

Kenya

Integrated Natural Resources Management Programme

Project Design Report

Main report and annexes

Mission Dates: 22/01/2024 21/02/2024

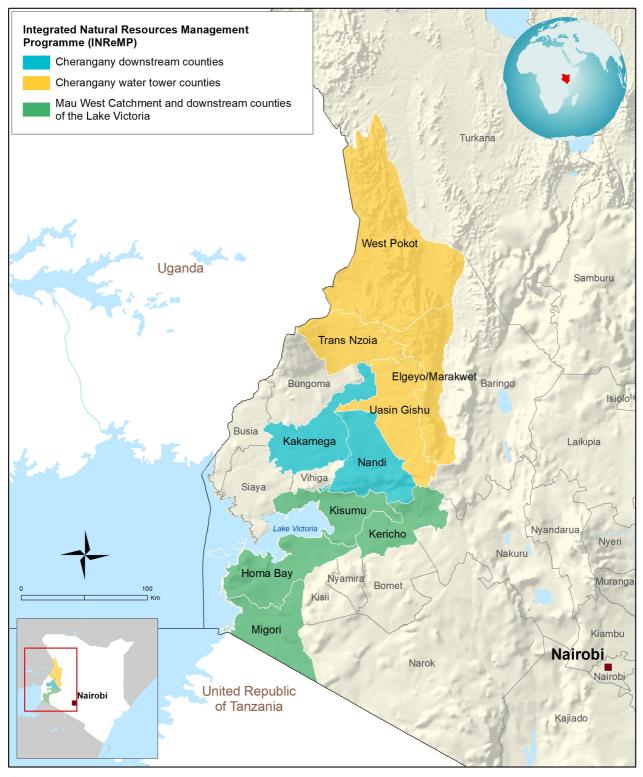
 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern 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 | 25-04-2024

Abbreviations and Acronyms

ABDP Aquaculture Business Development Programme

AFD Agence Française de Développement/French Development Agency

AfDB African Development Bank

AI Artificial Insemination

AMR Antimicrobial Residues

ASALs Arid and Semi-Arid Lands

ASTGS Agricultural Sector Transformation and Growth Strategy

AWPB Annual Work Plan and Budget

BCR Benefit-Cost Ratio

BETA Bottom-Up Economic Transformation Agenda

BMU Beach Management Unit

CAP Community Action Plan

CBA Cost-Benefit Analysis

CEC County Environment Committee

CFA Community Forest Association.

CIDP County Integrated Development Plan

CIG Common Interest Group

CIMES County Integrated Monitoring and Evaluation System

COSOP Country Strategic Opportunities Programme

CSF Capital Stimulation Fund

CSPE Country Strategy and Programme Evaluation

DRSRS Directorate of Resource Surveys and Remote Sensing

EFA Economic and Financial Analysis

ESCMP Environment, Social and Climate Management Plan

ESIA Environmental Social Impact Assessment

EU European Union

FAO Food and Agriculture Organization of the United Nations

FGM Female Genital Mutilation

FO Farmer Organization

GALS Gender Action Learning System

GBV Gender-Based Violence

GCF Green Climate Fund

GDP Gross Domestic Product

GEWE Gender Equality and Women's Empowerment

GEF Global Environment Facility

GHG Greenhouse Gas Emissions

GHI Global Hunger Index

GIS Geographical Information Systems

GoK Government of Kenya

GR4W Green Roads for Water

GTA Gender Transformative Approach

ICP IFAD Client Portal

ICRAF International Centre for Research in Agroforestry

IFAD International Fund for Agricultural Development

IFR Interim Financial Report

IRR Internal Rate of Return

IMF International Monetary Fund

INReMP Integrated Natural Resources Management Programme

INRM Integrated Natural Resources Management

IoT Internet of Things

IP Indigenous Peoples

IWUA Irrigation Water Users' Association

KALRO Kenya Agricultural and Livestock Research Organization

KeLCoP Kenya Livestock Commercialization Project

KCEP-CRAL Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window

KMCS Knowledge Management and Communication Strategy

LMP Livestock Master Plan

MCC Milk Collection Centre

MDA Ministries, Departments and Agencies

MECCF Ministry of Environment, Climate Change and Forestry

MIS Management Information System

MNO Mobile Network Operator

MoALD Ministry of Agriculture and Livestock Development

MoU Memorandum of Understanding

MRV Monitoring, Reporting, and Verification

MSMEs Micro, Small and Medium Enterprises

MTP Medium-Term Plan

NAP National Adaptation Plan

NCCSRP National Climate Change Security Response Programme

NDC Nationally Determined Contributions

ND-GAIN University of Notre Dame Global Adaptation Initiative

NEET Not in Employment, Education or Training

NGAO National Government Administrative Officers

NRM Natural Resources Management

NPV Net Present Value

NUS Neglected Underutilized Species

OPEN Online Procurement End-to-end

ORMS Operational Results Management System

PAL Procurement Arrangement Letter

PCMU Programme Coordination and Management Unit

PDO Programme Development Objective

PDT Project Delivery Team

PES Payment for Ecosystem Services

PIM Programme Implementation Manual

PLWHAs Persons Living with HIV/AIDS

PLWDs People Living with Disabilities

PP Procurement Plan

PPADA Public Procurement and Asset Disposal Act

PPRA Public Procurement Regulatory Authority

PPS Programme Procurement Strategy

PRA Participatory Rural Appraisal

PSC Programme Steering Committee

PWD Persons with Disabilities

RCMRD Regional Centre for Mapping of Resources for Development

RDMT Resilience Design and Monitoring Tool

RK-FINFA Rural Kenya Financial Inclusion Facility

RLMA Rural Labour Market Assessment

SAI Supreme Audit Institution

SBD Standard Bidding Document

SECAP Social, Environment and Climate Assessment Procedures

SME Small and Medium Enterprise

SLM Sustainable Land Management

SO Strategic Objective

ToC Theory of Change

ToT Training of Trainers

UNDP United Nations Development Programme

UNSDCF United Nations Sustainable Development Cooperation Framework

USD United States Dollar

UTaNRMP Upper Tana Natural Resources Management Project

UTNWF Upper Tana Nairobi Water Fund

VfM Value for Money

VIP Ventilation Improved Pit-latrine

VPH Veterinary Public Health

WCCC Ward Climate Change Committee

WRUA Water Resources Users Association

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

Political and Economic Background – Kenya is classified as a lower middle-income economy with a Gross Domestic Product (GDP) of \$113.42 billion in 2022[2]. Its economy is Sub-Saharan Africa's fourth largest and one of its most diverse, with a vibrant services sector[3]. It relies on a balanced mix of agriculture, industry, and services, with the sectors contributing 53%, 29% and 18%, respectively[4]. Kenya has made significant political and economic reforms that have contributed to sustained economic growth, social development, and political stability gains over the past decade. However, its key development challenges still include poverty, inequality, youth unemployment, transparency and accountability, climate change, continued weak private sector investment, and the vulnerability of the economy to internal and external shocks.

Poverty and Food Security – Around 53% of the population is employed in agriculture. Crop production accounts for 82% of agricultural GDP and 94% of agricultural export earnings. The Agriculture Sector Transformation and Growth Strategy (ASTGS, 2019-29) aims to increase opportunities for small-scale farmers, pastoralists and fisherfolk, by increasing agricultural output and food resilience. Despite Kenya's sustained economic growth, it still faces significant challenges, including poverty, inequality, and food insecurity.

Vulnerability to food and nutrition insecurity in Kenya arises from a combination of factors, including: a) rapid population growth; b) Climate Change; c) stagnating agricultural production; d) inefficient food systems; and e) socio-economic challenges – poverty, unemployment, and income inequality play a significant role [5].

Food Systems Commitments—Following the UN food systems summit, Kenya elaborated its National Food System Transformation Pathways committing to build prosperity through inclusive, innovative, collaborative, and dynamic food systems, which are based on data-driven decisions to ensure access to diverse diets from climate resilient production in every region of the country. This will be achieved through five pathways: a) Increased number of young people and women with access to productive resources that they require to thrive in the food system; b) Increased uptake of digital agricultural solutions; c) Improved diversity of diets including fruits, vegetables, dairy, meat, fish as well as grains; d) Heightened climate action to build resilience of the people; and e) Strengthened partnerships and collaboration among food systems actors.

Climate and Environment – Kenya is highly vulnerable to climate change impacts and changing weather events and is ranked 152 out of 181 countries in the 2019 ND-GAIN Index. Events of climate change have the potential to change species habitats, their interactions, and the timing of key biological actions, leading to significant transformations in existing ecosystems and food chains. It can exceed ecosystems' ability to cope with extreme events and disturbances like wildfires, floods, and droughts. The country's natural resources are threatened by over exploitation and unsustainable land use practices. Land degradation is a leading cause of low agricultural productivity, and declining ecosystem services and income for local communities. Investments in climate resilient technologies, integrated natural resource management, sustainable land and water management, climate-proofed water infrastructure, climate and weather information systems and early warning, renewable energy, and access to climate financing, etc. are some options to enhance climate change resilience, adaptation, and mitigation as well as sustainable natural resources management. Moreover, the nexus between food security vulnerability, climate change and environmental degradation is a critical issue in Kenya. Climate change is affecting both the quantity and quality of water availability in the country. Increased severity of droughts and floods impacts crop and livestock production. The country's rapid population growth puts immense pressure on natural resources, including water.

Rationale for IFAD Involvement – The combination of Kenya's good economic performance coupled with a high population growth rate, contribute to an increase in demand for agricultural products and the resultant pressure on existing natural resources. Although the country has a number of high agricultural potential areas, agricultural yields have been declining over time, largely due to poor natural resources management practices and impacts of climate change.

Goal and Development Objective – INReMP's goal is to 'contribute to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem'. It's Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth, and other vulnerable groups'.

Project Area – INReMP implementation will follow a programmatic approach done in phases across different water towers in Kenya. In the first phase, INReMP will be implemented in the Cherangany Hills and Mau West water towers focusing on the following ten counties: a) The Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. The Cherangany ecosystem is the source of two major rivers the Nzoia and the Kerio, which drain into Lake Victoria and Turkana respectively while the Mau Forest complex is the largest water tower and is the source of twelve rivers which drain into Lake Baringo, Lake Nakuru, Lake Natron, Lake Turkana, and the transboundary Lake Victoria. The second phase focal areas will be decided, with guidance from the Government, as and when additional funding is accessed.

Target Group – INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people).

These will be selected from the following target groups: a) food insecure and vulnerable rural farmer households (20% of project target); b) Moderately food insecure rural farmer households (40% of project target); c) Food secure, semi-structured and structured medium farmer households (30% of project target); and d) Micro, small and medium scale enterprises (10% of project target).

Targeting Strategy – The following targeting strategy will ensure that women, men, youth and other vulnerable groups benefit from equitable participation: a) Geographic Targeting; b) Direct Targeting – INReMP will apply representation targets in interventions to ensure 40% women, 30% youth and 5% comprising of Persons with Disabilities (PWDs), People Living With HIV and AIDs (PLWHAs), Indigenous Peoples (IPs) and other vulnerable groups are targeted; c) Self-Targeting – The selection of value chains and related infrastructure development will be done based on how likely they will benefit smallholder men, women and youth; and d) Empowerment and Capacity Building Measures – INReMP will work with women, youth, IPs and other vulnerable minorities and their organizations to ensure their participation in planning and decision-making processes.

Programme Outcomes – INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes: a) Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action; b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

INReMP Components – The Programme comprise the following components:

- Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams, and lakes);
- Component 2: Improved, Inclusive and Sustainable Rural Livelihoods This component is essential for the success of component 1. It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live;
- Component 3: Strengthened Policies and Institutions for INRM and Rural Coordination This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

Implementation Arrangements – Programme implementation will be mainstreamed into the GoK system, both at national and county levels. The State Department for Agriculture (SDA) of the Ministry of Agriculture and Livestock Development (MoALD) will be the lead implementing agency. The Department will delegate the day-to-day operation of the Programme to a Programme Coordination and Management Unit (PCMU) reporting directly to the Principal Secretary, SDA who will also be INReMP's accounting officer. A National Programme Steering Committee (NPSC) will be set up to provide overall policy and strategic guidance to the Programme. To steer implementation at the county level a multi-sectoral County Programme Steering Team (CPST) composed of the CECMs of relevant County Departments, County Commissioner and relevant National Government Agencies at the county level will be established.

Programme Costs and Financing – INReMP's total costs, including base cost and price and physical contingencies, is estimated at US\$ 262.6 million, over an 8-year implementation period. The Programme will be financed as follows: a) IFAD contribution of US\$173.8 million; equivalent to 66% (comprising IFAD 12 loan of US\$126.8 million and a financing gap of US\$47 million). The financing gap of US\$47 million may be sourced through subsequent performance-based allocation system cycles under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval, or by co-financing identified during implementation; b) Co-financing from GCF and GEF is estimated at US\$40 million and US\$7 million respectively; (15% and 3% of the total cost); c) domestic co-financing from GoK is estimated at US\$23.3 million in form of in-kind contribution, including duties and taxes; equivalent to 9% of the total cost; d) contribution from Programme beneficiaries is estimated at US\$8 million (3%); and e) Co-financing from the private sector is estimated at US\$10 million (4 % of the total costs).

Implementation Readiness – The following steps will be taken to address potential start-up delays: a) preparation of a draft AWPB, the associated Procurement Plan and a draft PIM as part of the design process; b) preparation of job descriptions for all the different PCMU positions; and c) use of the KCEP-CRAL Project Management Unit, in the interim, to support and onboard the smooth start of INReMP. The key role and responsibilities of this start-up team will include but not limited to:a) expediting all required processes to ensure entry into force, fulfilling disbursement conditions which entails drafting workplan and budget and procurement plans, opening of designated and operational accounts, ensuring the Programme budget is captured in the national and line Ministry's approved budget for relevant fiscal year, procuring and operationalising accounting system; finalising ToRs for competitive recruitment of PMCU staff and ensuring their smooth on boarding; b) finalising draft programme implementation manual, setting up M&E framework including drafting ToRs for procurement of consultants to conduct baseline survey and relevant thematic studies; c) drafting and finalising frameworks for onboarding of key implementing partners including supporting key county implementation structures set-up plans; and d) oversee the preparation and planning for the Programme launching and start-up workshop based on an elaborate plan within the first of Programme implementation.

1. Context

A. National context and rationale for IFAD involvement

a. National Context

- 1. Political and Economic and Social Context the Kenyan economy is Sub-Saharan Africa's fourth largest and one of its most diverse, with a vibrant services sector[6]. It relies on a balanced mix of agriculture, industry, and services, with the sectors contributing 53%, 29% and 18%, respectively[7]. Kenya has made significant political and economic reforms that have contributed to sustained economic growth, social development, and political stability gains over the past decade. However, its key development challenges still include poverty, inequality, youth unemployment, transparency and accountability, climate change, continued weak private sector investment, and the vulnerability of the economy to internal and external shocks. Between 2015 and 2019, Kenya achieved broad-based economic growth, averaging 4.8% per year. This growth significantly reduced poverty, with the poverty rate declining from 36.5% in 2005 to 27.2% in 2019 (measured at the \$2.15/day poverty line). However, in 2020, the COVID-19 pandemic severely impacted the economy by disrupting international trade, transport, tourism, and urban services. Despite these challenges, the agricultural sector remained resilient, limiting the contraction in GDP to only 0.3%. In 2021, Kenya experienced a strong recovery, with the economy growing at 7.5%.[8] The real GDP growth accelerated from 4.8% in 2022 to an estimated 5% in 2023, according to the World Bank.
- 2. For 2024, the International Monetary Fund (IMF) is forecasting Kenya's real GDP growth to stay healthy at 5.3%, given the prospects of favourable rainfall and a strong performance in Agriculture. The persistence of tight fiscal and monetary policy, and a fragile global context, present downsides. Growth is expected to accelerate in 2025-28, supported by structural reforms, broad based digitalisation, and deeper regional integration[9].
- 3. Kenya's population is estimated at about 55.1 million people in 2024 and projected to reach about 64 million people by 203010 when youth (aged 15-34 years) will account for 34%[11] of the population. Kenya's population is growing at about 1.98% annually. The total fertility rate in Kenya has decreased over the years from 8.1 births per woman in 1977 to 3.3 births per woman in 2021[12]. An estimated 71% of Kenya's population live in rural areas[13]where over 70% are relying on agriculture for their livelihoods[14].
- 4. Poverty and Food Security Despite Kenya's sustained economic growth, it still faces significant challenges, including poverty, inequality, and food insecurity. The United Nations Development Programme (UNDP) Human Development Report 2023 indicates Kenya's HDI value for 2022 as 0.601. This HDI puts the country in the Medium human development category, positioning it at 146th out of 193 countries and territories. The report indicates that 37.5% of the population in Kenya is multidimensionally poor while an additional 35.8% is classified as vulnerable to multidimensional poverty in 2021[15]. As of 2021, the GINI index for the country stood at 38.7, implying that while income inequality is not as severe as in some other countries, there is room for improvement. The key challenge to address going forward is that economic growth is not translating sufficiently into improved well-being, and, over time, poverty has become less responsive to changes in economic growth [16].

Vulnerability to food and nutrition insecurity in Kenya arises from a combination of factors, mainly: Rapid population growth and age composition leading to increased demand for safe and nutritious food and the resultant strain on available resources[17]; Climate Change impacts on food systems and malnutrition, with Kenya's arid and semi-arid regions, which constitute 80% of the country's land area, facing challenging high levels of acute food insecurity[18]; Stagnating agricultural production whereby, despite efforts, agricultural production has not kept pace with population growth; Inefficient food systems whereby the distribution and supply chains for nutritious food are not always efficient, with challenges in transportation, storage, and market access contributing to food insecurity and malnutrition https://www.wfp.org/countries/kenya[19]; Socio-economic challenges including poverty, unemployment, and income inequality[20]. The nexus between food security vulnerability, climate change and environmental degradation is a critical issue, in Kenya. Climate change is affecting both the quantity and quality of water in the country. Increased severity of droughts and floods impacts crop and livestock production. As already indicated, the country's rapid population growth puts immense pressure on natural resources, including water. Watershed degradation exacerbates the challenges of climate change, leading to reduced water availability for irrigation and domestic use as degraded watersheds struggle to meet increasing demands.

5. National Commitments, Strategies and Policies on Smallholder Agriculture, Rural Poverty Reduction and Enhanced Food Security and Nutrition

- 6. Kenya's Vision 2030 launched in 2008 is the country's long-term development blueprint. The vision emphasizes sustainable development, poverty reduction, and inclusive growth focusing on three pillars economic, social, and political. The Vision 2030 is implemented through a series of Medium-Term Plans (MTPs), each covering a five-year period. The current MTP is MTP IV, covering the period from 2023 to 2027 and draws inspiration from the Kenya Kwanza Bottom-Up Economic Transformation Agenda (BETA), which focuses on six key pillars of affordable housing, manufacturing, universal healthcare, food security, expanding tax base and inclusive growth to drive economic empowerment and sustainable growth.
- 7. The Kenyan Government positions agriculture as the backbone of its economy. The sector remains a central pillar of the Country's economy, contributing significantly to both income and employment for its citizens.
- 8. The Agricultural Policy outlines Kenya's approach to crop and animal husbandry, fisheries development, and disease control. It emphasizes collaboration between the national government and county governments to enhance agricultural productivity and sustainability. To achieve the desired outcomes, the country is implementing the Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029, which aims to transform the agricultural sector from small-scale subsistence production to a sustainable, equitable, and remunerative system.

- 9. The key objectives of the ASTGS are: a) increasing small-scale farmer, pastoralist, and fisherfolk incomes; b) boosting agricultural output and value addition; c) enhancing household food resilience; d) enabling skill development; e) strengthening research and innovation; and f) monitoring food system risks. The Country is also drafting the agriculture and livestock master plans to galvanize Government's determination to transform these sectors in the medium-and long-term.
- 10. The country is also implementing the Kenya Climate Smart Agriculture Strategy (CSA) (2017 to 2026) and aims to implement Kenya's Nationally Determined Contributions (NDCs) for the agricultural sector. It emphasizes climate resilience and low-carbon growth in agriculture and integrates adaptation, resilience-building, and greenhouse gas (GHG) mitigation.
- 11. The livestock sub-sector is widely considered to have the potential to reduce poverty and improve nutritional status for household. The sub-sector is guided by several policies and strategies to enhance its development and sustainability, key ones being the National Livestock Policy (2008), the Veterinary Policy (2016) and the Policy for Arid and Semiarid Areas (2012). These policies collectively contribute to Kenya's comprehensive strategy for livestock development, aligning with the ASGTS, 2019-2029[21]. The country has also initiated a process to develop a Livestock Master Plan (LMP). The purpose of this plan is to identify investment options in various livestock value chains through evidence-based sector analysis.
- 12. Key policies, strategies and programmes regarding environment, climate change and natural resources management include: a) the National Climate Change Action, which <u>aims to achieve Kenya's NDC under the Paris Agreement[22]</u>; b) Kenya National Adaptation Plan (NAP) 2015-2030[23]; c) National Forest Policy 2014; and d) Master Plan for the Restoration, Conservation, and Sustainable Management of Water Catchment Areas in Kenya.
- 13. The country has developed key policies and strategies aimed at ensuring sustainable water management and equitable access to water resources in Kenya. These include: a) National Water Master Plan 2030; b) National Water Resources Strategy (2020-2025)[24]; c) National Irrigation Policy 2017; and d) National Irrigation Services Strategy in Kenya as well as formulating a National Irrigation Sector Investment Plan (NISIP).
- 14. The INReMP design aims to contribute across this variety of policies through its support to production, natural resource management and climate resilience.

15. Food Systems Commitments

16. Kenya has committed and elaborated its National Food System Transformation Pathways as part of the outcome of the UN Food Systems Summit by envisioning to build prosperity through inclusive, innovative, collaborative, and dynamic food systems, which are based on data-driven decisions to ensure access to diverse diets from climate resilient production in every region of the Country. This will be achieved through five pathways: a) Increased number of young people and women with access to productive resources that they require to thrive in the food system; b) Increased uptake of digital agricultural solutions; c) Improved diversity of diets including fruits, vegetables, dairy, meat, fish as well as grains; d) Heightened climate action to build resilience of the people; and e) Strengthened partnerships and collaboration among food systems actors. The Country has elaborated and is implementing a National Food System Action Plan with five outcomes to align with the five pathways, including a constituted Food System Governance mechanism and finalising the full costing of the Action Plan. IFAD, as part of the Rome-Based Agencies, has been actively supporting and contributing to this process. INReMP, would also contribute and support to the implementation of the National Pathways as the objectives and outcomes of INReMP align with the country's Food System vision, pathways, and outcomes.

b. Special aspects relating to IFAD's corporate mainstreaming priorities

- 17. Gender Equality and Women's Empowerment (GEWE) Over 50% of Kenya's population are female. The Global Gender Gap Index 2020 ranks Kenya at 109th out of 153. The country has supportive laws and policies, including the 2010 Constitution, Vision 2030, national and county gender policies, support increased gender equality, advancing opportunities for women. However, challenges of implementation of laws at national and county levels, entrenched socio-cultural norms and attitudes continue to disadvantage women. Female farmers in the rural areas have limited access and control to land, access to credit, resources, productive assets, have limited representation in leadership and bear heavy workloads on the farm and at home. Women are actively engaged in environmental management, farming, livestock husbandry and marketing of some produce with limited control over those resources. The income from sales of eggs and poultry is considered to belong to women.
- 18. Youth Kenya's population is largely young, with 35.7 million Kenyans (75.1%) below the age of 35 years and offers a dynamic workforce that is highly adaptable, with a high uptake of technological innovations. Yet, youth record a high unemployment rate of 35%. The key challenges for youth participation in agriculture include negative perception and attitude to agriculture, inadequate skills, knowledge, and information, limited agricultural innovation, limited access to finance and resources such as land. The GoK has put in place various legal, institutional and policy frameworks to empower the youth at national level. The five-year County Integrated Development Plans (CIDPs) articulate regional development aspirations and youth empowerment as key. However, most counties are yet to enact youth policies.
- 19. Indigenous and Marginalised Groups An estimated 79,000 people identify as indigenous in Kenya, and are found among the pastoralist communities of Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus, Somali, Gabra, Pokot and Endorois communities. Some of these groups may be found living in the project areas of Nandi, Elgeyo Marakwet and West Pokot. They experience land [25] and resource tenure insecurity, poor service delivery, weak political representation, as well as general discrimination and exclusion. It is also important to recognize that they are valuable partners and holders of local traditional knowledge that can improve nutrition and enhance biodiversity. Marginalised groups also include Persons Living with HIV and AIDS (PLWHAs) and Persons with Disabilities (PWDs), who are estimated to be about 4.6% of the population [26].
- 20. Nutrition Although Kenya has made improvements in reducing stunting and underweight among children under the age of five in the past 20 years, 18% of children under five are stunted, 5% are wasted and over 30% of adults are overweight or obese[27]. The underlying causes for malnutrition include: a) unavailability, economic access, and utilization of required food groups and dietary requirements; b) inadequate feeding and caring practices at individual, household, and community level; c) poor environmental hygiene; and (d) lack of clean portable water. It is estimated that Kenya has suffered a loss of KSh 373.9 billion, equivalent to approximately 6.9% of the GDP, due to malnutrition. However, the Return on Investment for nutrition in Kenya is high, with an estimated return of US\$ 22 for every US\$ 1 invested in nutrition[28]. The country has prioritized access to diverse diets as a key area to achieve sustainable consumption patterns and promote good nutrition in line with its Food systems vision.[29].
- 21. Climate and Environment Kenya is recognized as highly vulnerable to climate change impacts and changing weather events and is ranked 152nd out of 181 countries in the 2019 ND-GAIN Index. Events of climate change have the potential to change species habitats, their interactions, and the timing of key biological actions, leading to significant transformations in existing ecosystems and food chains. It can exceed ecosystems' ability to cope with extreme events and disturbances like wildfires, floods, and droughts. According to the Word Bank Climate Country Profile report, temperatures in Kenya are projected to continue rising by 1.7°C by the 2050 and by approximately 3.5°C at the end of the century. In addition, it is projected to experience highly variable and uncertain precipitation that is expected to increase by mid-century, particularly during the 'short rains', which occur between October and December. This high vulnerability is exacerbated by the country's over reliance on rain fed agriculture (80%), hence negatively impacting food security and increasing household vulnerability.
- 22. Current projections show that temperatures will rise by 1.5°C to 2.5°C between 2046 to 2065, along with more erratic rainfall patterns, increased frequency and intensity of droughts, heatwaves, and floods, all of which will have severe impacts on agriculture and food security. Greenhouse gas emissions (GHGs) from all sectors (energy, industrial processes, agriculture, waste, land use, land use change and forestry) are projected to increase to 33.4 million tonnes of CO₂ equivalent by 2030, with 34% of this being from the agricultural sector. The country's natural resources are threatened by over exploitation and unsustainable land use practices. Land degradation is a leading cause of low agricultural productivity, and declining ecosystem services and income for local communities. Investments in climate resilient technologies, integrated natural resource management, sustainable land and water management, climate-proofed water infrastructure, climate and weather information systems and early warning, renewable energy, and access to climate financing, etc. are some options to enhance climate change resilience, adaptation, and mitigation as well as sustainable natural resources management. (Please see 'Mainstreaming Annex 11: Mainstreaming themes Eligibility criteria checklist').

c. Rationale for IFAD involvement

- 23. The rationale for INReMP is based on the severe need for this combination of production, INRM and climate resilience related support in the Country, combined with highly effective results from similar Projects implemented by IFAD.
- 24. The combination of Kenya's good economic performance coupled with a high population growth rate, contribute to an increase in demand for agricultural products and the resultant pressure on existing natural resources. Although the country has a number of high agricultural potential areas, agricultural yields have been declining over time, largely due to poor natural resources management practices and impacts of climate change. The country's Green Growth Index stagnated in the 48%–51% range during 2010–21, about halfway to its green growth target[30]. This implies that with increased emphasis on green growth policies, Kenya could promote economic growth while reducing vulnerability to climate change. It is highlighted that good natural resources management practices are not only good for enhanced agricultural productivity, but they also have an implication on the country's economic performance, considering that nature-based tourism is susceptible to environmental degradation, climate variability and change, and extreme weather events. It is also important to point out that sustainable natural resources management is not the responsibility of a few stakeholders but all stakeholders, inclusive of individuals/households/communities, public and private sector stakeholders.
- 25. IFAD has demonstrated, through Upper Tana Natural Resources Management Project (UTaNRMP), Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window (KCEP-CRAL), and GEF-funded Upper Tana Nairobi Water Fund(UTNWF) that: a) natural resources can be sustainably managed by communities, while achieving improved livelihoods and sustaining food and nutrition security; b) supporting communities with irrigation facilities is a game changer in the agriculture sector, leading to communities having three to four cropping cycles in a year; c) the private sector can contribute to ensure sustainable natural resources management; and d) communities can be supported to increase resilience to climate change. These projects have been successfully implemented and have generated lessons and best practices that will be scaled-up by INReMP to address similar constraints in other parts of the country.
- 26. Based on IFAD's track record, the GoK has therefore requested IFAD to liaise with other development partners to scale-up the successful experiences in the area of sustainable natural resources management, diversified livelihood options, as well as improving mitigation and adaptation measures to the impact of climate change in the Cherangany Hills and Mau West water towers.

B. Lessons learned

- 27. The following lessons, which will inform INReMP design and implementation, were sourced from the IFAD country portfolio projects and from other countries that have implemented similar/related projects:
 - Livelihood interventions serve as strong incentives for NRM [31]. Supporting communities with livelihood improvement interventions, such as crop production, poultry, dairy cows and goats, apiculture, etc. has contributed to improved NRM as beneficiaries realise the benefits of NRM. Under UTaNRMP, interventions in soil and water conservation demonstrations, provision of water for irrigation, distribution of quality seeds, including beans, green grams, and fodder crops in the Project led to increased adoption of promoted technologies. Based on impact assessment undertaken by IFAD's Research and Impact Assessment (RIA) division, these interventions resulted in increased crop productivity of 50-60% among beneficiaries. Average crop yields for beans, green grams and cowpeas increased from 3 to 8 bags/acre, 3 to 6 bags/acre and 5 to 8 bags/acre, respectively. Similarly, farmers reported productivity improvements under the livestock enterprises leading to increased milk production from an average of 3-5 litres to 15-20 per day per cow and 0.25 litres to 2 litres per day per goat [32];
 - Investments in agro forestry have multiple benefits, such as income generation, improved soil and water conservation and regulation of the micro-climate. UTaNRMP, for instance, presented numerous opportunities in improving rural livelihoods in ways that were also beneficial for the natural environment as well as providing interventions to enhance the management of the natural resources that will inure to the livelihoods of the custodians of the natural resources. These interventions improved the otherwise fragile environment and made it resilient to the vagaries of climate change. INReMP has used this experience to allow for a number of alternative income generating activities as an incentive to improved NRM practices;
 - Consolidation of resources in a few counties, leveraging on-going interventions, can lead to magnified impact. In line with the
 recommendations of the Country Strategy and Programme Evaluation (CSPE) of 2019, INReMP builds on IFAD's
 comparative advantage and retain focus on selected themes and geographic areas. Moreover, under the completed
 UTaNRMP, greater impact was achieved by focusing interventions in only six counties over a longer implementation period
 (10 years);
 - Effective programme management can be a strong pillar of success. Under UTaNRMP, frequent engagement with government through review meetings and knowledge sharing through work review meetings were strong Programme management approaches that strengthened the capacity of government agencies and departments. Through this approach, the capacitated Government agencies and departments were able to deliver their core mandate to provide services to their communities. Some of the farmers doubled their productivity and income. A similar approach has been adopted by INReMP;
 - Strong community empowerment leads to success. Community engagement, and participatory approaches, such as the
 Gender Action Learning System (GALS) methodology implemented in UTaNRMP, KCEP-CRAL and Aquaculture Business
 Development Programme (ABDP) led to better decision making in the use of household and community resources. This was
 because it created a shift in gender roles in the households, brought family members together and reduced gender-based
 violence. INReMP is to make use of these experiences for the effective implementation of the GALS approach;
 - Community participation and contributions enhance ownership and sustainability Under UTaNRMP, community involvement
 through CFAs and WRUAs in rehabilitation of forests and riparian areas enhanced community ownership of project
 interventions leading to the sustainability and success of the initiative;
 - Crowding in the private sector in watershed conservation can lead to sustainable outcomes. The UTaNRMP and UTNWF projects demonstrated that with the appropriate incentives, it is possible to crowd in the private sector in watershed

conservation. The UTNWF did this through the establishment of the Water Fund, which was the first one in Africa and is being replicated in several water catchments in the Country. This is a form of payment for improved environmental services. INReMP and the GEF-8 project will promote access to such opportunities for its beneficiaries engaged in the different INRM activities:

- Rural producers can be incentivized to adopt improved inputs and technologies through a structured digital/e-voucher platform that crowds in the private sector. The KCEP-CRAL e-voucher system [33] that IFAD and EU have been co-financing since 2016 and being replicated and scaled up within and outside Kenya, clearly demonstrates that input subsidy intervention can be efficiently, effectively, and transparently delivered through a private sector-led digital platform. It ensures rural producers have access to bundled inputs, technologies, and services at the last mile. Such a digital platform guarantees predictable aggregation of input demands, enhance private sector product innovation, and create employment opportunities in the rural areas. Preliminary results from an impact assessment on the e-voucher beneficiaries shows that treatment outperformed control groups in productivity increases, increased income, food security, resilience index and asset accumulation:
- Climate Resilience Building. The UTaNRMP and UTNWF projects demonstrated that systematic and targeted investments in climate resilience building through blended financing (IFAD loan/GEF) or through innovative financing models, such as carbon markets and payments for ecosystem services, provide strong returns for food security, income generation, livelihoods, water availability, and climate resilience for vulnerable smallholder farmers. INReMP is to use blended financing (IFAD loan/ Global Environment Facility (GEF)/Green Climate Fund (GCF)) and will be exploring the use of the other innovative financing models;
- Integrated Natural Resource Management, as applied under the UTaNRMP and UTNWF projects, has been shown to have positive impacts on the productivity, food security, diversification of livelihoods, income generation and soil health[34]. The integrated management can be enhanced through catchment level planning to ensure coordination of investments among communities and Counties as done in other Countries in the region, such as Ethiopia. The use of catchment level planning has been incorporated into INReMP design;
- Participation of women in project activities does not necessarily directly translate into women's empowerment [35] -lessons
 learned from KCEP-CRAL and UTaNRMP suggest that deliberate actions are needed to ensure that women participation is
 accompanied with sustainable benefits. UTaNRMP also observed challenges in improving food security and asset ownership
 among female beneficiaries while it succeeded in promoting small livestock keeping[36] and energy-saving cooking stoves.
 INReMP will make deliberate efforts in supporting gender transformative interventions;
- Nutrition-sensitive investment global evidence shows that nutrition-sensitive agriculture and food systems can greatly
 contribute to improving nutrition outcomes, through production of diverse, safe, and nutrient-rich local foods, biodiversity
 conservation and natural resource management, including ensuring water sources availability; and
- Financial Management It is essential for INReMP to take note of the key financial management issues encountered by ongoing projects and address them to ensure effective implementation. Such issues include: a) disbursement has been low for the first two years of ongoing projects because of slow procurement processes and recruitment of staff; b) accounting systems should be operational as a condition for disbursement to ensure the project's financial management is meeting the expected standards from donors and the government; c) finance staff receive adequate training and orientation in the first three months of the project on financial management, reporting and disbursement requirements; d) all finance staff complete the IFAD e-learning modules on financial management as part of their induction process; e) credible budgets are prepared for all donor funds and GoK contribution in cash and in-kind. GoK contributions are monitored to ensure timely release of funds to counties for project activities; and f) it is critical to include the project in the internal audit department planning cycle to ensure that adequate staff time and resources are allocated to the project for audit.

2. Project Description

C. Project objectives, geographic area of intervention and target groups

- 28. Programme Goal INReMP's goal is to 'contribute to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem'.
- 29. Programme Development Objective (PDO) The PDO is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'.
- 30. **Geographic Intervention Area** INReMP implementation will follow a programmatic approach done in phases across different water towers in Kenya. In the first phase, INReMP will be implemented in the Cherangany Hills and Mau West water towers focusing on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem. The second phase focal areas will be decided as and when additional funding is accessed. The Cherangany-Elgeyo Hills and Mau Ecosystems are important natural resources that lie within the Lake Victoria and Rift Valley drainage basins; they drain their water to Lake Victoria and serve more than 10 million people. Participating sub-counties and wards will be selected as a Programme activity and this will be guided by a set of criteria that is included in the Programme Implementation Manual (PIM).
- 31. Target Group- INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people).

