. This level of training is not suitable as capacity building for O&M of the infrastructure. For this reason, this design has provided for funds to carry out these trainings separate from the FO training under sub-component 2.2. The capacity

building which will be tailored for each category of infrastructure will be carried out before the construction of the infrastructure, during the construction and post construction. The pre-construction training will address the organization and management skills and knowledge that the UO will require to manage the O&M of their facility. The construction stage training will address the technical operation and maintenance requirements for the infrastructure.

45. The capacity building of the facility UOs will be a two-step process. The first step will be to train trainers at the LGA level who will be responsible for training the different user organizations in the LGA. The staff to be trained as trainers (ToT) would be State and LGA officers from the relevant department for each infrastructure category. For instance, trainers for maintenance of water facilities would be from the ministries responsible for water and irrigation, finance, as well as social/community services. The NPMU/SPMU will, from the beginning of the Project, contract qualified service providers to carry out ToTs. The next step will be for the trained trainers to, on a continuous basis, keep training the user committees of the infrastructure: before the facilities are constructed, as they are constructed and after construction as discussed above.

Irrigation and Water Control

46. While the FOs have the overall management responsibility for the production from inputs supply, farm management and agronomical requires, and so forth up to the point of marketing the produce. Management of the irrigation facilities, which requires specialized knowledge and skills should be under the responsibility of a committee elected to specifically handle the day-to-day operations and maintenance. This committee, the IWUC would be elected by the assemblage of all the farmers in the irrigation scheme. The IWUC should be in place long before the construction. This is necessary for the committee to be trained in organization and management and for the members to be part of the oversight of the construction. Their involvement during construction would familiarize them with the facilities as construction progresses. Some of them could even get employment as workers in the construction thereby gaining technical skills they could use in the operational phase.
47. In addition to the organization and management training referred to above, the IWUCs would also require to be trained on the day-to-day operation and maintenance routines specific to irrigation technology of their scheme. Depending on the technology in use, it may be necessary to hire staff or technicians to manage the daily O&M routines and who would also be trained specifically for the facility.
48. At the beginning of the operations of the facility and every beginning of the year, the IWUC will be making an operations and maintenance plan covering the different O&M routines needed to keep their facility in good operational condition. These will vary depending on the technology used as the source of water and the delivery system but would include aspects such as highlighted in Table 7 below that would be carried out for a river pumping station.

Table 7: Maintenance Routines for Irrigation Water Facilities from a River Intake

Category of maintenance	O&M Routines
Operation	the weir intake gates. pumping station operations. Delivery gates and valves, etc.
Routine maintenance and regular repairs	machine and equipment servicing. recurring painting of mechanical works to protect against corrosion. scheduled removal of sediment from structures. canals and drains regular removal of vegetation and silt. sealing leaks on structures and earthworks, etc.
Periodic maintenance and major repairs	recommended major services of machinery and equipment. manufacturer recommended replacement schedules of wearing parts on pumps and engines. replacement of damaged mechanical parts. repair of concrete works on structures and canal lining, masonry, pitched rubble and gabion works on structures. embankment and bank protections, etc.
Emergency repairs	these are ordinarily unforeseeable and involves the breakdown of equipment or structural collapse of works and have to be urgently addressed

Post Harvest Facilities

49. The post-harvest facilities constructed have more of maintenance needs and relatively fewer operational routines. However, these too require a functional user's organization whose membership is all the users of the facility. After the initial awareness creation, the users would as a first step organize an assembly of business community members to elect representatives for the facility management committee, which for a market for instance, would be the Market Management Committee (MMC). The MMC would be capacity build in the management and organization to equip them with the organizational skills they need to run the facility. They would also need to be trained on how to make the by-laws that would be followed in the management of their facility.
50. The committees would also require to be trained on the day-to-day operation and maintenance routines specific to their facility. This would enable them to decide on their roles and those that may require hired staff or outsourced to a service provider. Whichever the case, they would then hire staff or contract the service provider and orient and onboard them to kick off the operations of the facility. Like in the water facilities at the beginning of the operations of the facility and every beginning of the year, the MMC would be making an operations and maintenance plan covering the different O&M routines needed to keep their facility in good operational condition. These will vary depending on the type of facility but would include routines such as in Table 8 below.

Table 8: Facility Components and their Maintenance Requirements

Infrastructure component	Routine Maintenance	Preventative/periodic maintenance	Corrective maintenance
Building interiors	Sweeping and cleaning; removing of cobwebs; checking for bird nests and removing them, if necessary, etc.	Chiseling of cracks and repointing with mortar; painting of walls, floors, ceilings, etc	Rebuilding of damaged ceilings, floors, etc.
Walls and ventilation bricks	Checking for dirt and for cracks; checking and repairing of mosquito screens; regular cleaning	Chiseling of cracks and repointing with mortar; plastering and painting	Rebuilding of damaged walls replacing of broken bricks
Doors and windows	Checking and repairing of locks, replacing of broken glass panes, etc.	Anti-termite painting of wooden structures anti-rust painting greasing of metal mounts	Replacing of damaged windows and doors
Roofs	Inspection of the structure cleaning of roof sheets when soiled	Painting to avoid the build-up of rust and corrosion	Replacing damaged roof sheets
Rainwater drainage and harvesting	Cleaning of gutters, ensuring the correct running of water inspection of water valves checking of water quality	Replacing damaged gutters, valves, etc ensuring water quality in tanks through regular disinfections	Replacing damaged pipes or water storage tanks
Latrine and toilet facilities	Cleaning after use maintaining hygienic conditions checking of pipe joints in water borne systems ensuring that the surroundings are clean	Emptying the pit or arranging for an alternative pit Checking and repairing the slab	Replacing the cover or slab when damaged

Borehole Water Supply Systems

51. The water supply facilities are meant to supply water to the markets and processing facilities. While each of these markets and processing facilities will have a facility management committee, it would be desirable to have a sub-committee tasked to specifically manage the operations of the water supply infrastructure. This would be a Water Users Committee (WUC) responsible for the day-to-day O&M of the borehole operations. This committee, like the IWUC, would be elected by the assemblage of

all the market or processing facility users. Again, it would be desirable for the WUC to be in place during the construction of the scheme for the members to be trained in organization and management and be part of the oversight of the construction. Their involvement during construction would familiarize them with the facilities as construction progresses. Some of them could even get employment as workers in the construction thereby gaining technical skills they could use in the operational phase.

52. Just like in the case of the IWUCs the WUCs would require to be trained in the organization and management training referred to above. They would also require to be trained on the day-to-day operation and maintenance routines of the borehole supply systems. For the boreholes, it will be necessary to hire staff or technicians to manage the daily operational and maintenance routines. Like in the water facilities at the beginning of the operations of the facility and every beginning of the year, the WUCs would be making an operations and maintenance plan covering the few O&M routines needed to keep the facility in good operational condition. These are few as in Table 8 below.

Table 9: Borehole Maintenance Routines

Component	Routine Maintenance	Preventative/periodic maintenance	Corrective maintenance
Pump house	Sweeping and leaning; removing of cobwebs and other routines like for building above	Chiseling of cracks and repointing with mortar; painting of walls, floors, ceilings and other preventative maintenance routines like for buildings above	Rebuilding of damaged ceilings, floors, etc. and corrective maintenance other routines like for building above
Pump	Its submersible so no routine maintenance but only the turning on and off as an operational routine	Its submersible so no periodic maintenance	Rewinding of a burnt motor
Solar systems	Cleaning of solar panels checking of batteries, inverters, switch boards	Refilling of acid in batteries, if necessary repair of electronics	Replacing of panels, batteries and other devices

Feeder Roads

53. Due to the nature of feeder roads whose ownership is not with the local community, the O&M management arrangements would be different from the schemes "owned" by the users. The proposal is to form and capacity build Road Maintenance Committees (RMCs) along sections of the feeder roads where improvements have taken place. The process of formation of the RMCs will start during construction where the contractor will be obligated to employ the community living along the road sections, and especially the women and youth. The contractor will train them on road construction skills, which skills will be used in the maintenance of the roads. Towards this end the Project will demand and include it in the construction contract that the contractor will create a community-based maintenance system.
54. The actual execution of these tasks requires the creation or development of feeder roads maintenance system consisting of personnel that are trained on management of road maintenance and equipped with the necessary tools and equipment. However, developing and operationalizing a system that responds to the needed

actions to actualize the feeder road maintenance is challenging. The challenge comes about because unlike other community-based infrastructure which are owned, used and maintained by the target communities, feeder roads are neither owned nor exclusively used by the target community. Thus, the responsibility of funding feeder roads maintenance, unlike operations and maintenance of other community-based infrastructure, cannot be expected to be met by the target community. While the maintenance of feeder roads can be community based, the responsibility for financing of the activities is (or should be) a government responsibility.

55. The setting up of functional access road maintenance systems in Nigeria has generally been a challenge. Projects such as the Value Chain Development Programme (VCDP) had recognized this challenge and initiated action by developing a feeder roads maintenance strategy. That strategy proposes a maintenance management cycle comprising of the following steps: preparation of a road inventory; an inspection and analysis of defects; determination of the works and resources needed to remedy the defects; setting priorities, especially due to budgetary constraints; preparation of maintenance plans; carrying out the maintenance works; and, monitoring and reporting. The VCN will adopt a roads maintenance system designed along lines like the strategy adopted by VCDP.
56. The proposed system is the "length-man" system whereby a small team is assigned a given length of road which they maintain and are paid based on actual maintenance work done. Supported by the State and LGA technical roads personnel (engineers, inspectors and roads supervisors), they will be formed into RMCs and equipped with the necessary organizational and technical skills as well as equipment to execute the maintenance tasks, among them including:
 - a) Annually mapping the roads network, assessing their condition and determining their maintenance requirements;
 - b) From the results of the assessment, developing an annual maintenance plan and including it in the States/LGA annual work plan and budget;
 - c) Annually for each road or a number of roads lumped together and deriving from the States/LGA AWPB, a rural roads maintenance plan is made and broken down into monthly work plans;
 - d) Throughout the year carry out the routine, periodic and emergency tasks as necessary;
 - e) Measure, record and make payments for tasks completed; and,
 - f) Write and file the reports (both technical and financial) as necessary.
57. This proposal envisages a system that would start at the State level down to LGA level and to RMCs operating at the LGA levels. The tasks a) and b) are quite technical which means they would require a level of knowledge and skills that would be found at the State or LGA level. Thus, carriage of these tasks would be at the State Ministry responsible for infrastructure. The annual assessments and maintenance plans for a particular road (or a number of roads lumped) together can be undertaken by an inspector or technician at the LGA level together with a road supervisor. From the LGA AWPB, the LGA personnel would jointly with the RMCs be making the monthly work plans for the different roads. The roads supervisor would oversee the RMCs carry out of the maintenance tasks, measure the tasks done and write the technical reports. The payments for the RMCs can be made at the LGA treasury with the LGA accountant recording the payments and writing the financial reports. The maintenance routines involved in access roads are presented in Table 10 below.

Table 10: Maintenance Routines for Feeder/Access Roads

Category of maintenance	Activities/Routines
Routine maintenance	grass cutting and vegetation control removing small landslips cleaning/re-shaping of side drains de-silting of culverts and channels repairing potholes maintenance of signs and traffic safety facilities uprooting of vegetation from roadways and across bridges clearing of flood debris, etc.
Periodic Maintenance	reshaping or re-gravelling of the road surface repair of culverts re-surfacing and major repair or reconstruction of cross-drainage structures spot maintenance, etc.
Emergency Maintenance	these are unforeseen but they do occur, e.g. floods, landslides, etc., that require urgent or emergency remedial action

58. The proposal described in the above paragraphs gives a roadmap, which if followed, would greatly improve the conditions of the feeder roads in the VCN area. However, as mentioned before, it can only be implementable if the Government provides the funds for maintenance, and they are included in the States/ LGAs AWPB. This will only be possible if entire government from the federal level to the State and lower levels appreciate the importance of road maintenance so that the States/LGAs can prioritize it and provide for the necessary funding in their budgeting plans. Otherwise, sustainability of the feeder roads will not be assured and if it is not assured the States/LGAs will end up being locked in a "build-neglect-rebuild" syndrome that has affected feeder roads in many developing countries.

Annex 13.8: Technical Note: POVERTY, TARGETING AND SOCIAL INCLUSION

This Technical Working Paper on Poverty, Targeting and Social Inclusion is divided into two sections. Part I: Background and Analysis; and Part II: VCN's Socially Inclusive Targeting Strategy. The working paper also includes an attachment with some considerations related to the use of the Gender Action Learning System (GALS) methodology.

Part I: BACKGROUND AND ANALYSIS

Demography. Nigeria is home to 200 million people and the most populous country in the African continent; 70% of the country's population lives in rural areas⁶³. Kano is the second most populous State in the country⁶⁴.

At national level HHs in rural Nigeria are composed of an average of 5.42 people, with variations that can reach 8.15 people as is the case of Jigawa State. The average HH size among the nine VCN participating States is 6.82 people per HH.

It is estimated that approximately 17% of HHs in rural Nigeria are headed by women⁶⁵, yet anecdotal evidence collected during the design mission indicates that in some of the VCN target states in northern Nigeria it is likely to be substantially higher than the official 2018 data. Around 25-43% of women in the Northern States are in polygamous marriages⁶⁶.

Over 65% of the country's population is under the age of 29⁶⁷, the top threshold age for youth in Nigeria, highlighting the current and future role of youth in the country's economy and food production systems.

Despite progress achieved in education over recent decades Nigeria continues being a low Human Development country, ranking 163 of 191⁶⁸. Only 62% of people aged 15 and above are literate⁶⁹.

Economic poverty. 40.1% of Nigerian's are poor according to the national poverty line (137,430 naira per person per year). Sharp spatial differences in poverty are found between southern and northern Nigeria and even across States within regions. Also, poverty levels are higher and deeper in rural areas; 52% of the rural Nigerians live under the poverty line (against 18% in urban areas)⁷⁰. Over 72% of the extreme poor live in Northern Nigeria⁷¹.

⁶³NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

⁶⁴ National Bureau of Statistics, May 2018. 2017 Demographic Statistics Bulletin.

⁶⁵ NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

⁶⁶Ibid.

⁶⁷Ibid.

⁶⁸<https://hdr.undp.org/data-center/specific-country-data#/countries/NGA> Accessed 1st January 2024.

⁶⁹<https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=NG> Accessed 1st January 2024.

⁷⁰ WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.

⁷¹ FGN, 2021. National Poverty Reduction with Growth Strategy (NPRGS).

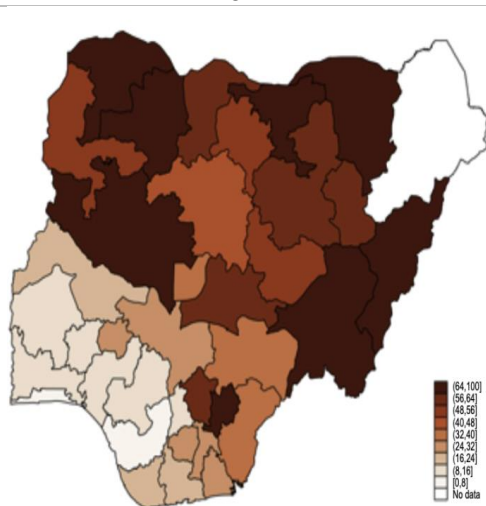
Table 1: Key demographic and poverty data in VCN target States, Nigeria

State	Population / # people	Economic poverty level / % (2018)	Average HHsize / # people (2018)
Kebbi	5,200,000	50.2	6.39
Sokoto	6,400,000	87.7	5.93
Zamfara	5,300,000	74.0	6.54
Katsina	9,500,000	56.4	6.80
Jigawa	6,800,000	87.0	8.15
Kano	15,900,000	55.1	7.10
Yobe	3,900,000	73.3	6.87
Borno	3,100,000	Information not available	Information not available

Sources:

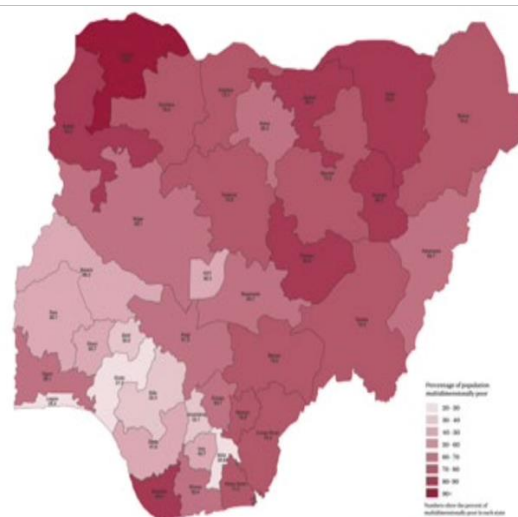
Population: obtained from the project concept note, exact citation to be obtained and inserted here;
 Poverty headcount: WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians;
 HH size: NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

Figure 1: Economic Poverty Headcount by (Nigerian) State, 2022.



Source: WB, 2022. Nigeria Poverty Assessment 2022: A Better Future for all Nigerians.

Figure 2: Multidimensional Poverty Level by (Nigerian) State, 2022.



Source: NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

Age, gender, education, reliance on rainfed agriculture and shocks are the primary drivers of poverty in Nigeria⁷². Young people and those with lower levels of education are common among the poor due to lacking capital and not having the means to engage in lower risk or diversified income generating streams. Women with young children are likely to be poorer than their male counterparts due to the combined effects of gender norms, being youth and their multiple responsibilities. External shocks such as the negative effects of climate change, low resilience and conflict have profound effects on HH wellbeing.

Multidimensional poverty. Multidimensional poverty, that is, poverty associated to deprivations related to health, education, living standards, employment, and shocks⁷³ are widespread in Nigeria. 63% of the population is multidimensionally poor; 72% of people living in rural areas encounter this type of poverty. Like economic poverty, multidimensional poverty is also greater in northern Nigeria than the southern regions of the country; 65% of people living in the North of the country are multidimensionally poor. Even within northern States multidimensional poverty levels vary considerably; the same variations occur within States.

Both maps presented above highlight the sharp contrast between poverty levels between the north and the south of the country, and across States. In both cases intensity of colour depicts higher poverty levels.

High levels and depth of multidimensional poverty entails for ordinary citizens, as especially poor rural dwellers, tensions among competing priorities such as basic consumption needs towards food security, access to basic social services, improvement of living conditions and investment in productive assets.

Rural livelihoods. 52% of the population is within working age (15-65)⁷⁴. Over 80% of households engage in rainfed agricultural activities and animal husbandry⁷⁵. The most widespread crops being maize (cultivated by 48.3% of households), followed by cassava (41.6%), sorghum (39%) and cowpea (30.6%).

Land in rural areas is acquired through the following different channels, by order of importance: (i) through family inheritance (through the patrilineal line, from father to son⁷⁶); (ii) made available by other households for use free of charge; (iii) acquired through community structures; (iv) rented; or (v) purchased. Not all social groups have equal access to land. Use of inputs in rural areas is not widespread; extension service coverage is only 13.2%.

Numerous barriers limit the progression of smallholder farmers and processors. The rural population also suffers from limited alternative employment opportunities. In this context, households resort to non-farm self-employment activities (60.7% of rural households) most of which is retail trade⁷⁷. Most activities of this nature are practiced at home or in the vicinities (42.5%), markets (17.5%) and shops in commercial areas (11.6%), while 13.3% are mobile activities. Over 90% of non-farm enterprises provide goods / services directly to the final consumer.

Start-up capital is most important factor for households to engage in non-farm income generating activities; 46% of households use household savings, while 29.1% borrow money from relatives or friends or use funds obtained from traditional savings groups (esusus). Over half of the population is unable to accumulate the capital to start a non-farm activity. Other factors impinging the stagnation of inclusive rural development are poverty, the generalised existence of weak governance systems and environmental degradation.

The rise in food prices, the impossibility or loss of a working household member, increase in the price of inputs and non-farm enterprise failure constitute the main shocks

⁷² NBS, 2023. Nigeria Multidimensional Poverty Index (2022).

⁷³ Ibid.

⁷⁴ NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

⁷⁵ <https://www.worldbank.org/en/programs/lsmis/initiatives/lsmis-isa#6x>

⁷⁶ Federal Ministry of Agriculture and Rural Development, August 2016. Gender Policy in Agriculture.

⁷⁷ Ibid.

experienced by rural households which affect their livelihood activities and livelihood outcomes⁷⁸.

In addition to self-employment, 11.6% of males and 5.3% of females are involved in formal wage employment⁷⁹. Finally, remittances play an important role in Nigerian HHS, especially poor HHS: 54% of HHS report receiving remittances among which 80% use the funds received to cover consumption needs⁸⁰.

In the face of shocks, rural HHS in Nigeria reduce food and non-food consumption, receive support from family and friends, sell productive assets and consume savings. In extreme situations leading to displacement HHS become highly dependent on emergency aid support and support from family networks. In such times coping strategies have been seen to also include harmful strategies, especially for women and children, including transactional sexual relations and falling into situations of coercion to meet very basic needs.

Conflict and insurgency. In 2023, Nigeria ranked 144 / 163 countries in the Global Peace Index according to the Institute for Economics and Peace, pointing to very weak foundations for potential future peace⁸¹.

Since 2011, the North Central and West Regions of Nigeria have been affected by competition over natural resources materialized as violent conflict between farming and herder communities. Armed groups and gangs ("bandits") have emerged in the context of tension perpetrating abuses such as organized cattle rustling, kidnappings, sexual violence and causing innumerable casualties. Since 2021 the government has intensified its military response to banditry in these areas. At the same time, the North-Eastern States have been affected by atrocities inflicted by extremist terrorist groups (Boko Haram and the Islamic State in West Africa, ISWA) tackled by counterterrorism operations led by the Nigerian Security Forces. Affected States have faced a humanitarian emergency affecting at least 8.3 million people – 80% of these are women and children⁸².

In November 2023, a total of 2,295,534 people were internally displaced in Nigeria's Northeastern Region of which 94% as a result of insurgency; and 1,190,293 in the North West and North Central Regions. In addition, over 240,000 Nigerians from Sokoto, Yobe and Borno and have sought refuge in Chad and Niger⁸³. Formal and informal IDP camps and host communities have received those internally displaced by conflict and violence in northern Nigeria.

⁷⁸ Ibid.

⁷⁹ NBS, July 2020. Nigeria Living Standards Survey (2018/2019).

⁸⁰ Ibid.

⁸¹ IEP, 2023. Global Peace Index 2023: Measuring Peace in a Complex World.

⁸² Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.globalr2p.org/countries/nigeria/> Accessed 30th December 2023.

⁸³ UNHCR, November 2023. Nigeria: All Population Snapshot as of 31st October 2023.

Table 2: IDPs per VCN Target State, September 2023.

State	# IDPs	State	# IDPs	State	# IDPs
Kebbi	-	Katsina	174,000	Borno	1,800,000
Sokoto	72,000	Kano	25,000	Yobe	172,300
Zamfara	156,400	Jigawa			

Source: UNHCR, September 2023. Nigeria: Education Dashboard 2022-2023 Schoolyear.

The Federal Government of Nigeria is intensively engaged in achieving peace, safety and security in affected States in VCN's target States resulting in the start of a progressive return of displaced populations to their communities of origin. Anecdotal evidence however indicates that even in these locations absolute reduction of all risks of violence has not been achieved in all communities resulting in movement restrictions beyond a perimeter of 5 or 10 kms from the community center. In this context, land available for farming can be limited in communities affected by conflict and violence resulting in increased competition over land.