INReMP will support the target households to: a) sustainably manage natural resources and climate-related risks for increased resilience and income; b) access technologies that sequester carbon or reduce greenhouse gas emissions; c) develop/rehabilitate 14,000 ha of farmland under water-related infrastructure; c) create over 40718 new jobs/employment opportunities. INReMP's outreach will be 40% women, 30% young males and females and 5% IPs, PWDs, PLWHAs and vulnerable groups from the following socio-economic groups:

- Poor food insecure and vulnerable rural farmer households(30% of project target) who have little or no capacity to generate incomes, have limited productive assets and face environmental and climate shocks. This group includes those vulnerable to poverty as well as those vulnerable populations such as IPs, women-headed, PWDs and PLWHAs who are at risk of falling into poverty, with a priority on the poorest and most excluded, the poor and near poor as identified by the community empowerment processes. This group may be benefiting from existing social assistance programmes. Their coping mechanisms include reliance on traditional safety nets, such as borrowing from family, friends, and 'village savings groups' where each person contributes a part of their daily earnings and each day a different person receives the sum collected on a revolving basis. They will gradually participate in Programme activities through their group membership benefiting from INRM-based and livelihood interventions (e.g. soil and water conservation, reforestation);
- Moderately food insecure rural farmer households (40% of project target), who already meet their minimal needs through subsistence farming, but remain vulnerable to shocks that hinder their capacity for surplus production for consumption and to make their production market oriented. Only a few smallholders are involved in farmer organizations; about 10% are members of a planting, weeding, and harvesting groups. In addition, they generally do not have access to ecosystem services and livelihood opportunities to enhance their production. They may be members of informal or community organizations at village level but need support to organize collective action. These farmers will be instrumental to supporting poor and near poor food insecure farmers to build their capacities and aid in knowledge transfer through Farmer Field Schools as they act as lead farmers to host demonstrations and provide extension advice to others. This group will provide input and output markets for others due to bulking of orders and having a large enough demand for the presence of service providers, like agro-dealers and rural finance services:
- Food secure, semi-structured and structured medium farmer households (30% of Programme target) capable of engaging in market activities in the selected VCs but require additional support to productivity and production increase and entrepreneurship activities. Structured farmers may have some assets and/or are organized into formally established and legally registered operational and viable producer and/or processor cooperatives or organizations. These farmers may have a market-oriented approach but lacking entrepreneurial/management skills to farm as a business and have limited access to extension services and to more commercial markets. They will benefit from Programme activities, such as improved access to markets through skills training, infrastructure and engaging in markets. These are included in INReMP interventions because they have the ability to support poor smallholders towards market orientation for sustainable livelihoods and production; and
- Others who will benefit from INReMP include: i) Micro, small and medium scale enterprises who support climate smart technologies, value addition and market linkages in selected VCs. These enterprises are already engaged in some entrepreneurial logic, and will be supported through a combination of technical, business capacity building to ensure all the three Programme target groups above benefit from backward and forward market facilitation/linkages. This will be provided in the scope of innovative value chain arrangements that enable the participation of smallholders in the selected value chains; and ii) Government officials who will benefit from capacity strengthening activities.
- 32. Targeting Strategy-INReMP will target women, men, youth, and other vulnerable groups through:
 - Geographic Targeting the participatory community empowerment and planning processes will be conducted during the first
 year of implementation. During this process, INReMP will determine the participating sub-counties in each County based on
 the following criteria; (i) Vulnerability to climate change risks (ii) Identify potential value chains with the highest possible
 degree of inclusion such as horticulture, fruit trees, apiculture etc. (iii) rural poverty rate, ethnic minorities poverty, and poverty
 severity of sub-counties and opportunities for women, and youth; (iv) potential scale-up and economic impact of selected
 value chains development; and (v) selected MSMEs will include those with "good market linkages" to serve as a springboard
 for the target groups and communities;
 - Direct Targeting –INReMP will apply representation targets in interventions to ensure 40% women, 30% youth and 5% comprising of PWDs, PLWHAs, IPs and other vulnerable groups are targeted. Close attention will be paid to procedural matters such as duration, timings, and location of trainings etc. to ensure that target groups participate in Programme activities;
 - Self-Targeting The selection of value chains and related infrastructure development will be done based on how likely they will benefit smallholder men, women, and youth. The selected INRM and livelihood activities will be suitable for all target groups, in particular women and youth considering their potential for processing and value-adding opportunities; and
 - Empowerment and Capacity Building Measures –INReMP will work with women, youth, IPs and other vulnerable minorities
 and their organizations to ensure their participation in planning and decision-making It will strengthen their capacities and
 those of their groups. This will be achieved through targeted capacity building activities for the different target groups, using a
 mix of strategies to increase participation. INReMP participatory planning, coupled with free, prior, and informed consent
 procedures and an established grievance mechanism will mitigate against elite capture and trigger remedial actions, should
 such malpractice occur.
- 33. The targeting principles that INReMP will apply will include: a) targeting the poor and the vulnerable rural people especially in marginalized counties of Elgeyo Marakwet and West Pokot; b) recognizing the dynamic nature of poverty and the importance of tackling the multiple forms of vulnerability; c) ensuring that working with relatively better-off stakeholders, especially on the value chains results to direct benefits for the vulnerable; d) testing innovative targeting approaches by strengthening existing partnerships, such as on the Youth Agribusiness Hubs; e) adopting consultative and participatory approaches to targeting including FPIC; and f) empowering and building the capacity of those who have less of a voice and fewer assets.

D. Components/outcomes and activities

- 34. **Outcomes** INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes: a) Outcome 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action; b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.
- 35. **Components** The three INReMP components and respective activities are well integrated with sequential and/or simultaneous implementation. The Programme is premised on the fact that in order for the target beneficiaries to sustainably coexist with the ecosystem in which they live and derive their livelihoods, they have to be provided with alternative income sources. Thus, the success of Component 1 and its Subcomponents hinges on the success of Component 2. The nutrition actions will be integrated into the different components as entry points to enhance the nutrition benefits of the interventions. Following below is a summary of the INReMP planned interventions by component/subcomponent; more information is provided in Annex 13 (A Detailed Account of the INReMP Technical Components). Details of how the interventions will be implemented, when and by whom are presented in the PIM.
- 36. Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action -This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will support targeted communities to sustainably manage five key natural resources that were identified and prioritised following consultations across all the ten counties: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams, and lakes). The requisite interventions are expected to lead to: a) improved forest cover; b) decreased soil erosion; c) decreased silt load into water bodies; d) increased carbon sequestration; e) reduced naturalresources-related conflicts; f) resilient communities and sustained ecosystem services; and q) increased climate change mitigation. For sustainability, the Programme will seek to capacity build of, and work with/through, the relevant community institutions, such as County Environment Committees (CECs) and community-based organisations, such as Focal Development Areas (FDAs), Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs). In the case of Indigenous Peoples, the project will also work with legitimate Indigenous peoples' structures of governance and decision-making such as the Council of Elders and identified legitimate Indigenous Peoples Organizations working within the project area. Such a consultation should be based on mutual trust and respect with IPs given a chance to nominate their representatives based on self-determination. This will contribute to strengthening the sustainable management of natural resources. Investments will employ a landscape approach to catchment management, payment for ecosystem services, and low carbon focused interventions for resilient crop and livestock production and associated value chains, with particular attention to enhancing climate resilience of the target beneficiaries. The component comprises two subcomponents.
- 37. Subcomponent 1.1: Community Empowerment, Youth and Gender Transformative Approaches—Community mobilization and empowerment will be the entry for planning and roll out of INReMP activities. This will be guided by County Integrated Development Plans (CIDPs) working closely with community, county, and national government administrative structures in each area. INReMP will undertake mapping (including GIS co-ordinates) of existing river basins as defined by the WRA to identify participating FDAs, community groups and a number of eligible beneficiary households per basin. Once this is done, INReMP will undertake community sensitization and awareness creation about the Programme. The community organizations to be targeted include County Community Forest Associations (CCFAs), WRUAs (Water Resources Users Associations (WRUAs), Ward Climate Change Committees (WCCCs), Farmer organizations (FOs) and Common Interest Groups (CIGs) and other community-based organizations (CBOs). These groups will include those established under the Water Resources Authority (WRA), Forest Service and other relevant government institutions and are involved in NRM and targeted VCs. The project will also engage Indigenous peoples' structures of governance and decision-making such as the Council of Elders and identified legitimate Indigenous Peoples Organizations working within the project area.
- 38. INReMP will support the creation and strengthening of existing community organizations to develop their capacity and relevant skills. Training will focus on group dynamics, conflict management, leadership, gender equality and women empowerment, nutrition, agribusiness, livelihood opportunities, natural resource management and will value Indigenous Peoples' local traditional knowledge. Once groups have been formed and their leadership trained, they will develop their action plans. The plans are then documented prioritizing community needs that are aligned to INRM and enhancing livelihood opportunities through the selected VCs. The plans will undergo appraisal by an oversight agent appointed by INReMP as guided by a Programme manual with funding allocations for each community group and type of intervention to be funded per FDA or project area as detailed in the PIM. Each group will be attached to a technical officer for guidance. These plans will form the basis for preparation of the annual workplan and budgets (AWPBs). Once community projects have been approved by PMCU, they are presented to the community through a public meeting for validation. Project activities are then implemented by the various groups through their Management Committees.
- 39. These community groups will be the entry point for rolling out of GTAs and youth sensitive interventions. To achieve gender transformation, INReMP will: (a) increase women economic empowerment through increasing their engagement in community activities, NRM, nutrition education awareness, crop production and livelihoods opportunities; (b) increase participation of women, representation and decision-making at household, in farmers organizations and at community levels; (c) reduce women workloads by introducing technologies to increase resilient production, reduce post-harvest losses, increased access to water, water harvesting and labour-saving technologies and clean energy for cooking; (d) increase joint benefits sharing between men and women at households and community by promoting more equitable gender norms and practices. At household level, INReMP will apply GTA and tools such as the Gender Action Learning System (GALS) household methodology; (e) reduce Gender Based Violence, especially amongst women in fishing communities, by raising awareness and prevention of harmful traditional practices, such as child marriages and Female Genital Mutilation (FGM). Where relevant, partnerships with stakeholders already involved in addressing such issues will be sought for effectiveness; and (f) support policy engagement

through review or development of gender policies and guidelines at County levels. The Project will also ensure women participation and access to digital advisory services and access to inputs through the voucher services while ensuring targeted interventions through GTA bearing in mind addressing barriers for access to technology for women. GALS methodology will be key in ensuring that advisory services are targeting women through the community groups and content is gender sensitive.

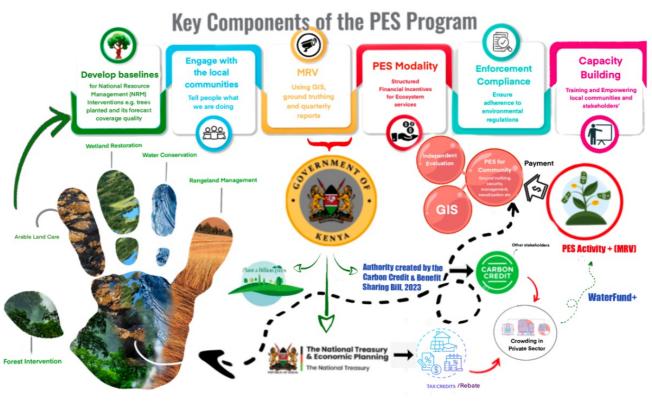
- 40. INReMP aims to be youth sensitive. Through this subcomponent, INReMP will support a youth targeted Rural Labour Market Assessment (RLMA) for the 10 counties at the baseline to inform youth participation in the selected value chains. INReMP will support a) youth targeted skills training, capacity building, mindset change focusing on farming as a business, entrepreneurship and equipping youth with tools, and confidence-building; b) engaging with counties to increase youth access to land; c) increase youth participation, and representation in decision making in WRUAs, CFAs, FOs, cooperatives, CIGs and other community structures; d) digital solutions to increase youth participation; e) establishment of at least three Youth agribusiness hubs and strengthen the existing IFAD/Ustadi supported hub in Kakamega to leverage learning and best practices, learnings to inform scale-up of the new hubs. The existing IFAD supported hubs in Kenya have demonstrated that partnerships with government agencies, training centres, financial institutions, and private sector actors, can create an enabling environment for rural youth to access opportunities and resources surpassing their jobs targets. The hubs will offer incubation and skills training, mentorship and coaching, job placements through apprenticeships and internships in the targeted VCs. The hubs will be critical to achieve market linkages for youth. The hubs will create at least 3,000 new and decent jobs through wage and self-employment. INReMP will target 30% young females and males aged 18 to 35. Younger youth below 18 years will participate in school greening activities.
- 41. Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services—The objective of this subcomponent is to improve community-based management of natural resources to sustain ecosystem services; this process will be facilitated by the provision of alternative livelihood options as detailed in Component 2. The subcomponent will be complemented by the processes and procedures to be established by subcomponent 1.1 where communities would have been empowered enough to appreciate the need to sustainably manage the natural resources in the ecosystems in which they live. The objective will be achieved by implementing the following five key activities:
- 42. Baseline Studies and Mapping of Key Natural Resources For better targeting and effective interventions, the INReMP will conduct baseline studies in collaboration with local and international universities and research institutions (such as Kenya Agricultural and Livestock Research Organization (KALRO), Consultative Group for International Agricultural Research (CGIAR) centers, etc). The proposed key studies include i) assessment of groundwater potential in the catchment and implement strategies for sustainable use of groundwater resources (springs and water flow patterns); ii) modelling sediment flows in the catchments, identify key hotspots for Sustainable Land Management (SLM) interventions and develop interventions to reduce sedimentation in water bodies (rivers, dams, lake etc.); iii) assessment of the impact of weathering on escarpments, rivers, and streams and implement measures to mitigate erosion and siltation; iv) environmental audits; v) agrobiodiversity assessment to understand the potential biodiversity for sustainable healthy diets as well as the unique sustainability elements of Indigenous Peoples' food systems existing in the natural resources; and vi) others as may be identified during the course of implementation. In addition, all the five target natural resources (forests, rangelands, arable land, wetlands, and water resources) will be mapped based on a set of indicators to be determined consultatively with communities, INReMP and key NRM government institutions (Water Resources Authority, NEMA, Kenya Water Towers Agency, Kenya Forest Research Institute (KEFRI), etc.). In addition to provision of mapping and data, the institutions will also build capacities of local institutions on innovative mapping of natural resources.
- 43. Improving key INRM Support Infrastructure INReMP will invest in enhancing infrastructure for real time data and climate information for management of the river basin, inform community actions, and measure impacts of INReMP NRM interventions. The Programme will upgrade 25 meteorological and flood early warning stations (automation, re-installation of fallen masts, replacement of vandalised solar panels, replacement of key equipment etc.); upgrade 25 existing river gauging systems to telemetry status for real-time data to support understanding in river discharge dynamics and decision making in water allocations; and support in the rehabilitation and equipping of two soil and water quality laboratories managed by the Water Resources Authority (WRA) in Kakamega and Kisumu. This infrastructure will be managed and maintained by the WRA, using their regular resources. To further strengthen their sustained functionality, a community-supported sustainability framework, incorporating participation of the WUAs will be developed. The collected data will support various applications, including weather and climate forecast modelling, climate diagnostics, water availability assessment, and early warning systems for weather and geological events. To enhance knowledge dissemination and programme resilience, the systems will be linked to mobile network operators (MNOs) and other non-digital avenues for information dissemination. The Programme targets 10,000 farmers to be trained and supported with test-kits to conduct in-situ soil and water health assessments and on appropriate use of the obtained climate information.
- 44. *Targeted Natural Resources-Specific Interventions* for the five target natural resources (forests, water, arable land, rangelands, and wetlands), specific interventions, with strong synergistic inter-linkages will be implemented to optimize INReMP impact. The following is planned:
 - Forests INReMP will work with KFS and CFAs to curb forest degradation and restore highly degraded landscapes by planting about 15 million trees in 33,500 ha of land. The Programme will promote agroforestry, on-farm tree planting, support CFA implement PFMPs, afforestation and reforestation which will increase forest cover and enhance carbon sequestration, fencing of forests where necessary to reduce wildlife human conflict. Capacity Building of local administration (county commissioners, chiefs, and village elders) on reforestation and climate change mitigation will be carried out in each county. The Programme will also support 30 community-based youth and women groups, already involved in tree nurseries, (with access to water, quality seeds etc) to enhance their production as they input into the afforestation and reforestation sub projects. In addition, focusing on communities within 5km of forests who could normally get firewood from forests, the Programme will work with CBOs and private enterprises to promote clean energy solutions such as waste-to-energy solutions (biogas, briquettes,), and the use of efficient cookstoves, improved charcoal burning which are designed to burn biomass

more efficiently. The ultimate goal of this activity is to have community members installing these stoves at their homesteads at their own costs. Furthermore, this initiative is aimed at fostering economic empowerment by generating job opportunities for 1,000 youth who will be equipped with technical skills through INReMP-GEF funding on how to construct/install stoves for 20,000 households willing to procure their services.

- Arable Lands farmers will be trained and supported to implement sustainable land use management practices (terracing
 and other soil conservation structures, minimum tillage, cover cropping, contour ploughing, crop rotation, etc.) which will
 reduce soil disturbance, improve water retention, safeguard soil nutrients, and enhance carbon sequestration leading to
 reduction in soil erosion and sedimentation in water bodies. A total of 39,000 ha will be put under these sustainable land use
 management practices.
- Rangelands INReMP will align its interventions with the national rangeland and pastoralism strategy (2021-2031) and will focus on the two upstream counties (West Pokot and Elgeyo Marakwet) which have vast rangelands and extensive pastoralist activities. The Programme will utilize the Participatory Rural Appraisals (PRAs) approach to engage local communities in prioritising environmental conservation and integrated natural resources management actions. PRAs will enable the understanding of interests, concerns, and aspirations of these communities, thereby reaffirming their commitment to participating actively in conservation efforts. A series of 10 ecosystem-integrated management-planning workshops will be conducted. The Programme will promote activities that enhance rangeland health, and revitalize pastoral production systems, including rehabilitation of degraded rangelands, re-seeding of rangelands, integrated grazing plans, etc. A total of 13,900 ha of rangelands will be rehabilitated across the project area.
- Water Resources INReMP will work with WUAs to protect water sources like springs (total of 200) and small dams (100) from encroachment and siltation and equip/desilt them for productive use (linked to component 2). The Programme will also increase water storage capacities by desilting silted dams, promote water storage enhancement techniques (100 water pans/reservoirs) and support land-based surface and sub-surface water harvesting and storage techniques that will also enhance aquifer recharge.
- Wetlands As water storage reservoirs, they create natural basins for water accumulation and are useful for flood-risk control, protecting communities and infrastructure from inundation. Utilizing wetlands to regulate stream flows is crucial for maintaining stable water levels in rivers and streams and preserving aquatic ecosystems. INReMP will support rehabilitation of 35 identified wetlands, which are already gazetted. This activity will be undertaken through participatory community planning that will culminate into formation of Wetland Management Action Plans for implementation. Furthermore, from rehabilitated wetlands/riparian areas, there will be development of water collection or access points for productive use to deter encroachment of the wetlands. Implementation of this activity will be aligned with the National Wetlands Restoration Strategy, including promotion of conservation and protection of riparian areas by planting bamboo and vetiver grass around wetland and other water sources (springs, rivers). The Programme will restore an estimated area covering 14,900 ha.
- 45. Integrated School Greening Programme Following successes in UTaNRMP, INReMP will provide support to 150 existing primary and secondary schools and make them green and eco-friendly. The Programme will support integrated, climate smart interventions, such as: i) solar powered water abstraction and reticulation to schools (surface water, groundwater) complemented with rainwater harvesting systems. Access to water in schools will support watering of school gardens, school greening including planting fruit trees, woodlots and neglected underutilized species, development of tree nurseries in schools which would be sold to communities and CFAs, provide water for drinking, environmental cleaning and general sanitation in schools; ii) development of bio-energy solutions that will turn bio-waste to biogas to be used for cooking and bio-solids will be used to manure school gardens, trees and tree nurseries; iii) promotion of energy-saving cookstoves; iv) for those schools in locations where communities have no/limited access to drinking water, water kiosks will be established so that water will be sold to communities at agreed rates as this will enhance sustainability of the school water supply system. Schools will also serve as knowledge exchange catalysts for communities as what is learnt in schools will be transferred to communities [37] and will provide an opportunity to engage local traditional knowledge of Indigenous Peoples where applicable.
- 46. Payment for Ecosystem Services (PES), Tax Credit and Carbon Credit Schemes [38]-INReMP will establish a robust system for implementing and overseeing Payment for Ecosystem Services (PES) in line with the Kenya's Carbon Credit Trading and Benefit Sharing Bill, 2023 which is aimed at regulating carbon markets, driving the Country towards a greener, more sustainable future while combating climate change on a global scale. This strategic framework aims to ensure fair compensation for communities involved in conservation efforts, fostering sustained interest and participation in activities that safeguard our natural resources. Inspired by the success of the Upper Tana's Rewards for Biomass and Soil Carbon (REDD) Mechanism under UTaNRMP, and in collaboration with The Nature Conservancy (TNC) as part of the GEF-8 funded initiatives, INReMP will develop strategies for tax credit mechanisms as an advancement of the Water Fund into Water Fund+ aimed at implementing strategies for crowding in more private sector. These mechanisms will focus on protecting water catchments, forest cover, and water sources, rivers, and wetlands. Furthermore, INReMP will link these conservation incentives to climate finance, providing opportunities for tax credits and carbon credit rebates to engage the private sector actively. This will serve as a mechanism to encourage sustained private sector involvement in NRM activities, both during and beyond the Programme's duration. Under the Programme, the Geographic Information Systems (GIS) combined with remote sensing technologies and ground-truthing will be used to provide detailed spatial data on land cover, land use changes, and ecosystem services. This data will help in identifying areas with high potential for carbon sequestration or biodiversity conservation, guiding the implementation of PES and Carbon Credit schemes. Key actions will include:
 - Establishing baseline assessments for carbon and biodiversity to measure and incentivize impactful conservation efforts this would occur in two forms (i) pre-assessment of the Subcomponent 1.2 (C) INReMP's Targeted Natural Resources-Specific Interventions and (ii) post-implementation of assessment of the Subcomponent 1.2 (C) INReMP's Targeted Natural Resources-Specific Interventions, these assessments will serve as the foundation for quantifying the success of conservation activities and determining appropriate incentives. By establishing baseline data, the program can track progress over time and ensure that conservation efforts yield tangible results in terms of carbon sequestration and biodiversity conservation; iii) engaging with local communities, including Indigenous Peoples forums, stakeholders, and relevant authorities to ensure participation and consensus in conservation efforts through solicitation of inputs, address concerns, inclusive decision-making, building trust/collaboration, and foster ownership of conservation initiatives; iv) ensuring robust Monitoring, Reporting,

and Verification (MRV) processes to link conservation activities with payment for ecosystem services by collecting reliable data (ground-truth provided by local community linked to GIS/remote sensing), the program can ensure transparency and accountability in the allocation of incentives and rewards; v) developing transparent and equitable payment mechanisms to compensate communities for their conservation activities, taking into account factors like carbon sequestration, biodiversity conservation, and water resource protection; vi) enforcing adherence to conservation agreements and standards, with measures in place to penalize non-compliance and incentivize adherence through rewards and benefits linked to the provisions of the Law - The Carbon Credit Trading and Benefit Sharing Bill, 2023; vii) developing transparent measures and grading schemes to determine the level and value of rebates/benefits, as well as penalties for defaults or non-conformities; viii) Providing training and capacity-building initiatives to empower local communities to effectively participate in and manage PES schemes; ix) developing the policy support for the institutional capacity building and operationalising the carbon credit trading and benefit bill, as the development elements for the tax credit element and x) exploring avenues for the private sector to adopt identified critical natural resource opportunities. The private sector can contribute by offering ecosystem payment services to cooperatives and communities responsible for managing these areas.

• To deliver on PES elements, drawing insights from the water fund and Gok's national plan/strategy on tree planting, and aligning it with The Carbon Credit Trading and Benefit Sharing Bill, 2023, the programme aims to execute activities in Subcomponent 1.2(C), such as tree planting. This will follow an initial baseline survey and community engagement, setting specific targets for tree cover and its maintenance over a defined period. The programme will also establish MRV targets for the quality and quantity of tree cover through strategic engagement with the National Treasury and the provisions of The Carbon Credit Trading and Benefit Sharing Bill, 2023 as depicted in the infographic below:



Payment for Ecosystem Services (PES) is a mechanism vital for compensating providers and beneficiaries engaged in preserving ecosystem services across various natural resources. INReMP, in alignment with its broader objectives, will establish a comprehensive system for implementing and overseeing PES across targeted natural resources. This strategic framework ensures fair compensation for communities involved in conservation efforts, fostering sustained interest and participation in activities aimed at safeguarding forests, water bodies, arable land, rangelands, and wetlands. Building upon successful models like the Upper Tana's Rewards for Biomass and Soil Carbon (REDD) Mechanism, INReMP will collaborate with stakeholders to develop strategies for tax credit mechanisms. These mechanisms will focus on protecting critical ecosystems and linking conservation incentives to climate finance (carbon credits and tax credit/rebates), thereby actively engaging and crowding in the private sector. Under the program, advanced technologies such as Geographic Information Systems (GIS) combined with remote sensing will be employed to identify areas with high potential for carbon sequestration or biodiversity conservation, guiding the implementation of PES schemes.

- Transparent measures and grading schemes will be developed to determine the level and value of rebates/benefits, as well as penalties for defaults or non-conformities. These incentives will take the form of tax credits/rebates in corporation tax and/or business deductible expenditures for a specified tenure. The company awarded the credits/rebates will be responsible for maintaining the NRM asset (e.g., planted trees) by incentivizing and mobilizing the local communities most impacted by the process, as well as the GIS service provider and/or any government/non-government agency tasked with delivering the process. The unlocking of opportunities can only be valued through an independent verification process, with at least four verifications done per year to avoid greenwashing and related misuse of the process.
- Harnessing carbon credits and benefits linked to the planted trees will be based on The Carbon Credit Trading and Benefit Sharing Bill, 2023 regulations. On Carbon Credits, INReMP's strategy leverages conservation efforts to mitigate climate change while promoting community engagement and private sector involvement and takes a similar approach as PES and Tax Credit (as above). Through advanced MRV techniques, the Programme will accurately quantify carbon sequestration and biodiversity conservation achievements that is linked to the National Strategy/Policy on Carbon Credits. This data will serve as the foundation for assessing and valuing carbon credits, providing tangible incentives for impactful conservation activities. The integration of carbon credit mechanisms with tax incentives and other financial instruments aims to establish a sustainable framework that incentivizes continued conservation efforts. Transparent grading systems will ensure equity and accountability, rewarding compliance while imposing penalties for non-compliance. Moreover, INReMP will actively engage

- the private sector in carbon credit schemes, fostering partnerships that drive innovation and investment in natural resource management. This collaborative approach not only enhances the efficacy of conservation initiatives but also unlocks new avenues for economic development and environmental sustainability. Through these initiatives, INReMP contributes to global efforts to combat climate change while promoting local community resilience and prosperity.
- Additionally, the value of the Subcomponent 1.2 (C) INReMP's Targeted Natural Resources-Specific Interventions e.g., a planted tree will create two opportunities for GoK; can be traded on the local and international carbon markets, and sustainable maintenance of the trees through a tax incentive/rebate programme. However, the benefiting companies of the carbon credits and tax credits/benefits do not have to be the same. It can be more than one company benefiting from two streams of opportunities presented by the planted trees. Thereby, providing more incentives for the crowding in of the private sector to participate in conservation efforts for the long-term sustainability of the INReMP programme and its domestication. The elements of these are developed to make up the GEF-8 intervention of the project with is coined Water Fund+.
- 47. Water Fund Intervention evolved into Water Fund+ building on the successful establishment of the Upper Tana Nairobi Water Fund, INReMP will further develop the Yala-Nyando Conservation Water Fund through the GEF resources. The Water Fund is established as a Charitable Trust with the following objectives: a) achieving a well-conserved River basin with improved water quality and quantity for downstream users (public and private); b) maintaining regular flows of water throughout the year; and c) enhancing ecosystem services for food security, freshwater, and terrestrial biodiversity and improving human well-being and quality of life for upstream communities. Evolved into the Water Fund+, as part of the advancing the current state of the art which is a requirement of the GEF-8 funding, it will be governed by a Board of Trustees that will manage the overall operations of the Fund. In addition, its implementation will have an enhanced focus on the delivery of a more advanced and innovate approach for crowding in of private sector into the sustainable conservation efforts through tax credits/rebates, which could involve supporting policy development for recognizing expenses related to water ecosystem conservation as tax allowable for the private sector. The management structures will include a Board of Management, an advisory committee at the county level, and a Technical Secretariat, responsible for the day-to-day management of the Fund's activities. The Yala-Nyando river basin covers three INReMP counties of Kericho, Nandi and Kakamega. However, The Water Fund+ ensures the sustainability of the natural resources management, knowledge/insights and conservation efforts are transferable and can extended to cover other INReMP counties where river basins can be clearly delineated.
- 48. Component 2: Improved, Inclusive and Sustainable Rural Livelihoods This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live. Component activities will target selected and inclusive value chains. Only enterprises assessed as having neutral or beneficial environmental impacts will be supported. A matching grant facility with two separate windows one for production support to farmers and the other for value addition and agro-processing for support to market intermediaries (including farmer business organisations) will be used to support actors within target value chains. Matching grant contributions for producers and groups under the Production Window will be lower than those for Agro-processing and Value Addition window (i.e., 10% and 20% cash contributions, respectively). INReMP will adopt a digital voucher system (by replicating and scaling up the KCEP-CRAL e-voucher system[39][40]) to ensure that crop and livestock farmers have access to a sliding subsidized bundled of quality of inputs, technologies, services, and facilities to enhance their production and productivity (see subcomponent 2.1 and as detailed in the PIM). INReMP will also partner with the IFAD-funded project, RK-FINFA, and financial service providers in promoting access to financial services by producers, cooperatives, private service providers, small and medium scale processors, transporters, and traders. The following nutrition sensitive activities will be an integral part of this component: a) introducing nutrient-dense varieties and promotion of viable nutrient-dense commodities from natural resources with the aim of conserving agrobiodiversity; b) introduction of good post-harvest practices, techniques, and equipment that preserve nutritional quality and ensure safety of foods, integrating Indigenous Peoples' values and cultural aspects; c) facilitating preservation, processing, and marketing of selected nutrition-sensitive value chains; d) facilitating nutrition sensitive market standards and certifications to the private sector for supportive market systems and infrastructure; and e) Social Behaviour Change Communication, social marketing and consumer food and nutrition awareness and hygiene education. The component comprises two subcomponents.
- 49. Subcomponent 2.1: Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises Interventions under this subcomponent aim at enhancing productivity and production of the target value chains. Value chains have been selected based on the following criteria: a) neutral or beneficial environmental impacts; b) the commodity is produced or can be easily produced by most targeted beneficiaries (potential for volume aggregation and scale); c) availability of profitable and structured markets (existence of MSMEs, processors, aggregation centers); d) potential to contribute to household nutrition; and e) potential for inclusivity (youth, women, PWDs, IPs, PLWHAs and other vulnerable groups participation). For an effective value chain approach, the availability of complementary support to the other actors along the value chain is also an important consideration.
- 50. Based on this set of criteria and consultations with all ten target counties, the following value chains were prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees (avocado, mangoes, banana); and e) horticulture (tomatoes, leafy vegetables). INReMP is expected to review these value chains regularly, and at the latest at the MTR, to determine continued relevance and take on board any new ones that best respond to INReMP's objective.
- 51. INReMP is expected to closely monitor the impact of implemented activities on incomes of farmers and farmer business organizations ensuring that intervention activities provide descent incomes to target groups. Intervention activities at the level of farmer enterprises will be guided by business viability assessments and business planning while at the farmer level, tools such as gross margin analysis will be applied. Particular attention will be given to exploiting opportunities for contract farming as a mechanism to reduce uncertainty in markets and prices.
- 52. Support activities will cover crop and livestock production by ensuring that the targeted beneficiaries accessed subsidized

bundled of inputs, technologies, services and facilities through the established digital voucher platform, market linkage, value addition and consumer nutrition awareness ensuring effective integration of farmers in the target value chains.

- 53. Delivery of digital bundled services and e-voucher INReMP will adopt the digital bundled services approach, scaling up the lessons and technologies deployed under the KCEP-CRAL Project, with the objective of: i) to enable targeted beneficiaries to access bundled inputs, technologies, services and facilities for improved crop and livestock productivity and production (improved livestock breeds, animal feeds, fodder seeds, improved crop varieties, (bio)-inputs for enhanced productivity and soil health, improved tree seedlings, modern beehives, etc.; ii) deploy digital advisory services to provide information to farmers on best practices to support livestock feed and fodder production, pasture management and feed preservation. This intervention will also seek to integrate Al-enabled advisory services (such as the Digital Green Al Farmer Chat); this has proved to be effective in providing the needed advisory services farmers;
- 54. The INReMP support through this digital voucher platform will ensure differentiated targeting through a sliding subsidy principle where: a) the most vulnerable beneficiaries (e.g. youth, PWD, PLWHAs, IPs and those impacted by climate risks (floods, droughts) will receive Programme input-package start-up support at 90% subsidy with the vulnerable contributes 10%; b) rural smallholders moderately food insecure including only youth CIGs, FOs, CFAs will receive INReMP support for start-up package at 80% subsidy of the cost of the package and they contribute the remaining 20%. Planned interventions are summarised hereunder and details are provided in the PIM.

55. Production Support to Target Value Chains

56. Dairy Value Chain

- 57. In the targeted counties, the development of the dairy value chain will play a significant role in natural resource management by providing alternative income and livelihood opportunities to communities who depend on exploitation of natural resources, like forests. More efficient dairy production and value chains will also contribute to avoid unproductive use of natural resources and GHG emissions.
- 58. Manure from dairy cattle enterprises will be used to support agricultural production, providing savings on agricultural inputs as well as providing renewable energy from biogas. Increased incomes and milk production will increase availability of milk at the household level and for sale thus improving the nutrition status of households. The interventions to support the dairy value chain will seek to complement those of KeLCOP by leveraging on existing partnerships and taking advantage of lessons learned. INReMP will receive co-financing from GCF's DaiMA initiative and common activities will focus on the following:
 - Identification and mapping of farmers and other stakeholders This activity will seek to identify and map the location of
 existing individual and groups of producers and their level of production. The mapping will also cover other actors, such as
 buyers, input suppliers and suppliers of equipment. A total of ten mapping exercises will be conducted, one in each of the
 target counties;
 - Improve access to climate smart feed, fodder, and water INReMP will support the development and dissemination of drought resistant and low-input feed and fodder production for higher productivity and lower pressure on natural resources. This will rely on supporting the emergence of a feed, fodder, and fodder seeds supply chain[41];
 - Strengthen delivery of public and private animal health services INReMP will strengthen the capacities of public and private veterinary services to deliver essential Veterinary Public Health (VPH), including for surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians and technicians/para-vets, inspection, and diseases emergency response). At least 1 para-vet per village will be trained and supported;
 - **Delivery of breeding services by public and private sector** INReMP will support both public and private players to deliver efficient Artificial Insemination (AI) services to the farmers for crossbreeding. Private AI technicians will be trained and equipped and will be linked to farmers in the Programme to provide timely breeding services to the farmers[42];
 - Increasing size and quality of the Dairy Herd. Two strategies will be implemented to improve the quantity and quality of the dairy herd in the target counties: i) increase the number of dairy cows through better farm management (calving interval, calf mortality); and ii) to improve the genetic quality of the dairy herd through acquisition and distribution of improved dairy breeds. INReMP will provide a total of 2,000 productive dairy heifers to farmers through matching grants and support delivery of 15,000 doses of semen. The support for animals will include insurance. Careful selection of the beneficiaries will be done using a predetermined criteria to ensure the beneficiaries have capacity to manage the animals and reduce mortalities during the Programme and beyond. Other poor households will also benefit over time through the Pass-On-the-Gift (POG) system[43];
 - Support to producers to adopt good livestock husbandry practices At least 2,000 farmers will receive capacity development through training, Livestock Farmer Field Schools (L-FFS) complementing similar support from KeLCoP in other areas and demo farms for improving animal husbandry practices and enhance productivity and production at the farm level through better feed/fodder, better animal genetic resources and better animal health[44]. At least one fodder enterprise will be supported per sub-county.

59. Indigenous (improved) Chicken Value Chain

- 60. Local improved poultry production is an economic activity predominantly carried out by women, youth, and marginalized segments of the population. Poultry occupy relatively smaller spaces that do not interfere with land for agriculture and can easily be carried out by women and youth. Poultry can recycle household waste and low value biomass as feed, hence having limited impact on natural resources, and provide high quality protein. The main constraint to local poultry production is the low level of productivity due to diseases (e.g., Newcastle), limited access to hatching/fertilised eggs and chicks of more productive breeds, high cost of feed, poor housing infrastructures, inefficient and costly aggregation methods, and lack of processing facilities. The intervention to support improved production and productivity will include:
 - Identification and mapping of farmers and other stakeholders This activity seeks to identify and map the location of

existing individual and groups of producers and their level of production, including other actors such as buyers, and suppliers of inputs and equipment. This mapping will include a gendered analysis of the farmers to inform targeting. The obtained information will assist in determining the potential supply areas as well as identify the support needs of other actors along the value chain.

- Support for hatchery business The Programme will support both public and private hatcheries to deliver improved day-old chicks to farmers. This will be achieved through leveraging some of the work of other IFAD projects like KeLCoP. Interventions will focus on: i) promoting linkages between hatchery operators and fertilised egg suppliers on the one hand and between hatchery operators and chick growers (smallholder farmers) on the other hand; ii) provision of matching grants to innovative enterprises owned or operated by youth or women that address critical gaps identified. Qualifying entities will be registered groups that already own breeding flocks for activities such as fertilised egg production for reproduction as well as privately owned emergent hatcheries that require support for further growth. These grants will also support activities such as installation of alternative sources of energy, investments in incubators and feed making equipment;
- Provision of Improved Poultry Breeds to Farmers the Programme will establish linkages with suppliers of improved
 chicken to deliver poultry to the farmers. For vulnerable groups, youth, and women the Programme will provide a start-up kit
 for up to 100 birds per farmer. Although farmers will produce individually, they will be encouraged to form production groups
 that facilitate learning and allow for coordinated production for more economic use of certain inputs as well as enabling them
 to attract market intermediaries/aggregators and other productivity enhancing services. About 80,000 farmers will receive
 day-old chicks;
- Support for improved productivity and production To promote adoption of improved poultry production technologies, the Programme will provide training, exposure visits and farmer peer to peer learning, for market-oriented poultry producers. This will include training on good poultry husbandry techniques, disease prevention and treatment. Further, the Programme will also provide capacity building on local/home poultry feed formulation to reduce the cost of feed. Private sector linkages will be enhanced to deliver different raw material to support local/ home feed production.
- Strengthen delivery of public and private animal health services and essential input to support production The Programme will provide linkages to farmers to public and private sector players to deliver required inputs and services to support poultry production. Public and private veterinary service providers used to support the dairy enterprises will also be involved in providing the needed animal health support to poultry producers during and after INReMP implementation. Veterinary Public Health (VPH) missions, such as surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians, inspection, and diseases emergency response) will also be supported;

61. Apiculture Value Chain

- 62. Bee keeping is a nature-based enterprise with several positive environmental impacts. Farmers applying recommended production and harvesting techniques can successfully produce and harvest honey without affecting the natural environment. Profitable beekeeping acts as an incentive for farmers to maintain tree specifies and forestry densities as a strategy to reduce the risk of migration of bees to other areas. The focus of the planned interventions will be on addressing those factors identified as being limiting to the effective and efficient functioning of the value chain and these include use of inefficient traditional hives and poor hive management practices. Planned activities include:
 - Identification and mapping of farmers and other stakeholders This activity will seek to identify and map the location of existing individuals and groups of producers and their level of production, buyers, and suppliers of equipment, disaggregated by gender and age. This information will assist in determining the potential supply areas as well as the key constraints faced by the main actors;
 - Improved honey production This activity will invest in training of farmers in good beehive management, including effective control of pests and diseases. Farmers will also be made aware of the advantages of adopting and using modern beehives that allow for better management of the queen bee as well as honeycomb management. The activity will support, through the matching grant facility (10% farmer cash contribution) acquisition and distribution to individual households and bee producing groups of a package of honey quality equipment that comprise the following items: Langstroth hives, bee suits, honeycomb, smoker, swarm catcher, queen excluder, and honey extractor. This activity is expected to benefit some 20,000 households;
 - Tree planting Certain tree species are conducive to beekeeping as they provide food for bees and offer desired aroma and quality to the honey. For example, fruit trees, including apples, cherries, plums, peaches, and pears, supply a steady flow of nectar for bees and other pollinators, which reflect in the quality and nutrition content of the honey. The Programme will identify and grow suitable species, including herbal/medicinal plants, non-timber forest products and Neglected Underutilized Species (NUS) and preserve indigenous knowledge on their cultivation and use. This activity has the added advantage of protecting the environment. It is expected to benefit 15,000 households that includes Indigenous People;

63. Fruit Tree Value Chains

64. Fruit tree production contributes positively to natural resource conservation through providing ground cover that should lead to reduced incidences of soil erosion. Fruits, for home consumption and marketing, provide an economic incentive for households to invest in such fruit tree production. This activity prioritizes avocado tree production although other tree types, like mangoes and banana, could equally be promoted depending on available local market opportunities in target counties. It is planned that further assessment will be conducted to determine the scope for including other fruit tree value chains in the target counties. The Hass avocado variety has more market opportunities and is the most widely cultivated, with many farmers reporting its production. The number of farmers engaged in avocado production varies across the counties, ranging from a few hundred to tens of thousands. The average area of land put under avocado production by farmers varies slightly across the counties but is on average 0.25 ha and the number of trees per farmer ranges from around 15 to 25. The objective of this intervention is to increase the number of farmers producing the crop as well as the number of trees per unit area. This will, in turn, increase the volume of avocados available for the market. A total of 92,000 households are targeted. The main constraints faced by farmers include poor access (availability and cost) to quality planting materials/seedlings, limited knowledge of good agricultural practices, inadequate access to mother blocks for root-stock and scions, low skills on nursery management and absence of specialized inputs in the local agro dealers' shops. Planned interventions include:

- Production and distribution of quality seedlings The aim is to facilitate farmers to access good seedlings from certified
 nurseries. First, the project will support existing nurseries to access quality planting materials for multiplication and facilitate
 their certification. This requires a close working relationship with specialized research stations that could serve as a source of
 such materials. A second element is to support farmers to acquire seedlings at reasonable cost; 92,000 households are
 targeted.
- Training in Good Husbandry PracticesTo enhance survival rate of planted seedlings, training will be provided to
 beneficiaries on good tree management, importance of using grafted seedlings for planting, recommended plant spacing,
 pruning and soil testing. The main challenges that exist in managing avocado health include inadequate knowledge and skills
 on pest and disease identification and management, as well as the availability of counterfeit pest control products in some
 areas. Farmers will be trained in integrated pest management and disease control. Linkages will also be established with
 reputable input suppliers. In addition to individual and group training, the Programme will also promote field days,
 demonstrations, exchange tours, field visits, etc.;
- Strengthen delivery of public and private extension services in avocado production There is need for increased training facilitation and widespread adoption of new technologies throughout the avocado value chain. Training will be provided to public extension staff to improve their technical knowledge on avocado production. Training will also be extended to farmers' groups and their lead farmers to contribute to farmer training. Planned activities include support for organization of field days, demonstrations, agricultural shows and exhibitions, exchange tours, field visits, and group visits as part of their extension activities; and
- Strengthening Delivery of Inputs An assessment will be done at the start of the Programme to determine limitations that
 agro-dealers face to meet inputs requirements for fruit tree production. Training for input suppliers will include exposure to
 specific input needs for fruit trees, appropriate packaging of inputs, correct and safe use of agricultural chemicals, improving
 communications with individuals and farmer groups. Proper linkage to Village Savings and Loan Associations (VSLAs)will be
 facilitated since it will provide smallholder producers with the required capital to invest in improved inputs.

65. Horticulture (tomatoes, leafy vegetable)

- 66. The horticulture value chain presents an alternative livelihoods opportunity for sites that have benefited from water harvesting and irrigation infrastructure development. This intervention has the potential for women empowerment. The major challenge with horticulture products is their highly perishable nature and, thus, this requires the availability of organized and profitable markets, especially where large volumes are produced. On the other hand, organized markets require a consistent supply of good quality produce. The following constraints have been identified and will be the focus of project interventions: i) uncoordinated production leading to surplus that does not match level of demand; ii) limited knowledge of good agricultural practices; iii) poor access to the requisite inputs; and iv) inadequate disease and pest control. Successful small-scale horticultural production requires high levels of organisation among farmers to coordinate production and access to water. Activities to be implemented, targeting some 107,000 households, include:
 - Market opportunity assessments This is to identify commodities with market opportunities. "Hidden" horticultural biodiversity with micro-nutrient rich species, including those with medicinal value (food medicine) that diversify diets will be encouraged. Such assessments will be done every production season. The assessments will focus on identifying crops with local and national markets to be supported. The assessments will also identify contract production and aggregation opportunities;
 - Support for increased Production and Productivity INReMP will provide training to farmers on good agricultural practices for target commodities. Approaches will include setting up demonstration plots, organising field days. Key training themes will include nursery establishment, planting density, fertilization, pest, and disease control:
 - Facilitating Access to Inputs To produce quality vegetables and tomatoes, it is necessary to use appropriate seed varieties and chemicals to control pest and diseases. INReMP will support farmers, using the matching grant mechanism, with start-up inputs necessary to enter into identified and prioritized horticulture value chains. The Programme will help the organised producers to aggregate their demand for the different requisite inputs through the digital voucher platform. INReMP will facilitate linkages with local input dealers for mutually beneficial dealings. Any organisational support needed will be provided to ensure that inputs are locally and timely available to farmers.
- 67. Nutrition capacity building support will be provided to registered value chain farmers' groups, cooperatives, Indigenous Peoples organisations and community organizations for the target commodity value chains. This support will help them understand the nutritional value of specific products, promote agroecology and regenerative agriculture practices, including inter-cropping, crop rotations, agroforestry, and integrated farming systems. In addition, encourage the cultivation of climate-smart, nutrient-rich crops, such as indigenous vegetables, herbal/medicinal plants, non-timber forest products, and NUS (this will provide the opportunity to value Indigenous Peoples' food systems). In addition, nutrition and consumer guidance for the value chains will be added to Digital Green's Farmer Chat advisory services. These services will benefit both producers and consumers, ultimately resulting in improved nutrition outcomes.
- 68. Improve access to financial products for value chain actors It is recognized that the effective functioning of the different value chains will necessarily require access to the appropriate financing mechanisms that commensurate with the different size/scale of the different stakeholders' enterprises. The Programme will partner with financial service providers in promoting access to financial services by cooperatives, private service providers, small and medium scale processors, transporters, and traders. Access to loans will be facilitated by promotion of de-risking tools like livestock insurance, utilization of supply contracts as guarantees, digitalisation of transactions to profile producers. Accordingly, the Programme will employ the following approaches to enhance financial access to the target group: a) direct financial linkages with financial institutions this approach will seek to identify, promote, and link friendly financial products for stallholder farmers. This will also include linking the qualifying INReMP beneficiaries to the IFAD-supported financial inclusion Project Rural Kenya Financial Inclusion Facility (RK-FINFA) to benefit from that facility; b) use of value chain financing model by ensuring farmers' participation in the commodity forums/platforms and helping them to leverage financial credit through various business deals; c) promotion of input credit financing model by linking them to off-takers or major aggregators who are interested in their raw materials and who will like to invest in the farmers

to secure the raw materials; and d) capital stimulation through matching grant to establish a credit history for smallholder farmers

69. Climate-Proof Production Infrastructure

- 70. INReMP will support the establishment of climate-proof infrastructure to support production and productivity of identified value chains. The Programme will support: a) smallholder irrigation infrastructure development, which will support the horticulture value chain; b) investments in green and water-efficient irrigation technologies and other farm-based agricultural water productivity interventions, which will support both the horticulture and tree crop (avocado) value chain; and c) multi-purpose community water supply schemes for both production (irrigation, animal watering, etc., to support dairy, horticulture and tree crop value chain) and domestic use to enhance nutrition at household level and reduce workload for women. Most vegetable farming in intervention counties is done in wetlands and other riparian areas, so multi-purpose water schemes will allow farmers to crop further up-slope and lessen pressure on these key natural resources. Specific interventions will include.
 - Participatory sub-catchment level infrastructure investment planning This intervention is linked to Subcomponent 1.1
 (Community Empowerment and Gender Transformative Approaches). INReMP-supported infrastructure investments will be
 identified through participatory planning process involving women, men, youth beneficiaries and Indigenous Peoples (when
 applicable and following FPIC requirements). The planning process will identify priority smallholder irrigation scheme that
 need some infrastructure improvements, multiple-purpose water supply systems that need to be developed and feeder roads
 in micro catchments, supportive to the identified value chains. A cost-recovery based sustainability framework will be
 developed with beneficiaries and relevant ministries to enhance sustainability of developed infrastructure;
 - Small-scale irrigation schemes The objective of this intervention is to increase agricultural production through the rehabilitation and improvement of small-scale irrigation infrastructures for the horticulture value chains. The selection of irrigation schemes will be based on consultations with national government, county governments and communities ,including FPIC for Indigenous Peoples. The national government, in consultation with the county governments, has identified priority of more than 40 irrigation schemes covering over 40,000 ha in the 10 counties; this will form a basis for further selection. The selection will be guided by feasibility assessments. The shortlisted schemes will be assisted to undertaking feasibility studies to be submitted for final selection. The feasibility studies will include the Environmental Social Impact Assessment (ESIA), required for irrigation schemes, and development of Environmental and Social Management Plans (ESMP). Irrigation schemes will typically have less than 700 participating households, with an average 0.3 ha per household and less than 200 ha. A total area of 6,000 ha will be developed under this intervention. The expected number of direct beneficiaries is around 20,000 households;
 - Water-saving technologies and on-farm water management practices The Programme will test, demonstrate, and offer farmers a menu of options of green, water, labour saving technologies and farm-based water management practices, to improve water productivity. INReMP will create a platform to link farmers with green technology suppliers as well as demonstrations of such technologies. These technologies/practices will include solar-powered irrigation pumps, low-cost drip irrigation systems, sub-surface irrigation, sprinkler irrigation, conservation agriculture, Wetting Front Detector (WFD) systems, A total area of about 14,000 ha will be put under these technologies and practices (which is the total of area under irrigation schemes and that under multi-purpose water supply schemes) by INReMP, benefiting 40,000 households.
 - Multi-purpose household and community water supply schemes— The establishment of small-scale multi-purpose water schemes will be supported. The aim will be to increase the community's access to safe water throughout the year for multi-purpose use. These water schemes will also serve households, tree nurseries (link to component 1.2) and institutions (particularly schools). Getting water to more upland farmlands will also lessen pressure on wetlands, riparian areas, where most vegetable farming is now done. INReMP will develop 200 multi-purpose water supply schemes, with each scheme serving up to 100 households (for a total of 20,000 households), and among other uses, could irrigate 8,000 ha (0.4 ha per household). Selection of communities for multi-purpose community water supply schemes will be based on consultations between communities, national government, and the county governments. INReMP will support communities with screening of the potential investments for environmental and social risks and the development of the ESMPs as required. For the downstream (lake counties), an innovative approach for water abstraction and reticulation will be explored. INReMP will explore the use of green energy technologies for upstreaming water from Lake Victoria to uphill reservoirs/collection points and releasing for productive and domestic purposes by gravity.
- 71. Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises Access to profitable markets is considered a key element of sustainable natural resources management interventions (Subcomponent 1.2); target beneficiaries must be provided with an avenue to market their surplus produce. Value chain studies conducted as part of this design have confirmed existence of market opportunities. Follow-up assessments during implementation will identify additional market opportunities. These opportunities will drive the production support activities under 2.1. Against that background, this subcomponent focuses on the following activities:
 - Market Opportunity Assessments these market opportunity assessments for the target value chains will be undertaken during the first year of implementation and at the start of each marketing period to update information on the main actors and their location, availability of produce, volume of produce required by market intermediaries and potential suppliers of raw materials. These assessments will guide market linkage interventions to be supported by INReMP;
 - Market Information Support The Programme will initiate or leverage existing market information support initiatives to
 address information needs of actors within the target value chains. Support activities will include both information collection
 and dissemination;
 - Farming as a Business Participating farmers will be trained in farming as business to enhance their capacity to assess profitability of their enterprises, factors affecting profitability and measures they need to take to improve their incomes;
 - Support for Commodity Aggregation, Value Addition and Market linkages The information collected above will be used as the basis to facilitate forward linkages between the various actors. The Programme will support contract business models between organised groups of producers and market intermediaries. Priority will be given to identifying entities that can serve as off-takers (private sector, cooperatives) and work with them to address identified market linkage constraints with farmers.

The type of activities to be supported will be determined by initial assessments. It is envisaged that interventions would revolve around facilitating coordinated production and deliveries, establishment of aggregation centres, addressing emerging quality issues, sorting, and grading, as required. Training will be provided to farmer groups on contract management, quality, grading and food safety (HACCP), standards (ISO), product development (desirability, palatability, nutrient content), nutrition labelling, certification, branding, and packaging requirements for identified market opportunities. The Programme will initiate or leverage existing market information support initiatives. INReMP will identify processors – cooperative, county, or private sector owned – that have potential for growth to be integrated into the Programme. The entry point to such support will be an assessment of their business development status and capacity building requirements. It is envisaged that the Programme will provide such processors/cooperatives with business development support, including business plan development, business/specific enterprise development training and advisory services and development of business growth strategies. This activity will also support, through a PPP model, private sector investments in value addition. This will include facilitating partnerships between farmer business organisation, and the private sector in the management of processing facilities. Programme support to such PPP investments will be for investment material to improved linkages with smallholder farmers and will be limited to 30% of the cost of the additional investment.

- Dairy Value Chain The main channel for marketing milk are cooperatives that are involved in aggregation and sometimes processing. Main challenges faced include low levels of milk collection due to inability to mobilize enough farmers to deliver milk and therefore coolers operate below capacity, governance issues that affect smooth operations of milk collection and aggregation, inadequate equipment at aggregation centres, such as milk coolers, milk testers and high costs of operating the milk chilling equipment. The Programme will support the development and up-scaling of existing sustainable business models for dairy aggregation and access to markets which include cooperatives, Milk Collection Centers (MMCs), dairy hubs and cluster producers through capacity building to improve the quality of services. The Programme will promote energy use efficiency and renewable energy options, like solar, for adoption by MCCs for milk chilling as well as processing. Improved cowshed and milking hygiene will be encouraged through capacity building at the cooperative. At the farm level, the renewable energy technologies that will be promoted include biogas for manure management as well as provision of energy for household use. Through a matching grant, cooperatives will be supported to acquire or upgrade existing milk storage and processing equipment, including cooling tanks and stainless-steel and aluminium milk pots and biogas units.
- Poultry Value Chain Farmers primarily use informal methods and channels to market their poultry produce. While markets exist for processed products, most of the poultry trade involves unprocessed, whole eggs and live birds. Key challenges faced by farmers in marketing include lack of organized market systems, lack of bargaining power, lack of cold storage and proper transportation facilities, inadequate volumes/supply for commercial processing operations, lack of necessary equipment and skills for processing, and limited awareness on food safety concerns related to processed poultry products. Planned interventions aim to address these challenges and will include supporting mobilisation and organisation of farmers, strengthening of cooperative societies, support to processing facilities, capacity building on marketing and developing structured markets. The Programme will also support establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements and matching grants. It will seek to explore PPP arrangements to improve management of processing facilities.
- Apiculture Value Chain The Programme aims at supporting farmers to set up honey collection centres through which they collectively market their honey. Such groups will be linked to processors through formal contract arrangements. Small-scale processing activities will also be supported through acquisition of appropriate equipment, training on quality, packaging, requirements for certification and basic business management. Training will also seek to improve awareness on food safety concerns related to processed honey and requirements for certification. Training will cover techniques on production of profitable by-products, such as wax polish and candles.
- Avocado Value Chain— Across the INReMP counties, farmers utilize brokers and local traders to sell their avocado produce. The limited presence of operational aggregation centres has been identified as a widespread problem across all counties. Maintaining quality is a challenge where premature harvesting by intermediaries can lead to fruit rejection in the export market. Project intervention activities aim at promoting increased farmer organisation for collective marketing, provide support to aggregation centres, providing training to increase awareness on requirements of export, sorting and grading and use of proper harvesting methods. The Programme will also collect and disseminate relevant market information to assist producers in the identification of profitable market opportunities. Processing of avocados into oil and cosmetic products has been identified as an opportunity for absorbing produce that does not qualify for the export market. INReMP shall collaborate with county governments to explore PPP opportunities for such investments.
- Horticulture Value Chain Target horticulture crops are tomatoes and leafy vegetables. However, it is expected that other commodities will be identified during market opportunities and introduced into the Programme. Farmers sell individually and they lack negotiation power when dealing with market intermediaries. Local market centres lack cold chain facilities, limiting shelf life for commodities farmers bring to the market. Planned interventions include: a) organisation of farmers for collective production and marketing to ensure that products reach the market in the right quantities and quality; b) supporting organized groups to establish aggregation centres; c) establish cold chain facilities at such aggregation centres; d) provision of training on governance and group dynamics as well as contracts and contracting. The Programme will also collect and disseminate relevant market information to assist producers in identification of profitable market opportunities.
- Commodity Platforms Actors within target value chains will be organised into platforms that would allow for coordinated resolution of issues affecting the smooth functioning of the value chain. The platforms will facilitate business linkages, input/credit access, share knowledge, resolve conflicts, influence policy, and scale the success of implementation.
 Operationally, it is a multi-stakeholders transaction forum that meets periodically to facilitate business linkages among members, provide services to farmers and ensure steady flow of raw products to the market (processors). It is a key scale-up system of INReMP.
- Market and Marketing Infrastructure INReMP's focus on market development aims to enhance market capabilities through strategic construction and rehabilitation efforts. This includes establishing and restoring essential market infrastructures such as farmer-managed collection/bulking centres, processing units, and storage facilities. The introduction of markets with cold chain facilities will serve as technologically advanced hubs for aggregation and value addition, providing employment opportunities for youth as service providers. These infrastructures will incorporate provisions for solar lighting to enhance security and prevent gender-based violence (GBV). Additionally, they will feature separate and gender-sensitive

- water, sanitation, and hygiene (WASH) facilities, as well as provisions for access by Persons with Disabilities (PWDs), as well as designated childcare spaces and cooking and product demonstration spaces.
- Climate-Proofed Feeder Road Rehabilitation The objective of this activity is to provide improved and reliable access to markets and services for the selected value chains. Climate-proofing will be done on these roads by integrating climate-resilience features in the design of the roads to ensure they remain usable throughout the year; this will necessitate both engineering/structural measures and bio-engineering measures. The Green Roads for Water (GR4W)[45] innovation which incorporates water harvesting into road drainage structures (for livestock drinking water and small gardens) will be explored. An estimated 250 km of feeder roads will be developed under this intervention, benefiting at least 10,000 households. The priority feeder roads will be selected by the communities and participating micro and value chain lead enterprises. Rehabilitation of these roads will be aligned with the respective County Governments' rural roads development plans and integrated into their annual maintenance plans for sustainability:
- Promote consumption of products and nutrition awareness both at household and national level to improve nutrition outcomes as well as increase demand - The Programme will carry out public nutrition education and consumer awareness campaigns using traditional and digital tools in communities, schools, including early childhood development centres (ECDs), markets and through local and faith-based community leaders and influencers. Nutrition education and SBCC messages will be tailored to reflect the local context and the needs of small-holder farmers. Indigenous Peoples, and nutrition vulnerable communities. The aim of these activities will be to positively influence the knowledge, attitudes, and practices related to nutrition and health while also preserving positive cultural and environmental heritage. Social behaviour change communication (SBCC) materials will be developed in the local language and will incorporate culturally and linguistically appropriate images and visuals. These campaigns will promote the consumption of nutritious foods including the Indigenous Peoples' foods, facilitate behavioural change, enhance willingness to pay, transfer knowledge, and establish connections between producers, buyers, retailers, and consumers. Examples of SBCC activities include village and market nutrition days (where the entire community gathers to learn and apply nutrition knowledge through interactive games and activities), cooking demonstrations revitalizing positive local and indigenous people food cultures and identities that has been forgotten and not passed on to the younger generation, and the dissemination of key messages via road shows, nutrition fairs and Al Farmer Chatbot The Programme will provide an integrated package that includes nutrition, food safety, quality and hygiene, environmental sustainability, climate change, and improved agriculture production and husbandry to communities and various groups receiving services from INReMP. School nutrition education will raise awareness of school kids on importance of healthy eating, environment, and natural resource management. These activities will be jointly planned by the Social Inclusion Specialist and Knowledge Management Specialist. In order to have support from various partners, the PCMU team will reach out to explore contributions and/or linkages on existing/ongoing county SBCC initiatives.
- 72. Component 3: Institutional Strengthening, Policy Support and Programme Coordination This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps. The component comprises the following subcomponents.
- 73. Subcomponent 3.1: Institutional Strengthening and Policy Support The subcomponent will have a dual focus: institutional strengthening and policy support.
- 74. Institutional Strengthening to augment the capacity of the institutions that will be responsible for overseeing and/or implementing the Programme activities through: a) strengthening the capacity of national and county governments' relevant institutions to coordinate environmental conservation and integrate extension, and advisory services to support agriculture, livestock and natural resources and climate risk management; b) renovation of Agriculture Training Centers and Dairy Multiplication Centers; c) support the establishment of County Irrigation Development Units (CIDUs); and d) support the Programme staff to enhance their coordination abilities, financial management, procurement, planning, monitoring and evaluation, knowledge management and main streaming themes (gender/social inclusion, nutrition, environment and climate change); e) enhance capacity of CFAs in propagation of quality agroforestry seedlings for improved incomes, food and nutrition security as well as contributing seedlings availability to the Presidential directive for 15 billion tree growing programme by 2032; etc. An institutional capacity gap assessment will be undertaken during the first year of INReMP implementation to formulate an institutional capacity development plan.
- 75. **Policy Support** INReMP seeks to ensure that there is a supportive policy environment during and after implementation. Accordingly, the Programme will support policy analysis that will strengthen the national and/or county policy framework for agriculture, environment, climate change, cooperatives, gender equality, youth, and natural resources management. This will involve the development, review and update of policies, strategies of selected of selected sub-sectors for their effective and structured development. While more consultations on this issue are ongoing, preliminary indication suggested the following possible interventions: a) policy/strategies to help address land fragmentation issues at the county level; b) facilitate the rolling out, dissemination and awareness creation of some Acts and Regulations of selected State Departments[46]; there are currently at different stages of review; c) support Counties to mainstream resilience into their plans, strategies, policies, regulations through the use of the evidence-based resilience scorecard/index[47]; d) support the finalisation of the Draft Land Reclamation Policy and Bill; e) support completion of National Agroforestry Strategy; and f) finalization of the pending gender and youth policies, policy reviews and development of addendums to address gaps identified to achieve gender transformation and youth empowerment in the participating counties.
- 76. Subcomponent 3.2: Programme Coordination and Implementation Support Services this subcomponent seeks to provide INReMP with efficient and effective coordination, including planning and implementation, financial management and control, procurement support, digital monitoring and evaluation system, knowledge management, and progress reporting. It will also ensure liaison and linkages with all other projects/programmes being implemented in the countries that seek to address similar constraints so as to take advantage of existent synergies and avoiding duplication. A national Programme Coordination and

	Management Unit (PCMU) will be established to coordinate the different Programme activities. Details are contained in Section K. a: Programme Management and Coordination.
77.	In addition, INReMP will collaborate with partners to enhance communication regarding prevention of vector-borne diseases related to water, sanitation, and hygiene. It will empower school kids on biodiversity conservation, sustainable management, and utilization of nature-based products, including sensitization on good nutrition and healthy diets.
E.	Theory of Change

- 78. Rural households living within Cherangany Hills and Mau West Water towers face several challenges that make them highly vulnerable to the ever-increasing adverse impacts of climate change. This is amplified by: a)high levels of pollution, degradation, and depletion of natural resources (land, water, forests); b) over reliance on unsustainable economic and livelihood options that are destructive to the environment; c) cross boundary conflicts that limit their sustainable exploration of the natural resources; d) limited crop and livestock diversification; e) limited access to water for production and irrigation infrastructure; and f) inefficient water management and production systems. In addition, these communities are faced with: a) limited and poor market systems; b) limited access to markets and weak private sector involvement in conservation activities as well as some value chains; c) weak institutional capacity and regulatory framework for policy development, harmonization, coordination, and enforcement; and d) weak capacities of community institutions to support community level INRM and livelihood improvement. To compound their challenges, the households experience high levels of malnutrition due to low access, availability to and consumption of nutritious foods. Also, the communities, especially youth, women, and indigenous people (where they exist), have limited access to incentives for participation in conservation activities and their livelihoods are equally threatened by high prevalence of gender-based violence, HIV/AIDS, early marriages.
- 79. Lessons learnt from implementation of similar interventions have shown that empowering communities through: a) promotion of energy saving and renewable energy technologies; b) adaptation and promotion of inclusive community-based climate-smart and INRM technologies and practices; c) development of climate resilient water and irrigation infrastructure; d) promotion and use of digital technologies[48] and improving production and productivity of diverse value chains and nature-based enterprises based on different agroecological zones can lead to enhanced environment and INRM, ecosystem services, and climate action.
- 80. In addition, developing climate proofed and nutrition sensitive market and post-harvest infrastructure and developing diverse value chain options can lead to improved inclusive and sustainable rural livelihoods. Also, enforcing relevant climate action, environment and INRM policies and regulations can lead to stronger policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.
- 81. Against the above background, and within the framework of gender transformative programming, and community led planning and development, INReMP will thus: a) combat climate change, promote environment, natural resources and ecosystem restoration; b) manage climate and agricultural risks; c) facilitate social behaviour change and community-led INRM planning and development; d) enhance inclusive efficient climate-smart production and productivity of selected value chains; e) enhance inclusive agribusiness, climate and nutrition sensitive Market access and development; f) promote social inclusion and cohesion; and g) build institutional, organizational and policy capacity.
- 82. The successful implementation of these interventions will lead to: a) better integrated NRM, and enhanced resilience of poor rural people; b) sustainable food and nutrition security for rural households; and c) equitable social, economic empowerment, reduced poverty and enhanced social cohesion among the rural communities.
- 83. The accomplishment of these interventions hinges on: a) inclusive activities to ensure full participation of the youth, women and indigenous people, including affording them access to incentives for economic and livelihood diversification; b) acceptance of alternative livelihood interventions by the potential beneficiaries; c) private sector willingness to partner with communities and smallholder farmers on ecosystem restoration[49]; d) households' willingness to change their nutrition behaviors; and e) efficient and effective devolved government structures whose leaders are willing to embrace gender transformative programming approaches and leveraging data to support tracking progress of interventions of natural resources and ecosystem restoration and lead conservation efforts. Such efforts are already being made in Elgeyo-Marakwet County and Bomet County where county governments are championing conservation efforts to protect the water tower and the ecosystems within it.

F. Alignment, ownership and partnerships

- 84. Alignment with Sustainable Development Goals (SDGs) successful attainment of INReMP's development objective will contribute to the achievement of: a) SDG 1 (End poverty in all its forms everywhere) and b) SDG 2 (End hunger, achieve food security and improved nutrition and promote sustainable agriculture) through interventions contributing to livelihood improvement and productivity/production enhancement; c) SDG 5 (Achieve gender equality and empower all women and girls) through the Gender Action Learning Systems which will be used to address gender-based barriers at household and community levels and a 40% quota for women participation in INReMP activities; c) SDG 6 (Ensure availability and sustainable management of water and sanitation for all) through the construction of multi-purpose community water supply schemes; d) SDG 12 (Ensure sustainable consumption and production patterns) through all those activities aimed at decoupling derivation of livelihoods from the natural resources (e.g. cutting of trees of trees for charcoal making) by proving the alternative livelihood opportunities and supporting the provision of a supportive policy environment; and e) SDG 13 (Take urgent action to combat climate change and its impacts) by promoting climate smart agriculture and climate-proofing of all constructed/renovated infrastructure.
- 85. Alignment with National Priorities—INReMP has been designed in alignment with a number of national policies and strategies. These are specified in Section A. I. National Context: National Strategies and Policies on Smallholder Agriculture, Rural Poverty Reduction and Enhanced Food Security and Nutrition. INReMP's goal and development objective are well aligned to, and consistent with, the various national policies and will directly contribute to the achievement of these national policies, priorities, plans and strategies. The Kenya portfolio has adopted a programmatic approach with a strong focus on integrated natural resource management, delivering inclusive and pro-poor value chain development, promoting access to finance and creation of on and off jobs for women and youth in support to agricultural transformation. INReMP will also benefit from lessons learnt from the implementation of past and ongoing projects, partnerships with county governments, government institutions and conducive policy and institutional framework.
- 86. INReMP's interventions will contribute towards the achievement of the National Landscape Restoration Strategy and the 15 Billion National Tree Growing Programme 2023-2032. It will contribute to the National Climate Change Security Response

Programme (NCCSRP) – an internal mobilization strategy for the effective involvement of all National Government Administrative Officers (NGAOs) with the goal of providing strategic preparedness and a coordination mechanism to offer support in the implementation of Climate Change interventions, especially the Presidential directive on 15 billion tree planting.

- 87. Alignment with IFAD Policies and Corporate Priorities INReMP is in alignment with a number of IFAD's policies, including IFAD's Strategic Framework 2016-25 whose goal is to 'enable rural households and communities to gain increasingly remunerative, sustainable and resilient livelihoods that help them permanently move out of poverty and food insecurity'; this is largely similar to INReMP's goal and development objective combined. The other IFAD policies to which INReMP is aligned include: a) Environment Natural Resource Management (ENRM) Policy, Climate Change Strategy, and the Land Policy The environmental and climate adaptation and mitigation measures associated with the identified risks are fully integrated into the INReMP interventions. The SECAP Review Note provides more details on ENRM and climate change adaptation and mitigation; b) Targeting Policy Reaching the Poor (2010) In order to ensure project benefits reach the intended beneficiaries, target groups have been defined, a targeting strategy developed and means of operationalising that strategy integrated into the PDR and PIM; c) Gender Equality and Women's Empowerment (2012) the Programme is fully in line with IFAD's policies on Gender Equality and Women's Empowerment. Measures are included to ensure that women and youth benefit from INReMP interventions; d) Nutrition the nutrition focus in INReMP aligns with IFAD's corporate commitment to nutrition-sensitive interventions and links to the operationalisation of IFAD action plans on mainstreaming nutrition, and e) the policy of engagement with Indigenous Peoples (following the principle of FPIC).
- 88. The Programme will contribute to the goal of the IFAD Country Strategic Opportunities Programme (COSOP) 2020–25 to strengthen selected value chains and ensure that poor rural people participate in and benefit from them, using climate-resilient, inclusive, and pro-poor approaches that enhance Kenya's productive potential for future generations. The INReMP aligns with the COSOP Strategic Objective 1 (SO1): 'Climate-resilient, gender and youth responsive and sustainable community-based natural resource management is improved'.
- 89. INReMP aligns and integrates with the Regional Dairy Intervention for Mitigation and Adaptation (DalMA) under preparation by IFAD, FAO, and the Global Diary Platform. The project will be submitted for GCF funding by IFAD in 2025. The proposed Programme aims to reduce methane and other GHG emissions from the dairy sector while increasing the resilience of livestock-dependent communities. This aligns with INReMP activities under component 2 aiming at reducing emissions at production level through better management of feed and manure and to the use of solar energy at milk collection centers.
- 90. INReMP will also align and integrate with the GEF-8 Food Systems Integrated Programme. Based on earlier successful projects financed under GEF 6 and 7, the approach being adopted under this Project is the Water Fund concept, albeit with some innovation. More importantly, the GEF-8 Child Project for Kenya (in this instance now named Yala- Nyando Conservation Water Fund (YNCWF)) has the IFAD financed INReMP as its baseline investment. The, GEF-8 YNCWF Project design is being informed by a number of lessons of experience garnered from the successful implementation of the earlier interventions.
- 91. Alignment with United Nations Cooperation Framework –INReMP development objective and outcomes align with and contribute to the current United Nations Sustainable Development Cooperation Framework (UNSDCF) for Kenya 2022-2026. It articulates the collective vision of the UN System in Kenya through which the Country's recovery, shared prosperity and development can be realised based on the principles of leaving no one behind. Since IFAD is co-signatory to this framework, IFAD is specifically contributing to and co-chairing outcome 2.1[50] with UNIDO under the Strategic Priority 2: Planet and Prosperity[51] as well as partly contributing to the Strategic Enabler: Partnership. INReMP key indicators will contribute to IFAD's Country level aggregated financial and results reporting annually to UNINFO in order to feed into UN in Kenya Annual Result Reporting for the UNSDCF. Furthermore, the INReMP design contributes to the support the realisation of the RBA in Kenya partnership, collaboration and complementarities in targeted counties as envisaged in the Kenya Country-level RBA Collaboration
- 92. Country Ownership This was assured from the conceptualisation stage and continued through the design process. GoK constituted a government Project Delivery Team (PDT) that comprised representatives from all the key government ministries /institutions whose mandates are related to ensuring achievement of INReMP's development objective. Such institutions included State Departments, relevant parastatal agencies, and the Council of Governors. At the county level, the respective governments assembled teams of experts to work with IFAD and national government PDTs. This combined team (IFAD, national and county government representatives) consulted widely with the objective of ensuring that the key stakeholders, particularly the target beneficiaries and their institutions, and the relevant government institutions' views were captured and used to shaping the Programme's focus and the associated interventions.
- 93. In addition to the participatory design process, the INReMP's implementation will be fully immersed into GoK's decentralised structures where activity planning and implementation will be undertaken through county government institutions and community-based organisations. This would also contribute to ensuring the country's ownership of INReMP and its achievements.
- 94. Harmonization and Partnerships—For effective implementation, INReMP will seek to coordinate and harmonize its implementation with the projects/programmes financed by IFAD, GoK and other development partners that support thematic areas related to the Programme's development objective. To that effect, the partners that have been identified as for potential collaboration with INReMP during implementation are presented in Annex 1.