According to the Nigeria Security Tracker, violence has resulted in varying degrees of deaths in VCN target States. Data between July 2021 and July 2023 indicates that over 4,115 people have died in Borno State; 2,018 in Zamfara; 769 in Katsina; 534 in Sokoto; 237 in Kebbi; 160 in Yobe; 44 in Kano and 25 in Jigawa⁸⁴.

Violence and conflict generally affect the entire population of affected communities with the loss of lives, homes, assets and means of livelihoods; lack of access to essential services; displacement; and the infliction of multiple layers of trauma. However, as referred to above, women and children tend to be the most affected by conflict and violence.

Different forms of sexual violence have been common in situations of conflict in Northern Nigeria including rape⁸⁵ and sexual exploitation in camps and in situations of lack of access to or poor shelter conditions, and trafficking to North Africa and the Gulf Region⁸⁶.

Consistent with these documented findings, interviewees reached during the design mission indicated that displaced women in Northern States are often subjected to sex in exchange for food, shelter, water, and others by men in positions of relative power controlling decisions related to access to these basic human rights. Survivors are primarily women but can also include their children. Anecdotal evidence also indicates that PWDs are, due to their vulnerability, also more acutely affected by situations of conflict, as well as by sexual exploitation and abuse (SEA).

While conflict and insurgency have had an important bearing in the lives of rural dwellers in what will be VCN's target area, the high levels and depth of poverty and the negative effects of climate change all contribute to high levels of fragility.

In sum, in situations of conflict, women, children and PWDs face increased lack of access to productive resources such as land, and acute risks of SEA. Perpetrators include strangers as well as from men managing women's access to basic services and opportunities. These facts will be considered as part of the context in which the project will be implemented.

Socioeconomic stratification of the population. Four socio-economic levels have been identified in the northwest and east of the country: very poor HHs (40-50%); poor subsistence HHs (30%-40%); vulnerable market oriented HHs (20%); and better off rural dwellers (10%). It is estimated that women headed HHs represent between 30-40% of HHs living under the poverty line, especially among the very poor. Other IDPs and PWDs

⁸⁴<https://www.cfr.org/nigeria/nigeria-security-tracker/p29483> Accessed 19 December 2023.

⁸⁵ Global Centre for the Responsibility to Protect, 30 November 2023. Nigeria: Populations at Risk. <https://www.globalr2p.org/countries/nigeria/> Accessed 30th December 2023.

⁸⁶UNHCR, 2020. Assessment of Trafficking Risks in Internally Displaced Persons Camps in North East Nigeria. <https://data2.unhcr.org/en/documents/details/75273> Accessed 10th of December 2023.

are also mostly found in this socio-economic category. Many of the HHs currently living under the poverty line find themselves in that state due to the consequences of shocks such as conflict, insurgency and agro-climatic hardship. Many of those currently living under the poverty line are not part of FOs.

The table below offers brief description of the socioeconomic characterization of the population and the estimated proportion of the population that is in each group. The table was produced based on interactions with stakeholders during the design mission and observation. While the information does not mirror the reality in every community, it provides indicative information on the most common characteristics of the different socio-economic strata.

Table 3: Socioeconomic characterisation of the rural population in VCN ´s rural target communities.

Very poor 50%	Poor 30%	Non-poor but vulnerable to poverty 15%	Rich 5%
Varying family size.	Large families.	Ratio of working adults vs. dependants is favourable.	Small families.
Low education/illiteracy.	High levels of illiteracy.	Usually have some education.	The head of HH often have higher education.
Low social capital.	Low social capital.	Have some connections with powerholders.	Have connections, influence, and power.
No assets or depletion of all assets due to conflict.	Have some access to land.	Have access to land and still have some assets (house, equipment, machines, etc.).	Have assets of economic value.
Beg for food or receive food from neighbours and relatives. Obtain food from transactional exchanges. In some cases, HHs can go 1-2 days without eating.	At least 1 meal a day is secured.	2 meals a day secured.	Dietary diversity and 3 meals a day.
A vast proportion of those in this category are WHH, child headed HHs, HHs with a member with a disability, and people who have due to insurgency or banditry lost all their assets but can easily re-establish their socio-economic status.	WHH also present in this group.		
Work for others as farm labourers, servants, and even petty traders for others.	Work for others but also farm to meet some HH consumption needs and sell some produce at times.	Good farming and / or commercial activities. These HHs can fall back into poverty in when they face external or internal shocks.	Diversified income stream. Usually involving salaries, assets generating income and business.

Not all HHs in the very poor category have always been very poor but fell into this situation because of the conflict and have not been able to recuperate due to intrinsic characteristics that in the context limits their progress (for example, not having a male head of HH, having a disability, illness, etc.).

Women and gender. Women and girls represent half of Nigeria's population with women accounting for about 49,3% of the population. Nigeria has developed several policy instruments to promote and protect gender equality and women's empowerment (GEWE), including the National Gender Policy 2021 – 2026. The policy is based on the premise that GEWE is paramount for the country's economic and political development. The policy is consistent with the equality principles of the country's constitution and several international conventions on GEWE ratified by the country⁸⁷. Other national instruments upholding the principles of GEWE include the National Gender Policy in Agriculture is the main instrument for sectoral gender mainstreaming which seeks to meet the gender gap in Nigeria's agricultural sector⁸⁸.

Gender inequalities remain pervasive in Nigeria, fueled by norms limiting women's access to services, productive assets, affecting participation and decision making, and mobility, among others. Forty-seven percent of adult women over 15 are illiterate (against 29% of men)⁸⁹. Nigeria falls in the group of countries with the highest gender inequality in human development outcomes with a Gender Development Index value of 0.868. Nigeria is among the top 10% of countries worldwide that exhibit the highest levels of gender discrimination⁹⁰.

While the participation of women in agricultural value chains is generally low compared to that of men, women are overrepresented as unpaid family members engaged in farming. Women involved in farming are mostly working in the areas of harvesting, processing and marketing of farm produce⁹¹. In fact, women represent between 60-79% of the country's rural labor force, yet men are five times more likely to own land than women. Women have limited decision-making power at HH in relation to the use of assets and money. Women generally own assets of low economic value which are easily disposed of to meet daily family needs. Women's influence in mixed gender FOs is also low. Trainings are often conducted in the location and time of convenience of trainers and men because of not accounting for women's productive and reproductive responsibilities. Access to capital/credit, limited access to information on project opportunities and poor literacy also limit women's participation in agricultural development projects and ownership of businesses in agricultural value chains⁹².

Approximately 28% of girls aged 15-19 are already married, and 23% in that age group are already mothers or pregnant with their first child. The incidence of early marriage and childbearing is even higher in the states of the semi-arid northern Nigeria with the youngest ages of marriage seen in the Northwest, Northeast, and North Central regions⁹³. Early childbearing is strongly correlated with maternal and child mortality. Millions of adolescent girls (10-19 years)⁹⁴ are currently out of school; they have never enrolled or

⁸⁷ International conventions and instruments Nigeria is a signatory of include: the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Convention on the Rights of the Child (CRC), the Vienna Conference on Human Rights, and the Beijing Platform for Action (BpFA), New Partnership for African Development (NEPAD), AU Solemn Declaration for Gender Equality, African Protocol on People's Rights, and the Rights of Women (APPRRW), International Conference on Population Development Plan of Action (ICPD PoA), the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs).

⁸⁸ FMARD, 2019. National Gender Policy in Agriculture.

⁸⁹ <https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?locations=NG> Accessed 1st of January 2024.

⁹⁰ Country Partnership framework Nigeria FY21-FY25 World Bank Group.

⁹¹ Thompson, O. A. and Amos. T. T., 2016. Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark.

⁹² FMARD, 2019. National Gender Policy in Agriculture.

⁹³ Thompson, O. A. and Amos. T. T., 2016. Value Chain Analysis of Rice Production in Oyo State Nigeria. International Food and Agribusiness Management Association, 19-23 June, 2016, Aarhus, Denmark.

⁹⁴ Definition: pmadata.org

dropped out early. The low proportion of girls attending secondary schools is particularly concerning, given that attaining this level of education is associated with fewer unwanted pregnancies and reduced infant mortality.

Anecdotal evidence collected during the design mission indicates that poor women, especially poor women headed HHs provide cheap labor to others. In some locations the surplus of supply of cheap labor by poor women could be resulting in women receiving less than they would in situations without conflict and / or instability.

The group indicated that many women are becoming widowed given the high rate of polygamy; one man dies, 2-4 women become widows and highly vulnerable. Men do not want to marry a woman with several children in a situation of important levels of widowhood.

The project should consider the high number of women headed households (WHH); according to local participants these represent about 40% of HHs who are live under the poverty line; and their extremely high levels of vulnerability given that women have extremely limited access to assets such as land, low participation, and influence in collective and public spaces. Measures need to be devised to ensure that this segment of the population is targeted at scale and considered in all decision-making processes and spaces supported by the project.

Adolescent girls and women in a situation of high levels of poverty (very poor) can find no option to feed their children than sexual transactional exchanges. Also, sexual harassment, exploitation and abuse are common in a situation of displacement, according to local participants in the group, from IDP camp staff, other men in a situation of power. The same applies to when resettling back to communities into precarious shelter with men holding positions of power. These cases often go unreported through conventional channels and are known in through specific inquiry by entities specifically interested in protecting women's rights.

What this means for the project is twofold: widowed women and female youth may carry high levels of trauma associated with GBV and others, which could condition their access to spaces, information, and promptness to respond to project activities, which needs to be accounted for and considered in project mobilization and selection processes. Secondly, strong mechanisms should be in place to ensure that women are protected in the context of project implementation; IFAD upholds zero tolerance for SH/SEA; the grievance redress mechanism (GRM) will include explicit elements around SH/SEA.

Youth. Generally, Nigeria has one of the youngest and largest working-age populations in the world. Youth in Nigeria constitute people aged between 15-29 years according to the new youth policy (2019)⁹⁵ and make up the largest demographic group after children, accounting for 23 percent of the total population at 41 million, a figure that is set to rise to 84 million by 2050⁹⁶.

The International Labour Organization estimates that some 60% of young people between the ages of 15 - 24 in Nigeria are in working poverty⁹⁷, youth unemployment (15-35 years) 42.5% and underemployment rate 21%⁹⁸. Engagement of youth in agriculture is a priority for the government. Youth have an untapped potential to become the food producers of the present and the future. However, targeting youth often focuses on male youth of different ages because they are more visible than female youth, especially in more conservative communities. Targeting youth with some education is also easier than poorer youth as they can often meet entry requirements easier. Youth with education are thus a low hanging fruit. Without deliberate efforts rural youth with low education, especially females can often be missed by development interventions.

⁹⁵ Federal Republic of Nigeria. National Youth Policy (2019-2023). Enhancing Youth Development and Participation in the context of Sustainable Development.

⁹⁶ World Bank Group, 2019. Nigeria on the Move: A Journey to Inclusive Growth. Nigeria Systematic Country Diagnostic. June 2019.

⁹⁷ Based on ILO estimates (percentage of employed living below US\$1.90 PPP).

⁹⁸ NBS, 2021. Q4 2020 Unemployment Report <http://nigerianstat.gov.ng/elibrary> Accessed 1st January 2024.

A large segment of the youth is in northern Nigeria where both youth unemployment and underemployment are higher due to lack of education, weak human capital investments, low empowerment of girls and women, high fertility rate, high number of out of school youth, and inadequate productive capacity. Not enough jobs are being created for the youth, who are characterized by lower human capital relative to adults.

PWDs. In Nigeria, it is estimated that approximately 15% of the population of Nigeria lives with at least one disability⁹⁹. Yet, anecdotal evidence in States affected by insurgency indicates that many people have acquired a disability because of terrorist attacks. As such, many more PWD are likely to be present in northern States than documented in recent population data.

71% of people living in HHs with at least one member living with a disability are multidimensionally poor¹⁰⁰. PWDs in Nigeria receive limited support from the government and rely strongly on family members and non-governmental organizations and faith-based organizations. Self and social stigma exclude PWDs from social and economic life. PWDs often live secluded in their households or can be abandoned leaving PWDs in a situation of using begging to survive¹⁰¹.

The Joint National Association of People with Disabilities (JONAPWD) created in 1992 is an umbrella organization of PWDs established in Nigeria to promote the rights and development of Nigerians with disabilities. The organization represents the interests of the teeming population of PWDs at the local and international level. JONAPWD is a full-fledged member of the international body called Disabled People's International (DPI). Also, in 2019, Nigeria passed the Discrimination Against Persons with Disabilities (Prohibition) Act in 2019¹⁰² and created the National Commission for Persons with Disabilities (NCPWD) pursuant to section (31) of the Discrimination Against Persons with Disability (Prohibition) Act 2018¹⁰³.

Part II: PROJECT STRATEGIES

VCN's Targeting Strategy encompasses three dimensions: geographic targeting, direct beneficiary targeting and value chain screening.

Geographic Targeting. The Project will target nine States in northern Nigeria. Based on the high levels and depth of poverty as well as fragility, VCN will target states previously covered by CASP (Sokoto, Kebbi, Jigawa, Zamfara, Borno, Katsina, Yobe) plus Kano State as it offers important market opportunities and linkages with the IFAD and ADB financed SAPZ project, and the additional State Bauchi will be included considering it is covered by AFD-financed RAAMP.

Specific LGAs will be selected within these nine participating States based on the following criteria:

- CASP / RAMP / RAAMP targeted
- Withing cluster of LGAs where project supported VCs are viable
- Peace and security
- Poverty level

The project will not be operating in highly unsecured areas" for the selection of areas. For selection n the basis of security, the project will be using different data from various sources especially the IOM's Stability Index. The IOM's Stability Index generates recurrent security scores and information indicating citizens' perceived security or insecurity levels and indication on their intention to stay or to leave and cluster analysis

⁹⁹<https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law> Accessed 1st January 2024.

¹⁰⁰ NBS, 2023. Nigeria MultidimensionalPoverty Index (2022).

¹⁰¹<https://borgenproject.org/disabilities-in-nigeria/> Accessed 1st January 2024.

¹⁰²<https://drive.google.com/file/d/12459t6medwbLvSunXgk6o9x9nnpnXG6W4/view> Accessed 1st January 2024.

¹⁰³<https://ncpwd.gov.ng> Accessed 1st January 2024.

which enables the identification of pockets of stability¹⁰⁴. Such index can provide useful in identifying locations that are highly insecure.

Direct beneficiary targeting. A total of about 456,000 direct beneficiaries/ households will be targeted by VCN. The VCN seeks to primarily target people living under the poverty line, but also acknowledging the need to target people who are vulnerable to falling into poverty. Together, the perspective will propel economic development among those who can make economic progress with limited project support primarily at agricultural production level (farmers) as well as at other levels of the value chain (entrepreneurs). VCN includes three main target groups:

- a)** Subsistence and semi-subsistence producers (very poor and poor households) - 40% of beneficiaries. This group comprises farmers with less than 3.0 hectares and produce mainly for subsistence and have very limited surplus – if any. HHs in this category generally earn less than \$1 per day, have no or very few production assets (of low value). Many of these HHs are female headed.

Rural dwellers in this category will be supported to enhance their production, productivity and resilience of farming activities; as a result, food security levels are expected to see important increases in this group. Beneficiaries in this category will receive support to access land (women, youth, PWDs, IDPs), receive technical training, be offered matching grants linked to input suppliers, service providers, markets, and any financial services available. As many of the beneficiaries in this category will not be members of formal FOs, the project will support the legalization of people that apply in informal or new groups. Beneficiaries supported in this category are expected to sustainably transition out of poverty.

- b)** Market oriented producers (poor households and households vulnerable to poverty) - 30% of beneficiaries. This group is constituted by farmers who are market-oriented, cultivating their own or leased land but who are highly susceptible to poverty because of internal or external shocks. Generally, these producers are members of relatively strong and formal FOs which link them to markets. These farmers can also be involved in and post-harvest activities.

This category of farmers will receive support to render their activities more robust and commercially viable. Interventions to be offered to this group include training on technical and business skills, offered matching grants albeit with lower subsidies than poor farmers in category (a) above and linked to financial institutions. More, these farmers will be linked when possible, to poor farmers targeted by the project and others to increase marketing volumes and ease access to fair markets among all. Farmers in this category targeted by the project are expected to consolidate and expand their farming activities under conditions of decent employment among their workers with fair wages.

c) Individuals not associated to POs, involved in starting entrepreneurship, such as agribusiness or employment opportunities (30% of all beneficiaries). The rationale for this is the existence of a large portion of the population mostly youth not interested in on-farm production, but off-farm innovative income opportunities. People in this category live under the poverty line and are interested in entrepreneurial activities, that is, opportunities around farming including seed production, provision of services to farmers, processing, transport, trade, etc in project supported VCs.

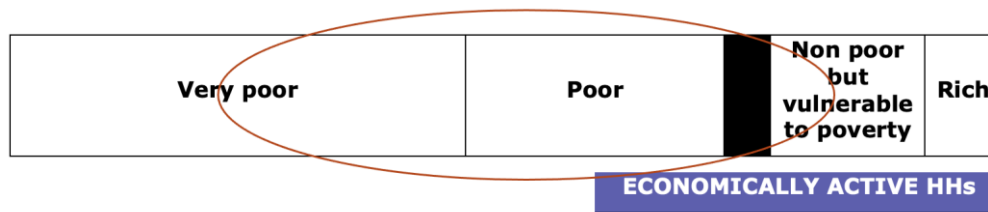
The Project will provide the following interventions to this category of beneficiaries: technical and business training, access to matching grants and linkages to financial institutions, service providers and markets.

Cross cutting interventions will be offered to beneficiaries from all three groups, namely, nutrition and the Gender Action Learning System (GALS), as relevant.

70% of women, youth, PWDs and returning IDPs targeted will be poor subsistence and semi subsistence producers and poor (aspiring) entrepreneurs.

¹⁰⁴ An example of the stability index report is as follows: <https://dtm.iom.int/reports/nigeria-stability-index-overview-round-3-september-2023>

Figure 3: VCN target groups vis-à-vis socio economic groups in rural target communities



Women and gender. To be gender transformative and meet the specific needs of women in terms of economic empowerment, workloads and increase in voice, the project will:

- VCN will create opportunities for women as beneficiaries, with a quota of 40% of VCN beneficiaries being women.
- Understanding that women are not a homogeneous group and that some sub-sets of women can be more vulnerable than others, specific attention will be placed on targeting young women and women headed households (WHH). (Half of women targeted will be WHH).
- As part of its gender transformative nature, the project will promote women's access to land and work towards strengthening the enforcement of systems protecting women's tenure security.
- VCs and specific self-employment nodes of interest to women will be included among opportunities supported by the project. The matching grant scheme will provide more favorable terms to poor women given this social group's limited capacity to access financing.

Opportunities offered to women will seek to improve the resilience of food production for consumption and income with activities executed as close as possible to their homes. In locations in which access to land is a serious constraint and there is access to water, measures such as vertical farming in large bags will be promoted.

- Women will receive knowledge acquisition and skills development activities from the project in separate groups in communities where women and men do not generally participate in joint groups. Measures will be created for trainers to be women. Participants will be able to bring their children under 10 years of age to the training. The trainings will occur in locations in proximity to HHs of convenience to women at times that are suited to them.
- Special considerations will be employed to poor eligible women in polygamous marriages by including other co-wives who have a child under 15 years of age as additional individual beneficiaries (each of the eligible wives will be counted as a separate HH given their responsibility over their children). This measure seeks to avoid the distribution of project support given to one woman in a polygamous marriage among several wives and results thus not being achieved due to dispersion of investments.
- Additional gender equity measures will be employed, as needed, to ensure that women receive all the support required to effectively access project opportunities in line with the VCN's targeting and overall project strategy. This could include integrating additional capacity building activities, easing procedures, and adjusting packages to enable poor women to achieve envisaged beneficiary outcomes.
- Support will be provided to women to create women's only cooperatives if this is women's preference.
- Women representatives will be involved at all moments in the project cycle to ensure that women receive information on project opportunities; that they understand application processes as well as the project's GRM (including SH/SEA)

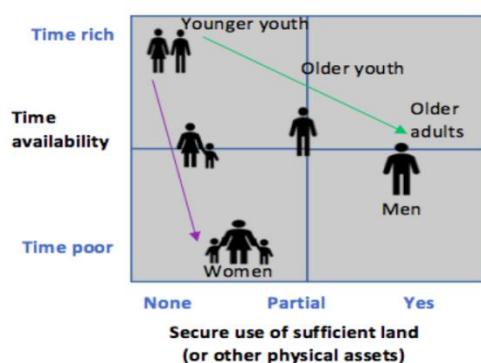
principles and procedures; and participate in beneficiary selection as well as in project monitoring and planning processes.

- VCN will include a robust zero tolerance policy to SH/SEA and be included in the project's GRM.
- The Gender Action Learning System (GALS) intervention will be offered primarily to men and women beneficiaries who are married (and to others when possible) to equip HHs to remove persistent gender barriers limiting women's empowerment and HH socio-economic progression. Given their responsibilities as managers of HH nutrition but men's heavy influence in their decisions, the project will embed nutrition in the GALS methodology.

The methodology will be employed as well in FOs, CAFs, and communities directly affected by conflict to develop a vision and path towards gender equality and socially inclusive development.

In addition to these programmatic measures, and to comply with gender transformative, the project will integrate measures at management level, such as training all staff on gender (as part of a broader training on social inclusion), GEWE responsibilities will be embedded in the job descriptions and contracts of all staff, performance appraisals will also assess the level of successful contribution in achieving gender transformation. A Social Inclusion Specialist will be hired at project HQ level and a social inclusion assistant in each State which will be responsible for all GEWE activities. The monitoring system will collect gender disaggregated data and determine if women are heads of household or not¹⁰⁵, and the ToC includes gender transformative pathways. Finally, the project will adopt a zero-tolerance stance towards SH/SEA; the GRM will include clear indications of procedures to follow in the specific occurrence of a case of SH/SEA.

Figure 4: Time availability and access to land among women and youth in rural communities of northern Nigeria



The adoption of a gender transformative approach requires commitment at the highest level. While gender transformative projects have specific requirements to meet to be considered transformative, the absence of understanding, commitment and leadership at the highest level hampers its actual implementation. It will be necessary that in addition to the comprehensive set of measures outlined in this design, the project management structures are committed to making important advancements in GEWE.

Youth. As a youth sensitive project, VCN will integrate the following measures:

- VCN will adopt a 30% targeting quota for youth aged 18-29. Of these, half will be women and half men. Understanding that older youth (youth aged 25-29) are easier to reach by

¹⁰⁵ VCN will consider women to be heads of household if: (i) they do not have a spouse and they and their children depend on the woman's activities and earnings; and (ii) if they are married but the spouse suffers from a debilitating illness or disability that does not allow them to earn a living.

development interventions, the project will strive to also reach younger youth (youth aged 18-24); at least 30% of youth will be of the younger youth category.

- Capacity building measures will be adopted by the project to enable youth access to productive resources (land and investment capital); services, goods and skills adapted to their capacities and interests; and include them in all processes and groups supported by the project to ensure that: (i) youth receive information about project opportunities, eligibility criteria, application process and the project's GRM; (ii) participate in the selection process of youth and other social groups to be targeted by the project; (iii) ensure their voices are heard and taken into account at all levels; and (iv) that they participate in project monitoring and planning processes.
- VCs and specific self-employment nodes of interest to youth will be included among those supported by the project, i.e., those offering quick returns and low capital investment and short cycle.
- Work with the Federal Ministry of Agriculture and Food Security to promote policy dialogue in relation to youth's sustainable access/tenure ship to land.
- The incubation model promoted under VCDP and LIFE-ND, or the wage employment promotion efforts of the Agri-business hubs are not suited to the levels of poverty and underinvestment prevalent in rural communities in the States to the targeted by VCN.