G. Costs, benefits and financing

a. Project costs

- 95. The total cost for INReMP, including base cost and price and physical contingencies is estimated at US\$ 262.6 million, over an 8-year implementation period (2025-2032). Investment costs have been estimated at US\$231.8 million (88% of total costs), and recurrent costs at US\$31.7 million (12 per cent of total costs). Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services, fully contributes towards the IFAD climate finance, with a total allocation of US\$ 19.6 million (11% of IFAD financing).
- 96. Out of the overall Programme costs, Component 2: Improved, Inclusive and Sustainable Rural Livelihoods, accounts for the highest percentage of 55%, equivalent to US\$144.8 million. This is followed by Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action, with an allocation of 28%, equivalent to US\$ 72.6 million. The remaining 17%, US\$45 million, has been allocated to Component 3: Institutional Strengthening, Policy Support and Programme Coordination. The summary of the financing plan is presented in the table below.

97. Table1: Summary of Costs by Components/Subcomponents) and Financier ('000 US\$)

Kenya																			
Integrated Natural Resources Management Project (INReMP)									Glo	bal									
Components by Financiers					IFAD	13 -	Green (Climate	E nviro	nment								Local	
(US\$ '000)	GC	K	IFA)-12	Financi	ng Gap	o Fu	nd	Faci	ility	Benefi	ciarie	s Private	Sector	r To	tal	For.	(Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Community-led Enhanced Environment and INRM, Ecosystem Services, a																			
Community Empowerment, Youth and Gender Transformative Approaches	-	-	5,933	70	2,506	30	-	-	-	-	-	-	-	-	8,439	3	827	7,612	-
Improve Environmental Sustainability, INRM, and Ecosystem Services			25,399	_40_	604	1_	38,210	_60_	-				-		64,213	24	6,291	57,922	
Subtotal	-	-	31,332	43	3,110	4	38,210	53	-	-	-	-	-	-	72,652	28	7,118	65,534	-
B. Improved, Inclusive and Sustainable Rural Livelihoods																			
Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains	8,772	9	49,690	52	29,742	31	1,790	2	-	-	5,150	5	-	-	95,143	36	8,459	77,913	8,772
Improve Value Addition and Market Linkages of Selected Value Chains and Natur	2,820	6	23,125	47	4,111	8			6,660	13	2,850	-6	10,172	21	49,738	19	4,603	42,315	2,820
Subtotal	11,591	8	72,815	50	33,853	23	1,790	1	6,660	5	8,000	6	10,172	7	144,881	55	13,062	120,228	11,591
C. Institutional Strengthening, Policy Support and Programme Coordination																			
Institutional Strengthening and Policy Support	414	8	4,420	85	395	8	-	-	-	-	-	-	-	-	5,229	2	518	4,711	-
Programme Coordination and Implementation Support Services	11,562	29	18,233	46	9,642	24			479	1_					39,916	15	3,902	35,776	239
Subtotal	11,976	27	22,653	50	10,037	22			479	1_					45,145	17	4,420	40,487	239
Total PROJECT CO STS	23,567	9	126,800	48	47,000	18	40,000	15	7,139	3	8,000	3	10,172	4	262,678	100	24,600	226,248	11,830

98. Table 2: Project Costs by Expenditure Category and Financier ('000 USD)

99. The project expenditure categories comprise the following: a) Goods, Services and Inputs; b) Equipment and Material; c) Consultancies; d) Training; e) Civil Works; f) Operating and Maintenance; and g) Salaries and Allowances; the associated costs are allocated across IFAD and GoK. The overall Programme recurrent costs are 12% for the total Programme. For IFAD financing, recurrent costs are 11% of the total IFAD funds; this is within acceptable limits. Training and workshops are considered high risk expenditure categories which will be monitored closely to ensure it is adequately supported and incurred as per procedures. Detail guidance on cost categories is provided in the PIM. The summary of costs by expenditure categories and disbursement by semester is presented in the tables below.

Kenya																			
Integrated Natural Resources Management Project (INReMP)									Glob										
Expenditure Accounts by Financiers					IFAD	13 -	Green	Climate	 E nviron 	ment								Local	
(US\$ '000)	G	OK	IFAD)-12	Financi	ing Ga	p Fu	ınd	Facil	ity	Benefic	ciarie	Private	Sect	or Tot	al	For.	(Excl.	Duties &
	Amount	-%	Amount	_%_	Amount	_%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs																			
Goods, Services and Inputs	128	0.2	36,504	70	11,621	22	2,880	6	-	-	1,215	2	-	-	52,348	20	5,142	47,180	25
Equipment and Materials	216	6	3,130	92	50	2	-	-	-	-	-	-	-	-	3,395	1	317	2,863	216
Consultancies	311	2	13,155	83	2,332	15	-	-	-	-	-	-	-	-	15,799	6	1,561	14,238	-
Training	-	-	5,541	71	1,867	24	413	5	-	-	-	-	-	-	7,821	3	774	7,047	-
Civil Works	11,589	8	56,968	38	22,734	15	36,707	24	6,660	4	6,785	5	10,172	7	151,616	58	13,702	126,325	11,589
Total Investment Costs	12,243	5	115,299	50	38,604	17	40,000	17	6,660	3	8,000	4	10,172	4	230,979	88	21,496	197,653	11,830
II. Recurrent Costs																			
Operations and Maintenance	1,978	23	3,323	38	2,983	34	-	-	479	6	-	-	-	-	8,763	3	858	7,905	-
Salaries and Allowance	9,346	41	8,178	36	5,412	24		<u> </u>							22,937	9	2,246	20,690	
Total Recurrent Costs	11,324	36	11,501	36_	8,396	27_			479	2					31,700	12	3,104	28,595	
Total PROJECT COSTS	23,567	9	126,800	48	47,000	18	40,000	15	7,139	3	8,000	3	10,172	4	262,678	100	24,600	226,248	11,830

b. Project financing/co-financing strategy and plan

- 100.INReMP will be financed as follows: IFAD 12 loan of US\$126.8million. The Project has been designed with a financing gap of US\$47 million. It should be highlighted that the financing gap arose after the Agence Française de Développement/French Development Agency (AFD) suspended lending to GoK during the course of INReMP design due the country's debt situation at the time. However, it is probable that the financing gap could still be covered by the AFD since they indicated that the situation would be revisited at a later time. Otherwise, the financing gap of US\$47 million may be sourced through subsequent performance-based allocation system cycles under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval, or by co-financing identified during implementation. In the event that it gets covered from subsequent performance-based allocation system cycles, it would bring the total IFAD contribution to US\$173.8 million; equivalent to 66% of the total cost. Co-financing from GCF and GEF is estimated at US\$40 million and US\$7 million respectively; (15% and 3% of the total cost). The design team has considered delays in availability of co-financing and included two scenarios in the INReMP design: (i) a realistic start date given the broad experience of delays in the approval process for GCF and GEF financing i.e., starting GCF funded activities in Semester 6 and GEF activities in Semester 9 and (ii) included a contingency plan within the costabs in case the co-financing sources don't arrive and are cancelled. For both funding sources activities are allocated on a 100% basis, so if no funds arrive, activities will be cancelled in totality. There will be no delays in implementing activities using other fund sources, as no co-mingling of expense categories has been used.
- 101. Domestic co-financing from GoK is estimated at US\$23.3 million in form of in-kind contribution, including duties and taxes; equivalent to 9% of the total cost. Contribution from the project beneficiaries is estimated at US\$8 million (3%). Co-financing from the private sector is estimated at US\$10 million (4% of the total costs). The summary of the financing plan is presented in the table below:

102. Table 3: Financing Plan ('000 US\$)

Kenva

Integrated Natural Resources Management Project (INReMP)

Financing Plan

(US\$ '000)

	<u> Foreign</u>	Local	Total	Percent
GOK	175	23,392	23,567	9
IFAD-12	13,466	113,334	126,800	48
IFAD 13 - Financing Gap	4,569	42,431	47,000	18
Green Climate Fund	3,908	36,092	40,000	15
Global Environment Facility	697	6,443	7,139	3
Beneficiaries	782	7,218	8,000	3
Private Sector	1,002	9,169	10,172	4
Total	24,600	238,078	262,678	100

c. Disbursement

103. The INReMP disbursement categories comprise the following: a) Goods, Services, and Inputs; b) Equipment and Material; c) Consultancies; d) Training; e) Civil Works; f) Operating and Maintenance; and g) Salaries and Allowances; the associated costs are allocated across IFAD and GoK. The overall Programme recurrent costs are 12% for the total Programme. For IFAD financing, recurrent costs are 10% of the total IFAD funds; this is within acceptable limits. Trainings and workshops are considered high risk expenditure categories which will be monitored closely to ensure it is adequately supported and incurred as per procedures. Detail guidance on cost categories is provided in the PIM.

d. Summary of benefits and economic analysis

- 104. The Economic and Financial Analysis (EFA) has been undertaken using a Cost-Benefit Analysis (CBA) to demonstrate the viability of the proposed intervention. The analysis has been based on the development of on-farm and off-farm activity models which represent INReMP interventions and the expected benefits to be received by different target groups. Following hereunder is a summary of the EFA results; details of the models used and associated computations are present in Annex 5 (Economic and Financial Analysis) and the EFA Excel file.
- 105. A summary of financial results by model is provided in the table below showing. In financial and economic terms, the results have been measured using the following profitability indicators: a) internal rate of return (IRR); b) net present value (NPV); c) benefits costs ratio (B/CR); and d) return to family labour.

	Farm models' net incremental benefits (in KES)											
Project Year	Poultry - Local Chicken	Diary - Cow	Apiculture - Bee Keeping	Horticulture - Cabbage	мсс	Fruit Tree - Avocado	NRM Model - Bench Terrace					
PY1	71,064	(394,899)	(161,000)	(75,600)	(209,200)	(272,091)	(123,000)					
PY2	111,455	(185,115)	236,000	14,400	134,200	(118,921)	52,875					
PY3	124,855	(134,969)	272,800	37,840	292,960	(127,042)	64,436					
PY4	109,955	(17,234)	177,600	95,000	474,400	107,503	69,060					
PY5	124,855	21,760	294,600	120,440	878,000	88,041	75,997					
PY6	124,855	165,926	272,600	128,840	928,000	107,728	80,621					
PY7	109,955	401,557	197,600	120,440	928,000	113,813	80,621					
PY8	124,855	483,044	272,600	128,840	788,000	130,637	80,621					
PY9	124,855	768,689	294,600	120,440	928,000	130,995	80,621					
PY10	109,955	1,004,600	265,600	128,840	878,000	136,364	80,621					
IRR	Num	43%	150%	71%	130%	23%	53%					
NPV (KES) @12%	839,775	17,689,180	1,497,134	354,009	4,389,796	403,753	373,297					
B/C Ratio	2.54	1.42	2.03	67.64	0.94	3.42	2.3					
Return to Family Labour (KES)	1,499.1	9,608.1	2,330.0	1,633.9	4,690.7	3,592.5	1,954					

- 106. The selected value chain shows a sustainable increase in production from the baseline estimates which represents the WoP scenario and the end-line targets which represent the WP scenario. Incremental cash-flows have been discounted over a period of 20 years, including 8 years of project implementation using a discount rate of 12% [52].
- 107. Programme Costs and Log-Frame Indicators Programme costs have been estimated using the Costab software, with a total budget approximated at US\$263.5 million. The direct number of INReMP households is estimated at 407,172. This translates into 2,035,880 household members, with a cost per household estimated at US\$647, and US\$129 per individual.
- 108. Economic Analysis Using the financial results above, an economic analysis has been carried out to assess the economic impact of the Programme intervention, from the overall economy perspective, by adjusting all financial costs and benefits streamflows into economic terms using appropriate Conversion Factors (CFs) as per IFAD EFA guidelines.
- 109. Results of Economic Analysis INReMP is projected to yield an IRR of 24%, with a positive NPV of US\$89 million (KSh12.3 billion). The quantifiable benefits have been discounted over a period of 20 years, including 8 years of INReMP implementation using a discount rate of 16.8[53](source: trading economic). Overall benefits/cost ratio is computed at 1.24. Details of economic analysis, including the underlying assumptions, are provided in Annex 5 (Economic and Financial Analysis) of this report.
- 110. Sensitivity Analysis. Risks and Assumptions The sensitivity analysis has been undertaken to test the robustness of the overall project analysis and measure different variations due to unforeseen factors and relevant risks presented in the IPRM. The analysis has considered the following variations: a) increase in costs; b) increase in Project benefits; c) reduction in Project benefits; and d) delay in Project benefits. Additional sensitivity analysis has also been carried out considering a 59% reduction in benefits from the natural resource management (NRM) model. This is purposely to reflect impact on the overall effectiveness of the Programme as it would reduce more than 50% of the alternative livelihood options for the target beneficiary if GCF and GEF financing does not crystallize as the two financiers contribute almost 60% to NRM funded activities under DT1.2 and DT2.2 of the project design costabs. Results of the sensitivity analysis indicate that change in benefits by 20% increase in costs and decrease in benefits using the same proportion, the project yields an ERR of 21.7% and 21.1% with positive NPVs of US\$64.9 million and US\$47.1 million, respectively. An increase in project benefits by either 10% & 20%, the project yields a higher IRR of 27% and 27% with positive NPVs of US\$110 million and US\$131 million. A delay in project benefits by 1 & 2 years still yields positive results as both scenarios yield an IRR of 21% and 19% with positive NPVs. Sensitivity analysis has also been conducted around the financing gap, to determine the level of the project viability, if the project does not receive additional funds to cover the financing gap, and results into an ERR of 14% with a negative NPV. A 59% reduction in benefits from the Natural Resource Management model yields an ERR of 23.8% with a positive NPV of US\$85.4 million. Results of the analysis indicate that the Programme is only sensitive and not economically viable if the financing gap is not covered, which will reduce the overall benefits.
- 111. The results of the sensitivity analysis indicate that the Programme remains economically and financially viable under the various assumptions considered.

e. Exit Strategy and Sustainability

- 112. The INReMP exit and sustainability strategy has been considered at different levels. To start with, INReMP's implementation approach through existing government institutions at the national and, especially, county levels imply an inbuilt exit strategy. Using the bottom-up approach, the Programme will be reaching out to the target communities, working with/through county extension agents, in the process of AWPB preparation, overseeing activity implementation and in monitoring implementation progress. The Programme has made an allowance for the capacities of the different government's institutions to be strengthened in line with the institutions' needs as will be identified by the capacity needs assessment.
- 113. The community-led environmental protection will be a key feature of the Programme implementation; it ensures ownership and sustenance of sustainable land management practices. The landscape approach including regenerative agriculture and watershed management activities as well as climate resilient infrastructure development will ensure environmental sustainability of INReMP interventions. The Programme will not only empower communities, but it will also strengthen their various institutions including farmers' group, enterprise groups, water users' groups, etc for the sustainable operation and management of the different infrastructure. Building capacities on governance, business skill and financial management at all levels will contribute to sustainability of investments.
- 114. The commercial/economic aspects are a key consideration of sustainability, and this will be achieved through the business orientation and market linkages of the Programme through Subcomponent 2.2. It is, however, important that the backward and forward market linkages to be fostered by the Programme between the INReMP target beneficiaries and the different market actors are mutually beneficial; this would be fundamental in order for this aspect to contribute to the Programme's exit and sustainability strategy.
- 115. The establishment of commodity value chain transaction platforms will crowd in private sector involvement in the implementation process through the innovative public-private-private partnership (4Ps). This will being farmers/producers and key stakeholders together to promote business linkages, financial inclusion and achieve financial independence for the farmers and major actors. It will empower women farmers to engage in high business transactions on equal footing with big firms. Once properly established and operational, these platforms will play a key part in the exit and sustainability strategies.
- 116. Lastly, the policy-related interventions under Subcomponent 3.1 will contribute to ensure that the needed supportive environment is availed during and after Programme implementation.

3. Risks

H. Project risks and mitigation measures

- 117.A more detailed account of the risk profile is presented in Annex 10: Integrated Project Risk Matrix (IPRM). However, there are some potential risks that could have a negative impact on the implementation of INReMP and its development objective, particularly those assessed as 'high' or 'substantial'. Selections of such risks are presented below along with the proposed mitigation measures:
- 118. Governance (Substantial)— Governance aspects related to transparency, corruption and lengthy and bureaucratic processes at the National and County Government levels. In addition, national and county governments have limited resources especially financial and personnel capacity to fully undertake their mandates particularly in respect to extension services and ecosystem restoration. Also, changes in government after elections in the past have resulted into change of project personnel. These may hamper implementation of programme activities especially at the county level. Some of the mitigation include: a) provision of capacity building based on the findings of a capacity needs assessment; b) the proposed implementation arrangement involves a number of key institutions both at the national and county levels, including the private sector for complementarity of roles; c) INReMP will sign MoUs with counties to ring-fence personnel as much as possible to avoid interruptions, especially during transitions; and d) the Lead Implementing Agency will delegate the day-to-day running of the Programme to the PCMU in order to avoid lengthy and bureaucratic processes at the line Ministry, with a similar arrangement established at the county level.
- 119. *Macroeconomic (Substantial)*—Kenya's economic recovery has been dampened by the recent drought and price shocks. GDP is expected to grow by 5.5% on average in 2023–24 on the assumption of robust growth of credit to the private sector, recovery in agricultural production, and high commodity prices favourable to Kenyan exports. INReMP has a strong focus on private sector-led growth in the selected counties and value chains, including promoting access to finance by value chain actors through on-going RK-FINFA and the proposed ARCAFIM projects.
- 120. Fragility and Security(Substantial)—In addition to natural hazards such as floods drought, there are security threats, ethnic clashes, social conflicts, and cattle rustling/attacks in some of the proposed counties. These may hamper implementation of programme activities in the affected areas. As a mitigation measure, efforts will be made to select wards, in liaison with the local leadership, that are secure for Programme implementation. In addition, adequate stakeholder engagements will be undertaken to reduce the risk of social conflicts, especially over natural resources.
- 121. **Programme vulnerability to environmental conditions** Kenya experiences environmental and land degradation in most parts of the country. Catchments within and around the project areas have over the years experienced severe land degradation resulting from deforestation, unsustainable farming practices, pollution, soil erosion, water abstraction and forest fires. This will be mitigated by invest in catchment rehabilitation, sustainable land management practices, agroforestry, and sustainable water management, soil erosion control, riparian conservation, wetland conservation and operationalisation of a payment for ecosystems services, (e.g. establishment of water funds, among other interventions).
- 122. **Programme vulnerability to climate change impacts** Kenya is highly vulnerable to climate change and extreme weather events, such as unpredictable rainfall patterns, droughts, heat waves, floods, and landslides. Future climate projections show that the country will continue to experience increases in temperatures, unreliable rainfall patterns and more frequent and intense extreme events, such as droughts and floods. Planned mitigation measures include Promotion of improved and resilient crop and livestock varieties and breeds, climate insurance, irrigation and water harvesting, CSA, agroforestry and reforestation, nature-based solutions, climate-proofing of infrastructure, access to climate financing, nature-based enterprises, renewable energy, manure management, efficient feed, fodder conservation, carbon markets, and PES. The project will undertake an Ex-ante and Ex-post EXACT analysis to show the reduction in GHG emissions among others.
- 123. Financial Management (Substantial) Identified risks include: a) start-up delays; b) slow recruitment of FM staff; c) low budget credibility; d) weak cash-flow forecasting and inadequate liquidity levels; e) lack of a suitable accounting or reporting system; f) weak internal control processes over financial reporting; g) ineffective internal audit function; and h) inadequate external audit scrutiny. Planned mitigation include: a) early recruitment and capacity building of FM staff through FMD programmes (APEX, FM e-learning); b) early start of budget consolidation based on realistic estimates; c) early training of staff on new practices on IFR reporting, cash forecasting; d) installation of suitable accounting software; e) training staff in IPSAS cash-based accounting; f) resource and support to the internal audit function at the line ministry; g) updated Finance PIM and enforcing controls over financial reporting; and h)engagement of the Office of the Auditor General for discussion on the quality of audit services.
- 124. **Community health and safety** Increased agricultural productivity from the use of inorganic fertilizers and pesticides will result in increased use of agrochemicals. Poor agrochemical handling and application will increase the risks to the health of pesticide-exposed people and agricultural product consumers. As a mitigation measure, INReMP will promote use of organic fertilizers, integrated pest management and safe use of chemicals.
- 125. Labour and working conditions The risks of child labour due to high dropout rates in potential project areas, working during school holidays, heavy labour burden on women, occupational health/injuries risks during INRM works, and poor working conditions of workers employed by INReMP partners and service providers. This will be mitigated through the ESCMP matrix which provides for elaborate mitigation and monitoring/surveillance measures to prevent/limit child labour, occupational health, and safety as well as poor working conditions. The project will also be promoting the GALs methodology at household level to encourage equitable sharing of labour roles at farm and household levels, to reduce the burden on women and create awareness on GBV prevention.

126.

- 127. Risk: (i) start-up delays (ii) slow recruitment of FM staff; (iii) low budget credibility; (iv) weak cash-flow forecasting and inadequate liquidity levels; (v) lack of a suitable accounting or reporting system; (vi) Weak internal control processes over financial reporting; (vii) ineffective internal audit function; (viii) inadequate external audit scrutiny.
- 128. Mitigations: (i) early recruitment and capacity building of finance staff through FMD programmes (APEX, FM e-learning); (ii) early start of budget consolidation based on realistic estimates; (iii) early training of staff on new practises on IFR reporting, cash forecasting; (iv) installation of suitable accounting software; (v) training staff in IPSAS cash-based accounting; (vi) resource and support to the internal audit function at the line ministry; (vii) updated Finance PIM and enforcing controls over financial reporting; (viii) engagement of the Auditor General (OAG) for discussion on the quality of audit services.

I. Environment and Social category

- 129. Environmental and Social Screening shows that INReMP Environmental and social risk is *substantial*. The major risks identified are linked to emissions from dairy production, inappropriate land use practices, deforestation, water pollution, siltation, land and catchment degradation, encroachment of wetlands, conflict over resource utilisation and teenage pregnancies due to GBV. The different SECAP standards, particularly biodiversity conservation, resource efficiency and pollution prevention, cultural heritage aspects and indigenous people, labour and working conditions, community health and safety have been used to assess, in an inclusive and equitable manner, all issues around possibilities of working conditions, health, and safety of communities so as to develop management measures to mitigate human risks. Some of the risks are site specific and would not cause any irreversible harm to the environment and humans.
- 130. Any potential negative impacts will be addressed through the Environmental, Social and Climate Management Plans (ESCMPs) and other mitigation measures.

J. Climate Risk classification

- 131. The Screening on climate risk assessment ranks INReMP at substantial climate risk. Thus, an assessment of adaptation capacities to climate change will be integrated into the SECAP note, indicating the corresponding adaptation options.
- 132. The World Bank reports that Kenya is ranked 152 out of 181 in the NDGAIN Index[54] and is therefore highly vulnerable to climate change impacts. Historical and current climate change patterns indicate that there is a trend showing that temperatures vary across the country, a distinct warming trend is evident, particularly since the 1960s, with inland regions having experienced larger increases in minimum and maximum temperatures. During this time, the annual mean increase has risen by approximately 1.0°C, at an estimated average rate of 0.21°C per decade. The most significant rise in temperature was observed in the arid and semi-arid regions of the country. Precipitation trends for Kenya are highly variable. Northern areas have become wetter, and southern areas have become drier since the 1960s, although this has had a high degree of variability.

4. Implementation

K. Organizational Framework

a. Project management and coordination

- 133. Implementation of the Programme will be mainstreamed into the GoK system, both at national and county levels.
- 134. Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer.
- 135. Programme Coordination and Management Unit (PCMU) will be established comprising a team of officers recruited through a competitive process led by the State Department for Agriculture. In addition to the PCMU's core staff of Programme Coordinator, Financial Controller, Monitoring and Evaluation Specialist and Procurement Specialist, the PCMU will comprise technical officers and support staff as follows: NRM Specialist, Infrastructure Specialist, Agricultural Livelihood Specialist, Community Development, Gender and Youth Specialist, Nutrition and Social Inclusion Specialist, Agribusiness Development Specialist, Programme Accountants (2), Accounts Assistant, Knowledge Management Officer, M&E Assistant, ICT Assistant, Programme Assistants (2), Office Assistant (2), Drivers (5). Detailed Terms of Reference (ToRs) for all PCMU positions are included in the PIM. The PCMU responsibilities will include, inter alia, the: a) facilitation of a conducive environment for Programme activities, including the multiple partnerships required for effective implementation; b) implementation of the Programme activities in line with the AWPBs approved by the National Programme Steering Committee (NPSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for Programme implementation; d) financial and administrative management of Programme resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and f) provision of the procurement function.
- 136. National Programme Steering Committee (NPSC) A NPSC under the co-chairmanship of the Principal Secretaries, State Department for Agriculture and State Department for Environment and Climate Change, will be set up to provide overall policy and strategic guidance to the Programme. The other members will be Principal Secretaries drawn from: a) National Treasury; b) State Department for Livestock Development; c) State Department for Water and Sanitation; d) State Department for Irrigation; e) State Department for the Blue Economy and Fisheries; f) State Department for Forestry; g) State Department for Cooperatives; h) State Departments for Gender and Youth; i) Ministry of Interior and Coordination of National Government; and j) State Department for Environment and Climate Change. The NPSC will also include: a) a representative of the Council of Governors; b) Two Executive Committee Members (CECM) from the Programme counties; c) Kenya National Farmers Federation, (KENAFF); d) Forest Conservation Committee representing the Community Forest Associations (CFAs); and e) the Kenya Private Sector Alliance (KEPSA). The main responsibility of the NPSC will be to ensure successful implementation of the Programme. The NPSC tasks will include, inter alia: a) policy and strategic guidance on the INReMP focus; and b) priority setting and institutional strengthening to ensure that the Programme achieves its objective and contributes to the higher-level sector policy and strategic goals. This will necessitate reviewing Programme progress against targets, assessing management effectiveness, appraisal of annual performance and recommending renewal of contracts of PCMU staff, deciding on corrective measures, where appropriate, identifying lessons learned and good practices, approving AWPBs and Procurement Plans.
- 137. National Technical Advisory Committee (NTAC) A National Technical Advisory Committee shall be established to provide technical advice to the NPSC. The NTSC shall consist of technical experts preferably at the Director/Commissioner level, appointed by the individual NPSC members. The membership in terms of institutional representation will therefore mirror that of the NPSC. The NTAC shall provide technical advice on matters that require approval and/or discussion by the NPSC.
- 138. Interim Start-up Team In view of the historical start-up delays in the Kenya Portfolio and following an agreement with GoK during the entry meeting to ensure INReMP deviates from this, an Interim Start-up team will be constituted to proactively take the lead in ensuring that all the identified key start-up activities are fulfilled within the stipulated time-frame. To kick start and ensure full integration of the start-up team to the design process, the existing IFAD-GoK-EU funded KCEP-CRAL Programme Coordination Team (PCU) (which is also under the State Department for Agriculture) will onboard INReMP and act as the interim start-up team[55] (for a maximum period of not more than six months).
- 139. Implementing Partners The Programme will assess and collaborate through a Memorandum of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the KALRO, Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.
- 140. At County level A multi-sectoral County Programme Steering Team (CPST) composed of the CECMs of relevant County Departments, County Commissioner and relevant National Government Agencies at the county level shall be established to work closely with the existing County Agricultural Sector Steering Committee (CASSCOM) to steer implementation of the Programme activities at the county level. The CPST shall be chaired by the CECM in charge of Agriculture. In addition, a County Programme Implementation Team (CPIT) with representation mirroring the CPST, composed of members at the level of a director will be established and will be responsible for the day-to-day implementation of Programme activities. Also, a dedicated project coordinating team composed of a Coordinator, Accountant, Procurement Officer, and M&E Officer shall be seconded on a full-time basis by the county for day-to-day coordination of the Programme activities at the county level. The coordinator shall be the head of the CPIT and the Secretary to the CPST. As much as possible, the coordinating team shall be ring-fenced to avoid interruption of Programme implementation.

b. Financial Management, Procurement and Governance

141..

- 142. Financial Management (FM) The State Department for Agriculture, the lead implementing agency, will manage INReMP's finances through a dedicated PCMU. The PCMU will release funds against approved AWPB, disburse funds to county governments, implementing agencies, and coordinate monitoring and financial reporting. MoALD and the State Departments have experience in implementing IFAD funded projects (UTaNRMP, KCEP/CRAL, ABDP, and KeLCoP) and would use lessons learned from the ongoing projects to improve financial management. Memorandum of Understanding (MoUs) with IFAD's No-Objection, would be established between National Treasury and the participating County Governments stipulating FM requirements and responsibilities. Signing of the MoUs will be a requirement for fund disbursements.
- 143. The PCMU will conduct Programme budgeting in accordance with IFAD procedures and public financial management regulations of the Government of Kenya. The AWPB will be prepared with sufficient details showing activities by categories, component and financiers and be approved by the Programme Steering Committee before receiving a No-Objection from IFAD. Budget submission calendar will be included in the FMFCL to the borrower.
- 144. The disbursement mechanisms to be used include advance withdrawal and direct payments. Advance withdrawals are allowed on exceptional basis after prior approval by the IFAD Finance Officer. Disbursements from IFAD will be made by way of an advance to Designated Accounts, with subsequent quarterly replenishment, based on interim financial reports (IFRs) cash forecasts, aligned to approved AWPB. Disbursement from IFAD will be based on quarterly IFR submitted by the Programme within 30 days after the end of the reporting period, with withdrawal applications in the IFAD Client Portal (ICP).
- 145. To prevent commingling of funds, designated accounts for different financing sources will be established, with separate USD bank accounts for each co-financier. IFAD, as the accredited entity for GEF and GCF funds, will ensure compliance with disbursement protocols, but GoK is accountable for the funds from IFAD, GEF and GCF. GoK counterpart funds will also be disbursed to the PCMU through a separate bank account in KSh. INReMP would procure and install an accounting software with adequate capacity to ensure all Programme funds are properly managed. In-kind contributions from Programme beneficiaries and GoK will be monitored and recorded by the PCMU. The AWPB will be coded to show details by financier, component activities and category to facilitate expenditure recording and summary by finance teams. Each County/implementing agency will have a dedicated Programme account in local currency for receiving funds from the PCMU. A detailed fund-flow diagram is provided in the PIM. The Programme finance teams will be competitively selected and comprise qualified personnel with appropriate financial management expertise. Capacity building will be organized at the start-up to familiarize staff with FM requirements. An accounting software package will be used for recording financial transactions, and the finance team will produce analytical reports by component, category, financier, and accounting period by quarter, annual and cumulative from inception to date. Regular field visits for financial monitoring of participating counties/implementing agencies by the Programme accountant will ensure compliance with INReMP's reporting requirements and addressing any identified gaps.
- 146. *Internal Audit* National Treasury internal auditors will provide internal audit oversight for the overall project. Each implementing county/entity must also plan and execute audits for their activities under their institutions, with guidance and collaboration from national treasury internal auditors.
- 147. **External Audit** Kenya's Supreme Audit Institution (SAI) provides external audit of IFAD-funded projects in Kenya annually and is in conformity with IFAD's auditing requirements. Thus, INReMP will be audited by SAI. The auditor's annual work plan will ensure adequate coverage of counties and institutions receiving INReMP funds and cover major risk areas. Audit ToRs will include guidance from IFAD audit handbook. Unaudited and audited financial statements will be submitted to IFAD within four and six months after the end of the financial year, respectively.
- 148. Procurement Framework—IFAD General Conditions (Section 7.05. Procurement emphasizes the use of Borrower/Recipient's procurement regulations, provided they are consistent with IFAD's procurement guidelines. Procurement under INReMP will be carried out in accordance with GoK's Public Procurement and Asset Disposal Act (PPADA 2015) which sets out the rules and procedures of public procurement by Ministries, Departments and Agencies (MDAs) and County Governments, and provides mechanisms for enforcement of the law. Under the PPADA, the Public Procurement Regulatory Authority (PPRA) has been established. The PPRA has oversight and regulatory functions, including undertaking procurement reviews and audits. National Standard Bidding Documents (SBDs) will be used and will be amended for consistency with IFAD Guidelines. Procurement approaching the international market will use IFAD SBDs. All project procurement activities will be done in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's SECAP will apply to INReMP to ensure compliance with the highest ethical standards. Other provisions stipulated in the Procurement Arrangement Letter (PAL) will be applied to all procurement activities.
- 149. **Procurement Implementation** The State Department for Agriculture is the lead executing agency and INReMP will leverage the Department's experience in executing operations funded by International Financial Institutions, including IFAD-funded Projects/Programmes. There will also be procurement activities by the target counties and the Kenya Agricultural and Livestock Research Organization (KALRO). The Design mission has undertaken assessments and found Counties and KALRO suited to implement project procurement activities. Internal organization and processing of procurement will require to adhere to the procurement framework. Processes for on-boarding grant recipients and other private sector players will be defined in the

Programme Implementation Manual (PIM) and adhere to IFAD's project procurement principles. Procuring entities will require dedicated and suitably qualified procurement officers to augment implementation capacities. Procurement staff will require training on IFAD's BUILDPROC[56], IFAD's Online Procurement End-to-end (OPEN) system, and periodic capacity building activities on IFAD project procurement.

- 150. **Overarching role of PCMU procurement** The PCMU will hire an experienced Procurement Specialist from the market, with a Procurement Officer being seconded from MoALD to assist and augment the capacities. PCMU will undertake procurement whenever the Programme and its implementing partners are approaching the international market. In addition, common procurement items for goods across the Programme will be consolidated in the PP and procured through the PCMU.
- 151. *IFAD OPEN* IFAD prior review and No Objection shall be routed through OPEN, IFAD's End-to-End Procurement system which enforces a step-by-step documentation of the workflow for the entire procurement process. Each procurement entity will have a sub-profile on OPEN to facilitate transmission of procurement actions for prior review by IFAD.
- 152. **Programme Procurement Strategy (PPS) and Procurement Planning** The design Mission developed a PPS to address how procurement activities support INReMP's development objective in attaining the best value for money (VfM) under risk-based approaches. It provides adequate justification for selection of fit-for-purpose methods in the procurement plan (PP) and has identified the applicable procurement arrangements for the categories of Goods, Works, Consulting and Non-consulting services. INReMP's PP should reflect the analysis presented in the PPS and should be updated periodically to reflect actual needs and changing circumstances. Any updates to the PP should be submitted to IFAD for its review and provision of No Objection and justified by the Programme through a revised PPS. The PDR includes an 18-month PP, which will set out the procurement profile of the Programme and selection methods to be followed during implementation. Programme procurement will be carried out as per the approved PPs processed through OPEN.
- 153. **Complaints and Appeals** These will be handled through the established system as defined by the procurement framework. There is a Public Procurement Complaints Administrative Review and Appeals Board (Appeal Board) under the secretariat of PPRA that deals with complaints received from bidders or consulting firms. IFAD may provide an opinion about the protest and subsequent decision. For prior-review procurement, all protests must be communicated to IFAD before a decision is issued. IFAD reserves the right to provide input or comments to the borrower/recipient to help it reach the decision. A copy of the decision must also be provided to IFAD. Disputes which arise in respect of procurement proceedings shall be reviewed and decided upon in accordance with the provisions of the national framework.
- 154. Contract Management and Record Keeping The PCMU will be responsible for overall implementation and management of awarded contracts in accordance with the agreed contractual obligations. The practice is that contracts are managed by user departments. A simplified Contract management Plan (in Annex to the PPS) is prepared to enhance the efficacy of contract administration and management and will be reviewed from time-to-time. All records pertaining to contract awards[57]would be retained by the PCMU and uploaded in the OPEN system on a timely basis. In addition, the PCMU will keep all complete procurement files for each activity with all the documents from the procurement plan to contract completion including contract monitoring and payment records.
- 155. **Procurement Risk Assessment, Mitigation, and Performance Measurement** Procurement risk assessment was undertaken during the INReMP design, and the Programme procurement risk is rated as *moderate*. Mitigation measures are proposed alongside the assessment, and IFAD will provide regular supervision and capacity building for smooth Programme implementation. Procurement performance will be measured through Key Performance Indicators defined in the PPS.
- 156. **Governance** The IFAD Anti-Corruption Guidelines are expected to be followed by implementing entities to prevent fraud and corruption. This includes avoiding collusion practices like bribery, abuse of administrative positions, and mis-procurement. To mitigate these risks, Financial Management measures include annual external audit reviews, approved Financial Management procedures, strong Financial Management arrangements, periodic IFRs, regular internal audit reviews, and follow-up by the audit committee and independent reviews by IFAD. These measures aim to ensure the integrity of the Programme. In addition, all procurement documentation issued to bidders will include and comply with the requirements laid out in: a) IFAD's Revised Policy on Preventing Fraud and Corruption in its Activities and Operations; b) Policy on preventing and responding to sexual harassment, sexual exploitation and abuse; c) IFAD's Anti-Money Laundering and Countering the Financing of Terrorism Policy; and d) IFAD's Social, Environmental and Climate Assessment Procedures (SECAP); SECAP will be implementing the Grievance Redress Mechanism.

L. Planning, M&E, Learning, KM and Communication

- a. Planning, M&E, Learning, Knowledge Management and Communication
- 157. **Planning** The planning cycle will follow the GoK planning and budgeting cycle. The cycle will commence with preparation of the AWPB, as a key instrument for implementation and operational control. The Programme will follow a bottom-up participatory planning process for the AWPB. The first stage of planning and preparation of the AWPB will be carried out at ward level, following the devolved local government administration framework. The ward level plans will comprise of priorities identified by participating communities summarised in the form of CAPs. These will then be consolidated at the sub-county level, then at the county level and, eventually, at the national level, into the Programme AWPB. The approved AWPB will be the only mechanism through which Programme resources will be spent and the basis for progress monitoring. Preparation of the AWPB will be led by

the PCMU in liaison with the respective CPITs. The AWPB will be subjected to all necessary approval mechanisms before it is operational.

- 158. Monitoring and Evaluation The logical framework will be the foundation of the Programme's M&E system and contains a set of defined Programme specific indicators and core indicators selected from the IFAD Core Indicators, to guide continuous performance assessment of the Programme. Intentional indicator selection has been done to allow for tracking of social and economic performance of target groups, especially women, youth, and vulnerable groups. To this end, all person-based indicators will be disaggregated by sex, age and by disability, where applicable. The full Programme M&E system will be developed in accordance with the requirements of IFAD and GoK and will be coordinated by the PCMU set up within the state department for Agriculture as the executing agency and supported by the CPITs. The M&E system will conform to IFAD's guidelines on M&E, updated SECAP guidelines and Core Outcome Indicator Framework. The system will also conform to existing GoK M&E arrangements, including alignment with the recently developed Agriculture Sector-wide Monitoring and Evaluation framework and relevant integrated natural resource management frameworks at national and county levels. The INReMP's M&E logical framework will also feed the County Integrated Monitoring and Evaluation System (CIMES). The Resilience Design and Monitoring Tool (RDMT) will be embedded in the M&E system with RDMT questions included in the system to collect resilience data at the household level. Adequate funds (about 10.5% of the total Programme coordination budget) as well as human resources have been provided in the Programme budget and structure to support the establishment and effective functioning of the M&E system.
- 159. The Programme will develop an M&E Plan at the start of implementation. The objectives of this M&E Plan will be to guide the Programme management team during implementation and to ensure achievement of the set goal and development objective. The Plan will also be helpful in enabling accurate and timely reporting of Programme progress and performance to all stakeholders. The M&E system will rely on data from periodic monitoring but, more importantly, on specific outcome/impact measurement surveys which will be carried out by the PCMU, especially after the MTR.
- 160. The M&E strategy will use digital tools, such as Kobo Toolkit and a web-based Management Information System (MIS), and GIS to collect and analyse information about Programme outreach, and impact. The Programme will use data generated from the M&E system to continuously evaluate the Programme's theory of change and to inform knowledge generation and dissemination for enhanced impact.
- 161. The Programme will undertake a baseline survey (including Empowerment, Nutrition and youth modules) at the start of implementation and subsequent rigorous evaluations that seek to establish Programme impacts and provide lessons learned for enhanced Programme impacts. The Programme's evaluation strategy will use quantitative and qualitative methods to determine how it contributed to improved livelihoods and nutrition among beneficiaries, at baseline, mid-term, annual surveys, and end-line with a control group as per the IFAD COI guidelines. A final evaluation will consolidate data and provide recommendations for future efforts.
- 162. SECAP Monitoring Monitoring of environment and climate aspects of the Programme and implementation of appropriate mitigation measures identified in the ESCMF will be done in two ways: a) monitoring physical progress against targets of proposed climate adaptation/mitigation measures, environmental sustainability, and sustainable natural resource management interventions. The M&E, Landscape and Safeguard Specialists, will have the primary responsibility of coordinating monitoring SECAP issues, with support from the other technical staff; and b) monitoring and ensuring the implementation of mitigation measures against identified environment, social and climate risks associated with Programme interventions, such as irrigation. This will be done through implementation and regular monitoring of the Environment, Social and Climate Management Plans (ESCMP) and their accompanying Monitoring Plans.
- 163. Data on outputs will be collected through the reports of relevant GoK implementing agencies and departments, validated by the PCMU, and triangulated through field visits by the M&E unit. The MIS will depend on the use of Electronic Tablets for field level data collection and online transmission to cloud based servers administered at county and national levels, for storage and processing. The MIS system will be set up with external consultancy support who will also build the capacity of the field staff in different areas for smooth operationalisation of the system.
- 164. Staff capacity at all levels will also be built on the IFAD CI framework, COI survey guidelines, the RDMT in monitoring the resilience of the project beneficiaries. They will be trained in the use of the FAO Exact tool for measurement of the GHG emission reduction in the Programme area.
- 165. The CAPs will not only form the basis for implementation of INReMP interventions, but they will also be a key component of Programme M&E system. Upon preparation of the CAPs, beneficiaries will coordinate with and use relevant channels to collect information and transmit it to higher levels. Tools will be developed in line with the CAPs to facilitate the participatory monitoring of the delivery of identified priorities. Community level organizations, such as WRUAs and CFAs, will also be involved in monitoring and ensuring accountability in delivery of respective investments.
- 166. Knowledge Management and Learning (KM&L) Knowledge Management in the Programme will be guided by a Knowledge Management and Communication Strategy (KMCS) to be developed at the beginning of Programme implementation. The Programme results- based M&E system will form the foundation of the KM&L system and will, thus, be a primary instrument of information capture and storage. That is to say, the identification of the case studies to be assessed in detail, will be through the result-based M&E system. KM activities will ensure that the Programme implementation is a continuous learning process during which quantitative and qualitative data will be compiled, analysed, and disseminated as lessons learned, thematic studies and stories from the field. The lessons and experiences will be systematized and utilised as part of the policy engagement activities undertaken by the programme as well as the policy support activities carried out by INReMP under Component 3.
- 167. **Communication** A KM and Communication Action Plan outlining specific activities on how information is to be obtained, analysed, and disseminated, will be developed in line with the Knowledge Management Strategy. The Plan will translate the

strategies into action. Plans to support the implementation of the KM and Communication Action Plan will be integrated in INReMP's AWPB every year. In this regard, the KM and Communication Action Plan shall include an outline on how knowledge will be disseminated using, but not limited to, the communication channels. Effective communication at all levels will be critical for promotion and awareness raising, learning and adoption of innovative techniques and practices under the respective value chains as well as issues related to mainstreaming of gender and nutrition in the selected value chains and encourage youth participation in rural agricultural development. To facilitate the online dissemination of generated knowledge products to government and other stake holders, the Programme will develop a website and a KM Portal with links to the Ministry of Agriculture Website. Other online knowledge sharing and communication mechanisms, such as the use of social media and short messaging services, will be implemented.

b. Innovation and scaling up

- 168. The following are considered key innovative features of the Programme: a) partnering with selected institutions to encourage target beneficiaries to conserve the environment in which they live and benefit through carbon trading; b) upstreaming water from Lake Victoria to uphill reservoirs/collection points and releasing for irrigation and other purposes; c) the Green Roads for Water innovation which incorporates water harvesting into road drainage structures (for livestock drinking water and small gardens); d) leveraging digital technologies to support market-oriented production, business to business linkages through digital market platforms, and usage of data to support market analytics.
- 169. The Programme's scaling up agenda will, primarily, be driven by the Government's commitment to continue protecting its water towers. This phase of the Programme is focusing only on ten counties of the Cherangany Hills and Mau West water towers. The next phase will be implemented in selected upstream and downstream counties that will be selected with guidance from GoK. Accordingly, the Programme will document the lessons learnt and best practices during this first phase to inform the successful scaling up of the interventions in the preceding phase.

M. Project Target Group Engagement and Feedback, and Grievance Redress

a. Project Target Group Engagement and Feedback.

- 170. The PCMU will be responsible for the effective implementation of the engagement/feedback process based on the Stakeholder Engagement Plan developed for this Programme. The engagement and feedback process aims to achieve effective stakeholder involvement and promoting greater awareness and understanding of issues so that the Programme is carried out effectively within budget and on-time. The goals of the public consultations are to: a) provide stakeholders, sufficient opportunity to voice their opinions, concerns and aspirations that may influence Programme decisions; b) the status of implementation of the identified measures; c) provide information and facilitate decision making; and d) whenever possible, specific recommendations and proposals.
- 171. For the purpose of the effective implementation of the engagement/feedback mechanism, stakeholders shall be defined as all those people and institutions that have an interest in the successful planning and execution of the Programme's activities. This includes those likely to be positively and negatively affected by INReMP, people living in the vicinity of the proposed works, special interest groups, vulnerable groups, marginalized and disadvantaged individuals or groups. The Programme shall determine who the stakeholders are and understand their needs and expectations for engagement, and their priorities and objectives in relation to the Programme. Stakeholders shall be categorized into: a) directly affected; b) indirectly affected; c) interested parties and implementing agencies. The Programme will identify individuals and groups who may find it more difficult to participate and those who may be deferentially or disproportionately affected by the Programme because of their marginalised or vulnerable status.
- 172. The information obtained will be used to tailor technically and culturally appropriate engagement mechanism and type of information to be disclosed for each type of stakeholder. The consultation process shall ensure that all those identified as stakeholders are conferred with and shall be informed by a set of principles which are commitment, integrity, respect, transparency, inclusiveness, and trust based on International Best Practice. The engagement process will be a continuous process throughout the life of the Programme and will be used as a means of checks and balances for INReMP's proper implementation.

b. Grievance redress.

- 173. The implementation of INReMP may generate several challenges and complaints, especially those which relate to infringement of rights of sections of the society, unequal sharing of resources and exclusion from the Programme. To address such complaints, and in the spirit of the continuous consultation process, a Grievance Redress Mechanism (GRM) has been developed for INReMP. The GRM consists of three parallel systems: a) a community-based system; b) a county system; and c) the IFAD complaints procedure.
- 174. Community Based Grievance Redress Mechanism— The Community Based GRM aims to use the existing traditional structures. This would be used to facilitate agreements among community members but also to solve disagreements where these might occur. The process will involve informal courts handled by the village elders and chiefs who preside over the matters over a set time (possibly 15 days). However, if the aggrieved party is still not satisfied then they can ultimately take the County level route;
- 175. County Level GRM At every county implementation level, a grievance handling committee shall be appointed and trained to handle complaints. The complainant is given room to appeal to the MAFS or the Courts of Law if they are not satisfied with the outcome; and
- 176. Additional GRM Approaches The aggrieved persons can also use the IFAD Complaints procedure to air out their complaints. The objective of the IFAD Complaints Procedure is to ensure that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly to file a complaint. This could be due to the fact that they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP. Complaints must concern environmental, social and climate issues only and should not be accusations of fraudulent or corrupt activities in relation to project implementation these are dealt with by IFAD's https://www.ifad.org/web/quest/internal-audit Office of Audit and Oversight.
- 177.IFAD has zero tolerance to Sexual Exploitation and Abuse. Any Sexual Exploitation and Abuse (SEA) complaints received shall be directed to IFAD's Ethics Office. Details on all aspects related to GRM processes and procedures are presented in Annex 5 package.

N. Implementation plans

- a. Supervision, Mid-term Review and Completion plans.
- 178. The following steps will be taken to address potential start-up delays: a) preparation of a draft AWPB, the associated Procurement Plan and a draft PIM as part of the design process; b) preparation of job descriptions for all the different PCMU positions; and c) use of the KCEP-CRAL Programme Management Unit, in the interim, to support and onboard the smooth start of INReMP. The key role and responsibilities of this start-up team will include but not limited to: a) expediting all required processes to ensure entry into force, fulfilling disbursement conditions which entails drafting work-plan and budget and procurement plans, opening of designated and operational accounts, ensuring the Programme budget is captured in the national and line Ministry's approved budget for relevant fiscal year, procuring and operationalising accounting system; finalising ToRs for competitive recruitment of PMCU staff and ensuring their smooth on-boarding; b) finalising draft programme implementation manual, setting up M&E framework including drafting ToRs for procurement of consultants to conduct baseline survey and relevant thematic studies; c) drafting and finalising frameworks for on-boarding of key implementing partners including supporting key county implementation structures set-up plans; and d) oversee the preparation and planning for the Programme launching and start-up workshop based on an elaborate plan within the first of Programme implementation.
- 179. Supervision The Programme will be jointly supervised by IFAD and GoK to assess achievements and lessons learned and, when required, provide implementation support with the objective of ensuring effective Project implementation and increase the likelihood of achieving the target objective. Missions would be fielded at least once every twelve months. However, and depending on the extent and quality of implementation progress, implementation support Missions would be fielded as frequently as warranted by conditions on the ground so as to address any emergent issues that may have the potential to negatively impact Programme implementation. The composition of the supervision/implementation support Missions would be influenced by the issues identified as needing redress.
- 180. Mid-Term Review (MTR) An MTR will be undertaken halfway through project implementation; it will evaluate whether the project is on course to achieve the objectives. It will identify any prevailing constraints and recommend such re-orientation as may be required to help INReMP to get back on course to achieve its objectives. However, the actual timing and nature of the MTR will, similarly, be influenced by the security situation on the ground.
- 181. Project Completion Plans —Undertaking of the Project Completion Review is also a statutory requirement; the review is supposed to be done after project completion but before project closure. The completion review exercise will be led by IFAD but with key contributions from the borrower; the process will cover the elements described in the general conditions of the Financing Agreement as described in the 2023 PCR The main purposes of the completion review process will be to promote accountability, reflect on performance and elicit lessons learned to inform future programme/project design and to define an appropriate post-project strategy. The learning dimension of the completion process will be used by both IFAD and the Government as the foundation for improvements in future programme/project design and implementation. The completion review process will also be critical for identifying opportunities for scaling-up best practices. As part of the completion activities, an end-line survey will be undertaken, and findings used to inform the Project Completion Report.

Footnotes

[2]World Bank, Kenya-At-A-Glance

[3] Economist Intelligence Report, 3rd February 2024

[4]Economy of Kenya - Wikipedia

[5]https://kippra.or.ke/

[6] Economist Intelligence Report, 3rd February 2024

[7] Economy of Kenya - Wikipedia

[8]World Bank, Kenya-At-A-Glance

[9]Economist Intelligence Report, 3rd February 2024

[10]Kenya Population 2024 (Live) (worldpopulationreview.com)

[11]Kenya National Bureau of Statistics-KNBS

[12] World Bank Data

[13]Kenya - Rural Population - 2024 Data 2025 Forecast 1960-2022 Historical (tradingeconomics.com)

[14]Agriculture, Food and Water Security | Kenya | U.S. Agency for International Development (usaid.gov)

[15]https://hdr.undp.org/content/2023-global-multidimensional-poverty-index-mpi

[16]The World Bank: Kenya Poverty and Equity Assessment 2023

[17]https://ncpd.go.ke/wp-content/uploads/2021/02/Position-Paper-issue-2.pdf

[18]https://ndma.go.ke/ and https://www.ipcinfo.org/ipcinfo-website/where-what/eastern-africa/kenya/en/

[19]https://www.wfp.org/countries/kenya

[20]https://kippra.or.ke/

[21]Kenya | Africa Sustainable Livestock 2050 | Food and Agriculture Organization of the United Nations (fao.org)

[22]National Climate Change Action Plan (NCCAP) 2018 - 2022. | UNEP Law and Environment Assistance Platform

[23]Unfccc.int

[24]https://leap.unep.org/en/countries/ke/national-legislation/national-water-resource-strategy-2020-2025

[25]https://www.iwgia.org/en/kenya

[26] Ibid.

[27]Data from KDHS 2022, available at https://www.knbs.or.ke/kenya-demographic-and-health-survey-kdhs-2022/

 $\cite{Constraint} \cite{Constraint} \cite{Cons$

[29]Kenya Food Systems Draft Action Plan

[30]African Economic Outlook 2023, African Development Bank

[31]UTaNRMP PCR, March 2023

[32]Ibid

[33] The KCEP-CRAL e-voucher platform is led by the private sector creating an opportunity to deliver last mile services, inputs, technologies by crowding in the private sector and ensured that segmented e-wallets (conservation agriculture service, crop insurance, certified seeds, agrochemicals including (bio)fertilizers, post-harvest equipment) provided targeted farmers to securely access these assorted supports while also creating opportunity for their financial inclusivity. The platform used both debit-card-point of sale and USSD for all the transactions across 13 KCEP-CRAL Counties. As of Dec 2023, the KCEP-CRAL cumulative e-voucher beneficiaries are nearly 150,000 (50% women and youth represent 21%) accessing various transactions worth over US\$30 million channeled through a network of agro-dealers, conservation agriculture service providers and insurance company (source ORMS). video: EU Ambassadors Field Visit to Homabay County BOOST Documentation (youtube.com)

[34]UTaNRMP PCR, March 2023, Section D.2. Rural Poverty Impact

[35] ORMS, Lessons Learned under KCEP-CRAL

[36] RIA, 2022

[37]In addition, INReMP will collaborate with partners to enhance communication regarding prevention of vector-borne diseases related to water, sanitation, and hygiene. It will empower school kids on biodiversity conservation, sustainable management, and utilization of nature-based products, including sensitization on good nutrition and healthy diets

[38]https://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/2023/TheClimateChange Amendment Act No.9of2023.pdf

[39]KCEP-CRAL e-voucher system has evolved from debit card-based solution (e-voucher 1.0) to cardless/mobilized solution (e-voucher 2.0) and even shown great promises with IFAD Blockchain pilot (e-voucher 3.0) that still ensure farmers to access subsidized market-based bundled of inputs, technologies, and services in multiple e-wallets (certified seeds, agrochemicals including bio-inputs, crop insurance, mechanised conservation services and technologies

[40] Link to WB-AfDB-AGRA E-voucher study in Sub Saharan Africa including Kenya KCEP CRAL E-voucher https://ifadbox.ifad.org/owncloud/s/NQFomYAXTA3SDlt

[41]It will include support to national research institutions for the identification and selection of varieties and to private seed producers to deliver quality planting materials and support to private feed and fodder producers

[42]Youth involvement in this activity will be prioritised. Performance monitoring and continuous capacity building will be established to ensure quality of services and improve the success rate of AI

[43] Prior to livestock placement, technical assistance focusing on dairy husbandry will be provided to farmers to help increase their production and productivity, including breeding, feeding, animal welfare, animal health and reproduction

[44]To enhance fodder production and conservation, capacity building on fodder cultivation and conservation that will be provided targeting both individual farmers and farmer organizations

[45]Green Roads for Water – Integrating Road and water development. Accessed at: <u>Green Roads for Water – Integrating Road and water development</u>

[46]Details of the Acts and regulations of the different State Departments is provided in the Programme Design Report

[47] KCEP-CRAL is successfully using the tool to plan and target critical interventions to support most climate vulnerable locations or socio-economic groups

[48]Such digital technologies include e-market and integrated data -driven platforms (GIS, remote sensing, and precision technologies)

[49]An example of the private sector participation in ecosystem restoration in Kenya is the Safaricom M-Pesa water Initiative that ensures consistent water supply to Safaricom infrastructures in the Tana River area, while at the same time promoting sustainable farming practices

[50]Outcome 2.1: By 2026, all people in Kenya at risk of being left behind – particularly all women and girls, all youth, and children, all in the Arid and Semi-Arid Land (ASAL) Counties and all in the informal urban settlements – have improved, inclusive and equitable social and protection services

[51] WPF and UN Women Co-chairs SP 2: Inclusive Growth, Green Transition, Natural Resource Management, Biodiversity and Nature-based solutions, agriculture, nutrition, Food and Livelihoods Security, etc

[52]Kenya Gross Savings Rate | Economic Indicators | CEIC (ceicdata.com

[53]Kenya Gross Savings Rate | Economic Indicators | CEIC (ceicdata.com

[54]The ND-GAIN Country Index, is a project of the **University of Notre Dame Global Adaptation Initiative** (ND-GAIN), summarizes a country's vulnerability to climate change and other global challenges on the one hand and its readiness to improve resilience on the other hand

[55]The key role and responsibilities of this start-up team will include but not limited to: a) expediting all required processes to ensure entry into force, fulfilling disbursement conditions which entails drafting workplan and budget and procurement plans, opening of designated and operational accounts, ensuring the Programme budget is captured in the national and line Ministry's approved budget for relevant fiscal year, procuring and operationalising accounting system; finalizing ToRs for competitive recruitment of PMCU staff and ensuring their smooth onboarding; b) finalizing draft programme implementation manual, setting up M&E framework including drafting ToRs for procurement of consultants to conduct baseline survey and relevant thematic studies; c) drafting and finalising frameworks for onboarding of key implementing partners including supporting key county implementation structures set-up plans; and d) oversee the preparation and planning for the Programme launching and start-up workshop based on an elaborate plan within the first of Programme implementation

[56]BUILDPROC is a capacity-building programme in procurement for agricultural and rural development. It is a result of collaboration between IFAD and the International Training Centre of the International Labour Organization (ITCILO)

[57]These include bid notification, registers pertaining to issuing and receipt of bids, bid opening minutes, bid evaluation reports and all correspondence pertaining to bid evaluation, communication sent to/with IFAD in the process, bid securities, and approval of invitation/evaluation of bids.



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 1: Logframe

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Integrated Natural Resources Management Programme

Logical Framework

Results Hierarchy	Indica	ators			Ме	ans of Verific	cation	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
Outreach Number of persons receiving services promoted or supported by the project (CI-1)	1 Persons receiving services propect	omoted or s	upported	by the	Progress reports/MIS	Annually	PMU	1) 40% of persons receiving project
	Males	0	74538	244306				support are women 2) 60% of persons receiving project support are men 3) 30 % of persons receiving project support are the youth (50% of them are women). A youth is defined as a person aged between 18 and 35 (inclusive). Proportion of midterm targets for INReMP PWDs, IPs and other vulnerable groups are assumed to be
	Females	0	49692	162870				
	Young	0	37269	122153			INReMP - PCMU	
	Not Young							
	Non-Indigenous people							
	Total number of persons receiving services	0	124230	407176	1			
	Persons with disabilities	0	6211	20359				
	1.b Estimated corresponding tot members	tal number o	of househo	olds	Progress reports/MIS	Annually		
	Household members	0	621147	2035880				
	1.a Corresponding number of ho	ouseholds r	eached		Progress	Annually	INReMP -	
	Women-headed households	0	37269	122153	reports/MIS		PCMU	5% of the target group HHs that
	Non-women-headed households	0	86961	285023				receive project support are 30% female headed 5
	Households	0	124229	407176				members on average in one HH
		J						

Results Hierarchy	Indicators			Me	ans of Verific	ation	Assumptions	
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
Project Goal Project Goal: contribute to improved rural households' food, nutrition, and income	security				Outcome and Impact	Baseline, Midline	INReMP - PCMU	Persistent Cross boundary
security in a sustainable and resilient ecosystem	Households	0	69879	229037	surveys	and Completion		community and natural resources related conflicts in some
	Households	0	23	75				
	Household members 0 349395 1145183							counties(R)Unstable
	Households with acceptable Fo	ood Composi	tion Score	Э	Food	Baseline,	INReMP -	Macro-economic environment (R)
	Households	0	23	75	consumption score	Midline and	PCMU	
	Households	0	93172	305382	surveys	Completion		
	Households Members	0	465860	1526910				
Development Objective Development Objective: Enhance integrated natural resources management,	IE.2.1 Individuals demonstration empowerment	COI Surveys	Baseline, Midline	INReMP - PCMU	Households are willing to change			
increase resilience to climate change and improve beneficiaries' livelihoods, putting particular emphasis on women, youth and other vulnerable groups'	Total persons	0	31	100	00 and Endline			their nutrition behaviours(A); Inclusive activities to ensure full participation of
	Total persons	0	124230	407176				
	Females	0	12	40				
	Females	0	49692	162870	0		persons with disabilities,	
	Males	0	18	60				youth and women(A);
	Males	0	74538	244306				Community leaders and institutions
	Number of Households with inc	creased comb	bined resi	lience	Resilience	Baseline,	INReMP -	embrace gender
	Total Persons	0	23	75	Scorecard Tool (RDMT)	Midline and	PCMU and IFAD-ECG	transformative approaches(A)
	Female	0	47518	155745	surveys	endline survey		
	Male	0	46586	152691				
	Female	0	16	51				
	Male	0	15	49				
	Total Persons	0	93172	305382				
	Total Household	0	93172	305382				

Results Hierarchy	Indica	ators			Ме	ans of Verific	ation	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Value of household incomes from project supported VCs				EFA	Baseline,	INReMP -	
	Average net margins for Dairy VC (USD)	0	3166	9594		Midline and Endline	PCMU	
	Average net margins for tree crops VC(USD)	0	409	1238				
	Average net margins for horticulture crops VC(USD)	0	357	1082				
	Average net margins for Poultry VC (USD)	0	350	1060	_			
	Average net margins for nature based enteprises (USD)	0	6409	19422				
	Average household income (USD/hh)	0	2138	6479				
Outcome Outcome 1: Community-led Enhanced Environment and INRM, Ecosystem	3.2.1 Tons of Greenhouse gas emissions (tCO2e) avoided and/or sequestered			FAO EXACT Tool	Baseline and	IFAD ECG and FAO	Communities willing to adopt	
Services, and Climate Action	Hectares of land	0	0	169600		Completion	n	technologies and practices promoted (A)
	tCO2e/20 years	0	0	0				
	tCO2e/ha	0	0	0				
	tCO2e/ha/year	0	0	0				
	3.2.2 Households reporting adopsustainable and climate-resilient				COI Surveys	Baseline, Midline	INReMP - PCMU	
	Total number of household members	0	465860	1526910		and Completion		
	Households	0	23	75				
	Households	0	93172	305382				
	1.2.9 Households with improved and Practices (KAP)	I nutrition Kı	nowledge	Attitudes				
	Non-indigenous households							
	Women-headed households		27952	91615				

Results Hierarchy	Indica	ators			Ме	ans of Verific	ation	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Non-women-headed households							
	Households (number)		69879	229039				
	Households (%)		23	75				
	Household members		349395	1145183				
Output Output 1.1: Inclusive community capacity for INRM and climate action developed	3.1.1 Groups supported to susta resources and climate-related ri		age natur	al	Progress Reports/MIS	Annual	INReMP - PCMU	Assuming group sizes of 30
	Total size of groups	0	124230	407176				members per group. Target communities
	Groups supported	0	4141	13573				embrace the relevant trainings (A) Assuming group sizes of 30 members per group. Target communities embrace the
	Males	0	74538	244306				
	Females	0	49692	162870				
	Young	0	37269	122153				
	Persons with disabilities	0	6211	20359				relevant trainings
	Number of Community Action P	ans			Progress	Annually	INReMP -	(A)
	#CAPs	0	4141	13573	Reports/MIS		PCMU	
Output Output 1.2: Environmental Sustainability, INRM, and Ecosystem Services improved	3.1.3 Persons accessing technolor reduce greenhouse gas emis	-	sequester	ter carbon Progress Annually INReMF PCMU				Assuming 40% of the outreach will be
	Males	0	29815	97722				supported with such interventions
	Females	0	19877	65148				(minimum requirement for a
	Young	0	14908	48861				climate finance
	Total persons accessing technologies	0	49692	162870				project) Assuming 60% of beneficiaries will be able to
	Persons with disabilities	0	2485	8144				access and use digital advisory
				Progress	Annually	INReMP-	digital advisory services	
	"Total persons accessing technologies "	0	74538	244306	Reports/MIS		PCMU	
	Male	0	44723	146583				

Results Hierarchy	Indicators			Me	ans of Verific	ation	Assumptions	
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Female	0	29815	97722				
	Young	0	22361	73292				
	PWDs	0	3727	12215				
	3.1.4 Land brought under climat	e-resilient p	ractices		Progress	Annually	INReMP- PCMU	
	Hectares of land	0	51745	169600	Reports/MIS		PCMU	

Results Hierarchy	Indica	ators			Ме	ans of Verifi	ation	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
Outcome	1.2.8 Women reporting minimur	n dietary div	ersity (MI	DDW)	COI Surveys	Baseline,	INReMP -PMU	Assuming in
Outcome 2: Improved inclusive and sustainable rural livelihoods	Women (%)	0	12	40		Midline and		improvements in dietary behaviour (A) Alternative livelihood interventions
	Women (number)	0	27952	91615		Endline		
	Households (%)	0	23	75				
	Households (number)	0	69879	229037				acceptable to communities in
	Household members	0	349395	1145183				target areas (A)Women, Youth,
	Non-indigenous							IPs, PLWHAs and PWDs have access
	Women-headed households	0	27952	91615				to incentives for
	Non-women-headed households					s Annually Pi		economic and livelihood diversification(A) Private sector is willing to partner with communities and smallholder farmers on ecosystem restoration. Youth willing to participate
	1.2.4 Households reporting an in	ncrease in p	roduction		COI Surveys		PMU	
	Total number of household members	0	465860	1526910				
	Households	0	23	75				
	Households	0	93172	305382				
	2.2.1 Persons with new jobs/em	ployment op	portunitie	es	COI Surveys		INReMP -	in programme
	Males	0	7454	24431		Midline and	PCMU	interventions (A), Productivity of
	Females	0	4969	16287		Endline		promoted Value Chains
	Young	0	3727	12215				increases(A), Low
	Total number of persons with new jobs/employment opportunities	0	12423	40718				Mortality rate of diary animals (A) and income from milk sales and other
	2.2.2 Supported rural enterprise profit	es reporting	an increas	se in	COI Surveys	Baseline, Midline	INReMP - PCMU	VCs increases
	Number of enterprises	0	311	1018		and Endline		
	Percentage of enterprises	0	23	75				

Results Hierarchy	Indic	ators			Ме	ans of Verifi	ation	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
Output Output 2.1: Production and productivity of selected value chains and nature-based	1.1.8 Households provided with their nutrition	Progress reports/MIS	Annually	INReMP - PCMU	SBCC messaging provided to and			
enterprises improved	Total persons participating	0	93172	305382				accessed by all potential
	Males	0	55903	183229				beneficiaries Rural producers willing to
	Females	0	37269	122153				access promoted
	Households	0	93172	305382				technological packages Mainly
	Household members benefitted	0	465860	1526910	910		irrigated infrastructure for vegetable	
	Non-Indigenous people							production and multiple water point use. Assuming
	Young	0	27952	91615				
	Not Young							0.3ha per farmer for vegetable
	Non-women-headed households				9		production, and an estimated 9000ha to be irrigated under multipurpose water points	
	Number of persons with disabilities	0	4659	15269				
	1.1.3 Rural producers accessing production inputs and/or technological packages			Progress reports/MIS	Annually	INReMP - PCMU		
	Males	0	74538	244306				
	Females	0	49692	162870				
	Young	0	37269	122153				
	Total rural producers	0	124230	407176				
	Persons with disabilities	0	6211	20359				
	1.1.2 Farmland under water-relaconstructed/rehabilitated	ated infrastr	ucture		Progress Reports/MIS	Annually	INReMP - PCMU	1
	Hectares of land	0	4271	14000				

Results Hierarchy	Indic	ators			Me	ans of Verifi	ation	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
Output Output 2.2:Value Addition and Market Linkages of Selected Value Chains and	2.1.6 Market, processing or storehabilitated	Progress reports/MIS	Annual	INReMP - PCMU	Assuming 2 per county Assuming			
Nature-based Enterprises improved	Total number of facilities	0	18	60]			10% of the supported beneficiaries are organised in such enterprises
	Market facilities constructed/rehabilitated	0	6	20				
	Processing facilities constructed/rehabilitated	0	6	20				o.no.p.noso
	Storage facilities constructed/rehabilitated	0	6	20				
	2.1.1 Rural enterprises accessis services	ng business	developn	nent	Progress Reports/MIS	Annually	INReMP - PCMU	
	Rural enterprises	0	414	1357				
	2.1.5 Roads constructed, rehab	ilitated or up					INReMP -	
	Length of roads	0	61	200		PCMU		
Outcome Outcome 3:Strengthened policies and institutions for INRM and rural coordination	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment			National Government and County	Completion	INReMP - PCMU	New agriculture, rural development and climate action	
	Number	0	2	6	Records			policies are approved (A) New
	SF.2.1 Households satisfied with project-supported services				COI Surveys	Baseline,	INReMP -	agriculture, rural development and
	Household members	0	465860	1526910		midline and	PCMU	climate action policies are
	Non-indigenous households					endline		approved (A)
	Non-women-headed households							Efficient and effective devolved government
	Households (%)	0	23	75				structures (A)
	Households (number)	0	93172	305382				
	SF.2.2 Households reporting th making of local authorities and providers				COI Surveys	Baseline, midline and	INReMP - PCMU	
	Household members	0	465860	1526910		endline		

Results Hierarchy	Indica	Indicators			Means of Verification			Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Non-indigenous households							
	Non-women-headed households							
	Households (%)	0	23	75				
	Households (number)	0	93172	305382				
Output	Policy 1 Policy-relevant knowled	ge products	s complet	ed	Progress	Annual	INReMP -	Assuming research
Output 3.1:Institutional and policy capacity for rural development and coordination strengthened	Number	0	2	8	Reports/MIS		PCMU	outputs delivered in partnership with universities and research institutions
Output	Supported Government Institutions			Progress	Annual	INReMP -		
Output 3.2: Efficient and Effective Project Management and coordination	Number of Institutions	0	3	10	Reports/MIS		PCMU	



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 2: Theory of change

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Outputs

Activities

Challenges



Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

Mission Dates: 22/01/2024 21/02/2024

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Annex 4: Project Costs and Financing

This annex presents the anticipated costs and financing for Integrated Natural Resources Management Project (INReMP). The summary of project costs and financing is presented in the first section of this annex. The detailed tables showing the breakdown of costs by component/sub-component and activity is presented in section II of this annex.