Being a youth sensitive project, VCN will also integrate additional management measures to ensure that programmatic actions outlined above are effectively managed and achieve stipulated results. Among these are training of project staff on youth sensitive programming (as part of a social inclusion training), include responsibilities towards youth targeting and success in job descriptions, contracts and performance appraisals, allocate youth sensitive programming responsibilities to SI personnel, integrate youth pathways out of poverty in the log frame and equip the project's M&E system to capture beneficiary age, so that monitoring of targeting performance and beneficiary performance can be tracked regularly.

PWDs. Loyal to its socially inclusive targeting strategy, VCN will ensure that all opportunities are created for PWDs to participate in the project. The following measures have been considered at design:

- The project will establish a quota for PWDs of 10%; this will include direct or indirect targeting. VCN will consider a PWD to be a direct beneficiary when the person becomes a beneficiary in their own right. This entails having the capacity to succeed in the income generating activity of their choice. Indirect targeting of PWDs refers to targeting the HHs of a person with disability under the same terms and conditions as direct targeting; the beneficiary in this case should be one of the people that the PWD depends on. Indirect targeting will be employed for PWDs who are unable to work in the types of opportunities offered by the project and could include cases such as cognitive disability and mental illness. Entry points for direct targeting of PWDs:
 - Irrigated vegetable farming
 - Animal fattening
 - Agriculture relying on paid labor
 - Trade: purchase and sale of produce at times in which prices are more favourable
- PWDs will participate in all stages of the project cycle, through organizations of PWDs and PWDs themselves in target communities to ensure that information on project opportunities, eligibility criteria, application process and the project's GRM reaches PWDs in target communities; (ii) participate in the selection process of PWDs (direct and indirect targeting); (iii) ensure their voices are heard and taken

into account at all levels; and (iv) that they participate in project monitoring and planning processes.

- As with other groups targeted by the project, the project's M&E system will make it possible to monitor the performance of PWDs on a regular basis so that operational strategies can be fine-tuned to maximize the possibilities of success of PWDs targeted.

IDPs and their host communities. VCN will be implemented in communities with proved rates of safety and security. Given the trend in displacement of populations in most target States, it is likely that the project targets entire communities that were displaced due to conflict or returning IDPs and their host communities. The project will only intervene in the development landscape; as such it will not target people living in temporary (formal or informal) IDP camps. Because of its context specific and adaptive nature, the project will not establish a quota for IDPs.

In communities where some or all community members are constituted by returnees, the project will:

- IDPs receive information about the project, eligibility criteria, beneficiary selection and the project's GRM.
- Ensure that returning IDPs are considered as potential candidates if they meet all established criteria.
- That IDPs in targeted communities are included in all project processes.

Beneficiary selection. VCN, will apply eligibility criteria to select beneficiaries as well as participatory processes. Self-targeting measures will reduce the risks of inequality and elite capture.

Entry points. Entry points for the selection of target groups engaged in agricultural production activities (target groups (a) and (b) above) will be selected from existing FO, new groups constituted as a response to project mobilization activities and off-taker outgrower schemes.

Participatory poverty and livelihood analysis and stringent pre-agreed selection criteria for each type of beneficiary be used in each target community to select beneficiaries. Representatives of all the different target groups (men, women, youth, PWDs, IDPs) will be involved in the application validation and selection process.

Value chains screening. All value chains considered by the project will be screened to ensure climate and environmental, social and market suitability. In this context, opportunities will exist for women, youth and PWDs to participate in the project through income generating activities that these groups commonly engage in and / or that they aspire to be involved in.

APPENDIX 1: Special Considerations for GALS implementation

The impact of GALS on beneficiaries is directly correlated to the quality of implementation. Like any other facilitative methodology related with behaviour change, especially when related to sensitive topics, requires that beneficiaries receive process-oriented support to make the changes which best suit their realities. This support needs to be provided by duly trained peers. Without adequate training and supportive supervision GALS facilitators (those spearheading GALS outreach among project beneficiaries) can often instruct or preach instead of facilitating self-analysis towards decision-making; they can also pollute their efforts with their own social baggage unknowingly. Delivering facilitative processes is a skill that is acquired with guided practice.

GALS is by nature a self-replicating methodology, as those transformed by it wish to share the GALS transformational path with others. Experience in other projects shows however that the following measures can substantially increase the impact of the methodology in the pool of project beneficiaries:

- GALS facilitators should be trained in phases, to allow them to digest the information shared with them and be transformed before aiming to transform others (for example through 2 or 3 trainings a few weeks apart). Training should finalize by equipping them to replicate the transformational process they went through with others along with an action plan with clear and simple targets.
- GALS facilitators should not be spread too thinly across communities. A minimum number of 2-4 should be present in easy to reach locations to support each other in the quest of positively influencing others.
- When project beneficiaries “graduate” from the GALS process guided by the GALS facilitators they should be invited to replicate it among another limited number of project beneficiaries (for example, three). The implementation strategy chosen for the GALS under the project should seek to target 30-40,000 people through high quality replications. Beyond that, GALS graduates are free to share the methodology with anyone else they wish to share it with. The commitment with the project should be to replicate among project beneficiaries in locations which are easy to reach.

GALS has been seen to produce a number of different results, all of which are important for women and the households that they live in to work in stronger coordination and collaboration, making the best use of all resources they have available.

At beneficiary household level these include:

- Increase in women’s access to and control of assets such as land and other productive resources.
- Increase in women’s participation in decision-making on decisions that have a direct bearing on their wellbeing and that of their households.
- Improvement of income generating activities.
- Increase in household income.
- More equitable distribution of responsibilities.
- Women have more time available for their self-development, for income generation activities.
- Increase in household nutrition security.
- Increase in household wellbeing.
- Reduction of GBV.

At FO level, GALS can produce changes such as:

- Increase in women’s access to opportunities that would previously be largely accessible to men.
- Increase in women’s access to inputs, services, and markets.

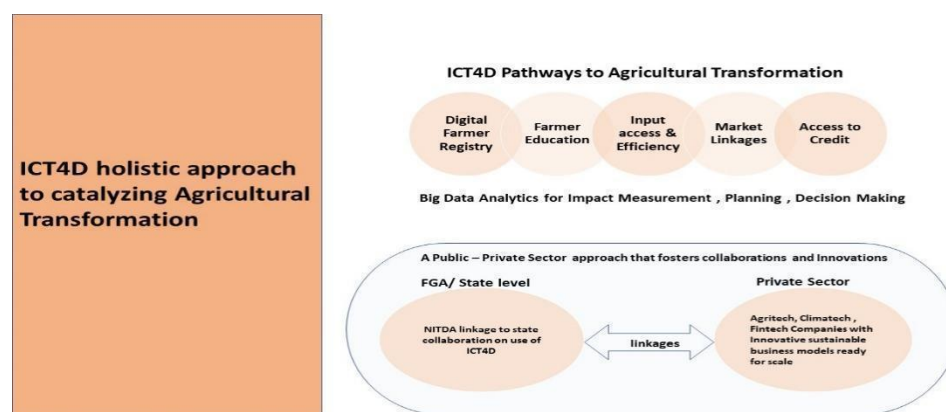
- Increase in women's voice and influence in decision-making rendering FOs sensitive to women's concerns and needs.
- Greater coordination and collaboration between FO members.
- Emergence of female leaders that collaborate with men as equal partners of development.

Equally, at CAF level, the use of GALS can result in:

- Women's voices being heard and influencing stakeholder decisions.
- Women's pressing needs being increasingly met.
- The emergence of female leaders that collaborate with men as equal partners of development.
- Greater coordination and collaboration among CAF stakeholders.

Developing the necessary capacity within the project requires specialized GALS support to: develop a GALS implementation strategy and technical step by step manual; train all relevant staff and facilitators and other relevant stakeholders; and provide implementation support while internal capacity is built.

Annex 13.9: Technical Note: ICT4D



a) Challenges in Farmer Data Management:

- Data integrity concerns
- Data gaps and incompleteness
- Insufficient financial investment in data infrastructure and management (updating database)
- Cultural sensitivity issues
- Poor sensitization or community engagement

Initiating the digital transformation journey of VCN commences with the crucial task of refining the management of farmers' data. The Value Chain Nigeria (VCN) project aspires to bring about a revolutionary transformation in the agricultural sector by implementing an integrated digital farmer registry. Acknowledging the existing challenges in handling farmers' data, including non-standardized data fields, governance issues, sharing obstacles, and incentives hurdles, VCN is dedicated to overcoming these barriers that hinder the effective profiling of farmers within their communities.

To improve the accuracy and accessibility of farmer data, VCN will critically assess and refine the existing Ministry of Agriculture and Food Security (FMAFS) – NATIP ICT4D Priorities. The project will integrate cutting-edge technologies, such as the Drone-DJI P4 Multispectral for precise crop health and vegetation management insights, the Kobo Collect tool for efficient data collection, E-extension services, E-wallet services, and Mid Infrared (MIR) Spectroscopy Equipment for soil dry chemistry analysis. Drawing inspiration from successful examples in the market, such as Farm Stack, Agro-pocket, Easy Club, AI Chatbot, and Stingray (farmer registry), VCN aims to enhance its technological arsenal.

The establishment of a centralized integrated farmer registry, leveraging the National Animal Identification and Traceability System (NAITS), will serve as a comprehensive database. This registry will facilitate seamless connections for both public and private sector players, including Agritech, Fintech, and Climech, through an open API (Application Programming Interface). Partners like the National Identity Management Commission (NIMC), Committee of Bankers/Deposit Money Bank (BVN – sharing), Nigerian Commission Corporate (NCC), National Information and Technology Development Agency (NITDA), Telecommunication companies (internet data is too expensive, more investment), and Federal Consumer Protection will play a crucial role in spearheading this integrated farmer registry.

Through strategic collaboration with these partners, VCN will spearhead initiatives to standardize, govern, share, and incentivize farmer data, ensuring a cohesive and effective approach throughout the project lifecycle. The integrated digital farmer registry not only grants farmers a digital identity but also lays the foundation for robust decision support systems and impact measurement. This marks a significant stride towards realizing the overarching goals of the VCN project.

Proposed Next Steps to Boost Collaborations and Partnerships:

- Sensitization of key stakeholders through round-table events
- Review Data sharing and privacy laws/policies
- Advocacy
- Mobilize investment and incentivize actors on data management
- Harmonize databases

Recommendations:

- Adopt open-source data systems
- Mobilize investment and incentivize actors on data management
- Promote strong multistakeholder collaboration

b) Enhancing Access to Weather and Climate Information:

In the pursuit of fostering resilient agricultural practices, VCN recognizes the pivotal role of accurate weather forecasting and early warning systems for timely decision-making in planting, harvesting, and post-harvest handling, particularly in fragile contexts. To achieve this, VCN will collaborate with NiMET to enable farmers' access to user-friendly climate-smart weather readers. Additionally, partnerships with digital service providers (DSPs) will be forged to empower farmers through the utilization of a weather and crop calendar App developed using smartphone technology. This innovative application integrates data on weather forecasts, crop calendars, and pest and disease control, offering early warning services to highlight potential risks and bolster farmers' resilience. Collaborative partners for this initiative include NiMET, research institutions, non-governmental organizations (NGOs), DSPs, and farmers.

Proposed Next Steps:

1. Dissemination of information in local languages prevalent among smallholder farmers.
2. Engagement of traditional and religious leaders, along with other relevant stakeholders, to enhance awareness.
3. Three key recommendations:
 - a. Raise awareness on climate change.
 - b. Improve funding for climate-related initiatives.
 - c. Foster increased government-private sector partnerships and collaborations.

c) Facilitating Access to Digital Extension Advisory Services for Enhanced Agricultural Practices:

In an effort to attract women and youth to engage in agriculture as service providers and entrepreneurs, VCN is committed to establishing robust digital extension advisory services. This initiative aims to provide personalized advice tailored to specific value chain (VC) crops

and individual farmers, fostering informed decision-making for improved crop yields, reduced input costs, and enhanced overall farm management. Recognizing the high illiteracy levels among women, the approach ensures inclusivity by utilizing local languages and diverse channels such as Agribots, SMS, Integrated Voice Recording, and mobile-based applications.

The establishment of digital agricultural advisory services under VCN will significantly impact the agricultural landscape. By accelerating the development of E-advisory platforms for Good Agricultural Practices (GAP), Post-Harvest Management (PHM), and nutritional guidance, VCN aims to cover all aspects requiring informed advisories along the agricultural value chain. The anticipated impact includes increased productivity, resource optimization, and improved livelihoods for farmers.

VCN will engage reputable service providers such as AfricaRice and IITA to facilitate farmers' access to digital extension advisory tools. These tools include RiceAdvice Lite, an Android app-based decision support tool for optimizing fertilizer use in lowland rice production systems, promoted by organizations like GIZ MOVE, AGRA, and USAID. Other tools include WeedManager/AKILIMO for optimizing herbicide use, Land Area Calculator for precise measurement of farmers' land area, and the utilization of drones for pest control, particularly targeting Quelea birds. Partnerships with the Department of Extension Services under the FMAFS, CAF, National Information Technology Development Agency (NITDA), Digital Green, Farm Monitor, and Convexity Technologies Limited will further contribute to achieving the digital service targets.

VCN will collaborate with existing players in the E-extension realm, including Vijona Africa, Digital Green with video-enabled extension and AI chatbot capabilities, One CGIAR (IITA) providing solutions like RiceAdvice and IITA Herbicide Calculator, and Farm Monitor. This collaborative approach is anticipated to yield comprehensive digital extension services, empowering farmers with valuable insights, knowledge, and technological tools for sustainable and efficient agricultural practices.

D) Enhancing Input Distribution through Digital E-Vouchers:

In a dedicated endeavor to streamline the distribution of inputs, encompassing seeds and fertilizers, championed by federal states through input subsidies programs, VCN is poised to implement a digital e-voucher system harnessing Information and Communication Technology for Development (ICT4D). The primary aim is to ensure the efficient distribution of inputs while establishing traceability and authentication of quality inputs within rural communities.

Through the integration of ICT4D, VCN seeks to augment the efficiency of input distribution by improving traceability and transparency in allocation. The deployment of the e-voucher system will generate a comprehensive farmers' register and other digital records, enabling efficient monitoring of subsidy allocations to guarantee that the intended beneficiaries receive their entitled benefits. To further streamline decision-making processes and resource allocation, ICT4D tools will be employed to support input demand forecasting and planning. The analysis of data trends and demand patterns will empower state authorities to make informed decisions, facilitating the timely and targeted distribution of quality-certified inputs to farmers.

To implement the e-voucher system, VCN will collaborate with esteemed service provider firms like IFDC and Cellulant, recognized for their proficiency in transparent input distribution. Furthermore, existing solutions such as the Community Pass Card by Mastercard Foundation, Agro Pocket, AgromallTelagri, and NAGS Agropocket will be incorporated for their contributions

to farmers' profiling, e-wallet functionality, registration support, and communication of specific input requirements based on farmers' data.

By leveraging digital e-vouchers and integrating with established solutions, VCN strives to revolutionize the accessibility and distribution of agricultural inputs, ensuring farmers receive quality inputs promptly and transparently. This strategic approach aligns with the overarching goal of promoting sustainable and efficient agricultural practices within rural communities.

Recommendations:

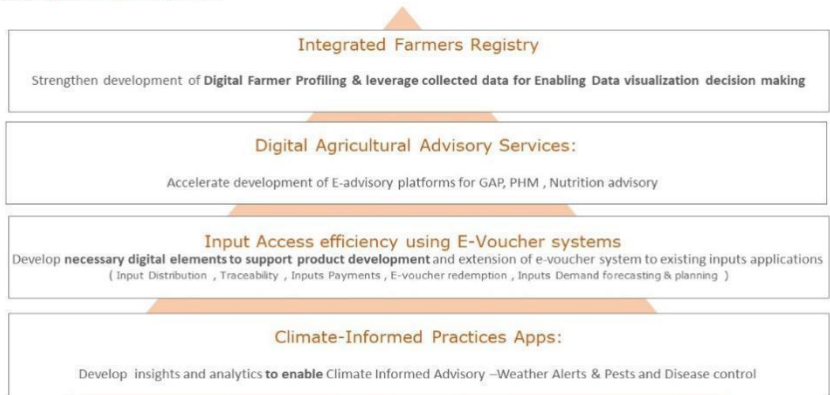
- Collaborate with Heifer International, IITA, Digital Green, and Vijona Africa for capacity building and technical assistance.
- Foster collaboration with the National Agricultural Extension Research and Liaison Services, Agric aid volunteers, and key private sector actors.
- Conduct system-wide stakeholder mapping and ensure consistent engagement through an exchange platform.
- Advocate for the establishment of a task force on ICT for Agriculture by the presidency and the creation of a community of Practice (CoP) on ICT4Ag by the Nigerian government to harness synergies among key partners.

(e) Improving Farmers' Access to Output Markets and Fair Prices:

To address the prevailing challenge of farmers being at the mercy of middlemen or traders manipulating market prices within the farming community, VCN is dedicated to enhancing market linkages and collaborations. The objective is to better connect farmers to output markets, enabling them to earn fair prices for their produce.

As part of this initiative, VCN will undertake a comprehensive review of existing Agritech e-marketplace applications currently undergoing pilot programs in the country. Additionally, collaboration with the federal Ministry of Agriculture and Food Security will be established, leveraging their Agricultural Marketing Information System (AMIS). This system serves to connect farmers with output markets and provides regular updates on food prices, ensuring transparency and fairness in transaction. Furthermore, VCN will explore innovative market linkage models that cater to the diverse needs across the entire value chain. The goal is to create a mutually beneficial scenario for all value chain actors, fostering a win-win situation. By scaling up the Agriculture Market Information System and incorporating mobile-based solutions for accessing market information, VCN aims to empower farmers and promote equitable and transparent market transactions.

Component 1: promoting sustainable agricultural systems, improved technology and climate-resilient agricultural practice through digital integrated services



ICT4D related Risks and Mitigation Strategies:

a) Challenges in Farmer Data Management:

1. Data Integrity Concerns:
 - Risk: Inaccuracies in the data could lead to flawed decision-making.
 - Mitigation: Implement robust data validation processes, conduct regular audits, and provide training to data entry personnel.
2. Data Gaps and Incompleteness:
 - Risk: Incomplete data may hinder the effectiveness of the integrated digital farmer registry.
 - Mitigation: Establish clear data collection protocols, conduct regular data quality checks, and incentivize farmers for accurate information.
3. Insufficient Financial Investment in Data Infrastructure and Management:
 - Risk: Inadequate funding might lead to outdated databases and limited system capabilities.
 - Mitigation: Allocate a dedicated budget for data management, explore public-private partnerships, and seek external funding sources.
4. Cultural Sensitivity Issues:
 - Risk: Cultural differences may impact the willingness of farmers to share data.
 - Mitigation: Implement community engagement programs, involve local leaders, and respect cultural norms regarding data sharing.
5. Poor Sensitization or Community Engagement:
 - Risk: Lack of awareness may result in low participation and resistance to the digital transformation.
 - Mitigation: Conduct extensive awareness campaigns, involve community leaders, and address concerns through open dialogues.

b) Enhancing Access to Weather and Climate Information:

1. Language and Cultural Barriers:
 - Risk: Disseminating information in local languages may pose a challenge.
 - Mitigation: Collaborate with local influencers, utilize multilingual communication channels, and leverage community networks for effective dissemination.
2. Limited Funding for Awareness:
 - Risk: Insufficient funding might hinder awareness campaigns.

- Mitigation: Seek partnerships with NGOs, engage in public-private collaborations, and allocate a portion of the budget specifically for awareness initiatives.
3. Government and Private Sector Collaboration:
 - Risk: Inadequate collaboration may limit the impact of the initiative.
 - Mitigation: Advocate for increased collaboration, establish formal partnerships, and encourage joint initiatives for climate-related awareness.

c) Facilitating Access to Digital Extension Advisory Services:

1. Limited Technology Adoption:
 - Risk: Resistance to technology among farmers, especially women and youth.
 - Mitigation: Provide user-friendly interfaces, offer training sessions, and demonstrate the practical benefits of digital advisory services.
2. Technological Infrastructure Challenges:
 - Risk: Inadequate infrastructure may hinder the deployment of digital advisory tools.
 - Mitigation: Collaborate with telecom companies for improved network coverage, explore offline capabilities, and invest in infrastructure development.
3. Privacy Concerns:
 - Risk: Farmers may be hesitant due to privacy and data security issues.
 - Mitigation: Implement robust data protection measures, ensure compliance with privacy regulations, and educate farmers on data security.

d) Enhancing Input Distribution through Digital E-Vouchers:

1. Technological Literacy:
 - Risk: Limited digital literacy among farmers may hinder the adoption of the e-voucher system.
 - Mitigation: Provide training programs, conduct awareness campaigns, and offer ongoing support for users.
2. Dependency on Service Providers:
 - Risk: Reliance on external service providers may introduce vulnerabilities.
 - Mitigation: Diversify service provider partnerships, establish clear service level agreements, and build internal capacities for system management.
3. Resistance to Change:
 - Risk: Resistance from stakeholders accustomed to traditional input distribution methods.
 - Mitigation: Implement change management strategies, involve stakeholders in the decision-making process, and showcase the benefits of the e-voucher system.

e) Improving Farmers' Access to Output Markets and Fair Prices:

1. Marketplace Competition:
 - Risk: Introducing e-marketplace applications may face competition or resistance.
 - Mitigation: Conduct market analysis, collaborate with existing market players, and differentiate the platform with unique features.
2. Data Security Concerns:
 - Risk: Farmers may be concerned about the security of their market data.

- Mitigation: Implement robust data encryption, ensure compliance with data protection regulations, and communicate transparently about data security measures.
3. Lack of Stakeholder Buy-In:
- Risk: Stakeholders may not fully support the proposed market linkage models.
 - Mitigation: Engage stakeholders in the design process, address concerns through dialogue, and showcase successful pilot programs to build confidence.

By addressing these potential risks and implementing the suggested mitigation strategies, the Value Chain Nigeria (VCN) project can enhance the success and sustainability of its digital transformation initiatives in the agricultural sector.

Innovative Features of the Value Chain Nigeria (VCN) Project

Description of Innovations:

The Value Chain Nigeria (VCN) project stands out for its incorporation of cutting-edge innovations that address the dynamic challenges in agriculture. Leveraging the power of Information and Communication Technology for Development (ICT4D), the project introduces several innovative features with a nuanced consideration of mainstreaming themes, including gender, nutrition, climate change, and youth.

1. Digital Integrated Farmer Registry:

- Innovation: VCN pioneers the establishment of a centralized integrated farmer registry, leveraging digital technologies such as Drone-DJI P4 Multispectral, Kobo Collect, E-extension services, and MIR Spectroscopy for accurate profiling.
- Contextual Significance: This digital registry ensures precise data collection, fostering inclusivity in targeting different demographics, and enhances decision-making by providing comprehensive farmer insights.

2. Climate-Smart Weather and Crop Calendar App:

- Innovation: VCN collaborates with NiMET and digital service providers to develop a user-friendly weather and crop calendar App using smartphone technology.
- Contextual Significance: This innovation empowers farmers with timely climate information, enabling them to make informed decisions on planting, harvesting, and post-harvest activities, aligning with climate change resilience strategies.