The project has been designed with 3 components; 2 investment/technical components and 1 component focusing on project management. The design has considered seven (7) standard expenditure categories for both investment and recurrent expenditures (5 & 2 categories respectively). The costing has been done in United States Dollars (US\$) as an input currency.

Ia. Project costs: The total cost for INReMP, including base costs, price and physical contingencies is estimated at US\$ 262.6 million. The project will be implemented over a period of 8 years (2025-2032). The overall investment costs have been estimated at US\$230.9 million (88% of base costs), and recurrent costs at US\$31.7 million (12 per cent of base costs). Price and Physical contingencies have been estimated at US\$28.9 million over the implementation period. The summary is presented in the table below.

Table 1: Project costs by component/sub-component: Base costs and contingencies

Kenya Integrated Natural Resources Management Project (INReMP)							%	% Total
Components Project Cost Summary		(KES '000)			(US\$ '000)		Foreign	Base
	Local	Foreign	Total	Local	Foreign	Total	Exchange	Costs
A. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate								
Community Empowerment, Youth and Gender Transformative Approaches	1,013,850	112,650	1,126,500	6,759	751	7,510	10	3
Improve Environmental Sustainability, INRM, and Ecosystem Services	7,713,900	857,100	8,571,000	51,426	5,714	57,140	10	24
Subtotal	8,727,750	969,750	9,697,500	58,185	6,465	64,650	10	28
B. Improved, Inclusive and Sustainable Rural Livelihoods								
Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature	11,504,841	1,149,782	12,654,623	76,699	7,665	84,364	9	36
Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Er	5,992,665	624,225	6,616,890	39,951	4,162	44,113	9	19
Subtotal	17,497,506	1,774,007	19,271,513	116,650	11,827	128,477	9	55
C. Institutional Strengthening, Policy Support and Programme Coordination								
Institutional Strengthening and Policy Support	648,675	72,075	720,750	4,325	481	4,805	10	2
Programme Coordination and Implementation Support Services	4,839,595	534,000	5,373,595	32,264	3,560	35,824	10	15
Subtotal	5,488,270	606,075	6,094,345	36,588	4,041	40,629	10	17
Total BASELINE COSTS	31,713,526	3,349,832	35,063,358	211,424	22,332	233,756	10	100
Physical Contingencies	2,002,066	211,220	2,213,285	13,347	1,408	14,755	10	6
Price Contingencies	1,996,138	128,988	2,125,127	13,308	860	14,168	6	6
Total PROJECT COSTS	35,711,730	3,690,041	39,401,771	238,078	24,600	262,678	9	112

Table 2: Project costs by expenditure categories: Base costs and contingencies

Kenya								
Integrated Natural Resources Management Project (INReMP)		(1/50 1000)			(1100 1000)		_ %	% Total
Expenditure Accounts Project Cost Summary		(KES '000)			(US\$ '000)		Foreign	Base
	Local	Foreign	Total	Local	Foreign	Total	Exchange	Costs
I. Investment Costs								
Goods, Services and Inputs	6,345,516	704,657	7,050,173	42,303	4,698	47,001	10	20
Equipment and Materials	431,563	44,592	476,155	2,877	297	3,174	9	1
Consultancies	1,944,675	216,075	2,160,750	12,965	1,441	14,405	10	6
Training	963,900	107,100	1,071,000	6,426	714	7,140	10	3
Civil Works	18,236,100	1,856,100	20,092,200	121,574	12,374	133,948	9	57
Total Investment Costs	27,921,754	2,928,524	30,850,278	186,145	19,523	205,669	9	88
II. Recurrent Costs								
Operations and Maintenance	1,048,140	116,460	1,164,600	6,988	776	7,764	10	3
Salaries and Allowance	2,743,632	304,848	3,048,480	18,291	2,032	20,323	10	9
Total Recurrent Costs	3,791,772	421,308	4,213,080	25,278	2,809	28,087	10	12
Total BASELINE COSTS	31,713,526	3,349,832	35,063,358	211,424	22,332	233,756	10	100
Physical Contingencies	2,002,066	211,220	2,213,285	13,347	1,408	14,755	10	6
Price Contingencies	1,996,138	128,988	2,125,127	13,308	860	14,168	6	6
Total PROJECT COSTS	35,711,730	3,690,041	39,401,771	238,078	24,600	262,678	9	112

The project costs by component/sub-component and year are provided in the table below.

Table 3: Project costs by component/sub-component & year: Base costs and contingencies

Kenya Integrated Natural Resources Management Project (INReMP) Project Components by Year -- Totals Including Contingencies **Totals Including Contingencies** (US\$ '000) 2031 2025 2026 2027 2028 2029 2032 Total A. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climat Community Empowerment, Youth and Gender Transformative Approaches 87 1.173 792 8.439 1.790 1.835 1.049 1.005 709 Improve Environmental Sustainability, INRM, and Ecosystem Services 1,958 12,612 10,871 13,004 12,210 8,741 315 64,213 4,503 5.675 72.652 Subtotal 2.046 14,401 12.706 14.053 13.214 9.533 1.024 B. Improved, Inclusive and Sustainable Rural Livelihoods Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Natur 6.832 18.450 27.979 1.016 618 95.143 3.100 5.317 31.831 406 Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based E 3,254 8,052 14.075 17.158 4.510 1.313 971 49,738 Subtotal 3.506 10.086 13.369 32 526 45 137 36.340 2.329 1.589 144.881 C. Institutional Strengthening, Policy Support and Programme Coordination Institutional Strengthening and Policy Support 288 2.116 2.429 395 5.229 Programme Coordination and Implementation Support Services 6.454 4 713 4 479 4.636 5.118 4.674 4.790 5.053 39.916 6,742 Subtotal 4,790 45,145 6,830 6,908 5,030 5,118 4,674 5,053 **Total PROJECT COSTS** 12.293 34,679 64.308

Ib. Financing Plan: INReMP will be financed as follows: IFAD 12 loan of US\$126.8 million. The Project has been designed with a financing gap of US\$47 million to be covered from the IFAD-13 cycle. That brings the total IFAD contribution to US\$173.8 million; equivalent to 66% of the total cost. Co-financing from GCF and GEF is estimated at US\$40 million and US\$7 million respectively; (15% and 3% of the total cost).

Domestic co-financing from GoK is estimated at US\$23.5 million in form of in-kind contribution, including duties and taxes; equivalent to 9% of the total cost. Contributionfrom the project beneficiaries is estimated at US\$8 million (3%). Co-financing from the private sector is estimated at US\$10 million (4 % of the total costs).

Component/Subcomponent Allocation: Out of the overall Programme costs, Component 2: Improved, Inclusive and Sustainable Rural Livelihoods, accounts for the highest percentage of 55%, equivalent to US\$144.8 million. This is followed by Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action, with an allocation of 28%, equivalent to US\$ 72.6 million. The remaining 17%, US\$45 million, has been allocated to Component 3: Institutional Strengthening, Policy Support and Programme Coordination. The summary of the financing plan is presented in the table below.

Table 4: Total project costs by components & sub-components, and financier.

Kenya Integrated Natural Resources Management Project (INReMP) Components by Financiers (US\$ '000)	GC	ок	IFAC	D-12	IFAD Financi		Green (Glol Enviror Faci	nment	Benefi	ciarie	s Private	Sector	· то	tal	For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Community-led Enhanced Environment and INRM, Ecosystem Services, ar																			
Community Empowerment, Youth and Gender Transformative Approaches	-	-	5,933	70	2,506	30	-	-	-	-	-	-	-	-	8,439	3	827	7,612	-
Improve Environmental Sustainability, INRM, and Ecosystem Services	-	-	25,399	40	604	1	38,210	60	-		-	-	-	-	64,213	24	6,291	57,922	-
Subtotal		-	31,332	43	3,110	4	38,210	53	-	-	-	-	-	-	72,652	28	7,118	65,534	
B. Improved, Inclusive and Sustainable Rural Livelihoods																			
Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains	8,772	9	49,690	52	29,742	31	1,790	2	-	-	5,150	5	-	-	95,143	36	8,459	77,913	8,772
Improve Value Addition and Market Linkages of Selected Value Chains and Natur	2,820	6	23,125	47	4,111	8	-	-	6,660	13	2,850	6	10,172	21	49,738	19	4,603	42,315	2,820
Subtotal	11,591	8	72,815	50	33,853	23	1,790		6,660	5	8,000	6	10,172	7	144,881	55	13,062	120,228	11,591
C. Institutional Strengthening, Policy Support and Programme Coordination																			
Institutional Strengthening and Policy Support	414	8	4,420	85	395	8	-	-	-	-	-	-	-	-	5,229	2	518	4,711	-
Programme Coordination and Implementation Support Services	11,562	29	18,233	46	9,642	24	-	-	479	1	-	-	-	-	39,916	15	3,902	35,776	239
Subtotal	11,976	27	22,653	50	10,037	22	-		479	1	-	-	-	-	45,145	17	4,420	40,487	239
Total PROJECT COSTS	23,567	9	126,800	48	47,000	18	40,000	15	7,139	3	8,000	3	10,172	4	262,678	100	24,600	226,248	11,830

Expenditure categories:The project expenditure categories comprise the following: a) Goods, Services and Inputs; b) Equipment and Material; c) Consultancies; d) Training; e) Civil Works; f) Operating and Maintenance; and g) Salaries and Allowances; the associated costs are allocated across IFAD and GoK. The overall Programme recurrent costs are 12% for the total Programme. For IFAD financing, recurrent costs are 11% of the total IFAD funds; this is within acceptable limits. Trainings and workshops are considered high risk expenditure categories which will be monitored closely to ensure it is adequately supported and incurred as per procedures. Detail guidance on cost categories are provided in the PIM. The summary of costs by expenditure categories and disbursement by semester is presented in the tables below.

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

Kenya Integrated Natural Resources Management Project (INReMP) Expenditure Accounts by Financiers					IFAC	13 -	Green (Climate	Glo Enviro		ı							Local	
(US\$ '000)	G	ΣK	IFAD	D-12	Financi	ing Ga	p Fu	nd	Faci	lity	Benefi	ciarie	s Private	Sect	or Tot	al	For.	(Excl.	Duties &
	Amount	_%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs																			
Goods, Services and Inputs	128	0.2	36,504	70	11,621	22	2,880	6	-	-	1,215	2	-	-	52,348	20	5,142	47,180	25
Equipment and Materials	216	6	3,130	92	50	2	-	-	-	-	-	-	-	-	3,395	1	317	2,863	216
Consultancies	311	2	13,155	83	2,332	15	-	-	-	-	-	-	-	-	15,799	6	1,561	14,238	-
Training	-	-	5,541	71	1,867	24	413	5	-	-	-	-	-	-	7,821	3	774	7,047	-
Civil Works	11,589	8	56,968	38	22,734	15	36,707	24	6,660	4	6,785	5	10,172	7	151,616	58	13,702	126,325	11,589
Total Investment Costs	12,243	5	115,299	50	38,604	17	40,000	17	6,660	3	8,000	4	10,172	4	230,979	88	21,496	197,653	11,830
II. Recurrent Costs																			
Operations and Maintenance	1,978	23	3,323	38	2,983	34	-	-	479	6	-	-	-	-	8,763	3	858	7,905	-
Salaries and Allowance	9,346	41	8,178	36	5,412	24			-	-					22,937	9	2,246	20,690	
Total Recurrent Costs	11,324	36	11,501	36	8,396	27	-	Ξ	479	2	-		-	-	31,700	12	3,104	28,595	
Total PROJECT COSTS	23,567	9	126,800	48	47,000	18	40,000	15	7,139	3	8,000	3	10,172	4	262,678	100	24,600	226,248	11,830

Table 6: Project disbursement by semester and financier

Kenya Integrated Natural Resources Management Project (INReMP)			F	inancing Availal	ole			Costs to		
Disbursements by Semesters and Government Cash Flow		IFAD 13 -	Green	Global				be		
(US\$ '000)		Financing	Climate	Environment		Private		Financed	G	OK
	IFAD-12	Gap	Fund	Facility	Beneficiaries	Sector		Project		Cumulative
	Amount	Amount	Amount	Amount	Amount	Amount	Total	Costs	Cash Flow	Cash Flow
1	5,383	-	-		-	-	5,383	6,147	-764	-764
2	5,383	-	-		-		5,383	6,147	-764	-1,527
3	10,356	-	-		118	-	10,474	11,296	-822	-2,349
4	10,356	-	-		118		10,474	11,296	-822	-3,172
5	10,531	109	3,499		119	2,048	16,307	17,339	-1,032	-4,203
6	10,531	109	3,499		119	2,048	16,307	17,339	-1,032	-5,235
7	15,011	691	3,555		794	3,038	23,089	25,131	-2,042	-7,278
8	15,011	691	3,555		794	3,038	23,089	25,131	-2,042	-9,320
9	18,344	2,085	4,610	2,543	1,651	-	29,233	32,154	-2,920	-12,240
10	18,344	2,085	4,610	2,543	1,651		29,233	32,154	-2,920	-15,161
11	1,982	15,730	4,540	866	1,270	-	24,387	27,114	-2,727	-17,888
12	1,982	15,730	4,540	866	1,270	-	24,387	27,114	-2,727	-20,615
13	1,238	2,676	3,577	80	27	-	7,597	8,326	-729	-21,344
14	1,238	2,676	3,577	80	27	-	7,597	8,326	-729	-22,072
15	555	2,209	218	82	22	-	3,086	3,833	-747	-22,820
16	555	2,209	218	82	22	-	3,086	3,833	-747	-23,567
Total	126 800	47 000	40 000	7 139	8 000	10 172	239 112	262 678	-23 567	-23 567

Table 7: Financing plan

Kenya

Integrated Natural Resources Management Project (INReMP)

Financing Plan

(US\$ '000)

	Foreign	Local	Total	Percent
GOK	175	23,392	23,567	9
IFAD-12	13,466	113,334	126,800	48
IFAD 13 - Financing Gap	4,569	42,431	47,000	18
Green Climate Fund	3,908	36,092	40,000	15
Global Environment Facility	697	6,443	7,139	3
Beneficiaries	782	7,218	8,000	3
Private Sector	1,002	9,169	10,172	4
Total	24,600	238,078	262,678	100

II: Detailed cost tables by component/sub-component showing a breakdown of activities phased by year, unit cost and expenditure categories.

- Detailed Table 1.1: Community Empowerment, Youth and Gender Transformative Approaches
- Detailed Table 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services
- Detailed Table 2.1: Improve Production and Productivity of Selected Nutrition— Sensitive Value Chains and Nature-based Enterprises
- Detailed Table 2.2:Improve Value Addition and Market Linkages of Selected Value Chains and Nature-Based Enterprises
- Detailed Table 3.1:Institutional Strengthening and Policy Support
- Detailed Table 3.2: Programme Coordination and Implementation Support Services

Detailed Table 1.1: Community Empowerment, Youth and Gender Transformative Approaches

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 1.1. Community Empowerment, Youth and Gender Transformative Approaches

Detailed Costs

(US\$) Quantities **Totals Including Contingencies ('000)** Other A Unit 2025 2026 2027 2028 2029 2030 2031 2032 Total Unit Cost 2025 2026 2027 2028 2029 2030 2031 2032 Total Disb. Acct. I. Investment Costs A. Community empowerment: Sensitization and awareness raising TRAINING Training and sensitization of National and County staff on project, PRA, GTA etc. 2.500 Per County Training materials and printing Per County 2,500 GOODS_AND_SERVICES County level workshops Per County 1 000 TRAINING TRAINING Sub-county and ward workshops Per County 1 000 TRAINING Public/community meetings for wards Per County 1.000 Per County 1,000 GOODS AND SERVICES Mass media campaigns GOODS AND SERVICES Nutrition sensitization and awareness raising sessions within Community empowerment se Per County 1.000 Production of project nutrition training manuals 2,500 GOODS AND SERVICES Per County Awareness creation and sensitization of development committees Per County 16,000 GOODS AND SERVICES Engaging and faciliating county level nutritionists incl Agri nut extention team to assist with Per County 1 000 TRAINING Community trainings on Gender, HIV and AIDs, GBV and youth empowerment TRAINING Youth clubs on Gender, HIV and AIDs, GBV (includes outreach on FGM, for teenage mot) Per County TRAINING B. Establishment and strengthening community structures (CFAs, BMUs,FOs, CIGs CONSULTANCIES Undertake mapping, registration (+GIS coordinates) of community groups (FDAs, CFAs, Per County 10.000 Capacity building for (CFAs, BMUs,FOs, youth groups, CIGs etc) Per County 1.000 TRAINING Technical support and trainings on leadership, governance, group formation etc 1,000 TRAINING Per County TRAINING Exchange visits Per County Subtotal C. Community Action Plans PRA trainings Per County - - 44 44 TRAINING Annual review and appraisal CONSULTANCIES Subtotal D. Youth Sensitive Key Activities Undertake a Rural Youth Labour Assessment in the 10 Counties and selected VCs CONSULTANCIES Study Trainings on mindset shift, targeted farming as a business trainings Per County 1.000 TRAINING Mentorships and exchange visits for Youth led farms and enterprises Per County 1,000 TRAINING Set-up and operation of 3 agri-business hubs Hub 000,000 2,626 GOODS AND SERVICES GOODS_AND_SERVICES Per County 12.500 76 292 Support hub nurturing, youth Internships and placements Policy engagement (Promotion of youth dialogues, land tenure etc) Per County 12,500 CONSULTANCIES Learning and exchange visits GOODS AND SERVICES Per County Subtotal E. Gender Transformative Approaches Gender and SI strategy development and GALS trainings for County staff, IPs 221 GOODS AND SERVICES Per County 5.000 GALS TOT workshops Basic tools /a Per County 10.000 GOODS_AND_SERVICES GALS TOT Advanced tools /b Per County 449 GOODS_AND_SERVICES 10 000 111 113 115 118 121 688 GOODS AND SERVICES GALS workshops and community outreach Per County GALS Supervision monitoring and facilitation Per County 10,000 688 GOODS_AND_SERVICES Subtotal 500 509 236 242 2,495 87 1 173 1 790 1 835 1 049 1 005 792 709 8 439 Total

Detailed Table 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services Kenya Integrated Natural Resources Management Project (INReMP) Table 1.2. Improve Environmental Sustainability, INRM, and Ecosystem Services Detailed Costs

(US\$)		Quantities Totals Including Contingend												gencies	('000')			Other A			
	Unit	2025	2026	2027	2028	2029	2030	2031	2032	Total	Unit Cost	2025	2026	2027	2028	2029	2030	2031	2032	Total	Disb. Acct.
I. Investment Costs																					
A. Baseline studies and Mapping of Key NRs																					
Undertake a baseline studies on the status of deforestation, wetlands, riparian ecosystem,	Study	-	4	2	-	-	-	-	-	6	80,000	-	345	175	-	-	-	-	-	520	CONSULTANCIES
Mapping and Monitoring of key natural resources	Units	1	2	1	1	1	1	1	-	8	50,000	53	108	55	56	57	58	59	-	445	CONSULTANCIES
Subtotal												53	453	230	56	57	58	59		965	
B. Improving key INRM Support Infrastructure																					
Upgrading weather stations, river gauges, other equipment	Stations	-	10	15	-	-	-	-	-	25	50,000	-	541	822	-	-	-	-	-	1,363	GOODS_AND_SERVICES
Upgrading and equipping water and soil labs	No. of Labs	-	1	1	-	-	-	-	-	2	250,000	-	270	273	-	-	-	-	-	543	GOODS_AND_SERVICES
In-situ water and soil test kits for farmers	No. of Kits	-	200	200	300	400	500	400	-	2,000	150	-	32	33	50	68	87	71	-	341	GOODS_AND_SERVICES
Subtotal												-	843	1,128	50	68	87	71	-	2,247	
C. Targeted NRM interventions																					
Forests restoration-Promoting agroforestry, afforestation, and reforestation	Hectare	2,500	4,000	4,500	800	5,000	5,000	4,000	200	26,000	350	934	1,510	1,722	311	1,980	2,021	1,654	85	10,216	CIVIL_WORKS
Implement Clean energy solutions	Units	-	1,000	2,000	4,000	-	-	-	-	7,000	100	-	107	218	443	-	-	-	-	768	GOODS_AND_SERVICES
Implement Clean energy solutions	Units	-	-	-	-	4,000	4,000	4,000	1,000	13,000	100	-	-	-	-	451	460	471	121	1,503	GOODS_AND_SERVICES
Sustianable land management practices (training and support to farmers; riverbed protectic	Per County	-	-	2	3	3	2	-	-	10	500,000	-	-	1,092	1,665	1,695	1,154	-	-	5,606	GOODS_AND_SERVICES
Rehabilitation of Rangelands	Hectare	-	1,000	-	-	-	-	-	-	1,000	400	-	431	-	-	-	-	-	-	431	CIVIL_WORKS
Rehabilitation of Rangelands	Hectare	-	-	3,500	3,500	2,500	2,400	1,000	-	12,900	400	-	-	1,531	1,555	1,131	1,109	473	-	5,798	CIVIL_WORKS
Protection of springs, enhancing water storage and desilting of small dams	Units	-	-	50	65	-	-	-	-	115	20,000	-	-	1,074	1,419	-	-	-	-	2,493	CIVIL_WORKS
Protection of springs, enhancing water storage and desilting of small dams	Units	-	-	-	-	100	100	50	-	250	20,000	-	-	-	-	2,262	2,310	1,182	-	5,754	CIVIL_WORKS
Wetland Restoration	Hectare	-	400	-	-	-	-	-	-	400	500	-	216	-	-	-	-	-	-	216	CIVIL_WORKS
Wetland Restoration	Hectare	-	-	3,500	3,500	3,000	2,500	2,000	-	14,500	500	-	-	1,904	1,935	1,689	1,437	1,176	-	8,141	CIVIL_WORKS
Capacity building of National Administration Officers on CC to support National Greening P	Per Year	500	500	-	-	-	-	-	-	1,000	1,200	640		<u> </u>			-			1,201	TRAINING
Subtotal												1,574	2,912	7,541	7,327	9,208	8,490	4,956	206	42,214	
D. Integrated School Greening Program																					
Water supply, water harvesting, tree nurseries, biogas production, school gardens, tree cro	Schools	-	-	30	30	30	30	30	-	150	100,000	-	-	3,280	3,332	3,394	3,464	3,545	-	17,015	CIVIL_WORKS
E. Payment for Ecosystem Services, Carbon and Carbon Credit Schemes																					
Establish a robust and digital platform for implementing and overseeing PES	System	-	-	1	-	-	-	-	-		300,000		-	328	-	-	-	-	-	328	GOODS_AND_SERVICES
Capacity building for Counties staff on Carbon market and PES	Training	10	-	-	-	-	-	-	-	10	20,000	213			<u> </u>				<u>:</u>	213	TRAINING
Subtotal												213	-	328	-	-	-	-	-	541	
F. SECAP and Compliance		_		_	_	_	_	_	_												
Implementation of ESCMP and Stakeholder engagements	Study	3	12	9	9	9	9	9	9	69	10,000	32	129	98	100	102	104	106	109	781	CONSULTANCIES
G. Consultancy to Conduct needs assessment for integration of Digital technologies to sup		1	-	-	-	-	-	-	-	1	80,000	85	-	-	-	470	-	-	-	85	CONSULTANCIES
H. Training of PMU on PES and INRM digital System management to support monitoring	Training	-	10	-		10	- :		-	20	15,000	-	162	-	-	170	-		-	331	TRAINING
I. Maintainance and Support for Digital Solution for INRM	Unit	-		1	1	1	1	1	-	5	3,000	-	-	3	3	3	3	4	-	17 17	GOODS_AND_SERVICES CONSULTANCIES
J. ICT4D Counsultant to provide periodic implementation support to the Project	Consultant	-	1	1	1	1	1	-	-	5	3,000	4.050	4.503	40.040	10.871	40.004	12,210	8.741	- 045	64.213	CONSULTANCIES
Total												1,958	4,503	12,612	10,871	13,004	12,210	8,741	315	64,213	

Detailed Table 2.1: Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature**based Enterprises**

Kenya Integrated Natural Resources Management Project (INReMP) Table 2.1. Improve Production and Productivity of Selected Nutri

Detailed Costs

(US\$)					(Quantities								Totals	Includir	ng Contin	gencies	('000')			Other A
	Unit	2025	2026	2027	2028	2029	2030	2031	2032	Total	Unit Cost	2025	2026	2027	2028	2029	2030	2031	2032	Total	Disb. Acct.
I. Investment Costs																				·	
A. Dairy Value Chain																					
Improving quality of dairy animals & AI services	Animals	_	1.000	1.000	1.000	_	_	_	_	3,000	800	_	863	875	889	_	_	_	_	2.626	GOODS AND SERVICES
Support for Feed Production	Per County	10	10	.,000	-,000	_	_	_	_	20	10,000	107	108	-	-	_	_	_	_	215	GOODS AND SERVICES
Support for Feed Production	Per County	- 10	- 10	10	10	10	10	10	10	60	10,000	107	100	109	111	113	115	118	121	688	GOODS AND SERVICES
Good Animal Practices and Health	Per County	10	10	- 10	- 10	- 10	-	10	- 10	20	5,000	53	54	105		115	110	110	121	107	TRAINING
Good Animal Practices and Health	Per County	10	10	10	10	10	10	10	10	60	5,000	-	34	55	56	57	58	59	61	344	TRAINING
Support to public and private service providers	Per County	10	10							20	10,000	107	108	-	-	٠.	-	-	٠.	215	GOODS AND SERVICES
Support to public and private service providers	Per County			10	10	10	10	10	10	60	10,000	-	-	109	111	113	115	118	121	688	GOODS AND SERVICES
Animal waste management	Per County	10	10							20	1,000	11	11							21	TRAINING
Animal waste management	Per County	- 10	- 10	10	10	10	10	10	10	60	1,000			11	11	11	12	12	12	69	TRAINING
Subtotal	r or county									00	1,000	277	1,143	1.159	1,177	294	300		315	4.974	
B. Poultry Value Chain													.,	.,	.,					.,	
Distribution of improved day old chicks	Number	_	800.000	800.000	800.000	800.000	800.000	_	_	4.000.000	1	_	545	552	561	572	584	_	_	2.814	GOODS AND SERVICES
Support for establihment of hatcheries	Hatcheries	10	20	20	20	-	-	_	_	70	5.000	53	108	109	111		-	_	_	382	GOODS AND SERVICES
Training of farmers on modern prodution techniques	Per County	10	10	10	10	10	10	10	10	80	10,000	107	108	109	111	113	115	118	121	903	GOODS AND SERVICES
Training of farmers on farm feed production	Per County	10	10	10	10	10	10	10	-	70	10,000	107	108	109	111	113	115			782	GOODS AND SERVICES
Capacity building for public and private service providers	Per County	10	10	10	10	10	10	10	10	80	10,000	107	108	109	111	113	115		121	903	GOODS AND SERVICES
Subtotal												373	977	990	1,006	911	930	355	242	5,783	
C. Apiculture Value Chain																					
Capacity building on bee hive management	Per County	10	10	10	10	10	10	10	10	80	5,000	53	54	55	56	57	58	59	61	451	GOODS AND SERVICES
Production Support Equipment (Lang-strothe hives, bee suits, h	No. of HHs	-	1,000	1,000	1,000	1,000	1,000	-	-	5,000	350	-	378	383	389	396	404	-	-	1,949	GOODS AND SERVICES
Subtotal												53	431	437	444	452	462	59	61	2,401	
D. Fruit Tree Value Chain																					
Support for nursery establishment	Nurseries	20	20	20	10	10	10	-	-	90	5,000	107	108	109	56	57	58	-	-	494	GOODS_AND_SERVICES
Suport for access to seedling, inputs	Per County	-	460,000	460,000	460,000	460,000	460,000	-	-	2,300,000	2	-	992	1,006	1,022	1,041	1,062	-	-	5,123	GOODS_AND_SERVICES
Training of farmers on good tree managemnt	Per County	10	10	10	10	10	10	10	-	70	10,000	107	108	109	111	113	115	118	-	782	GOODS_AND_SERVICES
Subtotal												213	1,208	1,224	1,188	1,210	1,236	118		6,399	
E. Horticulture																					
Training farmers in good agricultural practices	Per County	10	10	10	10	10	-	-	-	50	10,000	107	108	109	111	113	-	-	-	548	GOODS_AND_SERVICES
Suport for access to seedling, inputs	Per County	-	738,071	738,071	738,071	738,071	738,071	-	-	3,690,355	1	-	796	807	820	835	852		-	4,110	GOODS_AND_SERVICES
Setting up demostrations and field days	Per County	10	10	10	10	10	10	10	-	70	5,000	53	54	55	56	57	58			391	GOODS_AND_SERVICES
Subtotal												160	958	971	986	1,005	910	59	-	5,049	
F. Climate Resilient Infrastructure																					
1. Multi-Purpose Community-Based Water Supply Systems																					
Feasibility assessments and EIA	Per Month	-	10	-	-	-	-	-	-	10	20,000	-	216	-	-	-	-	-	-	216	CONSULTANCIES
Design	System	-	-	60	120	100	-	-	-	280	2,000	-	-	131	267	226	-	-	-	624	CONSULTANCIES
Construction	System	-	-	-	60	100	120	-	-	280	140,000	-	-	-	10,827	- , -	22,513	-	-	51,718	CIVIL_WORKS
Constructuotion supervision	System	-	-	-	60	100	120	-	-	280	1,000			-	67	113	139	<u>-</u>		318	CONSULTANCIES
Subtotal												-	216	131	11,160	18,717	22,652	-	-	52,876	
2. Small Scale Irrigation Systems																					0010111 7110150
Feasibility assessments and EIA	Per County	-	10	-	-	-	-	-	-	10	20,000	-	216	-	-	-	-	-	-	216	CONSULTANCIES
Design	System	-	-	20	40	-	-	-	-	60	3,000	-	-	66	133 1.933	4.921		-	-	199 11.877	CONSULTANCIES
Construction	System	-	-	-	10	25	25	-	-	60	150,000	-	-	-	1,933		5,023		-	,	CIVIL_WORKS
Constructuction supervision Subtotal	Per County	-	-	-	10	25	25	-	-	60	1,000	-	216	66	2.077	4,949	29 5.052		-	12,359	CONSULTANCIES
Support to platforms promoting green technologies, water say	Per County				2	3	5			10	30.000	-	210	00	67	102	173	-		342	GOODS AND SERVICES
Support to platforms promoting green technologies, water say Nutrition sensitization workshop to farmer groups processors	Per County	-	10	10	10	10	10	10		60	10,000	-	108	109	111	113	115		-	675	TRAINING
Trainings of farmers on Nutrition with special emphasis on va	Day	50	100	50	100	100	10	10	-	400	1,000	53	108	55	111	113	115	110		440	TRAINING
Social marketing and consumer food and nutrition awareness	Lumpsum	30	100	30	100	100	-	-	-	400	500,000	33	539	33	1111	113	-	-	-	539	GOODS AND SERVICES
Social marketing and consumer rood and numinon awareness F. E-Extension Services	Lumpsum	-	1	-	-	-	-			1	500,000	-	539	-	-	-	-	-		539	GOODS_AND_SERVICES GOODS AND SERVICES
Support to E-Voucher System	Per county		3	3	2	2				10	50,000	-	162	164	111	113	_		- [550	GOODS_AND_SERVICES
Train farmers and lead farmers in good and climate smart age		_	10	-	-	-	_	_	_	10	10,000	_	108				_	_	_	108	TRAINING
Motor Vehicles for Extension services	Number	12		_	_	_	_	_	_	12	60,000	768		_	_	_	_	_	_	768	TECHNICAL_ASSISATNCE_1
11. Motor Cycles for Extension services	Number	105	_	_	_	_	_	_	_	105	5,000	560	_	_	_	_	_	_	_	560	TECHNICAL ASSISATNCE 1
Subtotal	110111001	.00								.55	5,500	1.382	1.996	525	13.637	24.107	27.993	118		69.757	
G. Training of farmers on nutrition												.,002	,,000	020	.0,007	,	_,,000			20,101	
Documentation on fruit trees, herbal/medicinal plants, non-timbe	Per County	600	-	-	-	-	-	-	-	600	1,000	640	-	-	-	-	-	-	-	640	TRAINING
Development of Training of Trainers on Nutrition for farmers and	Number	-	100	-	-	-	-	-	-	100	1,000		108	-	-	-	-	-	-	108	TRAINING
Nutrition Specialist/Consultant	Per Year	-	1	1	1	-	-	_	-	3	10,000	_	11	11	11	-	-	-	-	33	CONSULTANCIES
Subtotal												640	119	11	11	-	-			781	
Total												3,100	6,832	5,317	18,450	27,979	31,831	1,016	618	95,143	

Detailed Table 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-Based **Enterprises**

Integrated Natural Resources Management Project (INReMP)

Table 2.2. Improve Value Addition and Market Linkages of Selected Value Chains and Nature-Based Enterprises