3. Digital Extension Advisory Services:

- Innovation: VCN engages reputable service providers and organizations like AfricaRice and IITA to deliver digital extension advisory tools, including RiceAdvice Lite, WeedManager/AKILIMO, Land Area Calculator, and drone-based pest control.
- Contextual Significance: These tools offer personalized advice to farmers, especially women and youth, fostering improved crop yields, reduced input costs, and overall farm management in alignment with nutrition and youth empowerment objectives.

4. Digital E-Voucher System for Input Distribution:

- Innovation: VCN implements a digital e-voucher system in collaboration with service providers like IFDC and Cellulant to streamline the distribution of seeds and fertilizers.
- Contextual Significance: This ICT-driven approach ensures transparency, traceability, and targeted distribution, optimizing resource allocation and benefiting farmers through input subsidies, aligning with gender and youth empowerment.

Prospects for Scaling Up:

The innovative features of the VCN project lay a robust foundation for scalability and sustained impact beyond its completion. Similar to successful initiatives like the Climate Adaptation Support Program (CASP), Lifeid, and Value Chain Development Program (VCDP), the VCN project demonstrates the power of leveraging ICT as a driver for innovation in agriculture. The prospects for further scaling up the results achieved by the VCN project include:

1. Replication of the Digital Integrated Farmer Registry:

- Leverage ICT: The success of the digital integrated farmer registry can be replicated in other agricultural projects, ensuring accurate data collection, targeted interventions, and enhanced decision-making.

2. Adoption of Climate-Smart Technologies:

- ICT-Enabled Solutions: The climate-smart weather and crop calendar App can be adopted in various projects, promoting resilience to climate change by providing farmers with real-time information and risk assessments.

3. Extension Services Integration:

- Collaboration and Partnerships: Collaborative efforts with reputable service providers and organizations can facilitate the integration of digital extension advisory services in diverse agricultural landscapes.

4. Digitalization of Input Distribution Systems:

- Knowledge Transfer: The digital e-voucher system's success can be shared with other projects and governmental initiatives, fostering transparent and efficient input distribution mechanisms.

In conclusion, the VCN project's innovative features, driven by ICT, not only address current agricultural challenges but also set a precedent for future scalability and adoption in diverse agricultural contexts. The project's legacy lies in its ability to inspire similar initiatives that harness the transformative power of technology for sustainable and inclusive agricultural development.

Innovation and Scaling Up in VCN Project

The Value Chain Nigeria (VCN) project is set to revolutionize the agricultural landscape through innovative technological solutions and a strategic scaling-up approach. Leveraging digital technologies from the Ministry of Agriculture and Food Security, such as Drone-DJI P4

Multispectral, Kobo Collect, E-extension services, and MIR Spectroscopy, VCN ensures accurate profiling. Learning from the success of the National Animal Identification and Traceability System (NAITS), the project establishes a comprehensive database, fostering seamless connections for both public and private sector players through an open API.

The integrated digital registry signifies a pivotal step in precise data collection, promoting inclusivity by targeting different demographics. This innovation enhances decision-making by providing comprehensive insights into farmers' profiles.

The Value Chain North (VCN) Project aims to strategically leverage the National Agriculture and Technology Innovation Plan (NATIP) to drive innovation in agriculture, contributing to sustainable national food security, improved nutrition, job creation, and enhanced resilience. Inspired by the IFAD Approach for Smallholder Inclusion, particularly the 4Ps Mechanism, the VCN project recognizes the importance of private sector partnerships in fortifying its foundations.

Digitalization of the Sector: VCN champions a holistic digitalization of the agricultural sector/value chain. The incorporation of ICT aims to boost farm crop yields by increasing access to quality inputs (seeds and fertilizers). Digitized farm advisory services, including Good Agricultural Practices (GAP), Post-Harvest Management (PHM), and climate advisory, empower farmers to enhance productivity. E-vouchers, as an extension of existing input distribution strategies, ensure the efficient and transparent distribution of quality inputs to the last mile.

Market Linkages and Transparency: Transparency along the value chain is a cornerstone of the project. Farmers, supported by digital interventions, will access better prices for their produce, elevating their incomes. This opens significant opportunities for private sector players, such as agritech, fintech, and climate tech, to scale up their innovative business models. The collected data by tech companies will serve as alternative datasets, strengthening credit scoring engines and enabling farmers to access credit without collateral.

The VCN mainstreaming initiative recognizes the pivotal role of innovation in championing the cause of youth and women empowerment. Through a Youth-Centric Approach, the project seeks to unleash the potential of youth by expanding engagement initiatives through innovative means, emphasizing technological advancements and forging strategic partnerships with educational institutions.

Scaling Up Strategies: The scaling-up strategy in VCN involves the adoption of interventions throughout the project cycle, with a keen focus on course correction based on lessons learned. Drawing insights from past IFAD projects like CASP and VCDP, the project ensures a well-informed and adaptive approach to scalability.

Continuous Learning and Adaptation are pivotal in the project's success. A framework is established that harnesses the power of innovation through regular feedback loops, impact assessments, and adaptations to the Gender Action Learning System (GALS) strategy. The creation of a vibrant learning community facilitates the sharing of experiences and insights, ensuring a dynamic and responsive approach to scaling up GALS.

Productivity expansion within the VCN involves building on the success of Community Agricultural Forums (CAFs), with efforts concentrated on expanding the 4Ps model. Collaboration with Non-Sovereign Private Sector Operations (NSO) entities, such as BabbanGona, aims to tap into their resources and expertise, providing valuable insights for further scaling up innovative approaches.

In conclusion, VCN's innovative features and scaling-up strategies position it as a transformative force in the agricultural sector. The project's commitment to leveraging technology, fostering transparency, and learning from past experiences paves the way for sustainable and impactful interventions, ultimately benefiting farmers and stakeholders across the entire agricultural value chain.

Detailed activity plan

Scaling up a centralized integrated farmer and value chain digital registry involves a systematic approach to expand its coverage and impact. Here are activities for scaling up such a registry:

1. Stakeholder Engagement and Partnerships:
 - Activity 1: Identify and engage key stakeholders, including government agencies, NGOs, private sector players, and technology providers.
 - Activity 2: Form partnerships with relevant organizations to leverage their networks and resources for expansion.
2. Technical Enhancement and Standardization:
 - Activity 1: Conduct a comprehensive review of the existing digital registry for improvements and scalability.
 - Activity 2: Standardize data collection formats and processes to ensure consistency across regions and value chains.
3. Geographical Expansion:
 - Activity 1: Develop a phased expansion plan, prioritizing regions with high agricultural activity and diverse value chains.
 - Activity 2: Establish partnerships with local authorities to facilitate the inclusion of farmers and value chain actors from new regions.
4. Technology Integration:
 - Activity 1: Explore and integrate emerging technologies to enhance the functionalities of the digital registry.
 - Activity 2: Ensure compatibility with other agricultural technology platforms for seamless data exchange.
5. Capacity Building and Training:
 - Activity 1: Conduct training programs for farmers, extension workers, and other stakeholders on the use of the digital registry.
 - Activity 2: Develop user-friendly manuals and guides to facilitate onboarding and usage.
6. Incentivization and Recognition:
 - Activity 1: Implement incentive programs for farmers and value chain actors to encourage active participation in the digital registry.
 - Activity 2: Recognize and celebrate achievements of individuals and organizations contributing to the success of the registry.
7. Data Security and Privacy Measures:
 - Activity 1: Strengthen data security protocols to protect farmers' information and maintain their trust.
 - Activity 2: Comply with relevant data privacy regulations and standards.
8. Monitoring and Evaluation:
 - Activity 1: Establish a robust monitoring and evaluation framework to assess the impact and effectiveness of the digital registry.
 - Activity 2: Regularly review and update key performance indicators based on the evolving needs of the stakeholders.
9. Customization for Different Value Chains:

- Activity 1: Tailor the digital registry to accommodate the specific requirements of different agricultural value chains.
 - Activity 2: Engage with experts in each value chain to ensure the registry meets the unique needs of various crops and livestock.
10. Community Awareness and Sensitization:
- Activity 1: Launch awareness campaigns to educate farmers and value chain actors on the benefits of the digital registry.
 - Activity 2: Organize workshops and community events to address any concerns and build trust.
11. Scalable Technical Infrastructure:
- Activity 1: Upgrade the technical infrastructure to support a growing number of users and data points.
 - Activity 2: Consider cloud-based solutions for scalability and efficient data management.
12. Feedback Mechanism:
- Activity 1: Implement a feedback mechanism to gather input from users for continuous improvement.
 - Activity 2: Act promptly on feedback received to enhance user satisfaction and system effectiveness.

Integrated digital agricultural advisory services

Scaling up an integrated digital agricultural advisory service involves careful planning and execution to ensure effective delivery of services across various aspects. Here's a detailed activity plan:

Activity Plan for Scaling Up Integrated Digital Agricultural Advisory Services

Early Warning Systems for Weather Alerts:

1. Activity 1: System Enhancement
 - Assess the existing weather alert system.
 - Identify and integrate advanced meteorological tools and APIs.
2. Activity 2: Stakeholder Collaboration
 - Engage with meteorological agencies for real-time data.
 - Collaborate with technology partners for accurate forecasting models.
3. Activity 3: Mobile Application Integration
 - Upgrade the advisory service app to incorporate real-time weather alerts.
 - Ensure compatibility with diverse mobile platforms.
4. Activity 4: User Training
 - Conduct workshops and webinars to educate farmers on interpreting weather alerts.
 - Develop user-friendly guides within the app.

Pests & Disease Control:

1. Activity 1: Pest Identification Database
 - Enhance the existing database with a comprehensive list of pests and diseases.
 - Include images and information for easy identification.
2. Activity 2: Data-Driven Pest Monitoring
 - Implement a digital system for farmers to report pest sightings.
 - Integrate machine learning for automated pest identification.

3. Activity 3: Advisory Notifications
 - Develop a push-notification system for timely pest and disease alerts.
 - Collaborate with agricultural experts to provide recommended control measures.

Agricultural Advisory Services on E-Extension:

1. Activity 1: Content Development
 - Create engaging and informative content on e-extension platforms.
 - Cover various crops, farming practices, and problem-solving techniques.
2. Activity 2: Multilingual Support
 - Translate advisory content into local languages.
 - Implement voice-based advisory for users with low literacy levels.
3. Activity 3: Interactive Features
 - Integrate chatbots or live chat support for instant interaction.
 - Enable discussion forums for farmers to share experiences.

Good Agronomic Practices (GAP):

1. Activity 1: GAP Modules
 - Develop interactive modules covering different aspects of GAP.
 - Include videos, animations, and real-life case studies.
2. Activity 2: Farmer Training Programs
 - Organize virtual and on-site training programs on GAP.
 - Partner with agricultural experts to conduct workshops.

Post-Harvest Management (PHM):

1. Activity 1: Digital PHM Guidelines
 - Create a comprehensive digital guide on PHM.
 - Include storage techniques, transportation tips, and quality preservation.
2. Activity 2: PHM Monitoring Tools
 - Integrate sensors or IoT devices for post-harvest monitoring.
 - Provide farmers with real-time data on storage conditions.

Nutrition-Sensitive Informed Advisories:

1. Activity 1: Nutrition Database
 - Develop a database of nutritional information for different crops.
 - Collaborate with nutritionists to validate and enhance the data.
2. Activity 2: Personalized Nutrition Plans
 - Implement a feature for farmers to receive personalized nutrition plans.
 - Integrate with local health authorities for expert advice.

Monitoring and Evaluation:

1. Activity 1: Data Analytics
 - Implement analytics tools to track user engagement.
 - Analyze user feedback and usage patterns for continuous improvement.
2. Activity 2: Impact Assessment
 - Conduct periodic impact assessments on farmers' adoption of advisories.
 - Use feedback to refine and optimize advisory services.

Community Outreach and Awareness:

1. Activity 1: Awareness Campaigns
 - Launch digital and offline campaigns to promote the scaled-up advisory services.
 - Engage with community leaders and influencers for wider reach.
2. Activity 2: Collaborate with NGOs and Extension Services
 - Partner with non-profits and extension services to facilitate outreach.
 - Leverage existing networks for community engagement.

Technical Infrastructure:

1. Activity 1: Infrastructure Upgrade
 - Assess and upgrade server capacity and bandwidth for increased users.
 - Explore cloud solutions for scalability.
2. Activity 2: User Support System
 - Strengthen customer support services for technical assistance.
 - Establish a helpdesk for query resolution.

Capacity Building:

1. Activity 1: Training Workshops
 - Conduct workshops for extension workers on the use of advanced advisory tools.
 - Empower local service providers to assist farmers.
2. Activity 2: Continuous Learning
 - Facilitate ongoing training sessions for farmers to stay updated on new features.
 - Develop a certification program for advanced users.

Funding and Sustainability:

1. Activity 1: Grant Applications
 - Identify potential grants for scaling up agricultural advisory services.
 - Submit applications to relevant funding bodies.
2. Activity 2: Public-Private Partnerships
 - Explore partnerships with private companies for sustainable funding.
 - Develop a revenue model for long-term sustainability.

Monitoring and Reporting:

1. Activity 1: Progress Monitoring
 - Implement a real-time progress monitoring system.
 - Generate regular reports on key performance indicators.
2. Activity 2: Feedback Loops
 - Establish mechanisms for user feedback and suggestions.
 - Iteratively enhance the advisory services based on feedback.

Activities for Establishment of Input Distribution through Digital E-Vouchers:

1. Stakeholder Engagement:
 - Conduct stakeholder meetings involving government agencies, input suppliers, and technology partners.
 - Define roles, responsibilities, and expectations of each stakeholder in the e-voucher system.

2. Needs Assessment:
 - Conduct a needs assessment to understand the requirements of farmers, input suppliers, and local communities.
 - Identify specific crops and regions for targeted input distribution.
3. E-Voucher System Development:
 - Develop a digital e-voucher system with user-friendly interfaces.
 - Ensure the system integrates with existing farmer registries and databases.
4. Testing and Validation:
 - Pilot the e-voucher system in selected regions to test functionality and identify potential challenges.
 - Collect feedback from farmers, input suppliers, and other stakeholders for system improvement.
5. Scaling Up:
 - Based on the pilot results, scale up the e-voucher system to cover a broader geographical area.
 - Collaborate with financial institutions for seamless financial transactions.
6. Training Programs:
 - Train local extension workers and community agents on the e-voucher system's usage.
 - Conduct awareness programs for farmers to educate them on the benefits and procedures.
7. Monitoring and Evaluation:
 - Implement a robust monitoring and evaluation system to track the distribution of inputs.
 - Regularly assess the system's efficiency and identify areas for improvement.
8. Transparency Measures:
 - Implement transparency measures to ensure fair and equitable input distribution.
 - Establish mechanisms for farmers to verify the authenticity of inputs received.
9. Data Analysis and Reporting:
 - Analyze data generated by the e-voucher system to assess its impact on farmers' productivity.
 - Generate periodic reports highlighting trends and areas for improvement.
10. Feedback Mechanism:
 - Establish a feedback mechanism for farmers to report issues or concerns related to the e-voucher system.
 - Use feedback to make real-time adjustments and improvements.
11. Capacity Building:
 - Conduct capacity-building programs for local administrators and extension workers to manage the e-voucher system effectively.
 - Ensure continuous training and support for sustainability.
12. Partnership Expansion:
 - Explore opportunities to expand partnerships with additional input suppliers and financial institutions.
 - Foster collaboration with other development projects and initiatives in the agricultural sector.
13. Integration with Larger Initiatives:
 - Align the e-voucher system with broader national agricultural development initiatives.
 - Seek integration with government programs for enhanced impact.
14. Impact Assessment:
 - Conduct a comprehensive impact assessment to measure the effectiveness of the e-voucher system.

- Evaluate its contribution to increased farm yields, reduced input costs, and improved livelihoods.

Activities for Improving Farmers' Access to Output Markets and Fair Prices:

1. Market Assessment:
 - Conduct a comprehensive assessment of existing market structures and dynamics in targeted regions.
 - Identify challenges faced by farmers in accessing fair prices and market opportunities.
2. Collaboration with Ministry:
 - Collaborate with the federal Ministry of Agriculture and Food Security to leverage the Agricultural Marketing Information System (AMIS).
 - Explore partnerships for joint initiatives that enhance market linkages.
3. Review of Agritech Solutions:
 - Undertake a review of existing Agritech e-marketplace applications being piloted in the country.
 - Evaluate their effectiveness and potential for integration into the project.
4. Stakeholder Engagement:
 - Engage with key stakeholders including farmers, traders, market vendors, processors, and input dealers.
 - Identify and establish partnerships with relevant actors in the value chain.
5. Agriculture Market Information System (AMIS) Scaling:
 - Scale up the Agriculture Market Information System (AMIS) to support enhanced market linkages.
 - Explore opportunities to integrate mobile-based solutions for broader accessibility.
6. Market Linkage Models:
 - Explore innovative market linkage models that cater to the diverse needs across the entire value chain.
 - Design models that create a win-win situation for all value chain actors.
7. Pilot Programs:
 - Design, validate, and pilot programs that focus on improving market linkages and transparency.
 - Integrate feedback from pilot programs for continuous improvement.
8. Training Programs:
 - Conduct training programs for farmers on effective market participation.
 - Educate them on negotiation skills, quality standards, and market trends.
9. Technology Integration:
 - Leverage digital technologies for market information dissemination.
 - Explore the integration of blockchain or similar technologies for transparent and traceable transactions.
10. Mobile-Based Solutions:
 - Implement mobile-based solutions for accessing real-time market information.
 - Ensure compatibility with smartphones and other commonly used devices.
11. Transparency Measures:
 - Implement transparency measures along the value chain to ensure fair transactions.
 - Establish mechanisms for farmers to verify market prices and track their produce.
12. Monitoring and Evaluation:
 - Implement a robust monitoring and evaluation system to track the impact of market improvement initiatives.

- Assess the effectiveness of interventions in enhancing farmers' access to fair prices.

13. Documentation and Learning:

- Document successful market linkage models and approaches.
- Encourage learning from experiences and adapt strategies based on lessons learned.

Annex 13.9: Technical Note: MARKETS AND VALUE CHAIN

- COUNTRY: NIGERIA
- Project: VALUE CHAIN NORTH NIGERIA
- Mission Date: 23rd November – 15th December 2023

Mission objectives:

- i. Lead, coordinate, manage and review the work of the team, with responsibility for the outputs of each mission member, ensuring the overall consistency and alignment with IFAD's policies and guidelines, quality, and cohesion of all written contributions.
- ii. Provide technical oversight on the design mission;
- iii. Lead the coordination with the potential co-financiers for the project design;
- iv. Conduct an assessment of major value chains taking into account economic potential, inclusion of youth and gender, nutrition and environment consideration and highlighting cross-border perspectives and fragility
- v. identify key information and analysis gap that needs to be addressed through complementary studies
- vi. Provide detailed technical guidance on farmer organization, CAF and any other issues related to rural institutions and institutional capacity building.
- vii. Identify the scope, content and approach of capacity building needs of implementers (the Government and Farmer Organizations, etc.);
- viii. Coordinate the preparation of the AM to be presented at a validation meeting with all stakeholders and at a subsequent wrap-up meeting, and have the Country Director sign the final Aide Memoire with the government.
- ix. Collaborate and link-up with team members to ensure the timely production of all sections of the PDR, Annexes, Tables and Key documents.
- x. Address any additional comments or suggestions that may arise after the mission; and
- xi. Any other tasks required by the Country Director.

REPORT FINDINGS

A. EXECUTIVE SUMMARY

The outcomes of consultations with direct and indirect stakeholders of the agro-value chain from the state of Borno, Yobe, and Abuja are presented in this study. The goal of the consultations was to clarify the concept note's hypotheses. Desk reviews, reports, focus groups, interviews, field visits, and discussions with state officials were some of the methods used to gather data. The research highlighted areas of key initiatives, by identifying the main challenges and potential for crop value chains. To improve the effectiveness, inclusivity, and resilience of the agri-business value chain in North of Nigeria, this paper makes specific orientations that will inform the project design report (PDR).

1. Introduction:

In the concept (CN) crops such as, maize, sorghum, millet, rice and cowpeas, were highlighted as key focus and do constitute the staple food for a significant portion of the population in northern states. These crops also help to address food security, rural income generation, and economic development of the region. And despite their relevance, the consultations conducted helped us direct our orientations towards crops to be promoted and as well interventions deemed relevant for the sustainability of the project. It is important to state that the VCN project will pay attention at the fragility, climate resilience, food and nutrition security, women and youth empowerment, and ICT4D (key thematic workstreams) angles. All proposals oriented towards value chain development would incorporate all these key priorities.

2. Methodology:

The analysis employed a mixed-methods approach, combining quantitative and qualitative data collection. Data were collected from:

- Desk review: Reviewing existing reports, studies, and data on crop value chain in Nigeria and relevant thematic workstreams in the North of Nigeria.
- Interviews: Conducting semi-structured interviews with key stakeholders, including farmers, traders, processors/Offtakers, input suppliers, financial institutions, and government officials, development agencies, farmers organizations, communities.
- Focus group discussions: Organizing focus group discussions with different actors to address thematic workstreams orientations
- Bilateral consultations: Holding meetings and consultations with state and local authorities involve in rural development.
- Field visits: Visiting farms, storage facilities, processing centres, and markets etc...

On the other side:

- No fields visit in the communities (due to insecurity)
- No Seed/Fertilizers Producers/Importers (met)

B. Findings:

Before going through all the findings, we want to address that most of the findings in terms of constraints, and opportunities have been successfully highlighted in the VCN. This report wants to highlight and stress out additional considerations that will inform projects initiatives proposals.

I. KEY FINDINGS – CHALLENGES:

1. Value Chain Actors :

❖ INPUT DEALER:

As far as inputs distributors interviewed are concerned, they can have credit line (deposit – trade system) with the Bigger Fertilizer Companies that allow them to be flexible with downstream players. Those suppliers have their base in Lagos and Kano as well. They have moderate management system (transaction legger, P.O.S) in place and receive training from their Tier 1 supplier. However, what is missing from these distributors are:

- No presence in the communities' neighbourhoods (representation through agents)
- Limited Collaborative planning
- Limited training on the use of such fertilizers

It is key to mention that in a case of limited linkage/rapport between value chain actors (Farmers and input Distributors), it would be very difficult to have proper/accurate forecast from Inputs suppliers which might be a potential source quality inputs' shortage.

❖ FARMERS/FARMERS ORGANIZATIONS :

In relation to farmers, there have benefitted from several projects. Leveraging from CASP which showed good results, there is still a wide range of actors that need support. CASP has also succeeded to sustaining some LGAs, which should be leveraged during VCN project. On the other side, some limited highlighted are:

- Low financial means/limited value chain credit facility
- Low governance capacity
- low quality inputs used, low productivity.
- Most traditional production mechanism
- High post-harvest losses and limited access to markets (market Asymtric).

We also had a mention of Insecurity, as a key challenge, disrupting agricultural production and market access, impacting food security and livelihoods. Though the situation is improving, this needs to be considered, especially in regions such as Borno and Yobe, where fragility is key and people still depend from support from the government to access food.

Another consideration to point out, is that farmers highly depend of middlemen as a key market Entry point, which of course limits their possibility to generate more incomes from markets (different selling channels).

❖ Offtakers and Processors

- Limited collaboration with farmers (downstream actors including inputs dealers)

- Low quality of raw materials (received from farmers)
- Limited financial Capacity
- High cost of production

Most of the offtakers used the intermediaries to collect the raw material from farmers. The ones we interviewed, had mentioned to have extra capacity to process more goods. But due to their financial limitations, and highest cost of loan, they are unable to leverage more purchases. For e.g: Flour Mills has a plant in Borno with a capacity of 400mt, and they hardly process 150mt/year. This shows the potential that the small-scale farmers could access (markets) if Offtakers were able to leverage funds for more purchases.

❖ **Wholesalers and markets**

- Low contact with farmers or farmers Organizations and Offtakers
- Limited financial capacity (self-financing)
- Rely on middlemen to secure their products
- Limited financial literacy

❖ **Indirect value Chain drawbacks**

- Limited collaboration between value chain actors
- High interest rate from Financial Institutions
- Low financial capacity of financial institutions
- Low numbers of villages FSA and VLSAs
- Limited trust from Financial Institution towards farmers (bad debt history)

While we are not mentioning other challenges that have been previously mentioned in the former concept note, we still want to emphasize that in term of challenges there are three fundamental highlights to stress out for the value chain to perform better:

a. Limited communication/awareness of value chain actors:

This creates an absence of data/information (information asymmetry) for actors to jointly address opportunity that may allow market players to benefit from each other services' offers. In our interactions with stakeholders, this model in the north seems to be predominantly influenced by the two-tiered communication/gatekeep Model, where the middlemen seem to be the entry point for the farmer and deal with other actors of the chain. In this model, transparency on market price is missing, access to resources is restricted, the farmers are more vulnerable and dependent. At this stage of the value chain maturity, opportunities are limited for the small-scale farmers.

2. Value Chain Ecosystem

Going through all the different variables that characterizes the value chains, we can say that in general the maturity of value chain are still lower stages.

❖ **Lack of Collaborative planning (lack of planning skills):**

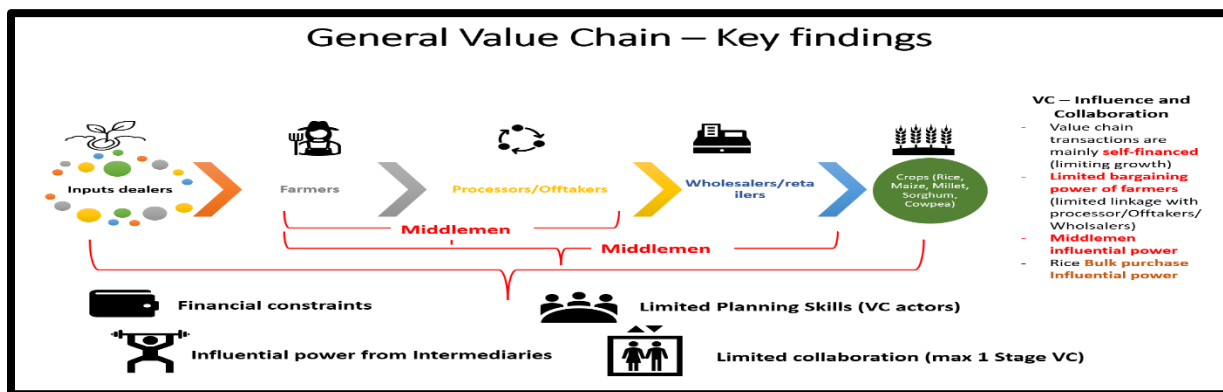
There is lack of information sharing between actors which may help each of them to formulate plan on their activities in a coordinated way, considering of lead time constraints. For e.g The Inputs dealers may require needs (in quantity and quality) from farmers organizations (customers) etc. to plan production and procurement activities at a certain plan. If these needs are not expressed timely, inputs out of stock are most likely to occur in the supply chain. Going through desk review and consultations, quality inputs availability

is cited as a key challenge, however, it is important to understand the root cause of this shortage, that could be highly linked to limited proper planning skill in the VC, which has to go with actors communicating their needs and requirement timely while accounting for constraints related to the particularity of each value chain player activity. There is necessity to deepen consultation with the inputs dealers to understand their constraints to be able to address shortage of inputs at the level of communities.

❖ Limited access to financial resources

After consultation with all direct stakeholders, financial inclusion is a high constraint for the value chain development. Most of the players self-finance their activities, which limit their potential to grow faster. Off – takers (Rice and Maize) interviewed are ready to augment their volumes of purchases with farmers but are financially limited.

Representation of the Value chain:



II. KEY FINDINGS – OPPORTUNITIES:

VALUE CHAIN CROPS – CONCEPT NOTE PRELIMINARY CHOICE

A. Value Chain Crop strategy:

Pre – Selection Concept Note

The crops pre identified, have been already promoted within CASP project. It is imperative to note that, given that the project will encompass nine states, each state may possess distinct priorities and competitive advantages. While each of them presents a competitive advantage, the limitation of these choices is that most of them fall in the range of staple food, which may limit opportunities to engage in other crops that are also market orientated.

It's also important to note that, in addition to the suggested crops of millet, sorghum, maize, rice, cowpea, and cowpea, there have been more crops mentioned during our field consultations, which should highly consider.

a. Other available Crops in Regions:

- Groundnuts:
 - Cash Product
 - High value Product
 - Higher participation/contribution of women across the value chain activities
 - Open for crop rotation
- Sesame:
 - High Value crops
 - Higher participation/contribution of women across the value chain activities
- Horticulture (Vegetables, fruits):
 - Highly Nutritious
 - Higher participation/contribution of women across the value chain activities
- Ginger and Moringa
 - Ginger (Medicinal and culinary use)
 - Moringa (Agroforestry/Soil fertility/Reforestation – Source of economic income – nutrition)
- Hibiscus Nigerian hibiscus flowers (zobo):
 - Niche product which markets is growing
 - Nigeria – Mexico Export Deal (3 Billion \$)
- Small Ruminants (poultry, Sheep, Goat etc...)
 - Limited effort to grow
 - Rapid Cash
 - Nutritious (home gardens), and accessible to women

Other consideration to account for when valuing crop value chain prioritization:

- 1.** According to world bank report "Transforming Agribusiness in Nigeria for Inclusive Recovery, Jobs Creation, and Poverty Reduction" it is mentioned that "The value chain groups with highest potential to reduce the national poverty headcount ratio are pulses, goats and sheep, poultry and eggs, fish and aquaculture, cattle and dairy, and traditional cash crops (groundnuts, Sesame, Ginger), in that order"
- 2.** According to world bank report "Transforming Agribusiness in Nigeria for Inclusive Recovery, Jobs Creation, and Poverty Reduction" it is mentioned that "Food groups that dominate production and consumption (main staples) perform poorly in the dietary diversity score, primarily because such foods already occupy a large share of the consumption basket and productivity growth makes them more available and cheaper, which further reduces the diversity of diets and leads to poor nutrition outcomes. Sorghum and millet have the worst dietary diversity growth elasticity, followed by yams, cassava, maize, bananas, rice, and edible oil seeds.

Women and Youth:

While we are looking for opportunities in crops strategy, we have also factored women and youth as part of our consultations. Some of the key opportunities captured during our interactions with different actors:

- Youth and women have entrepreneurship opportunities in production (depending on the crop sensitivity. For example, small ruminants), and mostly can gain benefit from off

farms activities such as processing (cereals milling, Oil extraction, – seeds multiplication etc...), Services (extensions services – farmers field schools – retail and transport), crop residue management (e.g animal feed, briquette).

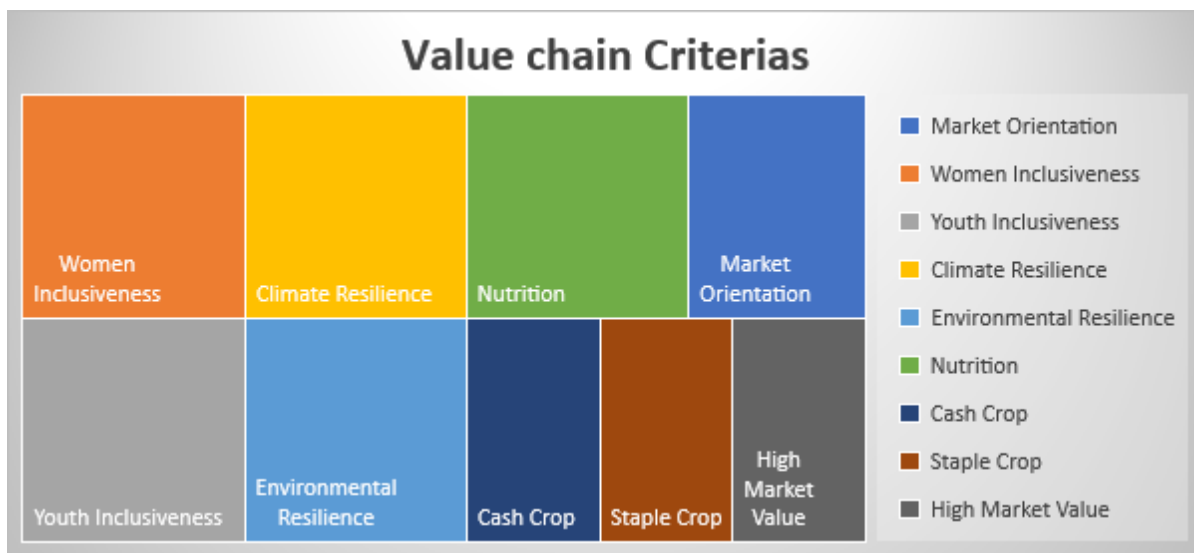
- Traditionally, Cowpeas, groundnuts, Sesame, are crops where it is observed high participation of women from all stages of the value chain. Besides, these three products have respectively combination of higher market demand, and higher value market.
- Beside these crops, there are opportunities to promote early maturing seed to ensure short maturity cycle that are resilient to climate change.

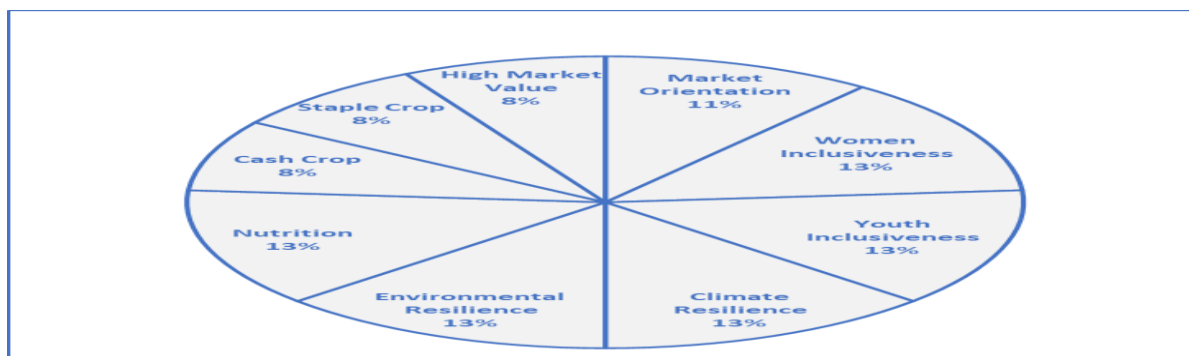
C. Crop Selection process and prioritization proposals:

Prior to the decision to finalize the Crop selection and prioritization, and after discussion with key stakeholders, the proposal of crops strategy would be processed as follows:

1. Criteria Definition and Criteria Weighting:

Crops	Market Orientation	Women Inclusiveness	Youth Inclusiveness	Climate Resilience	Environmental Resilience	Nutrition	Cash Crop	Staple Crop	High Market Value
Rate	4	5	5	5	5	5	3	3	3





The choice of crops is a key decision to engage, and the project also wants to ensure that it is well structured so that it helps the beneficiaries to assess the choice and the different aspects covered by each crop, which may differ from one another in term of perspective. The choice of value chain starts with the identification of criteria.

There are certain criteria that are proposed to orient choices towards crops. 09 have been identified as the baseline. These criteria even though they cover thematic mainstreaming angles, they also try to address food security (staple food), nutrition and market value, which is a way to reduce to poverty.

While choosing criteria for value chain selection, we must also weight each criterion, based on the priorities of the project, as each identified criteria may have different level of appreciated importance. For e.g: Women, Youth, Nutrition and Climate and environmental Resilience criteria for VCN project are key focus areas, therefore may be weighted higher at 5, vs other criteria. In the same example, during consultations a list of recurrent crops grown in targeted states has been registered, with the objective to evaluate how they fit in relation the targeted criteria and their definition.

Below the list of recurrent Crops grown in the North of Nigeria:

2. Scoring

During the Consultation, we have been able to map out crops grown in the north of Nigeria. This helps again to have a basket of value chains at disposal and could serve as a baseline for key choice to be made. On the other side, it is important that while considering choosing value chain, there is a need to evaluate their inclusiveness regarding the selected criteria. Cowpeas Crop might have a higher market value than Rice for e.g, may be more sensitive to women than rice, but not a staple food, which rice is. Cowpea may be more environment and climate friendly than rice is. These are the type of hypothesis that would help to lead to value chains prioritizations.

Category	Very High	High	moderate	Low	Very Low
Score	5	4	3	2	1

The higher scoring crops may be prioritized in consensus with the State strategy and but what the state might offer better in term of competitive advantage.

3. Choice Categorization and prioritization

Providing the basket of crops identified in the North and based on cumulated scoring for each of them, the preselection of value chains may also consider the following categories:

1. Staple Food
2. Cash Crops
3. Nutritious food
4. High Value or profitable crops

This step aims at streamlining the crop choice to a maximum of four crops per state. By concentrating our effort in a few value chains, we will increase outcomes depth and impact, reduce risk and complexity of the project.

The Crop prioritization process should be systematized to ensure consistency and also alignment based on the expectations that the project is expected to meet. In our case we consider Youth and Women empowerment, Environment and Climate resilience, and nutrition which are weighted higher than other criteria.

Limitations

While we have been able to collect field information in relation to existing crops and their contribution in relation to market and other considerations, we still believe that out of the produces that have been mentioned stakeholders, there are missing and deeper analysis that need to be done to understand produces grown in the northern part of Nigeria. In that regard, we are proposing to supplement studies such as:

- Market/Demand analysis/Research (Assess current market trends, demand, and supply for various agro produces, identify potential buyers, distributors, and retailers, Analyze pricing dynamics and market competition of key agro product that focus between the top five crops in the northern targeted areas)
- Value Chain Assessment (recent)

The above process is a step by step way to ensure that choices in relation to production meet the requirements of the markets. While we understand that value chain assessment may be done, which focus generally on identifying actors, linkages, challenges and opportunities, Market research is really exploring what is the best product to offer, which might find easiest route to market and respond to different attributes.

In some of the instances, it may be found that during the market research that for example a seed variety promoted by the project is not well suited when it comes to supply chain infrastructure and or accepted by market. This disconnection are most of the time sources of post-harvest losses and discouraging farmers to engage in a particular product.

B. OPPORTUNITIES – VALUE CHAIN ACTORS:

1. Value chain Collaboration fostering

Looking at the challenges faced by the value chain actors, it is clear that we are looking to improve value chains that are still at the basic stage, with high exposure to fragility by farmer. The connection between actors are not fluid and limiting opportunity for the value chain to be more integrated. It is needful to improve value chain actors' collaboration at this stage. Collaboration is a powerful tool that can change this narrative and it needs to be leveraged. Collaboration in the value chain provide the following:

Strength in Numbers: Farmers can overcome obstacles they confront individually by uniting as a group. In addition to using shared resources like storage facilities and transportation, they can bargain better pricing with input suppliers and customers and combine their knowledge and experience. That is why this project will promote the formation and strengthening of farmers organizations as a good start of value chain collaboration

Boosting Market Access: Small-scale farmers frequently find it difficult to meet the demands of large-scale purchasers or to reach far-off markets. They can pool their produces through cooperatives or producer groups, strengthening their negotiating position and facilitating easier access to profitable markets.

Knowledge Exchange and Innovation: Collaboration fosters a vibrant exchange of knowledge and best practices among farmers. They can learn from each other's successes and failures, experiment with new techniques, and adapt to changing circumstances. This collective wisdom becomes a fertile ground for innovation, leading to better yields, improved quality, and sustainable practices.

Improved Access to Resources: By banding together, farmers may take advantage of economies of scale and bargain for better prices on inputs like machinery, fertilizer, and seeds. In order to significantly increase the value of their crops, they can also combine their resources and invest in post-harvest infrastructure, value addition projects, and processing facilities.

Collaborative planning: This requires establishing connection and communication among value chain actors, which generates information from each other. Information allows to generate accurate planning and forecast. Cooperation among farmers, processors, and distributors improves their ability to predict market demand, minimizes food waste, maximizes output levels, and reduce out of stock. The collaborative planning is a great tool for inputs supplier to avail quality inputs at the disposal of farmers when needed. Collaborative planning has to b integrated within value chain for the system to work effectively.

Collaborative planning will succeed with the participation of all actors in the value chain. In the collaborative partnership, it is important for the below actors to be active.

- **Farmers Organizations:** Representing smallholder and large-scale rice producers.
- **Input Suppliers:** Providers of seeds, fertilizers, pesticides, and machinery.
- **Processors:** Entities involved in parboiling, milling, transformation.
- **Traders:** Aggregators and distributors who move bulk quantities.
- **3rd Party Logistics (3PL):** Providers of warehousing, transportation, and other logistics services.
- **Wholesalers:** Distributors who buy in bulk and sell it to retailers.
- **Retailers:** Grocery stores and supermarkets selling to consumers.

All of them have a role to play for the value chain to be more effective and efficient. While we are opting for the collaborative planning process to be institutionalized within the CAF, this might require a couple of steps:

1. Initiation and Communication:

- Identify Stakeholders: Value Chain actors mapping already done through the CAF development will be used to identify all key stakeholders that could take part to this process
- Develop a need assessment: Conduct a needs assessment to understand the current challenges and opportunities faced by each stakeholder group within the agri value chain. This can involve surveys, focus group discussions, and interviews. (VCA could be used for preliminary discussions followed by deeper solution driven events such as workshop etc..)
- Benefits and Goals: Clearly articulate the benefits of collaboration for all stakeholders. This could involve increased profitability, improved market access, better risk management, and access to knowledge and resources. Define common goals for the collaborative planning process, such as increasing millet production, improving quality, or developing new markets
- Organize a Kick-off Meeting: Invite representatives from all stakeholder groups to a workshop explaining collaborative planning and its potential benefits. This fosters trust and creates a platform for open communication. In line with the CAF, it would be great to start with a small group that englobes key value chain actors of a targeted value chain by the VCN.

2. Establish a Planning Committee:

The Planning Committee will have the opportunity to:

- Approving the overall vision and goals of the collaboration.
 - Providing strategic guidance and decision-making.
 - Resolving conflicts or challenges arising between stakeholder groups.
 - Securing funding and resources to support the initiative.
- Stakeholder Representation: Form a representative planning committee with members from each stakeholder group in the agri value chain. Ensure a balanced voice for producers, processors, traders (wholesalers and retailers), private sector, and public sector representatives.
 - Committee Roles and Responsibilities: Define clear roles and responsibilities for the committee. This could involve setting the agenda for meetings, facilitating discussions, and overseeing the development of a collaborative plan.
 - Technical Working Groups: These groups will focus on specific areas within the collaborative plan. Each group should have a designated leader and include representatives from relevant stakeholder segments. Based on the data analysis, form working groups with representatives from relevant stakeholder groups.
 - Production Planning Group: Focuses on aligning production with market demand, including activities like:
 - Seed selection and procurement.
 - Contract farming arrangements.
 - Production planning based on demand forecasts.

- Sharing best practices for sustainable farming methods.
- Logistics and Distribution Group: Addresses efficient movement of product throughout the chain, including:
 - Optimizing storage and transportation networks.
 - Establishing/supporting aggregation centres for food collection
 - Collaborating with 3PL providers to ensure efficient logistics.
- Quality and Sustainability Group: Defines standards and promotes sustainable practices, involving:
 - Establishing produces quality standards across the chain.
 - Exploring sustainable production methods (e.g., water conservation, organic fertilizers).
 - Integrating sustainability practices into contract farming agreements or Offgrower schemes
- Market Information Sharing Group: Facilitates transparent information exchange, including:
 - Developing and maintaining a data sharing platform (online dashboard or platform for e.g).
 - Sharing market data like demand forecasts, pricing trends, and weather updates.
 - Ensuring all stakeholders have access to relevant information for informed decisions.

3. Facilitate Planning Meetings:

- Structured Discussions: Organize a series of planning meetings with the committee. These meetings should be well-structured with clear objectives and a facilitator to guide discussions.
- Data Gathering and Analysis: Gather and analyze relevant data on the value chain such data are structure as follows:
 - Farmers organizations: Land size, rice varieties grown, current yields, production costs, storage facilities, and challenges faced, Planting campaign start
 - Input Suppliers: Product availability, pricing models, distribution networks, and insights into farmer needs, payment terms.
 - Processors: Processing capacity, good quality requirements, demand forecasts, and preferred sourcing locations, processing lead time.
 - Traders: Sourcing strategies, storage capacity, preferred rice types, and logistical challenges.
 - 3PL Providers: Warehouse capacity, transportation network capabilities, and service offerings relevant to product added value.
 - Wholesalers: Buying patterns, customer preferences, and desired delivery schedules, Minimum quantity order.
 - Retailers: Consumer demand for product (attributes, types, quantities), preferred packaging, and any sustainability concerns.

During the data collection the team highlight operations constraints of each other in link with their own activity. For example, the Inputs Supplier will be interested in farmers organization capacity, cycle of production to be able to avail the seed timely for the upcoming seasons.

Inputs suppliers may require a minimum batch order that will help them secure the production timely to deliver the inputs to Farmers organizations. That is why it is fundamental to cluster farmer as much as possible to generate economies of scale.

4. Develop a Collaborative Plan:

- Shared Vision and Goals: Based on the needs assessment, SWOT analysis, and discussions, develop a shared vision for the future of the Nigerian millet value chain and establish specific, measurable, achievable, relevant, and time-bound (SMART) goals.
- Joint Action Plan: Create a joint action plan that outlines specific actions and initiatives to be undertaken by different stakeholders to achieve the shared goals. The plan should include timelines, responsibilities, and resource allocation.
- Monitoring and Evaluation: Develop a monitoring and evaluation framework to track progress towards achieving the goals and objectives of the collaborative plan. This will allow for adjustments to be made as needed.

5. Implementation and Communication:

- Stakeholder Engagement: Once the collaborative plan is finalized, communicate it effectively to all stakeholders in the value chain. This can be done through workshops, farmer meetings, media outreach, and communication channels established by the planning committee.
- Implementation and Support: Provide ongoing support to stakeholders as they implement their roles and responsibilities within the collaborative plan. This could involve training programs, technical assistance, or facilitating access to resources.
- Technology Adoption: Explore the use of technology solutions (e.g., digital platforms, mobile apps) to facilitate data collection, information sharing, and real-time coordination.
- Regular Review and Updates: Regularly review the collaborative plan and adjust as needed based on progress, changing circumstances, and feedback from stakeholders.
- Monitoring and Evaluation: Establish a system for monitoring and evaluating the progress of the collaborative plan. This will allow the planning team to track progress, identify challenges, and adjust as needed.
- Communication Strategy: Develop a communication strategy to keep all stakeholders informed about the collaborative planning process and its progress. This could involve regular meetings, workshops, and communication channels.