Detailed Costs

(US\$)					0	antities								Totals	Includin	a Contin	aanciae	('000)			Other A
(039)	Unit	2025	2026	2027	2028			2031	2032	Total	Unit Cost	2025	2026	2027	2028	2029			2032	Total	Disb. Acct.
										· ota.	Oint Goot									. ota.	Diodi ricoti
I. Investment Costs																					
A. Market opportunity assessments (dairy, poultry, avocado, horticulture)	Per County	10	-		10	-	-	-	-	20	10,000	107		-	111	-	-	-	-	218	CONSULTANCIES
B. Support for Establishment of Commodity Platforms	Platform		2	5	5		-			12	5,000	-	11	27	28					66	CONSULTANCIES
C. Marketing Information Support	Bulletins	120	120	120	120	120	120	120	120	960	500	65	66	67	68	69	71	72	74	552	CONSULTANCIES
D. Dairy Value Chain																					
Business development support to MCC	Per County	10	10	10	10	10	10	10	10	80	10,000	106	107	108	110	112	115	117	120	895	CONSULTANCIES
Processing Equipment Support	Per County		10		-	-		-	-	10	50,000		583			-		-	-		TECHNICAL_ASSISATNCE_1
Marketing Training coop members and leaders	Per County	10	10	10	10	10	10	10	-	70	10,000	213	797	109	111	113	115	118		782	GOODS_AND_SERVICES
Subtotal												213	797	218	221	225	230	235	120	2,260	
E. Fruit Tree Value Chain																					
Farmer Organisation and capacity building for collective marketing	Per County	-	10	10	10	10	10	10	10	70	20,000	-	216	219	222	226	231	236	242	1,593	GOODS_AND_SERVICES
Establsihment of aggregation centres	Per County	-	10	-	-	-	-	-	-	10	20,000	-	233							233	CIVIL_WORKS
Training on post harvest management	Per County	-	10	10	10	10	10	10	10	70	10,000	-	108	109	111	113	115	118	121	796	GOODS_AND_SERVICES
Market linkage facilitation, contracts and contract management	Per County	-	10	10	10	10	10	10	10	70	10,000		108	109	111	113	115	118	121	796	CONSULTANCIES
Subtotal												-	665	437	444	452	462	473	485	3,418	
F. Poultry																					00000 1110 0501/050
Support for establishment of processing facilities	Per County	-	10	10	-	-	-	-	-	20	20,000	-	216	219	-	-	-	-	-	434	GOODS_AND_SERVICES
Farmer Organisation and capacity building for collective marketing	Per County	-	10	10	10	10	10	10	10	70	20,000		216	219	222	226	231	236	242	1,593	GOODS_AND_SERVICES
Subtotal												-	431	437	222	226	231	236	242	2,027	
G. Apiculture																					
Support for small-scale processing	Per County	-	10	10	-	-	-	-	-	20	5,000	-	54	55					-		TECHNICAL_ASSISATNCE_1
Trainig of farmers in food handling, standards and hygine	Per County	-	10	10	10	10	10	10	-	60	10,000	-	108	109	111	113	115	118	-	675	GOODS_AND_SERVICES
Training on processing of by products	Per County	-	10	10	10	10	10	10	-	60	10,000		270	273	222	113 226	231	118 236	<u> </u>	675	GOODS_AND_SERVICES
Subtotal												-	2/0	2/3	222	226	231	236	-	1,459	
H. Climate Resilient Infrastructures 1. Climate-Proofed Access Roads																					
	D 0		40							40	00.000		040							040	OONOU!! TANOIEO
Feasibility assessments and EIA Design	Per County Km	-	10	100	150	-	-	-	-	10 250	20,000 1,000	-	216	109	167	-	-	-	-	216 276	CONSULTANCIES CONSULTANCIES
Construction	Km	-	-	100	50	150	50	-	-	250	50.000	-	-	109	3.021	9.229	2 4 4 4	-	-	15.390	CIVIL_WORKS
Construction supervision	Km	-	-	-	50	150	50	-	-	250	1,500	-	-	-	83	255	3,141	-		424	CONSULTANCIES
Subtotal	KIII	-	-	-	50	150	50	-	-	250	1,500	<u>-</u> -	216	109	3,271		3,227	<u> </u>	<u> </u>	16.306	CONSULTANCIES
2. Market Infrastructure (+ gender sensitive WASH facilities, child care units and Disability friendly acces	-1											-	210	109	3,271	9,403	3,221	-	-	10,300	
Produce Storage Facilities, Aggregation Centres, Warehousing	Units			6		6				20	200.000			1.417	1.919	1.466				4.802	CIVIL_WORKS
Smart Markets	Units	-	-	3	4	3	-	-		10	1,000,000	-		3,609	4.889	3.734	-	-	-	12.232	CIVIL_WORKS
Smart Kiosks	Units	-	-	50	100	50	-	-	-	200	20.000	-		1,181	2,399	1,222	-	-	-	4,802	CIVIL_WORKS
Subtotal	Office			30	100	30				200	20,000	 -		6,206	9,207	6,422	<u> </u>	<u> </u>	-	21,835	CIVIL_WORKS
3. Commodity Platforms (App and Web based commodity trading platform)	Project		1							4	500.000	-	539	0,200	9,207	0,422	-	-	-	539	GOODS AND SERVICES
Training and support on nutrition labelling and certification requirements	Per County		10	10	10	10	10	10	10	70	1.000		11	11	11	12	12	12	12	81	TRAINING
Food processing and value addition training for commercialized- Household-level	Per County	-	10	10	10	10	10	10	10	70	1,000	-	11	11	11	12	12	12	12	81	TRAINING
Food processing and value addition training for commercialized Frodserioid-level Equip markets with childcare spaces and breastfeeding corners	Units		10	3	4	3	10	10	10	10	1,000		- ''	4	5	4	12	12	12		TECHNICAL ASSISATNCE 1
Equip markets with childcare spaces and breastreeding corners Equip spaces cooking demonstrations	Units	-	-	3	4	3	-	-	-	10	1,000		-	4	5	4	-		-		TECHNICAL_ASSISATNCE_1
Subtotal	Office			3		3				10	1,000		777	6.345	12,510	15,936	3.251	24	25	38,868	TECHNICAL_ASSISATINGE_T
I. Nutrition Activities												-	,,,	0,343	12,010	10,500	3,231	24	20	50,000	
M&E support to county's nutrition/Agri nutrition action plans, strategies and assessments	Per County	10	10	10	10	10	10	10	10	80	1.000	11	11	11	11	11	12	12	12	90	CONSULTANCIES
Support cost on enactment of nutrition county policies and legislations	Per County	10	10	10	10	10	10	10	10	80	1,000	11	11	11	11	11	12	12	12	90	CONSULTANCIES
Gender Equality and Women empowerment (finalization of County gender Acts and Policies, policy briefs)	Per County	- 10	- 10	3	2	10	5	5	- 10	15	2.000	- 11	- 11	7	4	- "	12	12	12	34	CONSULTANCIES
TA to support PMCU on nutrition related activities	Per County		1	1	1	_	-	-	_	3	200.000		216	219	222		12	12	_	657	CONSULTANCIES
Subtotal	7 GI County									3	200,000	21	237	247	249	23	35	35	24	872	SONOGETANOLEG
Total														8.052		_		1.313	971	49,738	
												700	0,207	3,032	. 4,073	.7,100	2,010	.,515	311	.0,100	

Detailed Table 3.1: Institutional Strengthening and Policy Support

Kenya Integrated Natural Resources Management Project (INReMP) Table 3.1. Institutional Strengthening and Policy Support

Detailed Costs

(US\$)		Quantities					Totals Including Contingencies ('000)								Other A						
	Unit	2025	2026	2027	2028	2029	2030	2031	2032	Total	Unit Cost	2025	2026	2027	2028	2029	2030	2031	2032	2 Total	Disb. Acct.
I. Investment Costs																					
A. Institutional Strenghtening																					
Institutional capacity gap assessment and production of a capacity developme	Study	-	1	-	-	-	-			1	50,000	-	54	-	-	-	-			- 54	CONSULTANCIES
Strengthening the capacity of national and county governments' relevant instil	Session	1	5	4	-	-	-			10	100,000	107	540	438	-	-	-			- 1,084	GOODS_AND_SERVICES
Renovation of Agriculture Training Centres and Dairy Multiplication Centres /b	Centre	-	3	7	-	-	-			10	100,000	-	324	766	-	-	-	-		- 1,090	CONSULTANCIES
Support the establishment of County Irrigation Development Units (CIDUs) /c	CIDU	-	5	5	-	-	-			10	30,000	-	162	164	-	-	-	-		- 326	CONSULTANCIES
Support the CPMU staff to enhance their coordination abilities /d	Session	1	2	2	-	-	-			5	20,000	21	43	44	-	-	-	-		- 108	GOODS_AND_SERVICES
Implementation of other aspects of the capacity development plan /e	Lumpsum	-	1	1	-	-	-			2	250,000	-	270	274	-	-	-			- 544	CONSULTANCIES
Subtotal												128	1,393	1,685	-	-	-	-		- 3,206	Ī
B. Policy Support																					
Support the development of a policy/strategies to help address land fragment	Policy/Strategy	-	3	5	2	-	-			10	80,000	-	259	438	178	-	-	-		- 875	CONSULTANCIES
Facilitate therolling out, dissemination and awareness creation of some Acts a	Department	-	2	2	3	-	-			7	65,000	-	140	142	217	-	-	-		- 499	CONSULTANCIES
Support Counties to mainstream resilience into their plans, strategies, policies	Per County	3	4	3	-	-	-			10	50,000	160	216	164	-	-	-	-		- 540	CONSULTANCIES
Support the finalisation of the Draft Land Reclamation Policy and Bill	Lumpsum	-	1	-	-	-	-			1	50,000	-	54	-	-	-	-	-		- 54	CONSULTANCIES
Support completion of National Agroforestry Strategy	Strategy	-	1	-	-	-	-			1	50,000		54			-				- 54	CONSULTANCIES
Subtotal												160	723	744	395	-	-			- 2,022	
Total												288	2.116	2.429	395	-	-	· .		- 5.229	=

Detailed Table 3.2: Programme Coordination and Implementation Support Services

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 3.2. Programme Coordination and Implementation Support Services

Detailed Costs

(US\$) Quantities Totals Including Contingencies ('000) Other A 2025 2026 2027 2028 2029 2030 2031 2032 Total Unit Cost 2025 2026 2027 2028 2029 2030 2031 2032 Total I. Investment Costs A. Project Management and Coordination Unit (PMCU) - vehicles Utility Vehicles 4WD 88.000 328 656 TECHNICAL ASSISATNCE 1 number 328 58,000 143 TECHNICAL ASSISATNCE 1 Double Cabin Vehicles 143 286 Numbers Subtotal 471 471 942 B. Office Rehabilitation - National PMCU and Regional PMCU Lumpsum 250,000 308 CIVIL_WORKS C. Office Equipment for PMCU 18 TECHNICAL ASSISATNCE 1 Laptop Number 36 1.500 33 33 Deskton Number 6 1 200 TECHNICAL ASSISATNCE Printer/Photocopier Number 9,000 TECHNICAL_ASSISATNCE_1 Accounting software Number 60,000 TECHNICAL_ASSISATNCE_1 TECHNICAL ASSISATNCE 1 1.200 Safe box Number 6 TECHNICAL ASSISATNCE 1 1 800 Projector Number Video Conference Equipments Number 10.000 12 TECHNICAL ASSISATNCE 1 TECHNICAL_ASSISATNCE_1 Number 10.000 Internet Network Equipment 3,000 TECHNICAL ASSISATNCE 1 Number TECHNICAL_ASSISATNCE 1 50,000 Internet Network Equipment Lumpsum TECHNICAL_ASSISATNCE_1 Smartphone Units 50 18 Subtotal 295 D. Audit CONSULTANCIES 17 External Audit Yearly 8 2.000 2 2 2 2 Internal Audit semi-annually 2 2 16 4,000 CONSULTANCIES Subtotal E. Workshops Launch and Startup workshop 35.000 TRAINING Lumpsum 10 TRAINING Sensitization Workshops Lumpsum 10 15.000 159 159 Annual planning & review workshop Lumpsum 2 2 2 2 2 16 35,000 74 74 74 74 74 74 74 74 TRAINING Other Workshops (porfolio reviews etc.) 53 TRAINING Lumpsum Subtotal 127 127 127 127 F. Monitoring & Evaluation TA for M&E during implementation Lumpsum 20.000 21 21 21 21 21 21 21 21 CONSULTANCIES Development of M&E plan and data collection and reporting tools Lumpsum 50,000 53 CONSULTANCIES Procurement of Tablets for field data collection by county M & E officers Number 10 800 TECHNICAL_ASSISATNCE_1 8 Development of the programme MIS including related infrastructure, accessori 100 000 TECHNICAL ASSISATNCE 1 106 Lumpsum 106 Maintenance of the MIS/ Software including webshoting of the servers Lumpsum 8 100.000 106 106 106 106 106 106 106 106 850 CONSULTANCIES COI Surveys (Baseline, Midline, Endline) 110,000 CONSULTANCIES Lumpsum Specific thematic Surveys 20,000 21 42 CIVIL_WORKS Survey 74 CONSULTANCIES Project Completion Review Lumpsum 70.000 74 Development and Implementation of the Resilience Design Monitoring Tool (RI Lumpsum 50.000 53 53 CONSULTANCIES Periodic Monitoring and Supervison and field data collection Per Year 8 150,000 159 159 159 159 159 159 159 159 1,274 CONSULTANCIES CONSULTANCIES Lumpsum 30,000 31 31 31 31 31 8 Procurement of Mobile Devices(Smartphones/Tablets) at County level for Data 100 100 1,500 185 185 GOODS_AND_SERVICES Units Mobile Tablets to support delivery of advisory Services by Extension Agents Unit 500 500 1,200 637 637 GOODS_AND_SERVICES Subtotal 1,240 556 360 456 339 339 360 552 G. Knowledge Management and Communication Development of a Knowledge Management and Communication Strategy Number 40,000 CONSULTANCIES Development of a Programme Knowledge Management Portal Number 70.000 74 74 CONSULTANCIES 21 21 GOODS_AND_SERVICES Maintenance of the Knowledge Management Portal Per Year 8 20 000 21 21 21 21 21 170 TV and radio awareness campaings on environmental, gender and nutrition iss Per Year 20,000 21 21 21 21 21 21 170 CONSULTANCIES GOODS AND SERVICES Production and Printing of Knowledge Products and Communications material: Per Year 8 15,000 16 16 16 127 Organise Exchange and learning visits Per Year 8 10,000 11 11 11 11 11 11 11 11 85 TRAINING 40 000 42 TRAINING Participation in programme Quarterly implementation Review workshops &SS1 Per Year 8 42 42 42 42 42 42 42 340 Development of case studies 6 25,000 27 27 27 TRAINING 138 138 **Total Investment Costs** 732 1,142

Continued

US\$)					c	luantitie	es							Totals I	Includir	ng Conti	naencie	s ('000)			Other A	
	Unit	2025	2026	2027	2028	2029	2030	2031	2032	Total	Unit Cost	2025	2026	2027	2028	2029	2030	2031	2032	Total	Disb. Acct.	
I. Recurrent Costs																						
A. Staff Salaries																						
1. Project Management and Coordinating Unit Staff Costs (including sala																						
a. National PMCU																						
Project Coordinator	Mths	12	12	12	12	12	12	12	12	96	6,500	83	84	85	87	88	90	92	95	704	SALARIES_AND_ALLOWANCE	
Financial Controller	Mths	12	12	12	12	12	12	12	12	96	5,500	70	71	72	73	75	76	78	80	596	SALARIES_AND_ALLOWANCE	
Monitoring and Evaluation and KM Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Procurement Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
NRM Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Infrastructure Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Agronomist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Community Development, Gender and Youth Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Livestock Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Agribusiness Development Specialist	Mths	12	12	12	12	12	12	12	12	96	5,000	64	65	66	67	68	69	71	73	542	SALARIES_AND_ALLOWANCE	
Programme Accountant	Mths	12	12	12	12	12	12	12	12	96	4,000	51	52	52	53	54	55	57	58	433	SALARIES_AND_ALLOWANCE	
Accounts Assistant	Mths	12	12	12	12	12				96	2,500	32	32	33	33	34	35	35		271	SALARIES_AND_ALLOWANCE	
KM Officer	Mths	12	12	12	12	12	12	12	12	96	4,000	51	52	52	53	54	55	57	58	433	SALARIES_AND_ALLOWANCE	
M&E Assistant	Mths	12	12	12	12	12	12	12	12	96	3,500	45	45	46	47	48	49	50	51	379	SALARIES_AND_ALLOWANCE	
ICT Assistant	Mths	12	12	12	12	12	12	12	12	96	3,500	45	45	46	47	48	49	50	51	379	SALARIES_AND_ALLOWANCE	
Procurement Assistant	Mths	12	12	12	12	12	12	12	12	96	3,500	45	45	46	47	48	49	50	51	379	SALARIES_AND_ALLOWANCE	
Programme Assistant	Mths	12	12	12	12	12	12	12	12	96	2,500	32	32	33	33	34	35	35	36	271	SALARIES_AND_ALLOWANCE	
Office Assistant	Mths	12	12	12	12	12	12	12	12	96	1,500	19	19	20	20	20	21	21	22	163	SALARIES_AND_ALLOWANCE	
Drivers	Mths	48	48	48	48	48	48	48	24	360	1,200	61	62	63	64	65	67	68	35	485	SALARIES_AND_ALLOWANCE	
Subtotal												1,047	1,059	1,073	1,090	1,110	1,134	1,160	1,155	8,829		
2. Regional PMCU																						
Deputy Coordinator (Regional Coordinator)	Mths	12	12	12	12	12	12	12	12	96	6,000	77	78	79	80	81	83	85	87	650	SALARIES_AND_ALLOWANCE	
Regional Accountant	Mths	12	12	12	12	12	12	12	12	96	4,000	51	52	52	53	54	55	57	58	433	SALARIES_AND_ALLOWANCE	
Programme Assistant	Mths	12	12	12	12	12	12	12	12	96	2,500	32	32	33	33	34	35	35	36	271	SALARIES_AND_ALLOWANCE	
Office Assistant	Mths	12	12	12	12	12	12	12	12	96	1,500	19	19	20	20	20	21	21	22	163	SALARIES_AND_ALLOWANCE	
Driver	Mths	12	12	12	12	12	12	12	12	96	1,200	15	16	16	16	16	17	17	17	130	SALARIES_AND_ALLOWANCE	
Subtotal												195	197	199	203	206	211	216	221	1,647		
3. County Staff Salaries (including top-up allowance)																						
County Coordinator	Mths	120	120	120	120	120	120			960	3,000		388	394	400	407	416	425	436	3,251	SALARIES_AND_ALLOWANCE	
County Project Accountant	Mths	120	120	120	120	120				960	2,500		324	328	333		346	355	364	2,709	SALARIES_AND_ALLOWANCE	
Country Procurement Officer	Mths	120	120	120	120	120	120	120	120	960	2,500	320	324	328	333	339	346	355	364	2,709	SALARIES_AND_ALLOWANCE	
County M&E Officer	Mths	120	120	120	120	120				960	2,500		324	328	333		346	355		2,709	SALARIES_AND_ALLOWANCE	
County Office Secretary	Mths	120	120	120	120	120	120	120	120	960	1,000		129	131	133		139	142		1,084	SALARIES_AND_ALLOWANCE	
Subtotal												1,473	1,489	1,509	1,533	1,561	1,594	1,631	1,673	12,461		
Subtotal												2,715	2,744	2,781	2,826	2,878	2,938	3,006	3,049	22,937		
B. Operating costs																						
Office space (PMCU)	Lumpsum	1	1	1	1	1	1	1	1	8	60,000		65	66	67	68	69	71	73	542	OPERATIONS_AND_MAINTENANCE	
Office space Regional PMCU	Lumpsum	1	1	1	1	1	1	1	1	8	18,000	19	19	20	20	20	21	21	22	163	OPERATIONS_AND_MAINTENANCE	
3. Office space (10 Counties)	Lumpsum	10	10	10	10	10				80	12,000		129	131	133		139	142			OPERATIONS_AND_MAINTENANCE	
General operating expenses for PMCU	Mths	12	12	12	12	12				96	6,000		78	79	80		83	85		650	OPERATIONS_AND_MAINTENANCE	
General operating expenses for Counties	Mths	12	12	12	12	12				96	1,500		19	20	20		21	21	22	163	OPERATIONS_AND_MAINTENANCE	
Vehicle O & M -all vehicles including county vehicles	Units	15	15	15	15	15				120	7,500	120	121	123	125		130	133			OPERATIONS_AND_MAINTENANCE	
Vehicle insurance - all vehicles including county vehicles	Units	15	15	15	15	15	15	15	15	120	1,500		24	25	25		26	27	27	203	OPERATIONS_AND_MAINTENANCE	
8. Field per diem	Units	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	28,800	100		388	394	400	407	416	425		3,251	OPERATIONS_AND_MAINTENANCE	
9. Allowances for NPSC, NTAC and PCSC	Per Year	1	1	1	1	1	1	1	1	8	187,500		202	205	208	212	217	222	227	1,693	OPERATIONS_AND_MAINTENANCE	
Subtotal												1,036	1,047	1,061	1,078	1,098	1,121	1,147	1,176	8,763		
Total Recurrent Costs												3,750	3,791	3,842	3,904	3,976	4,059	4,153	4,225	31,700		
l'otal												6,454	4,713	4,479	4,636	5,118	4,674	4,790	5,053	39,916		



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Annex 4: Economic and Financial Analysis

Introduction: The annex presents detailed results of the economic and financial analysis for INReMP. The economic and financial analysis has been carried out using a costs/benefits analysis (CBA) to demonstrate the viability of the proposed intervention. The EFA analysis has been anchored on both the project goal and objectives. The goal of the project is "contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem". The PDOsare "enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups".

Financial and Economic Analysis:Financial analysis looks at profitability of proposed interventions at household level. It assesses whether there are sufficient financial returns at beneficiary level sizeable enough to attract their participation in the project in order to meaningfully change their livelihoods.

On the other hand, economic analysis looks at society as a whole that is the overall economy's perspective. The economic analysis has been carried out by adjusting all costs and benefits stream-slows that were first developed in financial terms, to economic terms using appropriate Conversion Factors (CFs) as per IFAD EFA guidelines. The following are the models used for financial analysis which are later converted into economic models using the CFs.

Models used

Cluster	Model	
Farm models	 Dairy cow model Improved indigenous chicken model Fruit trees – Avocado farm model Apiculture – bee keeping model Horticulture – Cabbage farm model NRM models 	
Off-farm models	 Milk collection centers (MCCs) 	
Community Investments	Infrastructure gains	

Sources of benefits: The major sources of benefits for the EFA analysis include the following:

- Sustainable food and nutrition security
- Improved production and productivity
- Reduction inproduction losses

Analysis of the value chains

Poultry Value Chain

Without Project Situation (WoP): The poultry value chain is currently bedeviled by the following challenges which also provide opportunities for investment in the project area:

- Missed opportunities are evident: low per capita consumption of eggs, 36 eggs compared to 200 eggs world-wide; very low meat consumption per capita at only 10kgs.
- At production level:
 - Very low number of birds per household (average 11 birds)—essentially subsistence,

- low adoption of improved poultry breeds and genetics;
- poor hatching and brooding practices;
- Low adoption of modern poultry production technologies such as improved housing and ventilation, feeding and watering systems and climate control systems
- Costly/ unavailability of chicks. Kakamega County has noted this as a key constrain and is already running a subsidy programme that sells at KES 50/ day old chick.
- High Feed cost: The cost of feeds is too high, with a bag of 70Kg costing around KES 2,500 to KES 4,000. This tends to force the farmers to sell their birds before maturity. This results into money loss as birds are sold off before reaching the required market weight.
- Poultry health: The limited access to veterinary services, particularly in remote areas, coupled with the high cost of medication and vaccines, often hinders effective disease prevention and control. The frequent reported diseases include; Newcastle disease, Coccidiosis, and Avian Influenza, resulting into high mortality rates.
 - There is high incidence of diseases such as Newcastle Disease (ND) leading to mass loss of birds;
 - o Insufficient knowledge on farm bio-security measures;
 - o Low technical knowhow on poultry disease prevention and management;
 - Limited access to poultry vaccines and medicine; Poultry drugs misuse by unqualified veterinary service providers especially in the agro-vets leading to Antimicrobial resistance.
- There are many poultry aggregation and market challenges which can be translated into investment opportunities:
 - Absence of aggregation centers and lack of cold chain facilities. Marketing of poultry products by farmers is disjointed and dominated by middlemen since farmers lack bargaining power.
 - o Price fluctuation due to absence of group marketing arrangements.
 - Poultry cooperatives lack adequate facilities or outlets for sale of poultry and poultry products;
 - Low volumes to meet the bigger market demand and weak linkages with the market/buyers.
- Processing facilities:
 - o Lack of processing equipment and absence of poultry abattoirs.
 - Limited technical skills and lack of the required skills in processing, packaging, and marketing of processed products.
 - Lack of cold storage and inadequate volumes for processing
- Training and extension:
 - Inadequate number of public extension staff and lack of adequate transport/mobility of existing staff;
 - o Inadequate technical skills on emerging technology by extension staff
 - o Inadequate resources to be used in provision of extension kits.
- Lack of access to finance: The limited access to financial services and poultry products, leading to inadequate volumes/supply of poultry for commercial processing operations, keeping farmers at subsistence level (average 11 birds/ Household).
 - Limited number of financial services & products specially designed for the poultry sector.
 - o High cost of borrowing and stringent lending requirements.
 - Risk averseness and lack of knowledge by farmers on the various financial services products.

INReMP interventions:Given the above challenges and opportunities for investment, the project will support the following activities.

Poultry Value Chain											
Distribution of improved day old chicks	Number	1	-	545	552	561	572	584	-	-	2,814
Support for establihment of hatcheries	Hatcheries	5,000	53	108	109	111	-	-	-	-	382
Training of farmers on modern prodution techniques	Per County	10,000	107	108	109	111	113	115	118	121	903
Training of farmers on farm feed production	Per County	10,000	107	108	109	111	113	115	118	-	782
Capacity building for public and private service providers	Per County	10,000	107	108	109	111	113	115	118	121	903
Support for establsihment of processing facilities	Per County	20,000	-	216	219	-	-	-	-	-	434
Farmer Organisation and capacity building for collective marks	Per County	20,000	-	216	219	222	226	231	236	242	1,593

Poultry in the With-Project scenario (WP):

Emphasis is on 100 birds as a minimum economic unit of production for youth and women. INReMP will provide a subsidy to the acquisition of improved local chicken, prioritizing youth and women groups. INReMP will promote enterprises of about 100 birds of which the project will provide 50% of the stock as a subsidy. The direct target beneficiaries for INReMP under poultry value chain are estimated at 80,546HHs, prioritizing youth and women.

As can be seen in the investment table above, there is provision for training of farmers in modern production techniques, on farm feed production. Off farm, there is provision to train public and private service providers, establishment of processing facilities and farmer organization and capacity building for collective marketing.

Financial results: The 100-bird unit has the potential to generate KES 261,000 per annum. Taking 180 days on the farm, the return to family labor/ days is estimated at KES 1,500.

The results of the financial analysis show a sustainable increase in income measured using performance indicators like, internal rate of return (IRR), net present value (NPV), and benefits costs ratio (BCR) as shown below.

Return to family labour (KES)	1,499
Discount rate	12%
NPV (KES)	839,775
IRR	Num
NPV/b - KES	1,513,162
NPV/c - KES	596,201
B/C ratio	2.54
Switching values Benefits	(0.61)
Switching values Costs	1.54

^{*}IRR does not compute where the stream of cash-flow is positive throughout.

Assumptions used in the poultry model: The following assumptions have been adopted in generating the gross margin model.

- The model assumes 2 cycles of production per year, with a bird taking 5 months to grow to a market weight.
- The without project stock-head is estimated at 64 birds for 2 batches.
- The with-project stock-head is estimated at 200 birds for 2 batches, assuming 100 birds per batch, in which the project will provide 50% of the stock as a subsidy.
- The average market price of one bird is estimated at KES 1,000.

- It is assumed that each chicken produces an average of 60 eggs per year for 2 batches, of which 40% of these eggs are either consumed or do not survive. The average price of an egg is KES 10.
- Other assumptions include; mortality rate, production losses, and own-consumption which are provided in the detailed EFA workings.

Dairy Value Chain

Without Project Situation (WoP): Dairy value chain is currently facing the following challenges and opportunities in the project target areas, before the project intervention:

- Poor animal breeding as a result of the following constraints:
 - Lack of access to artificial insemination due to few inseminators and limited distribution of the inseminators and at times lack of equipment such as the liquid nitrogen tanks.
 - o Poor genetic makeup of the dairy herd, contributing to low milk productivity.
 - High costs of AI, poor success rates/conception rates, long calving intervals and low level of adoption of AI.
 - o Genetic erosion due to use of poor-quality bulls.
- Feed costs
 - High cost of commercial feeds with the average costs of feeds being Kshs 250/bale of hay, while corn silage costs Kshs 18/Kg and dairy meal costs Kshs 40/Kg
 - Shortage of quality animal feeds and over reliance on natural pastures limiting productivity of animals
 - Low level of knowledge and skills on animal feeding and feeds management, feed conservation and limited awareness of other non-conventional feed sources
 - High cost of concentrates, low quality concentrates, and inadequate protein sources,
 - o Inadequate fodder conservation equipment and materials.
- Animal health: There is a high concentration of dairy animal diseases noted in the INReMP Programme area such as: Tick borne diseases like East coast Fever, Anaplasmosis & Babesiosis; Foot and Mouth Disease; Lumpy Skin Disease; Rabies; Anthrax; Black quarter and Endoparasites infestations, especially liver flukes. This is attributed to the following factors:
 - Limited access to veterinary services in some counties in addition to having few/inadequate animal health practitioners at both public and private levels.
 - High cost of veterinary services both curative and preventive
 - o Collapse of cattle dips due to high cost of acaricides & poor governance/management
 - o Infiltration of animal health service by untrained people and emergence of antimicrobial, and acaricide resistance due to their misuse by untrained personnel
- Training and extension services:
 - Inadequate number of livestock extension staff with the extension coverage being very low averaging 1: 8,000 households, against the FAO recommendation of 1:500.
 - o Transport /mobility for livestock extension officers.
 - Inadequate technical skills on emerging dairy technology.
 - Weak extension at the actor level.
 - **INReMP interventions in the dairy sub-sector:** Given the above challenges and opportunities for investment, the project is will support the following activities under the dairy value chain.

A. Dairy Value Chain		Qty	Unit Cost				US\$	000 Per Y	ear			
Improving quality of dairy animals & AI services	Animals	3,000	800	-	863	875	889	-	-	-	-	2,626
Support for Feed Production	Per County	80	10,000	107	108	109	111	113	115	118	121	903
Good Animal Practices and Health	Per County	80	5,000	53	54	55	56	57	58	59	61	451
Support to public and private service providers	Per County	80	10,000	107	108	109	111	113	115	118	121	903
Animal waste management	Per County	80	1,000	11	11	11	11	11	12	12	12	90
Subtotal			_	277	1,143	1,159	1,177	294	300	307	315	4,974

Dairy in the With-Project scenario (WP)

In line with the above investment plan, INReMP will provide direct support to beneficiaries with a target approximately 3,000improved dairy cows. The value chain analysis done as part of the design assumes that each householdwill be supported with average of 1 cow. The available data collected as part of the design indicate that, most of the farmers in the INReMP implementation area are operating at subsistence level keeping one or two local cows yielding 3-8 liters/cow/day.

The project will also provide support to fodder production through: (i). Establishment of high-quality fodder and pasture formulation and production facilities, (ii) Capacity building on pasture establishment and conservation for youth and smallholder farmers, (iii) Introduction of quality pasture and fodder seed, (iv) Capacity building initiatives to address the issue of feed conservation and exposure to the alternative feed sources available for use, (v) Access to modern mechanization equipment to process feeds for the market and on farm usage, (vi) Promote feed formulation at farm or cooperative societies (Scale) and to promote bulk forage cultivation and bulking by Co-operatives, and (vii) Utilize open fields at county farms for feed production.

Financial Results: The financial results indicate that, with the improved economic unit of 1 improved breed of dairy cows, a household is able to generate a gross income of KES 710,000 per annum, with a return to family labor estimated at KES 9,600 assuming 120 on-farm days.

In financial and economic terms, the results of the analysis show a sustainable increase in income, measured using the profitability indicators such as the *IRR*, *NPV* and *BCR* as shown in the table below.

Return to family labour	9,608
Discount rate	12%
NPV (KES)	17,689,180
IRR	43%
PVb	4,202,913
PVc	2,966,266
B/C ratio	1.42
Switching values Benefits	(0.29)
Switching values Costs	0.42

Assumptions used in the dairy model: The following assumptions have been adopted in generating the gross margin model.

- The model assumes a production of 6 liters of milk production per cow in the WoP situation and 12 liters of milk per cow in the WP situation.
- The cost per liter of milk is estimated at KES 40
- Lactating period is assumed at 270 days/year.
- The cost per animal/heifer is estimated at KES 120,000 equivalent to USD 800 (aligned with the costab)

 Other assumption including, mortality, calving and fertility rates, production losses and own consumptions are estimated and included in the model, and the excel file is attached.

Dairy aggregation and marketing - Milk collection centers (MCC)

Without Project Situation (WoP):The dairyprocessing industry/ milk collection centers are currently bedeviled by the following challenges and opportunities in the target areas, before the project intervention:

- Milk collection and chilling:
 - Low levels of milk collection due to inability to mobilize enough farmers to deliver milk and therefore coolers operate below capacity.
 - Some cooperatives have governance issues that affect smooth operations of milk collection and aggregation.
 - Lack of marketing and entrepreneurial skills at farmer cooperative level and therefore lack of co-operatives' capacity to compete in the markets.
 - Inadequate equipment at aggregation centers such as milk coolers, milk testers and high costs of operating the milk chilling equipment.
 - Absence of sustainable marketing contractual arrangements with buyers
- Selling and marketing:
 - Lack of milk quality assurance due to use of poor milk handling equipment (plastic containers) and lack of adequate milk testing equipment
 - Prevalence of informality of milk selling and marketing combined with lack of organized market arrangements,
 - o Fluctuating milk prices combined with delayed payments to farmers.
 - Post-harvest losses due to lack of milk value addition and transport challenges due to poor road infrastructure.

With-Project scenario (WP):

INReMP interventions: As a result of project intervention, the following investments will be made to cub down the above constraints under the dairy aggregation.

Dairy Value Chain - MCC	Unit	Quantity	Unit Cost	Amount in US\$'000											
Bully Value Gliant - MOG	Onne	Quantity	Offic Oost	2025	2026	2027	2028	2029	2030	2031	2032	Total			
Business development support to MCC	Per County	80	10,000	112	113	115	117	119	121	124	127	948			
Processing Equipment Support	Per County	10	50,000	-	566	-	-	-	-	-	-	566			
Marketing Training coop members and leaders	Per County	70	10,000	112	113	115	117	119	121	124	-	821			
Total				224	793	230	233	238	243	248	127	2,335			

With the above investment by the project both at farm and aggregation level, it is assumed that milk supply at aggregation centers will increase, thanks to the project investment at farm level by almost 100%, from 200 liters to 400 liters of milk per day, with an installed capacity of 500 liters.

The financial results show that with the investment support provided the milk collection business unit isable to increase their gross income in the region of KES 1.1 million per annum, compared to the without project margin of KES 385,000

In financial and economic terms, the value chain model results are presented in the table below, using the IRR, NPV and BCR.

Return to family labour	4,691
Discount rate	12%
NPV (KES)	4,389,796
IRR	130%
PVb	35,258,154
PVc	37,696,481
B/C ratio	0.94
Switching values Benefits	0.07
Switching values Costs	(0.06)

Avocado Value Chain

Without Project Situation (WoP):The value chain is currently facing the following challenges and opportunities in the project target areas:

- Lack of access to seedlings and inputs due to the following factors
 - Unavailability of quality grafted seedlings and certified nurseries not within the reach of farmers
 - High cost of seedlings & inputs (fertilizers and pesticides).
 - o Insufficient technical know-how on Avocado production.
 - o Uncertified (roadside) nursery operators.
 - Diseases and pests,
 - Low production due use of locally available seedlings
- Adoption of GAPS
 - o Lack of knowledge on GAP and inadequate training on GAPS.
 - Slow adoption of new technologies and resistance to change.
 - o Low transition to sustainable/regenerative agricultural practices like organic farming.
- Fruit tree health
 - Unaffordable soil testing, inadequate skills on IPM, importation of diseased seedlings.
 - High cost of agro chemicals.
 - Inadequate technical knowhow on nutrient application and pest and disease control.
 - Counterfeit pest and disease control products.
 - o Inadequate knowledge and skills on avocado pests and diseases control
 - Lack of adequate water for the avocado fruit trees
 - Inadequate knowledge on post-harvest handling

INReMP interventions: INReMP will make the following the following investments in this value chain.

Avocado	Unit	Total	Unit Cost	Amount US\$'000									
Avocado	Oilit	Total	Ollit Cost	2025	2026	2027	2028	2029	2030	2031	2032	Total	
Support for nursery establishment	Nurseries	90	5,000	107	108	109	56	57	58	-	-	494	
Suport for access to seedling, inputs	Per County	60	10,000	107	108	109	111	113	115	-	-	664	
Training of farmers on good tree managemnt	Per County	70	10,000	107	108	109	111	113	115	118	-	782	
Farmer Organisation and capacity building for collective marketing	Per County	70	20,000	-	227	230	233	238	243	248	255	1,672	
Establsihment of aggregation centres	Per County	10	20,000	-	227	-	-	-	-	-	-	227	
Training on post harvest management	Per County	70	10,000	-	113	115	117	119	121	124	127	836	
Market linkage facilitation, contracts and contract management	Per County	70	10,000	-	113	115	117	119	121	124	127	836	
Total				320	1,003	787	744	758	774	614	509	5,510	

With-Project scenario (WP)

As a result of the above investment, the project will provide improved farm inputs including; improved seedlings, fertilizers, and technical support on production. In summary, the project will: (i) Support the establishment of certified nurseries close to the farmers, (ii) Subsidize

inputs to the farmer through E-Voucher subsidy program, (iii) promote capacity building of Co-operatives, CIGs and individual nurseries on nursery management, (v) Enhance quality control by mandated institutions e.g. KEPHIS, HCD, Department of Agriculture. Support local agro vets to stock specialized avocado inputs like pheromone traps.

Financial Results: The financial results indicate that, a household can expect a yield approximately 2 tonnes per hectare annually, considering 2 batches of harvest (1 tonne per batch), translating into a gross margin of KES 320,000, with a return to family labour estimated at KES 3,600.

The above analysis in financial and economic terms presents the below results computed using the recommended profitability indicators.

Return to family labour	3,593
Discount rate	12%
NPV (KES)	403,753
IRR	23%
PVb	1,029,554
PVc	300,939
B/C ratio	3.42
Switching values Benefits	(0.71)
Switching values Costs	2.42

Other value chains considered for this analysis include: apiculture and horticulture which are represented by bee keeping model and cabbage farm model. The gross margin analysis for both models shows a sustainable increase in production and productivity as shown in the attached excel.

NRM models

Estimation of benefits from the NRM activities/water related infrastructures has been done using the following models;

- Bench Terrace construction
- Fanya-Juu Terrace construction
- Cut-Off Drains construction
- Infiltration Ditches construction

Natural Resource interventions: The design mission has developed a forest reforestation model to demonstrate benefits accruing from these interventions. The analysis has been done considering the number of hectares (169,600) that will be developed by the project. The incremental benefits have been factored into the overall economic analysis to compute the overall project Economic Rate of Return (ERR) and Net Present Value (NPV). There will be a detailed study that will highlight the GHG benefits to strengthen the analysis around the natural resource interventions.