1. Sustainability strategy:

- Long-Term Commitment: Put in place the Commodity Alliance Forum to ensure the long-term sustainability of the collaborative planning process.
- Funding Mechanisms: Explore grant opportunities or other funding mechanisms to support ongoing activities and capacity building for stakeholders.
- Continuous Improvement: Regularly review the effectiveness of the collaboration and make adjustments to improve efficiency and address emerging challenges. Develop key performance indicators that help to monitor the effectiveness of collaboration. (for e.g: Number of volumes sold to processors; Yield improvement; trained farmers; Inputs volumes purchased/generated through Inputs suppliers etc..)

- **Farmers Grouping or Organizations:** To succeed Farming Organization have to be promoted so that they gather their needs in bulk for the processors to meet their requirement. It is important to state that Processing systems may require minimum batch quantities that are informative enough to have a sound transaction.
- **Contracts Development:** while we understand that information is key in collaborative planning and that actors will be linked together to undertake transactions, these letters have to be bound by agreed contracts that will rule the collaboration among actors. Such contracts with refer to contract farming, Offgrowers schemes, etc...
- **Planning Expertise:** this function has to be developed within the CAF. It may occur that some processors/Input suppliers with standard supply chain protocol, already have planning function within their organizations. This need to be leveraged to transfer those skills to other actors to build these competences across value chain actors

Expected Benefits:

- **Improved Demand Forecasting:** Collaboration leads to more accurate demand forecasts, which helps farmers plant the right crops, processors allocate resources efficiently, and distributors avoid stockouts or overstocking. When the demand is rightly addressed, Inputs suppliers will be able to address the issue of availability, as they will possess data that will lead to production and shipments.
- **Reduced Waste and Improved Efficiency:** Collaborative planning helps minimize post-harvest losses and optimizes resource utilization throughout the value. The visibility of data across the chain provides each actors enough information to execute their operations accordingly

The Offgrower scheme model is also promoting the collaborative planning system as the Offtaker which is in charge of prefinancing the farmers, maybe leading this collaborative planning and ensure volumes are secured for its processing. The Offtaker in this view look at the financial planning for procurement of inputs and operational planning as far as collecting the raw material and processing are concerned.

Farmer Organizations

The collaboration is also generated when single small-scale farmers seek interest in mutualizing their effort, through Farmers Ogranizations formations and functioning. The project must envisage strongly to benefit from existing farmers Organizations, Community development associations (CDA) and FSAs from CASP projects and others, map out and profile new ones. To collect this information, the following studies are required:

- Landscaping study of existing farmers organizations (from CASP and non CASP) and potential for farmers Organization formation opportunities in the North. It is not possible to start the project without having a register of active farmers Organizations. The landscaping must be completed with an organization profiling, as an indicative step to:
- Conducting a need Assessment of the selected farmers Organizations. This assessment will be relevant to understand the functioning of the Organization internally (Governance structure, Years of Existence, financial support, membership size, resources available, and services promoted). The study will also drive the understanding

of external factors that may impact Farmers Organizations (market, social and cultural environment, policy) performance.

Such evaluation is expected to engage in initiatives leading to improve Organizational effectiveness of the Group, resources mobilization, strengthened stakeholder relationship and improve services provided by the FO. Such actions of course have to be tailored to each organization' needs. While we are moving into working with already existing organizations, the projects should also encourage the formation of new ones whenever possible to create more collaboration.

While considering farmers Organization as a great asset for collaboration, this collaboration should be expanded to all value chain actors. While the flow of products is key along the chain, the flow of cash and also of information need to be captured. The communication between all actors of the chain is relevant for the sustainability of the value chain system. In that regard, a value chain platform such as CAF already implemented and operating in other regions should be set a priority for VCN. The platform would be a good driver of interactions and actors that will then build a more organized and structured value chain ecosystem.

a. COMMODITY ALLIANCE FORUM (CAF)

Though the "Commodity Alliance Forum" (CAF) has been created at the late stage of CASP project, it has never been operational. There is a need to start thinking about the root of setting CAF from the very start commencing of the VCN project.

Suggestion to have CAF working may require the following steps:

Step 1: Needs Assessment and Stakeholder Mapping:

- Conduct comprehensive needs assessments: Identify the specific needs and challenges faced by different actors across the value chain. (Done – CN; VCN: Desk Review)
- Map all relevant stakeholders: Include farmers, input suppliers, processors, retailers/wholesalers, financial institutions, government agencies, NGOs, research institutions, quality standard agencies and other key players. (extensive Mapping)
- Analyze existing communication channels and gaps: Understand the current level of interaction and identify areas where collaboration can be strengthened. (preliminary inputs from consultation PDR; VCN etc...)

Step 2: Building Trust and Understanding:

- Organize workshops and meetings: Facilitate face-to-face interactions to foster dialogue, build trust, and promote understanding of diverse perspectives.
- Identify common goals and interests: Develop a shared vision for the alliance and emphasize the potential benefits of collaboration for all actors (Planning – training – markets deals, prices, dynamics – policy advocacy -knowledge exchange and sharing – social and community dispute management etc...)
- Promote cross-sectoral learning opportunities: Organize exchange visits, field trips, and training sessions to encourage knowledge sharing and collaboration (CAF Bureau – VCDP CAF visits and exchange).

Step 3: Platform Development and Governance:

- Define clear governance structures: Establish transparent decision-making processes and ensure equitable representation of all actors within the alliance.
- Assign roles and responsibilities: Identify specific tasks and responsibilities for different stakeholders to ensure efficient operation and accountability.

Step 4: Capacity Building and Resource Mobilization:

- Provide training and support: Equip stakeholders with the necessary skills and knowledge to effectively engage and contribute to the alliance.
- Mobilize resources: Secure financial support from government agencies, international organizations, private sector companies, and philanthropic foundations.

Develop sustainable funding models: Explore different options, such as membership fees, service charges, and partnerships, to ensure long-term financial stability.

Step 5: Project Implementation and Monitoring:

- Identify and prioritize key initiatives: Focus on projects that address critical needs (inputs planning – market opportunities etc...), have high potential impact, and promote collaboration across the value chain.
- Implement projects in a phased manner: Start with smaller, achievable initiatives and gradually scale up as the alliance matures.
- Monitor progress and impact: Regularly track project outcomes, measure achievements against goals, and make adjustments as needed.

b. LOCAL AUTHORITIES BUY- IN

While we are promoting an inclusive approach to VCN sustainability, It is also important that we factor the local authorities such as LGAs (Local Government Authorities), Villages communities etc. as drivers of the project success. Strengthening farmers organizations should be backed up by stronger institution that are closer and engaged in rural development. As the project envisages to equip farmers with post-harvest equipment, equipment's (water supply, roads etc...), this also require the know-how of the usage and maintenance of such technologies and tools and therefore capacity building must be integrated in the package.

LGAs and villages communities must have their say in all decision making from the start of the project. As some of these equipment must be managed at community level, that calls for setting up structures (committees for e.g) to ensure proper usage of such tools. On the other side, there is quite a lot of new technologies that would be introduced to the communities which necessitate some management skills. These elements are drivers of transformation, that require also transferring knowledge to all institutional layers that have a link to rural development.

A need assessment may be required to identify areas of improvement (committees creation, project management, maintenance, monitoring and evaluation etc..) and work towards strengthening those institutions that would be able to support those areas on a lasting way. The VCN will also leverage from what has been done in CASP or any other project in term of

need assessment for institution capacity building on the management and technical side to provide proper service.

2. Access to market

Access to market is still challenging for value chain actors as they are lacking knowledge and resources however through a couple of initiatives, these farmers will be able to access market through:

- Farmer Organizations: Farmers pulling their resources altogether are able to access more market than been individually processed. The programme will encourage the formation and strengthening of existing and new organizations
- Collaboration: Linking farmers to Offtakers directly, while reducing their dependency to the intermediates will not only help to reduce value chain cost, but will also help the Offtakers to buy resources at competitive prices. Such collaboration could be used in several way such as:
 - o Offgrower Scheme system, where Offtakers provide all the necessary inputs to the farmers, that will guarantee them an agreed win to win selling price at the end of the harvest. This system is already executed by OLAM, BABA NGONA, etc... In this system financial institutions can collaborate with Offtakers to reach small scale farmers. Farmers are financed in kind and this reduces risk. This system can leverage the ICT system to mobilize all this inputs and outputs function
 - o Contract Farming, is a win-win mutual agreement between farmers and oftakers based on predetermined conditions and terms such as prices, quality standards, and delivery schedules.All these linkages to be created between farmers and oftakers, will also help farmers to produced customer-oriented produces, at market quality acceptable standard, which will uplift the skills of farmers.
 - o Market Infrastructures building, will be also places used as a direct to customers
- Commodity Alliance Forum as already discussed will be used as a way an information platform on market price and trends, as a policy advocacy windows but also as a demand and supply matching opportunity for actors.
- Value chain prioritizations (based on market studies) is already addressed.

3. Financial Inclusion

As the project promotes private sector engagement, the discussion with a few financial organizations has generated some great interest. We have been able to meet and exchange with NIRSAL Microfinance Bank, Unity Bank, we found an opportunity to strengthen collaboration with them in line with the financial inclusion opportunity. In addition to these banks Nigeria Bank of Agriculture, Stanbic Banks, IBTC etc.. have been also cited to be agro-friendly. Two key challenges mentioned were Trust towards small scale farmers and Cost of borrowing (MPC – 15%). The cost of borrowing is higher at two digits, which is not profitable for farmers. One of the opportunities to drop this challenge will be the risk co- sharing between financiers.

The Central bank of Nigeria has also created NIRSAL (Nigeria Incentive-Based Risk Sharing System for Agricultural Lending), which intervene a guarantor for agri actors. They have the capacity to contribute up to 75% and 50% respectively for small farmers and Off takers (processors). Our exchange with them during our consultations let us in great hope to collaboration in this project to support financial inclusion.

As far as financial inclusion is prioritized, the project can explore the following initiatives way:

Options 1

FSA :

1. Promote Financial Saving associations and VSLAs formations and capacity building. This could be built from existing ones as well (CASP project)
2. Link gradually VSLAs to agri – friendly Financial Institutions
3. Create Account with Financial institutions.

Entrepreneurs:

1. Support directly the targeted entrepreneurs within value chain and existing ones.
2. Provide support in business plan development, capacity strengthening, mentoring, resources allocation to targeted value chain addition functions.
3. Link the Entrepreneurs to financial institutions to support their growth

Options 2 (Value Chain Finance)

In this option, it is considered working directly with Offtakers/ processors. In this type of financial system:

- loan portfolios are larger rather than been in small portion due to the large population of small-scale farmers
- Creditworthiness is well assessed by financial institutions.
- Transactions costs are lowered (less admin cost due to handling numerous small account)

There is need to undertake further discussions with all financial players to put the foundation of risk and financial co sharing that will help Off –takers to procure and secure more volume from farmers (through contract farmers), provide them additional services (capacity building – inputs supply etc..), that will help to improve quality supplies from farmers.

While we are proposing these options when it comes to financial inclusion and after consultation with stakeholders, it is surely noted that both options could be used in the project to help value chain actors to benefit from financial resources and create trust with financial institutions that will sustain their activities.

C. CONCLUSION :

Consultations have been a good occasion to finetune proposals from the concept note of the VCN. While we could really agree on the former concept note highlights in relation to challenges and initiatives, there are additional information that allowed us to strengthen findings. One of these findings relates to the optimal way to organize the value chain selection process by establishing standards and ranking crops according to a mix of seven crops divided among nutrition, cash, and staple food crops.

We have also seen that the deficiency of high-quality actor inputs is frequently mentioned. The underlying reasons for this shortfall are unclear, though. In general, the value chains are characterized by a two-tiered communication/gatekeep model—where the intermediates are typically the link—influences both collaboration and communication. Therefore, it is quite likely that there is a lack of information exchange and communication between input providers and other parties (processors, farmers' organizations, and farmers). A shortage will quickly arise because input dealers will give preference to clients who can communicate information promptly, considering the lead time for procurement and raw material production in order to deliver inputs. Input suppliers require accurate information from the chain to plan and forecast the volume of production in accordance with the demand of the value chain actors. For all parties to be able to trust one another and collaborate effectively, this collaborative planning function needs to be enforced and integrated into the chain.

In addition to aspects like market access, capacity building, market information, and price exchange that the CAF (Commodity Alliance Forum) could generate in connecting all direct and indirect players, we do believe that the operationalization of the CAF will be a great asset towards planning improvement.

The VCN will also endeavour to address financial inclusion. Even while borrowing is still expensive and most actors have limited financial literacy, there are opportunities for risk sharing strategy to lower borrowing costs by lowering the borrower's risk. At this point in the value chain ecosystem, the project could partner with a few agri-friendly financial institutions in order to support the agri-actors. Organizations like NIRSAL and other financial banks, which have been consulted during our mission, have the potential to be excellent catalysts for these kinds of programs.

It is also important to address that even though consultations have provided additional information, there is a need to conduct additional studies that will comfort our hypothesis highlighted in this technical note. Such studies are:

- Market Studies Northern part of Nigeria
- Farmers Organizations landscaping and Needs Assessment Studies
- Need Assessment studies for local authorities (LGA, Villages communities)
- Logistics modelling for infrastructure building (Storage facilities, Aggregations centres, road etc.

For some of these studies, guidance of term of Reference have been proposed in the annexes part.

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Annex 13.10: Technical Note Assessment and Strategies for Promotion of Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict

This technical note provides a summary of the study on “Assessment and Strategies for Promoting Gender Equality through Support to Value Chain and Food Security in Northern Nigeria in the Context of Fragility and Conflict”. The study was carried out before the finalization of the design of the Value Chain North Program to guide the design and support the implementation of the program. More details are available in the study which is annexed to the PDR.

I. Context

Nigeria, Africa's most populous country and one of its largest economies, faces significant challenges related to fragility, particularly in its northern regions. The North has been embroiled in a complex web of conflicts, exacerbated by the activities of insurgent groups such as Boko Haram and Islamic State West Africa Province (ISWAP), communal clashes, and farmer-herder conflicts. These conflicts are deeply rooted in historical, socio-economic, environmental, and political factors, including poverty, unemployment, climate change impacts, and governance issues¹⁰⁶. The resulting fragility has led to devastating humanitarian consequences, including loss of lives, displacement of communities, destruction of livelihoods, and severe food insecurity. The fragility in the North not only threatens the socio-economic fabric of the region but also poses significant risks to Nigeria's stability and development prospects. Addressing this fragility requires a comprehensive approach that combines security measures with initiatives aimed at addressing the underlying causes of conflict, promoting social cohesion, and ensuring sustainable development. To integrate fragility considerations into the Value Chain North project based on the detailed insights from the report, a strategic approach that encompasses understanding and mitigating the impacts of fragility on gender and agricultural development is essential. The proposed strategy will consider the key drivers of fragility, leveraging existing policies, and propose innovative methods to ensure gender inclusion and empowerment within the Value Chain Programme (VCN)^{107, 108}. The proposed strategies are anchored in the IFAD Policy on Gender Equality and Women Empowerment 2015, aiming to empower poor rural women and men to enhance their food security and nutrition, increase their incomes, and bolster their resilience this study also leverages the Updated Approaches to IFAD Engagement in Fragile Situations.

II. Goal of the study

The study aims to explore the interlinked challenges of fragility, conflict, and gender inequality in Northern Nigeria, particularly their adverse effects on the agricultural sector and aims to propose innovative interventions to mitigate these issues by focusing on three main strategies: a) enhancing women's economic empowerment through improved access to and control over productive resources such as land, credit, and quality agricultural inputs; b) augmenting women's voice and agency by promoting leadership roles and increasing their influence in decision-making processes; and c) fostering a more balanced workload via the implementation of the Value Chain North Project.

The objectives of the study are multifaceted. Firstly, it seeks to analyze the specific gender inequalities present in Northern Nigerian society and assess their impact on women in the agricultural sector, including their roles in key value chains and farmers' organizations. Secondly,

¹⁰⁶<https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf> accessed 11/04/2024

¹⁰⁷ Nigerian Government Policies on Fragility: <https://drive.google.com/drive/folders/1JkudcVBXV4JEyXiWYj05q36rItr87-3>

¹⁰⁸<https://www.fao.org/3/i4646e/i4646e.pdf?> 11/04/2024

the study will identify the unique challenges faced by women in contexts of fragility and conflict, such as security risks, restricted access to essential resources, and market limitations. Additionally, it will examine existing best practices for the transformative empowerment of rural women, both within Northern Nigeria and in comparable international contexts, with a particular emphasis on utilizing Gender Action Learning System (GALS) methodologies. Finally, the study aims to offer targeted recommendations and practical strategies to enhance gender equality and women's empowerment, taking into account the specific drivers, key drivers, and challenges presented by fragility, insecurity conflict in the region.

The study deployed the qualitative approach which combined literature review, administration of questionnaires to key informants, focus groups discussions and key informant interviews to elicit information on fragility and conflict in the study area.

III. Summary of Findings

i. Key drivers of fragility in Northern Nigeria

Key drivers of fragility were identified; economic deprivation leading to high levels of poverty and underdevelopment and limited access to economic opportunities, poor infrastructure, and inadequate public services that exacerbate the living conditions, driving discontent and making the population more susceptible to recruitment by militant groups¹⁰⁹, ethnic and religious tensions have been a source of tension and conflict in these areas. presence of armed groups, such as Boko Haram and other splinter factions, has led to prolonged violence and instability. These groups engage in terrorism, kidnappings, and attacks against civilians and security forces, significantly disrupting social and economic life; Competition over scarce resources, such as land and water, often along ethnic or religious lines, fuels these tensions and can lead to violence¹¹⁰. Equally, northern Nigeria has one of the highest population growth rates in the country, which strains the already limited access to education, healthcare, and other essential services¹¹¹. This demographic pressure contributes to social and economic tensions. Climate change impacts, including desertification, drought, and erratic rainfall patterns, severely affect agricultural productivity and livelihoods thus exacerbating food insecurity and competition for natural resources¹¹²

ii. Roles, Practices, and Participation

In Borno and Katsina states, the insurgency has profoundly affected women's roles and participation in agriculture, reshaping their economic activities and coping mechanisms in the face of conflict-induced challenges. The study reveals significant details about their participation rates and the economic impact of the conflict on agricultural practices.

Borno State: The insurgency has disrupted women's agricultural activities, including small-scale wheat processing, livestock fattening, fish farming, and poultry operations. As a result of conflict, many women have been displaced from their homes, losing access to their farms, and facing a sharp decline in the value of agricultural products. Quick sales of harvests to meet immediate needs are common, with 32% of respondents noting women's involvement in the

¹⁰⁹ <https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf>

¹¹⁰ <https://www.beyondintractability.org/casestudy/irobi-ethnic>

¹¹¹ <https://www.unicef.org/media/116321/file/Nigeria-2021-COAR.pdf#:~:text=URL%3A%20https%3A%2F%2Fwww.unicef.org%2Fmedia%2F116321%2Ffile%2FNigeria>

¹¹² https://riseprogramme.org/sites/default/files/2023-03/Problem%20of%20Out-of-School%20Children%20in%20Nigeria_0.pdf#:~:text=URL%3A%20https%3A%2F%2Friseprogramme.org%2Fsites%2Fdefault%2Ffiles%2F2023%20accessed%2017%2F04%2F2024

production, processing, and sale of leafy vegetables, and 60% recognizing their role in the fattening and sale of ruminants. Remarkably, about 25% of the population perceives that some women have resorted to the sex trade as a survival strategy. Efforts to support these women include improving market access, enhancing value chain participation, securing the support of male relatives, and providing timely resources such as machinery, inputs, and financial assistance. Interestingly, 36% of respondents indicated that women who own land often employ men for larger-scale production. The insurgency has also increased the burden of household responsibilities for many women, particularly widows.

Katsina State: Women are actively engaged in all aspects of the agricultural value chain, including processing and sales, though they often rely on men for production services. They face market access challenges and struggle with falling commodity prices, yet 42% of respondents believe that women's involvement in agriculture remains profitable. There is a strong advocacy for early support, including cash for land preparation and the provision of small machines, fertilizers, and pesticides. Furthermore, 55% of interviewees emphasized the importance of securing land titles for women to bolster their economic endeavors. The conflict has altered the traditional roles of women, who have had to take on more significant economic responsibilities due to the loss of male family members. Despite facing cultural and religious barriers, which also affect persons with disabilities and internally displaced persons, women continue to adapt and engage in agriculture. The survey highlighted that 66% of respondents acknowledge women's involvement in growing crops like sorghum, wheat, beans, groundnuts, rice, and tomatoes, with specific challenges in accessing the tomato market.

The research underscores that the conflict has led to a reconfiguration of gender roles in agriculture, with women increasingly taking on both productive and reproductive roles. Despite the challenges, women's resilience, and adaptability in managing both farm and household responsibilities illustrate their critical role in sustaining rural economies in conflict-affected regions of Northern Nigeria.

This analysis explores the significant challenges faced by women in Borno and Katsina states, Nigeria, with regard to access to resources and control over agricultural benefits, amidst the backdrop of ongoing conflict and socio-cultural constraints.

iii. Access to Resources and Control Over Benefits

In Borno State, despite women's motivation and capability for large-scale farming, female land ownership remains disproportionately low compared to men, with a ratio of 1/3 for women to 2/3 for men. About 48% of respondents indicated that men often take precedence over women in resource sharing, a reflection of broader patterns of male dominance. Although 38% of respondents noted that women could purchase and maintain land, they typically access smaller parcels, facing challenges such as limited access to farms and markets, insufficient infrastructure, and competition for scarce resources.

In Katsina, women's access to land has improved slightly, yet disparities persist with only 1/3 of lands accessible to them and full access being rare. Financial and input access shows some parity, but not consistently in land dealings. Women, along with Persons with Disabilities (PWDs), encounter significant socio-cultural restrictions on their movement and economic activities, further hampered by the prerequisites for forming cooperatives which limit access to support mechanisms.

Farm and Income Management: Women in Borno are integrally involved in agriculture, managing the production and processing of various crops and livestock. Yet, they face

formidable obstacles including market closures, farm inaccessibility, and fluctuating commodity prices, with over 80% of agricultural cooperatives dormant due to these adversities. In Maiduguri, land leasing costs reflect the severe constraints on land accessibility and economic pressures faced by agricultural practitioners. During harvest, the rush to sell drives down prices, exacerbating financial pressures.

In Katsina, 90% of respondents noted that women rely entirely on farming for their livelihood. They contend with similar challenges as those in Borno, including market closures and restricted farm access, which have worsened due to ongoing conflicts, shifting economic responsibilities onto women.

Marketing and Information Availability: In Borno, the availability of critical weather data from the National Meteorological Agency is limited by the lack of access to smartphones among smallholder farmers, compounded by security issues and socio-cultural restrictions that prevent women from accessing markets. Around 66% of respondents reported that men are hesitant to allow their wives to participate in market activities due to religious concerns. This restricts not only access to vital weather information but also participation in agricultural marketing, with significant impacts on agricultural productivity and family livelihoods. Overall, the study underscores the complex interplay of gender, conflict, and socio-economic factors that constrain women's access to agricultural resources and markets in Northern Nigeria.

This summary elucidates the resilience and coping mechanisms of women in Borno and Katsina states in Nigeria, detailing their struggles and the support mechanisms in place to enhance their empowerment in the face of socio-cultural norms and conflict.

iv. Resilience and Coping Mechanisms

In Borno State, views on the impact of social norms on women's empowerment are mixed. Although some argue that no societal norms affect women's empowerment, it is evident that traditional gender roles, cultural biases in leadership, and discriminatory land practices pose substantial barriers. Despite ongoing conflict, more than half of the women in the state's All Farmers Association of Nigeria (AFAN) have been granted over 100 hectares of land by member Baba Kashim for farming, reflecting their resilience and active engagement in agriculture. The new government has pledged to support economic recovery and food reform by providing irrigation facilities for key crops, recognizing the challenges posed by male dominance and emphasizing the need for gender-inclusive legislation.

In Katsina State, despite claims of non-existent societal norms affecting women's empowerment, the reality shows traditional gender roles and discriminatory practices continue to restrict women's economic activities. The government is responding with policies aimed at enhancing women's participation in agriculture, including granting land titles directly to women, which signals a commitment to addressing historical gender inequities.

v. Support and Interventions

The precarious situation in northern Borno due to limited access to farmlands and markets has led women to prefer individual over group operations, exacerbating resource scarcity. Over 80% of agricultural cooperatives are inactive, reflecting the severe impact of conflict and male dominance in resource distribution. Government support includes irrigation farming programs, farm input provisions, and financial assistance, with advocacy for specified resource allocations to women to reduce competition with men and enhance their economic roles.

In Katsina, agricultural challenges are compounded by inadequate infrastructure and the ongoing conflict, prompting interventions such as conflict mapping and engagement with religious and traditional authorities on gender-sensitive issues. The Ministry of Women Affairs' involvement underlines efforts to address gender-related community issues, emphasizing the need for advocacy and reorientation towards gender inclusivity.

vi. Legal Frameworks and Decision Making

National and state-level legal frameworks to support gender inclusivity exist, but implementation remains inconsistent, with significant disconnects between national policies and state-level awareness and execution. Decision-making and voice for women are crucial for empowerment, yet many barriers persist due to social conventions, lack of education, and limited economic opportunities.

IV. Summary of Key Recommendations

IV.1. Strategic Recommendations

1. Leverage Existing Policies and Frameworks

Utilize the frameworks outlined in the National Gender Policy, 2021-2026, the National Gender Policy in Agriculture 2019, National Counter Terrorism Strategy (NACTEST) 2016, National Security Strategy 2014, Policy Framework and National Action Plan for Preventing and Countering Violent Extremism 2017, Terrorism (Prevention) Amendment Act 2013, National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria 2017-2020, The Nigerian Legislatures Role in Advancing Women ,Peace and Security 2020¹¹³ and the International Fund for Agricultural Development (IFAD) Policy on Gender Equality and Women's Empowerment to guide the integration of gender considerations in the face of fragility. These policies provide a solid foundation for promoting gender-sensitive approaches, but their implementation and monitoring need to be intensified and adapted to the context of northern Nigeria, which is marked by fragility and conflict.

- i. Create comprehensive support systems that include legal aid, psychological counseling, and vocational training for survivors of sexual and gender-based violence. These programs should aim not only to rehabilitate but also to reintegrate survivors into the economy, enhancing their independence and financial stability.
- ii. Promote Legal and Institutional Reforms to Secure Women's Economic Rights by advocating for and support governmental actions to provide women with land titles and simplify the process of land acquisition. This includes advocating for policy reforms that recognize and enforce women's land ownership rights.
- iii. Ensure that women have equal access to loans, agricultural inputs, machinery, and technology by working with financial institutions to create gender-sensitive lending criteria and with government bodies to subsidize essential inputs and equipment for women in fragile and conflict prone areas.

2. Women's Economic Empowerment

Ensure that women have equal access to loans, agricultural inputs, machinery, and technology by working with financial institutions to create gender-sensitive lending criteria and with government bodies to subsidize essential inputs and equipment for women in fragile and conflict prone areas. Moreover, considering the high impact of GBV in fragile areas on women's wellbeing, productivity, and access to and control over economic resources, in addition to using

¹¹³<https://drive.google.com/drive/folders/1JkudcVBXV4JEyXiWYj05q36rItxr87-3>

GALS to promote women's rights, the VCN should facilitate linkages between women organizations and providers of legal aid to survivors of sexual and gender-based violence, along with emotional support and job training to help facilitate network between women groups and service providers. Build a Robust Data Infrastructure and Advocacy Network-Establish a centralized data repository to collect, analyze, and disseminate data on gender equality and women's empowerment in fragile contexts. This repository should support evidence-based policymaking and program development, ensuring that interventions are effectively targeted and monitored.

3. Market access and livelihood support

Adopt Market Systems Development (MSD) Approach- Implement MSD strategies to enhance the resilience and functionality of local markets, focusing on understanding and addressing systemic barriers within the market. Ensure Conflict-Sensitivity in Market Interventions-Conduct thorough conflict assessments to ensure that market interventions do not exacerbate existing tensions or inequalities. This strategy aims to identify existing tensions and inequalities by thoroughly assessing the dynamics of the conflict, stakeholders can understand the underlying causes of tensions and how different groups are affected differently. This includes identifying economic disparities, social inequalities, and political grievances that could influence or be influenced by market interventions. The primary goal is to ensure that any economic initiatives or market interventions do not unintentionally worsen existing conflicts or create new ones. For instance, an intervention that benefits one group disproportionately over another could exacerbate feelings of injustice or exclusion, potentially leading to heightened tensions.

4. Financial Support Services

Capacity Building and Resilience Strengthening, establish emergency funds that women farmers can access during crises to mitigate the impacts of fragility, conflict, and climate change; improve data collection and market Analysis, by organizing targeted surveys and focus groups with women in various conflict and fragile settings to understand their specific financial needs, barriers to access, and preferences for financial services. This might include questions about their experiences with formal banking, needs for microfinance, insurance, and credit facilities, and any cultural or societal barriers they face in accessing these services and partner with local NGOs, women's groups, and community leaders to ensure a broad and inclusive data collection process, capturing the diverse needs of women across different regions and conflict scenarios; develop and analyzing gender-disaggregated data by collaborating with financial institutions, government bodies, and international organizations to collect and analyze gender-disaggregated data that reveals how women and men are differently impacted by financial systems in these settings. This data should cover aspects such as loan repayment rates, savings behaviors, and participation in financial training. Develop pilot projects for new financial products or services designed specifically for women in these environments, based on the insights gained from the needs assessments and data analysis. Examples might include microinsurance products tailored to the risks women face in conflict zones, such as loss of spouse or market instability, or savings groups that help women build assets in a culturally appropriate and secure manner; monitor and evaluate the impact of these pilot projects rigorously, collecting data on uptake, satisfaction, and economic impact on women's lives. Use this data to refine the products and scale up successful pilots to reach more women across different settings.

5. Gender Action Learning Systems (GALS)

It is highly recommended that the Gender Action Learning Systems (GALS) be promoted more to raise awareness and share the benefits and impacts of the methodology among different stakeholders, such as community members, organizations, partners, and policy makers. Some possible strategies are: Organizing workshops, trainings, and events to introduce GALS to

potential participants, facilitators, and partners, and to demonstrate how it can be applied to various sectors and contexts. Creating and disseminating communication materials, such as brochures, posters, videos, and stories, that showcase the success stories and testimonies of GALS users, and that explain the principles, processes, and tools of GALS. Establishing and strengthening networks and platforms, such as online forums, social media groups, and peer learning circles, that enable GALS users and practitioners to exchange experiences, challenges, and best practices, and to support each other in their empowerment journey. Advocating and influencing policy makers and decision makers, such as government officials, private sector actors, and partners, to recognize and support GALS as an effective and innovative approach for gender justice and social change.

6. Geographical Expansion and Localization of the Programme through ICT4D

Develop and Deploy Tailored ICT Solutions and tools specifically designed for rural women in agriculture. These tools should provide access to vital information on agricultural best practices, real-time market prices, weather forecasts, and other critical data. Focus on user-friendly interfaces suitable for low-literacy users and local language support to ensure broad usability which can be verified by monitoring the adoption rates and user feedback on these tools. Establish Partnerships for Support and Scaling up by collaborating with local NGOs, government agencies, telecommunication companies, and international development organizations to support the rollout of ICT4D initiatives. These partnerships should aim to secure funding, technical support, and policy backing necessary to scale these solutions across fragile regions. Verification of successful implementation can be achieved by reviewing partnership outcomes, such as the extent of network establishment, policy changes, or levels of sustained funding.

7. Policy Advocacy and partnership along the Humanitarian, Development, Peace and Security (HDPS) nexus

Implement gender-inclusive agricultural policies that specifically developing and enforcing legal frameworks that protect women and vulnerable populations from gender-based violence and exploitation, which are prevalent in conflict zones. Ensure that community engagement and cultural sensitivity training for agricultural extension services are respectful of local customs and are effectively communicated, which can increase adoption and cooperation within the community. Recognize and integrate indigenous knowledge and practices in agricultural strategies and programs by ensuring conflict-sensitive, meaning they recognize and aim to mitigate the potential for agriculture-related conflict, such as disputes over land and water use. This could include support for dispute resolution mechanisms at the community level. Furthermore, the VCN programme should build cooperation and synergies with existing partners and projects along the humanitarian, development, peace and security (HDPS) nexus to ensure effectiveness, efficiency and sustainability.

IV.2. Highlight of Practical Recommendations

- 1.** Priority must be given to gender transformation through the GALS approach to enhance women's participation in households and community decision-making and their increased access to productive resources, equitable distribution of work and targeting of gender-sensitive value chains (vegetable gardening, poultry and small ruminants). These are key for enhancing women's absorptive and adaptive capacity, economic empowerment and community nutritional outcomes as evidenced by the SRE and Nigeria's Community-based Natural Resource Management Programme (CBNRMP) experience. However, this did not lead automatically to higher influence in decision-

making, so more action is needed to fully empower women and equip them to play a role in prevention and management of fragility and conflicts¹¹⁴.

2. Promote community dialogue and advocacy with authorities to facilitate women access to land and to advance the implementation of women's rights to own land. In this process, the programme can leverage lessons from LIFE-ND and VCDP to negotiate lands for women and youth. However, in the context of northern Nigeria more efforts need to be done to promote women ownership control of lands). An operational and deeper study could be useful to identify context specific and community accepted approaches to in addition to what is already accepted in existing projects.
3. Expand matching grants to women groups and youth while considering the specific challenges of security fragility and conflict. These matching grants should serve as steppingstone to connecting women with financial service associations and other relevant financial services. A complementary study is needed to identify the key success factors, challenges of matching grants in the context of fragility, conflict, and insecurity to help define operational approaches for gender responsive implantation of matching grants in the project area.
4. Leveraging existing successful experience in connecting farmers to market through the 4Ps, digital solution, market infrastructure and identifying additional measures to effectively consider dynamics of insecurity, conflict, and fragility. These additional measures will require complementary study and dialogue and should help ensure that no market interventions worsen existing conflicts or create new ones.
5. Promote gender responsive, extension and training programs that are implemented with the support of women leaders and staff considering restriction link to socio-cultural values. Foster the positioning of women and male champions of innovative approach to agriculture, business management and gender equality to support agricultural training for women including their integration in value chains with high economic potential where women are underrepresented due to socio-economic barriers and or in more profitable segments of the current value chains in which women are highly represented (poultry, leafy vegetables, and small ruminants). Programme could encourage and support linkages between men's groups and literacy organizations providing literacy for women and digital solutions and training should use local language and promote voice and image technology instead of written content. Operational strategies should be defined through deeper analysis and community dialogue to identify context relevant and community accepted approaches.
6. Use GALs to encourage community and household dialogue on balance work distribution, women's mobility¹¹⁵, GBV and women safety, equitable remuneration, and improvement of work conditions (in households, farms, businesses and communities) Build women's groups, capacity, voice and influence to negotiate for enhanced access to lands and other resources, improved working conditions, equitable remuneration, better protection against GBV in farms, businesses, and communities greater representation in leadership. Strengthen partnership with women's organizations and other relevant NGOs to scale up support to women and facilitate community dialogue in the above areas. Mobilize, national, state, local, security and religious authorities as well as leaders of farmer organizations, public and private sectors actors especially those involved in the value chains supported by the programme to address the issues raised and facilitate progressive measures.

¹¹⁴ Sub-regional evaluation of countries with fragile situations in IFAD-WCA. Learning from experiences of IFAD's engagement in the G5 Sahel countries and northern Nigeria, pp. 61-64.

¹¹⁵ Men, influenced by religious concerns, are reluctant to allow their wives to go out according to 66% of the interviewees, these compounds the difficulties faced by the community, restricting access to both essential weather information and markets, further impacting agricultural activities and livelihoods.

7. Allocate specific percentages to women during resource distribution to prevent competition with men. Provide loans, starter packs, machinery, farm inputs, and training.
8. Allocate specific percentages to women during resource distribution to prevent competition with men. Provide loans, starter packs, machinery, farm inputs, and training.

In conclusion, the study identified the key challenges to gender equality and women's empowerment within the agriculture sector in the Northern Nigeria marked by fragility, insecurity, and conflict. The consultations with key stakeholders combined with analytical work carried out were instrumental in identifying high-level strategies and practical approaches for promoting transformative empowerment of women for value chain development and food security in Northern Nigeria in the context of fragility and conflict. To facilitate the implementation of the above recommendations, an in-depth study followed with stakeholders' consultations should be carried out to formulate context-relevant and community acceptable operational guidelines. These guidelines should be; a) integrated in the programme implementation manual; b) used for training of staff and leaders of farmer organization and women organizations; c) leveraged for dialogue with communities. These strategies and operational approach will help facilitate the design and implementation of gender transformative Value Chain North programme which aims to contribute sustainably to poverty reduction, enhanced nutrition and better resilience of rural populations in the northeast and northwest geopolitical regions of Nigeria.

Nigeria, Africa's most populous country and one of its largest economies, faces significant challenges related to fragility, particularly in its northern regions. The North has been embroiled in a complex web of conflicts, exacerbated by the activities of insurgent groups such as Boko Haram and Islamic State West Africa Province (ISWAP), communal clashes, and farmer-herder conflicts. These conflicts are deeply rooted in historical, socio-economic, environmental, and political factors, including poverty, unemployment, climate change impacts, and governance issues¹¹⁶. The resulting fragility has led to devastating humanitarian consequences, including loss of lives, displacement of communities, destruction of livelihoods, and severe food insecurity. The fragility in the North not only threatens the socio-economic fabric of the region but also poses significant risks to Nigeria's stability and development prospects. Addressing this fragility requires a comprehensive approach that combines security measures with initiatives aimed at addressing the underlying causes of conflict, promoting social cohesion, and ensuring sustainable development. To integrate fragility considerations into the Value Chain North project based on the detailed insights from the report, a strategic approach that encompasses understanding and mitigating the impacts of fragility on gender and agricultural development is essential. The strategy should be holistic, addressing the root causes of fragility, leveraging existing policies, and employing innovative methods to ensure gender inclusion and empowerment within the agricultural sector.¹¹⁷¹¹⁸

¹¹⁶<https://www.undp.org/sites/g/files/zskgke326/files/migration/ng/Assessing-the-Impact-of-Conflict-on-Development-in-NE-Nigeria---The-Report.pdf> accessed 11/04/2024

¹¹⁷<https://documents1.worldbank.org/curated/en/099730003152232753/pdf/P17630107476630fa09c990da780535511c.pdf> 11/04/2024

¹¹⁸<https://www.fao.org/3/i4646e/i4646e.pdf?> 11/04/2024

Recommendations

The recommendation and actionable points for the study are drawn from the literature review, focus group discussions and key informant interviews undertaken in the northern Nigeria which details can be found in annex 3:

1. Leverage Existing Policies and Frameworks

Utilize the frameworks outlined in the National Gender Policy, 2021-2026, the National Gender Policy in Agriculture 2019, National Counter Terrorism Strategy (NACTEST) 2016, National Security Strategy 2014, Policy Framework and National Action Plan for Preventing and Countering Violent Extremism 2017, Terrorism (Prevention) Amendment Act 2013, National Action Plan for the Implementation of UNSCR 1325 and Related Resolutions on Women, Peace and Security in Nigeria 2017-2020, The Nigerian Legislatures Role in Advancing Women ,Peace and Security 2020¹¹⁹and the International Fund for Agricultural Development (IFAD) Policy on Gender Equality and Women's Empowerment to guide the integration of gender considerations in the face of fragility. These policies provide a solid foundation for promoting gender-sensitive approaches, but their implementation and monitoring need to be intensified and adapted to the context of northern Nigeria, which is marked by fragility and conflict.

- iv. Create comprehensive support systems that include legal aid, psychological counseling, and vocational training for survivors of sexual and gender-based violence. These programs should aim not only to rehabilitate but also to reintegrate survivors into the economy, enhancing their independence and financial stability.
- v. Promote Legal and Institutional Reforms to Secure Women's Economic Rights by advocating for and support governmental actions to provide women with land titles and simplify the process of land acquisition. This includes advocating for policy reforms that recognize and enforce women's land ownership rights.
- vi. Ensure that women have equal access to loans, agricultural inputs, machinery, and technology by working with financial institutions to create gender-sensitive lending criteria and with government bodies to subsidize essential inputs and equipment for women in fragile and conflict prone areas.

2. Women's Economic Empowerment

Provide legal aid to survivors of sexual and gender-based violence, along with emotional support and job training to help facilitate network between women groups and service providers. Build a Robust Data Infrastructure and Advocacy Network-Establish a centralized data repository to collect, analyze, and disseminate data on gender equality and women's empowerment in fragile contexts. This repository should support evidence-based policymaking and program development, ensuring that interventions are effectively targeted and monitored.

3. Market access and livelihood support

Adopt Market Systems Development (MSD) Approach- Implement MSD strategies to enhance the resilience and functionality of local markets, focusing on understanding and addressing systemic barriers within the market. Ensure Conflict-Sensitivity in Market Interventions-Conduct thorough conflict assessments to ensure that market interventions do not exacerbate existing tensions or inequalities. This strategy aims to identify existing tensions and inequalities by thoroughly assessing the dynamics of the conflict, stakeholders can understand the underlying causes of tensions and how different groups are affected differently. This includes identifying economic disparities, social inequalities, and political grievances that could influence

¹¹⁹<https://drive.google.com/drive/folders/1JkudcVBXV4JEyXiWYj05q36rItxr87-3>

or be influenced by market interventions. The primary goal is to ensure that any economic initiatives or market interventions do not unintentionally worsen existing conflicts or create new ones. For instance, an intervention that benefits one group disproportionately over another could exacerbate feelings of injustice or exclusion, potentially leading to heightened tensions.

4. Financial Support Services

Capacity Building and Resilience Strengthening, establish emergency funds that women farmers can access during crises to mitigate the impacts of fragility, conflict, and climate change; improve data collection and market Analysis, by organizing targeted surveys and focus groups with women in various conflict and fragile settings to understand their specific financial needs, barriers to access, and preferences for financial services. This might include questions about their experiences with formal banking, needs for microfinance, insurance, and credit facilities, and any cultural or societal barriers they face in accessing these services and partner with local NGOs, women's groups, and community leaders to ensure a broad and inclusive data collection process, capturing the diverse needs of women across different regions and conflict scenarios; develop and analyzing gender-disaggregated data by collaborating with financial institutions, government bodies, and international organizations to collect and analyze gender-disaggregated data that reveals how women and men are differently impacted by financial systems in these settings. This data should cover aspects such as loan repayment rates, savings behaviors, and participation in financial training. Develop pilot projects for new financial products or services designed specifically for women in these environments, based on the insights gained from the needs assessments and data analysis. Examples might include microinsurance products tailored to the risks women face in conflict zones, such as loss of spouse or market instability, or savings groups that help women build assets in a culturally appropriate and secure manner; monitor and evaluate the impact of these pilot projects rigorously, collecting data on uptake, satisfaction, and economic impact on women's lives. Use this data to refine the products and scale up successful pilots to reach more women across different settings.

5. Gender Action Learning Systems (GALS)

It is highly recommended that the Gender Action Learning Systems (GALS) be promoted more to raise awareness and share the benefits and impacts of the methodology among different stakeholders, such as community members, organizations, partners, and policy makers. Some possible strategies are: Organizing workshops, trainings, and events to introduce GALS to potential participants, facilitators, and partners, and to demonstrate how it can be applied to various sectors and contexts. Creating and disseminating communication materials, such as brochures, posters, videos, and stories, that showcase the success stories and testimonies of GALS users, and that explain the principles, processes, and tools of GALS. Establishing and strengthening networks and platforms, such as online forums, social media groups, and peer learning circles, that enable GALS users and practitioners to exchange experiences, challenges, and best practices, and to support each other in their empowerment journey. Advocating and influencing policy makers and decision makers, such as government officials, private sector actors, and partners, to recognize and support GALS as an effective and innovative approach for gender justice and social change.

6. Geographical Expansion and Localization of the Programme through ICT4D

Develop and Deploy Tailored ICT Solutions and tools specifically designed for rural women in agriculture. These tools should provide access to vital information on agricultural best practices, real-time market prices, weather forecasts, and other critical data. Focus on user-friendly interfaces suitable for low-literacy users and local language support to ensure broad

usability which can be verified by monitoring the adoption rates and user feedback on these tools. Establish Partnerships for Support and Scaling up by collaborating with local NGOs, government agencies, telecommunication companies, and international development organizations to support the rollout of ICT4D initiatives. These partnerships should aim to secure funding, technical support, and policy backing necessary to scale these solutions across fragile regions. Verification of successful implementation can be achieved by reviewing partnership outcomes, such as the extent of network establishment, policy changes, or levels of sustained funding.

7. Policy Advocacy

Implement gender-inclusive agricultural policies that specifically developing and enforcing legal frameworks that protect women and vulnerable populations from gender-based violence and exploitation, which are prevalent in conflict zones. Ensure that community engagement and cultural sensitivity training for agricultural extension services are respectful of local customs and are effectively communicated, which can increase adoption and cooperation within the community. Recognize and integrate indigenous knowledge and practices in agricultural strategies and programs by ensuring conflict-sensitive, meaning they recognize and aim to mitigate the potential for agriculture-related conflict, such as disputes over land and water use. This could include support for dispute resolution mechanisms at the community level.

Annex 13.11: Technical Notes from CPAT

Annex 13.11.1 CPAT - INTEGRATING ICT4D IN VCN DESIGN

The Federal Government of Nigeria is deliberate on the need to strategically integrate ICT in all sectors of the economy, most especially in the Agricultural Sector and this is well captured in a number of National Policies such as NATIP: 2022 - 2027, NDEPS: 2020-2030, the renewed hope agenda of the present new government and Presidential Emergency Declaration on Food Security.

There are already a number of digital solutions within the Nigeria Ecosystem that can be leveraged in Agricultural sector, some of which were piloted and being used by the IFAD funded projects.

For VCN, it is important to identify ways to strengthen the use of ICT in project implementation from two dimensions namely; (a) use of ICT4D to support smallholder farmers in areas of access to market, access to income, productivity enhancement, nutrition, extension service delivery, climate resilient practices, value addition and post-harvest management (b) use of ICT4D for effective project management in areas of Planning, Monitoring and Evaluation, Financial Management and Procurement, Management of Beneficiaries Database, Knowledge Management and Communication, Archiving and dissemination of programme results as well as facilitate effective communication among programme staff and other stakeholders.

Leveraging ICT4D for Effective Programme Management

1. Digital Applications for Planning, Monitoring and Evaluation

Timely access to quality data and progress reports is being a major challenge within the IFAD funded projects in Nigeria as reflected in the various Supervision Mission reports of various projects like the Value Chain Development Programme (VCDP), the close Climate Change Adaptation and Agribusiness Support Programme (CASP), as well as the Livelihood Improvement Family Enterprises in the Niger Delta (LIFE-ND). While all these projects have deployed digital solutions in Monitoring and Evaluation, there exist some gaps that must be bridged in order to effectively address this recurring challenge. ICT Solutions such as PlAMEs is being used by VCDP with its major bottleneck being that it is a desktop application and cannot offer real-time data generation, storage and access to information. Based on lessons learned, the LIFE-ND project deployed a digital solution for Monitoring and Evaluation which was an upgrade of the application being used by VCDP. A careful consideration of the LIFE-ND ArcGIS application which offer real-time update and access to data and looking at some of the features of the VCDP's desktop application which could be integrated into the real-time application would avail VCN an improved Monitoring and Evaluation System.

Other Digital solutions to be leveraged in support of M&E include Electronic Document Management System (EDMS) and Integrated Knowledge Management System (IKMS) – a document archiving system for documentation of programme documents, progress reports, report of impact/case studies, innovations and best practices, lessons learned and programme results for transparency, integrity, accountability, ease of retrieval and sharing with other stakeholders. These documents could be easily accessible even after the closure of the project.

In addition, use of quality data collection tools such as KoboCollect, ODK, Survey Monkey among others will minimize errors in data generation from the grassroots. These digital tools are currently being used by an IFAD funded project (KCEP-CRAL) in Kenya.

GIS/Remote Sensing, a planning and decision-making tool that helps in the determination of location for future interventions, planning and resource allocation, geo-referencing of intervention sites and precision agriculture could be deployed by VCN especially, considering the fragility issues in the North-East and Northwest states.

VCN could effectively use programme website and social media handles such as YouTube channels, Twitter (X), WhatsApp, Facebook Pages among others for knowledge sharing and information dissemination to other stakeholders.

2. ICT4D for Financial Management and Procurement

VCN could leverage from the Accounting Software, a Financial Management Software currently being used by the LIFE-ND project offers real-time consolidation, reconciliation, ease of upgrade and/or modification as well as timely access to financial reports. The service provider being locally sourced avails them quick access to fixing of bugs, maintenance and training/retraining of staff.

The IFAD Open System for Planning and Management of Procurement activities can be easily deployed. The VCN staff will also have the privilege of learning from their counterparts from VCDP and LIFE-ND who are already using the system.

3. Beneficiaries Database Management System

While having a Centralized National Farmers Database has been proposed by the Government is good, it is of importance for VCN to have a programme-managed database of beneficiaries for all the participating states. A quick look into the beneficiary database systems in use by the ongoing IFAD projects like the 'beneficiaries eCapture Software' of VCDP will provide quick guidance and direction.

Leveraging ICT4D in support of Smallholder Farmers

There are several ICT4D solutions within the Ecosystem that can be leveraged in support of the smallholder farmers in Nigeria. Some of these digital solutions are already being used by IFAD-funded projects in Nigeria.

1. Digital Solutions to support Production and Productivity Enhancement

- a) The e-Extension applications – The widening ratio of Extension Officers to the farmers, also the fragility issues call for the use of e-Extension solutions (translated in local languages and commodity specific) to be deployed through mediums like digital applications (e.g Rice Advice, Farm Monitor), radio and TV stations, SMS and USSD codes, voice notes, community volunteers/champion farmers.
- b) E-Voucher system -A digital platform for efficient, transparent and effective management of input subsidy to the farmers, enhanced financial inclusion and foster partnership between VC actors – currently being used by KCEP-CRAL in Kenya. Digital solutions of this like can be locally sourced within Nigeria – like the eWallet System being piloted by NITDA.
- c) Climate Information System – A system to facilitate generation of location specific weather information and its timely delivery to farmers. This can be achieved in partnership with National Agencies like NiMET, with the project putting in place farmers-friendly mediums for dissemination to the grassroots such as Websites, WhatsApp groups, SMS, and community-based volunteer officers. VCDP and LIFE-ND projects are already implementing this technology.

- d) Use of solar-powered bird scaring digital equipment would work effectively in the North-east and North-west states. This technology was piloted by VCDP in Niger State and can be adopted and scaled by VCN.

2. Digital Solutions to Support Access to Market and Management of Post-harvest losses.

- a) The Electronic Value Chain Agricultural Market Information System (eVamis) platform developed by VCDP can be improved and upgraded to a multi-stakeholder, multi-project platform that provide farmers easy access to market.
- b) Warehouse Management Hub/Warehouse Receipt System – a system currently used by KCEP-CRAL project in Kenya to provide multiple functions such as Aggregation of produce after production, storage and quality control of grains and marketing of stored grains at prevailing market prices.
- c) Explore other eMarketing platforms within the ecosystem that are agricultural biased and farmers friendly.

3. Digital Solutions to support Financial Inclusion

- a) Promote use of Agency Banking by training and supporting selected youths to provide community based financial services through the use of POS.
- b) Electronic Loan Information Management System (eLIMS) – An application that automate loan management processes, helps FIs to easily identify genuine programme beneficiaries, facilitate real-time tracking of status of loan replenishment by each beneficiary as well as generate timely reports for informed decision making. This digital solution is currently being piloted by VCDP in Niger State.

Mitigating the Challenges facing ICT4D Implementation in Nigeria

Digital Solutions requires an enabling environment to thrive and there are a number of challenges on the digital environment especially in some of the target states as a result of vandalization ICT infrastructures like telecommunication masks, limiting network coverage. Inadequate telecommunication network coverage, inadequate ICT infrastructures, weak digital literacy of the beneficiaries and programme staff, inadequate funding of ICT4D initiatives are some of the identified challenges.

VCN must employ strategies to mitigate these challenges in order to make any meaningful impact in using ICT4D solutions to support smallholder farmers in Northern Nigeria. Below are some of the recommendations:

- a) Facilitate adequate funding for ICT4D in Agriculture by the project, government and private sector.
- b) Create/establish partnership with other MDAs and sectors, donors/multilateral financing corporations, agro-dealers, network service providers and smallholder farmers.
- c) As much as possible, leverage from existing solutions within the ecosystem (including infrastructures and service providers) rather than creating new ones.
- d) Provide ICT centers as places of learning to facilitate informal conversations and networking among young farmers (both male and female).
- e) Gradually integrate ICT4D across a variety of value chains and activities, rather than going all at once.
- f) While there are differences in the rate and level of adoption of technology between the urban and rural populace, it is recommended to start with the early adopters i.e lead/champion farmers who should be encouraged to scale to other farmers.

- g) Continuous capacity building for staff and beneficiaries on ICT skills and advocacy for use of ICT4D solutions.
- h) Advocate for strong political will and buy-in of the government at the state and local levels in ICT4D initiative.

Annex 13.11.2 CPAT - ENVIRONMENT AND CLIMATE CHANGE

Following field visits, VCN design mission team's reflection, experiences from participation in previous supervision missions to past project implementation, the following activities are highlights to be considered in the design of VCN in order to tackle the environmental and climate issues.

Activity 1: Promote an Integrated Food and Early Warning Systems for Resilient Agriculture in Northern Nigeria. This includes the promotion of access to weather information.

Rationale:

Climate Resilience (SDG 13): The early warning system is a critical tool for anticipating and mitigating the impacts of climate-related events such as droughts, floods, and extreme weather conditions. By integrating climate data and predictive analytics, the FEWS ensures that farmers are well-informed, enabling them to make timely decisions to protect their crops and livelihoods.

Food Security and Zero Hunger (SDG 2): The primary goal of the VCN project is to support smallholders in deriving wealth from tapping into the national food market. An integrated FEWS contributes to achieving SDG 2 by enhancing food security through improved agricultural planning, reduced crop losses, and increased productivity.

IFAD's Mandate: IFAD's mandate emphasizes supporting smallholders and promoting sustainable rural development. By incorporating a Food and Early Warning System, the VCN project aligns with IFAD's objectives of ensuring food security, reducing vulnerability, and building resilience in the face of environmental challenges.

Implementation Strategy:

Meteorological Data Integration: Collaborate with meteorological agencies like NiMET, and NiHSA to integrate real-time weather data and climate projections into the early warning system. This ensures that farmers receive accurate and timely information for decision-making.

Farm-level Sensing Technologies: Implement on-farm sensing technologies such as soil moisture sensors and weather stations to gather localized data. This enhances the precision of early warnings, allowing farmers to make site-specific adjustments to their agricultural practices.

Community Training and Capacity Building: Conduct training programs to build the capacity of farmers in interpreting early warning information and implementing adaptive measures. Empower local communities to take proactive steps in response to impending climate-related challenges. Very critical is the engagement of youth and women as volunteers to help disseminate weather information.

Risk-Informed Agricultural Planning: Develop a framework for risk-informed agricultural planning that incorporates early warning information. This may include guidance on crop selection, planting schedules, and water management strategies tailored to anticipate climate conditions.

Expected Benefits:

Reduced Crop Losses: Timely and accurate early warnings empower farmers to take preventive measures, reducing the risk of crop losses due to adverse weather conditions.

Improved Agricultural Productivity: Enhanced climate resilience leads to improved agricultural productivity, contributing to the overall goal of the VCN project to support smallholders in deriving wealth from the national food market.

Community Resilience: By integrating an FEWS, the VCN project builds the resilience of local communities to climate-related shocks, aligning with IFAD's mandate of promoting sustainable rural development.

Data-Driven Decision-Making: The project fosters a culture of data-driven decision-making among farmers, empowering them with the information needed to navigate a changing climate and market dynamics.

By prioritizing the integration of an Integrated Food and Early Warning System, the VCN project takes a proactive stance in addressing climate-related risks and contributes to the achievement of both SDG 2 and SDG 13. This approach aligns seamlessly with IFAD's commitment to sustainable rural development and resilient smallholder agriculture.

Activity 2: Promote Agroforestry Program: Agroforestry, the intentional integration of trees and shrubs into agricultural landscapes, offers triple benefits: environmental, social, and economic. This initiative aligns with Sustainable Development Goal (SDG) 13 - Climate Action and SDG 15 - Life on Land.

Rationale:

Climate Change Mitigation: Agroforestry acts as a natural carbon sink, sequestering atmospheric carbon dioxide in trees and enhancing overall carbon sequestration. This not only contributes to climate change mitigation but also aligns with global efforts to combat climate change, supporting SDG 13 - Climate Action.

Biodiversity Conservation: Integrating diverse tree species into the agricultural landscape promotes biodiversity. This aligns with SDG 15 - Life on Land, fostering ecosystem resilience, protecting soil health, and providing habitat for various flora and fauna.

Sustainable Land Management: Trees play a crucial role in preventing soil erosion, improving water retention, and enhancing overall soil fertility. By incorporating agroforestry, the project contributes to sustainable land management practices, supporting SDG 15 - Life on Land.

Enhanced Livelihoods: Agroforestry provides additional income streams for smallholder farmers through the sale of timber, fruits, and other non-timber forest products. This economic diversification aligns with the broader goal of poverty alleviation (SDG 1 - No Poverty and SDG 8 - Decent Work and Economic Growth).

Preparation for Carbon Trading: Establishing a robust tree planting program positions beneficiaries ahead of emerging carbon trading opportunities. Trees act as carbon sinks, and the project can quantify and monetize the carbon sequestration potential, contributing to SDG 13 - Climate Action.

Implementation Strategy:

Species Selection: Engage local communities in selecting tree species (such as *Faidherbia albida*, *Alcacia albida*) that are well-adapted to the region, ensuring ecological

compatibility and increased community ownership. These are part of the lessons learned from CASP.

Training and Capacity Building: Provide comprehensive training to farmers on agroforestry techniques, maintenance practices, and the potential economic benefits. Emphasize the importance of sustainable harvesting practices.

Monitoring and Evaluation: Implement a robust monitoring and evaluation system to track the growth and impact of the agroforestry program. This data will be instrumental in quantifying carbon sequestration for potential future carbon trading initiatives.

Community Engagement: Foster community participation and ownership through transparent communication channels. Encourage the establishment of community-managed nurseries for sustained tree planting efforts.

Incorporating a well-designed agroforestry program into the VCN project not only aligns with SDGs but also positions the project to harness the potential benefits of emerging environmental markets, such as carbon trading. This approach ensures a sustainable and integrated development model that addresses both environmental and socio-economic objectives.

Activity 3: Bioconversion of Agricultural Waste to Organic Fertilizer through Innovative Fermentation/Green Technology (Waste to Resource/Wealth)

Rationale:

Waste Reduction and Resource Efficiency (SDG 12): The innovative fermentation system technology proposed for converting agricultural waste into liquid fertilizer is a sustainable solution that addresses waste reduction. By recycling biowaste generated from agricultural activities, the project contributes directly to SDG 12 by promoting responsible consumption and production.

Enhanced Soil Fertility and Crop Productivity (SDG 2): The liquid natural fertilizer produced through this process serves as a potent organic source of nutrients for crops, thereby enhancing soil fertility. This aligns with SDG 2 by promoting sustainable agriculture and contributing to efforts to achieve zero hunger.

Circular Economy Principles: The initiative embodies circular economy principles by transforming waste into a valuable resource. This not only reduces the environmental impact of biowaste but also establishes a closed-loop system that aligns with the broader objectives of SDG 12 - Responsible Consumption and Production.

Implementation Strategy:

Technology Adoption: Introduce and implement cutting-edge fermentation system technologies that are not only effective but also accessible and affordable for smallholder farmers. Collaborate with local research institutions and technology providers to ensure the suitability of the chosen technology for the specific context of Northern Nigeria.

Training and Capacity Building: Conduct comprehensive training programs for farmers on the use of the innovative fermentation system, emphasizing proper techniques, maintenance, and the benefits of organic liquid fertilizer. Build the capacity of local communities to independently manage and sustain the bioconversion process.

Community/Home Gardens: Establish community gardens where the organic fertilizer is applied to cultivate crops. This serves as a practical demonstration of the benefits of the technology, providing a tangible example of sustainable agriculture in action.

Awareness and Education: Launch awareness campaigns targeting both farmers and youth to emphasize the importance of sustainable practices. Showcase the positive environmental impact of waste-to-wealth initiatives, fostering a mindset shift towards responsible consumption and production.

Expected Benefits:

Environmental Impact: Recycling tons of biowaste significantly reduces the environmental footprint associated with agricultural activities, contributing to a more sustainable and circular approach to farming.

Nutrient-Rich Soil: The liquid natural fertilizer enhances soil fertility, promoting healthier crops and increased agricultural productivity.

Community Nourishment: The project not only generates a valuable resource but also promotes food security by improving crop yields and providing a source of nourishment for the local community.

Education and Awareness: Raising awareness among farmers and youth about the benefits of sustainable practices fosters a culture of environmental stewardship and responsible consumption.

By integrating this innovative waste-to-wealth initiative, the VCN project not only addresses immediate agricultural challenges but also establishes a model for sustainable, resource-efficient, and environmentally conscious farming practices in Northern Nigeria. This approach resonates with the Presidential Emergency Declaration on Nigeria's Food Security (Action 9: Enhancing Post-Harvest Management) and the principles of responsible consumption and production, contributing to the achievement of SDG 12.

Annex 13.11.3 CPAT - FINANCIAL INCLUSION

Presented below are some inputs that would support the design process of the Value Chain in the North of Nigeria.

Input	Remarks
Note that across all the states currently under focus, there is a variation in request for additional value chains to be included in the project being designed	During the stakeholders' engagements of November/December 2023, there has been mention of other crops (in addition to the 'top three' in each state). This lends credence to the feedbacks from the initial consultations that were held in the states. Therefore, the design process should consider adding the next two crops of significance per state.
A key sustainability feature of CASP intervention is that the grants of small ruminants given to PWDs matched the needs of the beneficiaries	The peculiar, limited mobility of PWDs restricts them to livelihoods in which the entrepreneur is relatively sedentary; in this regard, the award of starter herds of goats under CASP was suitable for PWDs. The business continues to expand as the herd grows while allowing for periodic sale of selected adults. This feature of sustainable expansion further underscores the relevance and suitability of adding small ruminants to VCN
It is necessary to ascertain the current state of affairs of the Farmers' Savings Associations (FSAs).	<p>FSAs are the first response for inclusive financial service in rural communities in the Northern Nigeria that were covered by CASP, particularly considering the weak presence of National and Regional FIs in rural areas. It is therefore important to leverage the FSAs to boost the technical and financial capacity to deliver a variety of financial services to farmers. This requires a strategy that should be based on an assessment of FSAs as from the closure date of CASP to-date, much would have happened in the business process of the FSAs. Along this line, the interim period between the VCN design phase till mid-2025 presents a window of opportunity for interaction with the existing FSAs in all states, in order to ascertain:</p> <ol style="list-style-type: none"> a. Their current ability to effectively and efficiently carry-on the business of financial intermediation b. How well they have successfully maintained the physical assets given to them by CASP c. Their customer base disaggregated by gender and other indices d. Their loan products disaggregated by gender as well as value chain activities e. Value of good quality assets and value of their liabilities etc. f. The extent of (or potentials for) deploying ICT in providing their financial services g. What capacity building they may require h. How to build linkages between FSAs, National and Regional FIs. i. How to leverage matching grants to foster financial inclusion of FOs and farmers (women, youth and PWDs, IDP returnees) through FSAs.

Input	Remarks
	<p>Given the proper budgetary support, CPAT is well-positioned to unleash its wide advisory expertise to facilitate the foregoing dialogue, which would not only serve to identify the readiness of FSAs but would also facilitate the identification of the entrepreneurs who have been (and are still) effectively engaged in their respective livelihoods. This also supports proper targeting.</p>
<p>There should be a specific determination of the extent to which the value chain concept is currently being practiced among actors in the various states</p>	<p>This entails ascertaining the following facts withing a given number of smallholder farmers in a state:</p> <ol style="list-style-type: none"> 1) How many farmers/groups have effective contract linkages (formal and informal), with beneficiary off-takers? 2) How consistent have deliveries been on these contracts? 3) How many off takers have approached (or contemplated approaching) any financial institution for credit to finance the contractual relationship with its primary producers? 4) Have there been any gatherings that bring producers, off-takers, financial institutions and other actors together, to try and hold a dialogue on inter-stakeholder relationships?
<p>In order to make credit significantly available to the smallholder entrepreneurs, deliberate efforts are required in forging close ties with the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL)</p>	<p>Access to finance is (and will continue to be) a major issue determining the ability of small-holder farmers (SHFs) to adopt the required innovations and expand their output and productivity. One feature that dissuades banks from lending to the SHFs is the perceived risk of agricultural enterprises, as exacerbated by poor repayment records of farmers. This has been underscored by the negative image of the Anchor Borrowers' Programme, the flagship lending programme of the FGN.</p> <p>NIRSAL, which is the FGN institution providing guarantee in agricultural finance, provides a credit risk guarantee (CRG), whereby the risk is shared between the financing bank and NIRSAL. The firm is present in all states and it has CRG for all stages of the value chain; the CRG covers 75% down to 50% of the credit. location, and later link with the head office. The firm also engages in the supervision, management and monitoring of projects. NIRSAL would be a key ally in VCN implementation.</p>

Annex 13.11.4 CPAT - COMMUNITY INFRASTRUCTURE

CASP infrastructural development significantly improved livelihoods and stimulated business engagements between the smallholder farmers and the private sector players. With more than 127.33 km roads constructed or rehabilitated, farmers have remarkably reduced post-harvest losses, better connection to farmlands, markets and processing centres and have significantly reduced logistics costs. As such, these cost savings have reinforced improved livelihoods, saving time and resources which are invested in other on-farm and off-farm activities.

CASP's use of standard designs for the construction of market facilities, input shops, processing centres and other production, processing and marketing infrastructures were innovations, the adoption of this approach contributed to more efficiency through reduced time (avoiding repeated procurement of different consultancy firms for each site) and reduced costs. It also brought about a harmonization of the approach for the delivery of market infrastructure.

Working with the Community Infrastructure Consultant with the responsibility of community Infrastructure for production, processing and marketing, I have to share the following;

- 1) The CASP Working Paper for Community Infrastructure;
- 2) The CASP Standard design for the various community infrastructures;
- 3) The comprehensive table for the various community infrastructures and their costs that will help in the design of the cost table etc.

Annex 13.11.5 CPAT - SUMMARY TECHNICAL NOTE ON VCN DESIGN

GENDER

1. Promote peer learning as Farmer field schools are preferred over one-on-one extension model. however, where the use of extension agents is unavoidable, the approach has to be gender sensitive.
2. There is no equity in workloads between men and women at household level, therefore the need to conduct a workload analysis targeting women is paramount as women do all household chores and this affects their agricultural productivity.
3. Training and retraining of beneficiaries are key and should be gender specific especially at the rural level as the women lack exposure and may not have a voice if merged with the men.
4. Intervention supports should not be passed through the men as the supports will not get to the women.
5. GALS methodology to be strengthened
6. Continuous and robust sensitization and stakeholder engagement is key with community leaders taking the lead to elicit stakeholders buy-in.
7. An all-inclusive sensitization approach - the community, men and women to be adopted to promote the need for women's active participation in projects
8. CDD approach fosters intervention ownership and sustainability, therefore, should be promoted.

VALUE CHAIN

1. The region is known for the cultivation of a variety of cereals which play vital roles in the local economy and contributes significantly to the food system. However, it is characterized by short rainfall duration, therefore provision should be made for the use of Short and Early maturing varieties to combat the effect of late onset and early cessation of rainfall in the region.
2. High potential and comparative advantage in groundnut production as both local and improved varieties can be grown twice/year, across all the LGAs in Kebbi State in commercial quantities and its nutritious value is high. However, this was not considered during CASP restructuring.
3. Groundnut value chain stops at production, there is need to scale up and promote other value chains.
4. Promote solar energy as a new energy source in place of PMS to power and support tools for mechanization

FINANCIAL INCLUSION

1. Linkage with Development Exchange Centre (DEC) a financial NGO can be leveraged on, serving as entry point for financial inclusion in Kebbi State

ICT4D

1. ICT4D adoption rate in Northern Nigeria is very limited which can be attributed to low literacy level for the operation of electronic devices, mobile phones are not compliant with ICT application and the unaffordability of gadgets for ICT operations among others. ICT solutions should be made usable and accessible.
2. Capacity building geared towards the teeming Youth population can serve as change agents in Agriculture (AgriTech) ICT-based solutions and innovations

3. ICT needs borders on access to real time weather information, market information, pest control especially quelea birds, improved nutrition and e-extension services, and water harvesting technologies.

NUTRITION

1. Target women directly with nutrition interventions as intense nutrition education is required especially on children's and mother's diets.
2. Millet, soybeans, sorghum, groundnut are crops with great potentials not only for income but formulated as complementary nutritious diets for the prevention of mal/undernutrition in children.
3. Integrated home gardens to include promotion of nutrient dense fruits, vegetables, cereals, poultry, moringa vegetable, recipes, small ruminants.
4. More manure for organic farming will become more available for backyard gardening if small ruminants/ livestock is integrated in the new VCN project.
5. Open defecation in communities is rampant with resultant outbreak of air and water-borne diseases. Continuous sensitization on WASH is therefore key to improve sanitary and hygiene practices.

LESSONS LEARNT FROM OTHER IFAD-SPONSORED PROJECTS

1. Provision of start-up packs in the form of working capital as promoted by the LIFE-ND Project can be adopted in the VCN to empower beneficiaries after trainings to support investments in choices of enterprises.
2. The cluster model being supported by the LIFE-ND project to ease access of enterprises (groups) to resources, inputs and markets, can be introduced to ensure sustainability.
3. Presence of a meteorological facility established by CASP for which a dashboard could be created for collection of data on weather information and disseminated to farmers.
4. Watering points provided by IFAD during CASP should be reconstructed for water availability in the target areas.