Financial Analysis: Financial analysis has been based on the development of off-farm and activity models which represent the project intervention and the expected benefits to be perceived by different target groups. The following primary objectives of the financial analysis:

• The financial analysis has been done to examine the impact of project interventions on incomes of target beneficiaries at household level.

 To establish the framework for the economic analysis of the Project, which will complement the financial analysis to assess the justification from the overall economy' perspective

A summary of financial results by model is provided in the table below showing. In financial and economic terms, the results have been measured using the following profitability indicators; (i) internal rate of return (IRR), (ii) net present value (NPV), (iii) benefits costs ratio (B/CR), and return to family labour.

			Farm models' ı	net incremental I (in KES)	benefits		
Project Year	Poultry - Local Chicken	Diary - Cow	Apiculture - Bee Keeping	Horticulture - Cabbage	мсс	Fruit Tree - Avocado	NRM Model - Bench Terrace
PY1	71,064	(394,899)	(161,000)	(75,600)	(209,200)	(272,091)	(123,000)
PY2	111,455	(185,115)	236,000	14,400	134,200	(118,921)	52,875
PY3	124,855	(134,969)	272,800	37,840	292,960	(127,042)	64,436
PY4	109,955	(17,234)	177,600	95,000	474,400	107,503	69,060
PY5	124,855	21,760	294,600	120,440	878,000	88,041	75,997
PY6	124,855	165,926	272,600	128,840	928,000	107,728	80,621
PY7	109,955	401,557	197,600	120,440	928,000	113,813	80,621
PY8	124,855	483,044	272,600	128,840	788,000	130,637	80,621
PY9	124,855	768,689	294,600	120,440	928,000	130,995	80,621
PY10	109,955	1,004,600	265,600	128,840	878,000	136,364	80,621
PY11	124,855	1,211,789	204,600	120,440	928,000	130,995	80,621
PY12	124,855	1,643,253	272,600	128,840	928,000	136,364	80,621
PY13	109,955	2,385,514	287,600	120,440	928,000	130,995	80,621
PY14	124,855	3,458,507	272,600	128,840	928,000	136,364	80,621
PY15	124,855	5,188,171	204,600	120,440	878,000	130,995	80,621
PY16	109,955	7,976,391	265,600	128,840	928,000	136,364	80,621
PY17	124,855	12,471,000	294,600	120,440	928,000	130,995	80,621
PY18	124,855	19,716,310	272,600	128,840	928,000	136,364	80,621
PY19	109,955	31,395,749	197,600	120,440	928,000	130,995	80,621
PY20	124,855	50,223,006	272,600	128,840	878,000	136,364	80,621
IRR	No.	43%	150%	71%	130%	23%	53%
NPV (KES) @12%	839,775	17,689,180	1,497,134	354,009	4,389,796	403,753	373,297
B/C Ratio	2.54	1.42	2.03	67.64	0.94	3.42	2.3
Return to Family Labour (KES)	1,499.1	9,608.1	2,330.0	1,633.9	4,690.7	3,592.5	1,954

The selected value chain shows a sustainable increase in production from the baseline estimates which represents the WoP scenario and the end-line targets which represent the WP scenario. Incremental cash-flows have been discounted over a period of 20 years, including 8 years of project implementation using a discount rate of 12%¹.

Methodological approach used in the models: The value chain analysis used both primary and secondary data. Primary data was collected with a set of checklists to generate responses from a wide range of stakeholders including SHF as primary producers, private sector players (cooperative societies, input dealers, MSMEs, FIs, large processors, etc.). Other data was collected during discussions with government agencies and officials (County Directors of Livestock and County Directors of Agriculture) in the targeted 10 countries.

The main data used for gross margin analysis includes; (i) on-farm production data like yields, (ii) market prices for both inputs and outputs, and (iii) investment and operating costs. It should be noted that the EFA has only been generated to demonstrate the viability of the

¹Kenya Gross Savings Rate | Economic Indicators | CEIC (ceicdata.com)

selected enterprises. The gross margin analysis of the selected enterprises has been carried out considering both the without project (WOP) and the with-project factors as provided below.

It should be noted that the WOP gross margins 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 proposed investment.

Assumptions: The following are the general assumptions adopted in generating the gross margin models

- All models have been generated on a single household basis.
- All costs and prices used in the individual models are expressed in local currency (KES).
- For family labor, a daily rate of KES 500 has been used, which is the average wage daily wage rate on a farm in Kenya. KES 600 has been adopted for hired labour and applied appropriately
- For crop models, land size of one hectare has been considered while developing the models, but the aggregated benefits have been scaled down to 0.25 hectares to reflect the actual land size of INReMP beneficiaries.
- Incremental benefits have been discounted over a period of 20 years, including the 8 years implementation period using a rate of 12%².
- The gross margins for all models have been computed as a difference between the total revenue and the farm investment and operating costs. The incremental benefits are computed as a difference between the WP gross margins and WoP gross margin.
- WoP gross margins have been computed using the baseline data provided in the value chain analysis report for all models except for avocado model which is considered a new investment. In this case, a proxy has been adopted using average wage rate of a semi-skilled worker on a farm in Kenya³.
- Own consumption has been estimated for all models and allocated an average percentage depending on the type of value chain.
- Production losses have also been estimated for each individual model using different percentage depending on the type of value chain

Programme costs and log-frame indicators: The table below provides a summary of project costs and log-frame indicators, including cost per beneficiary analysis. The project costs have been estimated using costab software, with a total budget estimated at US\$250 million over the project implementation period. The direct target number of households for INReMP is estimated at 407,176HHs. This translates into 2,035,880 million household members. The cost per household estimated at US\$614, and US\$123 per individual. The analysis is provided in the table below.

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²Kenya Gross Savings Rate | Economic Indicators | CEIC (ceicdata.com)

³https://africapay.org/kenya/salary/minimum-wages/2230-agricultural-industry

PROGRAMME COSTS AND IN	DICATORS FOR LO	OGFRAME		
TOTAL PROGRAMME CO	DSTS (in million US	SD)		
Beneficiaries	2,035,880	people	250.0	\$ Million
Cost per beneficiary	123	USD x person	407,176	Households
Cost per beneficially				614
Components and Cost (USD million)	•			
A. Community-led Enhanced Environment and INRM,	90.9			-
B. Improved, Inclusive and Sustainable Rural Livelihoods	114.3			
C. Institutional Strengthening, Policy Support and	44.7		-	
Total	250.0			

Economic Analysis:

Objectives of Economic Analysis: The primary objectives of the economic analysis include:

- 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.
- Perform sensitivity analysis to measure the robustness of the proposed investment and measure the variations in the overall Internal Rate of Return (IRR) and Net Present Value (NPV) due to risks and unforeseen factors.

Methodology used for economic analysis: The economic analysis has adopted the same methodological approach used in the financial analysis. However, for economic analysis, costs and benefits have been adjusted into economic terms, using appropriate Conversion factors (CFs) for both labor and tradable goods. The main assumptions used for economic analysis are presented in the table below:

	MAIN ASSI	JMPTIONS & SHADOV	V PRICES		
			Yields (Annually) Kg	
	Model	Unit of measure	WOP	WP	Price (KES)
	Poultry - Local Chicken	No. of birds	64	200	1,000
FINANCIAL	Diary - Cow	Litres of milk	1,021	31,633	35
CINA!	Apiculture - Bee Keeping	Kg of honey	85	428	500
`	Horticulture - Cabbage	Kg/Ha	1,440	3,240	100
	Fruit tree - Avocado	Kg/Ha	-	1,000	150
	Milk Collection Centre	Ltrs	56,000	112,000	60.0
À	Standard Conversion Factor	0.89	Discount rate for Fi	nancial Analysi	12.1%
Economi c	Labour Conversion Factor	0.95	Discount rate for Ec	onomic Analys	16.8%
€C.	Unemployment Rate	5.30%	VAT rate on imports	S	0.16

Economic costs: The project economic costs have been derived from the project budget using costab software by deducting taxes that are expected to be incurred during the project implementation. Operating costs (assumed up to 15% 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. All costs used in the EFA analysis are estimated in KES, as presented in the table below.

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. input costs such as costs for improved dairy breeds, poultry inputs, seed inputs, and fertilizer costs have been excluded in the overall economic analysis as they are already incorporated into the value chains models.

Aggregation No Phasing: The phasing of project beneficiaries is consistently aligned to the annual budget allocation of the project as per the costab results for the first 6 years of implementation. Beneficiaries under the 7th and 8th year have been reallocated to earlier years because some of the budget activities with direct impact to the enterprises would be ending in the 6th year. Examples are "Distribution of improved day-old chicks"; "Production Support Equipment (Lang-Strother hives, bee suits, honeycomb, smoker, swarm catcher, queen excluder, and honey extractor)"; "Support for access to seedling, inputs; etc.The aggregation of benefits has taken into account the number of beneficiaries, phased by year and the average incremental benefits generated from the value chain models. The adoption rate is 75% which is in line with the log-frame indicator "Households reporting improved food, nutrition and income security", translating into 305,382 households adopting the proposed investments, out of the overall target of 407,176 household. A summary is presented below.

Household Phasing		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Total
No. of Beneficiaries Phased by Year	407,176	20,035	40,346	63,855	73,141	102,661	107,138			
Cumulative Number of Households		20,035	60,381	124,236	197,378	300,038	407,176			407,176
Adoption Rate	75%									
Beneficiary Aggregation										
Beneficiaries in Y1		15,026	30,259	47,892	54,856	76,996	80,353			
Beneficiaries in Y2			15,026	30,259	47,892	54,856	76,996	80,353		
Beneficiaries in Y3				15,026	30,259	47,892	54,856	76,996	80,353	
Beneficiaries in Y4					15,026	30,259	47,892	54,856	76,996	80,353
Beneficiaries in Y5						15,026	30,259	47,892	54,856	76,996
Beneficiaries in Y6							15,026	30,259	47,892	54,856
Beneficiaries in Y7								15,026	30,259	47,892
Beneficiaries in Y8									15,026	30,259
Beneficiaries in Y9										15,026
Total Beneficiaries		15,026	45,286	93,177	148,033	225,029	305,382	305,382	305,382	305,382

Aggregated benefits: The aggregation of benefits has considered the number of households who will participate in different project interventions for each county. The assumptions show the following results.

County		Total No of		Dairy	Loc	al Poultry	А	piculture	Fr	uit Trees	Но	rticulture
,		Beneficaries HHs	%	No of HHs	%	No of HHs	%	No of HHs	%	No of HHs	%	No of HHs
West Pokot County	8%	34,450	30%	10,335	15%	5,168	5%	1,723	25%	8,613	25%	8,613
Trans-Nzoia County	10%	41,140	30%	12,342	15%	6,171	5%	2,057	25%	10,285	25%	10,285
Elgeyo-Marakwet County	6%	25,200	30%	7,560	15%	3,780	5%	1,260	25%	6,300	25%	6,300
Uasin Gishu County	8%	32,283	30%	9,685	15%	4,842	5%	1,614	25%	8,071	25%	8,071
Nandi County	10%	39,690	30%	11,907	15%	5,954	5%	1,985	25%	9,923	25%	9,923
Kakamega County	19%	78,300	25%	19,575	25%	19,575	5%	3,915	20%	15,660	25%	19,575
Kericho County	10%	39,715	30%	11,915	15%	5,957	5%	1,986	25%	9,929	25%	9,929
Kisumu County	8%	31,379	20%	6,276	25%	7,845	5%	1,569	20%	6,276	30%	9,414
Homa Bay County	11%	44,145	20%	8,829	25%	11,036	5%	2,207	20%	8,829	30%	13,244
Migori County	10%	40,875	20%	8,175	25%	10,219	5%	2,044	20%	8,175	30%	12,263
	100%	407,177		106,598		80,546		20,359		92,059		107,614
% Distribution		100%		26%		20%		5%		23%		26%

Economic results:INReMP is projected to yield a baseline Economic Rate of return of 24 percent with a positive Net Present Value of US\$89 million (KES 12.3billion). Quantifiable benefits have been discounted over a period of 20 years including 8 years of project

implementation period using a rate of 17 percent⁴ which represents the current interest rate on a 10-year long term bond in Kenya (data source: trading economics). The overall benefits cost ratio is computed at 1.24. The overall project economic cash-flow is provided in the summary table below:

		Incr. Econom	ic Benefits			Ecoi	nomic Project	Costs (KES mill	ion)	
Project year	Alternative Livelihoods	INRM Benefits - Water Infrastructure s	NR Benefits (Reforestation	Feeder Roads Benefits	Incremental Fam Benefits (KES million)	Investment Costs	Recurrent Costs	Add back - Costs included in models	Total Economic Costs	Cash-flow
PY1	(1,029)	(80)	48	-	(1,061)	1,175	530		1,705	(2,766)
PY2	(1,173)	(124)	154	-	(1,144)	2,904	530	624	2,811	(3,955)
PY3	(1,249)	(137)	357	-	(1,030)	4,906	530	543	4,892	(5,922)
PY4	(885)	(39)	597	12.42	(314)	5,696	530	552	5,674	(5,989)
PY5	(387)	45	998	49.68	706	7,553	530	426	7,657	(6,951)
PY6	708	348	1,475	62.10	2,593	5,891	530	435	5,985	(3,392)
PY7	2,145	750	2,095	62.10	5,052	1,823	530	-	2,353	2,700
PY8	3,725	941	2,754	62.10	7,482	477	525	-	1,002	6,480
PY9	6,722	1,015	3,458	62.10	11,257		79		79	11,178
PY10	9,758	946	4,157	62.10	14,924		79		79	14,845
PY11	12,578	946	4,217	62.10	17,804		79		79	17,725
PY12	14,887	946	4,217	62.10	20,113		79		79	20,035
PY13	16,388	946	4,217	62.10	21,614		79		79	21,536
PY14	16,388	946	4,217	62.10	21,614		79		79	21,536
PY15	16,388	946	4,217	62.10	21,614		79		79	21,536
PY16	16,388	946	4,217	62.10	21,614		79		79	21,536
PY17	16,388	946	4,217	62.10	21,614		79		79	21,536
PY18	16,388	946	4,217	62.10	21,614		79		79	21,536
PY19	16,388	946	4,217	62.10	21,614		79		79	21,536
PY20	16,388	946	4,217	62.10	21,614		79		79	21,536
NPV@ 16.83% (KES' million)										12,333
NPV@ 16.83% ('millionUSD)										89.0
EIRR										24%
BCR		-								1.2

Sensitivity analysis, Risks and Assumptions:The sensitivity analysis has been undertaken to test the robustness of the overall project analysis and measure different variations due to unforeseen factors and relevant risks presented in the IPRM. The analysis has considered the following variations: (i). Increase in costs, (ii) increase in project benefits, (iii) reduction in project benefits, and (v) delay in project benefits.

Results of sensitivity analysis: A change in benefits by 20% increase in costs and decrease in benefits using the same proportion, the project yields an ERR of 22percent and 21 percent with positive NPVs of US\$64.9 million and US\$47.1 million respectively. An increase in project benefits by either 10% & 20%, the project yields a higher IRR of 25percent and 27 percent with positive NPVs of US\$110.0 million and US\$130.9 million. A delay in project benefits by 1 & 2 years still yields positive results as both scenarios yield an IRR 21 percent and 19 percent with positive net present values of US\$52.9 million and US\$21.9 million respectively. Sensitivity analysis has also been carried out around the financing gap, to determine the level of the project viability, if the project does not receive additional funds to cover the financing gap. Results of the analysis indicate that the project is only sensitive and not economically viable if the financing gap is not covered which will reduce the overall benefits. The summary of the sensitivity analysis is presented in the tables below.

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⁴Kenya 10-Year Government Bond Yield - Quote - Chart - Historical Data - News (tradingeconomics.com)

Sensitivity analysis matrix				
	%	IRR	NPV (US\$) Million	Link between EFA and IPRM
Base Scenario		24%	89.05	
	-10%	23%	68.08	The effect of climate change and extreme weather events such as
Decrease of Project benefits	-20%	21%	47.12	unpredictable rainfall patterns, droughts, heat waves, floods, and landslides. Drought and price shocks. Security threats, ethnic
	-30%	19%	26.16	clashes, social conflicts, and cattle rustling/attacks in some of the
	10%	23%	76.99	
Cost Increase	20%	22%	64.93	High inflation resulting into high market prices for inputs
	50%	19%	33.88	
	1 Year	21%	52.90	Government robust and cautious approach in negotiations regarding
Delay of benefits	2 Years	19%	21.96	external debt, sometimes resulting in delays in signing of financing agreements
Increase of benefits	10%	25%	110.01	Promotion of improved and resilient crop and livestock varieties and breeds, climate insurance, irrigation and water harvesting, climate-
increase or benefits	20%	27%	130.97	smart agriculture (CSA), agroforestry and reforestation, nature-based solutions, climate-proofing of infrastructure, access to climate
Financing Gap not Covered		14%	(4,396.2)	If the project does not receive additional funds to cover the funding gap

The detailed sensitivity analysis is presented in the table below.

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Incremental Benefits	(1,061)	(1,144)	(1,030)	(314)	706	2,593	5,052	7,482	11,257	14,924	17,804	20,113	21,614	21,614	21,614	21,614	21,614	21,614	21,614	21,614
benefits +10%	(1,167)	(1,259)	(1,133)	(346)	776	2,853	5,557	8,231	12,383	16,416	19,585	22,125	23,776	23,776	23,776	23,776	23,776	23,776	23,776	23,776
benefits +20%	(1,273)	(1,373)	(1,236)	(377)	847	3,112	6,063	8,979	13,508	17,909	21,365	24,136	25,937	25,937	25,937	25,937	25,937	25,937	25,937	25,937
Mild scenario	(955)	(1,030)	(927)	(283)	635	2,334	4,547	6,734	10,131	13,432	16,024	18,102	19,453	19,453	19,453	19,453	19,453	19,453	19,453	19,453
Medium scenario	(849)	(915)	(824)	(252)	565	2,075	4,042	5,986	9,006	11,939	14,243	16,091	17,291	17,291	17,291	17,291	17,291	17,291	17,291	17,291
High scenario	(743)	(801)	(721)	(220)	494	1,815	3,537	5,238	7,880	10,447	12,463	14,079	15,130	15,130	15,130	15,130	15,130	15,130	15,130	15,130
Benefits - No financing gap	-2,624	-2,928	-3,126	-2,417	-1,919	-410	1,472	3,182	6,411	8,070	10,836	13,796	15,033	15,033	15,033	15,033	15,033	15,033	15,033	15,033
Project Costs	1,705	2,811	4,892	5,674	7,657	5,985	2,353	1,002	79	79	79	79	79	79	79	79	79	79	79	79
costs +10%	1,876	3,092	5,382	6,242	8,422	6,584	2,588	1,103	87	87	87	87	87	87	87	87	87	87	87	87
costs +20%	2,047	3,373	5,871	6,809	9,188	7,183	2,823	1,203	95	95	95	95	95	95	95	95	95	95	95	95
costs +30%	2,558	4,216	7,338	8,511	11,485	7,781	3,058	1,303	102	102	102	102	102	102	102	102	102	102	102	102
Costs - No financing gap	1,705	2,811	4,892	5,617	6,544	2,350	1,645	435	79	79	79	79	79	79	79	79	79	79	79	79
Net cash flow																				
base scenario	(2,766)	(3,955)	(5,922)	(5,989)	(6,951)	(3,392)	2,700	6,480	11,178	14,845	17,725	20,035	21,536	21,536	21,536	21,536	21,536	21,536	21,536	21,536
costs +10%	(2,937)	(4,236)	(6,411)	(6,556)	(7,717)	(3,991)	2,464	6,380	11,170	14,837	17,717	20,027	21,528	21,528	21,528	21,528	21,528	21,528	21,528	21,528
costs +20%	(3,107)	(4,517)	(6,900)	(7,123)	(8,482)	(4,589)	2,229	6,279	11,162	14,829	17,710	20,019	21,520	21,520	21,520	21,520	21,520	21,520	21,520	21,520
costs +30%	(3,619)	(5,361)	(8,368)	(8,826)	(10,779)	(5,188)	1,994	6,179	11,154	14,821	17,702	20,011	21,512	21,512	21,512	21,512	21,512	21,512	21,512	21,512
Benefits - No financing gap	(4,329)	(5,739)	(8,019)	(8,034)	(8,463)	(2,761)	(173)	2,747	6,332	7,991	10,758	13,717	14,954	14,954	14,954	14,954	14,954	14,954	14,954	14,954
benefits +10%	(2,872)	(4,070)	(6,025)	(6,020)	(6,881)	(3,133)	3,205	7,228	12,304	16,337	19,506	22,046	23,697	23,697	23,697	23,697	23,697	23,697	23,697	23,697
benefits +20%	(2,979)	(4,184)	(6,128)	(6,051)	(6,810)	(2,874)	3,710	7,976	13,430	17,830	21,286	24,057	25,858	25,858	25,858	25,858	25,858	25,858	25,858	25,858
benefits -10%	(2,660)	(3,841)	(5,819)	(5,957)	(7,022)	(3,652)	2,194	5,732	10,052	13,353	15,945	18,023	19,374	19,374	19,374	19,374	19,374	19,374	19,374	19,374
benefits -20%	(2,554)	(3,726)	(5,716)	(5,926)	(7,092)	(3,911)	1,689	4,983	8,927	11,860	14,164	16,012	17,213	17,213	17,213	17,213	17,213	17,213	17,213	17,213
benefits -30%	(2,448)	(3,612)	(5,613)	(5,894)	(7,163)	(4,170)	1,184	4,235	7,801	10,368	12,384	14,001	15,051	15,051	15,051	15,051	15,051	15,051	15,051	15,051
benefits delayed 1 year	(1,705)	(3,872)	(6,037)	(6,704)	(7,971)	(5,280)	241	4,050	7,404	11,178	14,845	17,725	20,035	21,536	21,536	21,536	21,536	21,536	21,536	21,536
benefits delayed 2 years	(1,705)	(2,811)	(5,953)	(6,818)	(8,686)	(6,300)	(1,647)	1,591	4,973	7,404	11,178	14,845	17,725	20,035	21,536	21,536	21,536	21,536	21,536	21,536
Discount rate	16.8%																			
Sensitivity Analysis	Base	Co	sts Increas	е	Increase of	Benefits	Decrea	se of Ber	nefits	Delay of	Benefits	Funding								
	case	+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year	2 years	Gap								
IRR	24.1%	22.8%	21.7%	19.1%	25.4%	26.6%	22.7%	21.1%	19.4%	21.2%	18.7%	14.3%								
NPV (KES) million	12,333	10,663	8,993	4,693	15,236	18,139	9,430	6,526	3,623	7,326	3,041	(4,396)								
NPV (USD) million	89	77	65	34	110	131	68	47	26	53	22	(32)								

Attachments to this annex

- Table 1: Overall Economic Analysis
- Table 2: Beneficiary Phasing and aggregation
- Table 3: Sensitivity analysis matrix
- Table 4: Detailed Sensitivity analysis
- Table 5: Value Chain Models
 - o Table 5a: Dairy model Financial Analysis
 - o Table 5a: Dairy model Economic Analysis
 - o Table 5b: Milk collection center model Financial Analysis
 - o Table 5b: Milk collection center model Financial Analysis
 - o Table 5c: Poultry Improved indigenous model Financial Analysis
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 - o Table 5d: Avocado fruit model Economic Analysis
 - Table 5e: Bee keeping model Financial Analysis
 - o Table 5e: Bee keeping model Economic Analysis
 - Table 5f: Cabbage crop model Financial Analysis
 - Table 5f: Cabbage crop model Economic Analysis
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 - o Table 5h: Bench Terrace construction Financial and Economic Analysis
 - o Table 5i: Fanya-Juu Terrace construction Financial and Economic Analysis
 - o Table 5j: Cut-Off Drains Construction Financial and Economic Analysis
 - Table 5k: Infiltration Ditches Financial and Economic Analysis

Table 1: Overall Economic Analysis

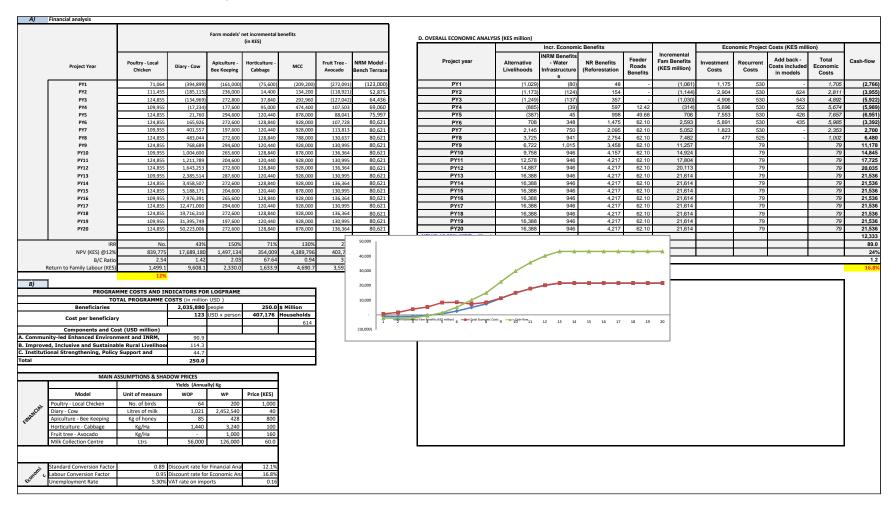


Table 2: Beneficiary Phasing and aggregation

Household Phasing		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Total
No. of Beneficiaries Phased by Year	407,176	20,035	40,346	63,855	73,141	102,661	107,138			
Cumulative Number of Households		20,035	60,381	124,236	197,378	300,038	407,176			407,176
Adoption Rate	75%									
Beneficiary Aggregation										
Beneficiaries in Y1		15,026	30,259	47,892	54,856	76,996	80,353			
Beneficiaries in Y2			15,026	30,259	47,892	54,856	76,996	80,353		
Beneficiaries in Y3				15,026	30,259	47,892	54,856	76,996	80,353	
Beneficiaries in Y4					15,026	30,259	47,892	54,856	76,996	80,353
Beneficiaries in Y5						15,026	30,259	47,892	54,856	76,996
Beneficiaries in Y6							15,026	30,259	47,892	54,856
Beneficiaries in Y7								15,026	30,259	47,892
Beneficiaries in Y8									15,026	30,259
Beneficiaries in Y9										15,026
Total Beneficiaries	•	15,026	45,286	93,177	148,033	225,029	305,382	305,382	305,382	305,382

Table 3: Sensitivity analysis matrix

Sensitivity analysis matrix				
	%	IRR	NPV (US\$) Million	Link between EFA and IPRM
Base Scenario		24%	89.05	
	-10%	23%	68.08	The effect of climate change and extreme weather events such as
Decrease of Project benefits	-20%	21%	47.12	unpredictable rainfall patterns, droughts, heat waves, floods, and landslides. Drought and price shocks. Security threats, ethnic
	-30%	19%	26.16	clashes, social conflicts, and cattle rustling/attacks in some of the
	10%	23%	76.99	
Cost Increase	20%	22%	64.93	High inflation resulting into high market prices for inputs
	50%	19%	33.88	
	1 Year	21%	52.90	Government robust and cautious approach in negotiations regarding
Delay of benefits	2 Years	19%	21.96	external debt, sometimes resulting in delays in signing of financing agreements
Increase of benefits	10%	25%	110.01	Promotion of improved and resilient crop and livestock varieties and breeds, climate insurance, irrigation and water harvesting, climate-
more dude of benefits	20%	27%	130.97	smart agriculture (CSA), agroforestry and reforestation, nature-based solutions, climate-proofing of infrastructure, access to climate $$
Financing Gap not Covered		14%	(4,396.2)	If the project does not receive additional funds to cover the funding gap

Table 4: Detailed Sensitivity analysis

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Incremental Benefits	(1,061)	(1,144)	(1,030)	(314)	706	2,593	5,052	7,482	11,257	14,924	17,804	20,113	21,614	21,614	21,614	21,614	21,614	21,614	21,614	21,614
benefits +10%	(1,167)	(1,259)	(1,133)	(346)	776	2,853	5,557	8,231	12,383	16,416	19,585	22,125	23,776	23,776	23,776	23,776	23,776	23,776	23,776	23,776
benefits +20%	(1,273)	(1,373)	(1,236)	(377)	847	3,112	6,063	8,979	13,508	17,909	21,365	24,136	25,937	25,937	25,937	25,937	25,937	25,937	25,937	25,937
Mild scenario	(955)	(1,030)	(927)	(283)	635	2,334	4,547	6,734	10,131	13,432	16,024	18,102	19,453	19,453	19,453	19,453	19,453	19,453	19,453	19,453
Medium scenario	(849)	(915)	(824)	(252)	565	2,075	4,042	5,986	9,006	11,939	14,243	16,091	17,291	17,291	17,291	17,291	17,291	17,291	17,291	17,291
High scenario	(743)	(801)	(721)	(220)	494	1,815	3,537	5,238	7,880	10,447	12,463	14,079	15,130	15,130	15,130	15,130	15,130	15,130	15,130	15,130
Benefits - No financing gap	-2,624	-2,928	-3,126	-2,417	-1,919	-410	1,472	3,182	6,411	8,070	10,836	13,796	15,033	15,033	15,033	15,033	15,033	15,033	15,033	15,03
Project Costs	1,705	2,811	4,892	5,674	7,657	5,985	2,353	1,002	79	79	79	79	79	79	79	79	79	79	79	79
costs +10%	1,876	3,092	5,382	6,242	8,422	6,584	2,588	1,103	87	87	87	87	87	87	87	87	87	87	87	87
costs +20%	2,047	3,373	5,871	6,809	9,188	7,183	2,823	1,203	95	95	95	95	95	95	95	95	95	95	95	95
costs +30%	2,558	4,216	7,338	8,511	11,485	7,781	3,058	1,303	102	102	102	102	102	102	102	102	102	102	102	102
Costs - No financing gap	1,705	2,811	4,892	5,617	6,544	2,350	1,645	435	79	79	79	79	79	79	79	79	79	79	79	79
Net cash flow																				
base scenario	(2,766)	(3,955)	(5,922)	(5,989)	(6,951)	(3,392)	2,700	6,480	11,178	14,845	17,725	20,035	21,536	21,536	21,536	21,536	21,536	21,536	21,536	21,536
costs +10%	(2,937)	(4,236)	(6,411)	(6,556)	(7,717)	(3,991)	2,464	6,380	11,170	14,837	17,717	20,027	21,528	21,528	21,528	21,528	21,528	21,528	21,528	21,528
costs +20%	(3,107)	(4,517)	(6,900)	(7,123)	(8,482)	(4,589)	2,229	6,279	11,162	14,829	17,710	20,019	21,520	21,520	21,520	21,520	21,520	21,520	21,520	21,520
costs +30%	(3,619)	(5,361)	(8,368)	(8,826)	(10,779)	(5,188)	1,994	6,179	11,154	14,821	17,702	20,011	21,512	21,512	21,512	21,512	21,512	21,512	21,512	21,512
Benefits - No financing gap	(4,329)	(5,739)	(8,019)	(8,034)	(8,463)	(2,761)	(173)	2,747	6,332	7,991	10,758	13,717	14,954	14,954	14,954	14,954	14,954	14,954	14,954	14,954
benefits +10%	(2,872)	(4,070)	(6,025)	(6,020)	(6,881)	(3,133)	3,205	7,228	12,304	16,337	19,506	22,046	23,697	23,697	23,697	23,697	23,697	23,697	23,697	23,697
benefits +20%	(2,979)	(4,184)	(6,128)	(6,051)	(6,810)	(2,874)	3,710	7,976	13,430	17,830	21,286	24,057	25,858	25,858	25,858	25,858	25,858	25,858	25,858	25,858
benefits -10%	(2,660)	(3,841)	(5,819)	(5,957)	(7,022)	(3,652)	2,194	5,732	10,052	13,353	15,945	18,023	19,374	19,374	19,374	19,374	19,374	19,374	19,374	19,374
benefits -20%	(2,554)	(3,726)	(5,716)	(5,926)	(7,092)	(3,911)	1,689	4,983	8,927	11,860	14,164	16,012	17,213	17,213	17,213	17,213	17,213	17,213	17,213	17,213
benefits -30%	(2,448)	(3,612)	(5,613)	(5,894)	(7,163)	(4,170)	1,184	4,235	7,801	10,368	12,384	14,001	15,051	15,051	15,051	15,051	15,051	15,051	15,051	15,051
benefits delayed 1 year	(1,705)	(3,872)	(6,037)	(6,704)	(7,971)	(5,280)	241	4,050	7,404	11,178	14,845	17,725	20,035	21,536	21,536	21,536	21,536	21,536	21,536	21,536
benefits delayed 2 years	(1,705)	(2,811)	(5,953)	(6,818)	(8,686)	(6,300)	(1,647)	1,591	4,973	7,404	11,178	14,845	17,725	20,035	21,536	21,536	21,536	21,536	21,536	21,536
Discount rate	16.8%																			
Sensitivity Analysis	Base	Co	sts Increas	е	Increase of	f Benefits	Decrea	se of Ber	nefits	Delay of	Benefits	Funding								
	case	+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year	2 years	Gap								
IRR	24.1%	22.8%	21.7%	19.1%	25.4%	26.6%	22.7%	21.1%	19.4%	21.2%	18.7%	14.3%								
NPV (KES) million	12,333	10,663	8,993	4,693	15,236	18,139	9,430	6,526	3,623	7,326	3,041	(4,396)								
NPV (USD) million	89	77	65	34	110	131	68	47	26	53	22	(32)								

Table 5: Value Chain Models

Table 5a: Dairy model - Financial Analysis

	Dairy Cow Model(KES) - Financial Ana	alysis	Unit Cost																					
	Assumptions and parameters Purchase price - Heifer (10-15 month)		120.000	Qty																				
ung	Bull costs - Insermination	KES/Head	4,000																					
	Milk, sale price on farm	KES/Ltrs	40																					
	Herd boy	KES/Month	15,120	2.00																				
	Family Labour	Kes/Day	200	120.00																				
l husbandry	Fodder Vaccination	% of gross revenue KES/Head	25% 850																					
	Acaricides	KES/Head	1 000																					
	Deworming	KES/Head treamen	750																					
	Spraying	KES/Head treamen	100																					
	Veterinary Health Service	KES/Call	600																					
	Milk hygiene	KES	1,200																					
nent	One-time veterinary contribution Housing	% of gross revenue Kw	10% 70,000																					
	Miscellaneous expenditure	% of gross revenue	70,000																					
tina	Milk containers	KES/Pc	3,000																					
dynamic			WOP	WP																				
	Production Losses	%	10%	7%																				
	Own consumption	%		10%																				
	Land size	Ha	0.25 Quantity																					
			Quantity	WoP										w	ith-Project									
	Assumptions and Parameters	Unit		YO	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
	Technical Parameters																							
	Calving rate	%		60%	65%	75%	75%	80%	85%	90%	90%	90%	90%	90%	90%	90%	80%	80%	80%	80%	80%	80%	80%	80
	Fertility rate	%		85%	85%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90
	Calves mortality	%		20%	20%	18%	17%	16%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15
	Adult mortality Lactating cows	%		5% 35%	5% 35%	5% 40%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5% 50%	5 50
	Milk production	% Ltrs/head		55%	35%	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	50
	Lactating period	Days/Year		270	270	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	30
	Stock Head																							
	Heifer Calves	Head Head		2	1	1	2	3	5	7	9	11 8	15	20	27 18	38 26	58 36	88 54	135	211	333 204	531 325	849 520	1,363
	Total	Head Head		2	1	2	3	6	3 8	5 11	6 15	8 19	11 26	14 34	18 45	26 65	36 94	54 141	83 217	129 340	204 537	325 856	520 1,369	834 2,196
	Iotai	Head		2	1	2	3	6	8	11	15	19	26	34	45	65	94	141	21/	340	53/	856	1,369	2,196
	Milk Production	Ltrs/Year		1.134	756	1.730	4.032	6.291	8.296	11.891	16.478	20.623	27.622	35.840	47.916	69.206	105.154	157.809	242.688	379.513	600.075	955.620	1.528.760	2.452.661
	Production Losses	%		113	53	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
	Own consumption	Ltrs/Year		113	76	173	403	629	830	1,189	1,648	2,062	2,762	3,584	4,792	6,921	10,515	15,781	24,269	37,951	60,007	95,562	152,876	245,266
	Net prduction	Ltrs/Year		1,021	703	1,609	3,911	6,170	8,175	11,770	16,357	20,502	27,501	35,719	47,795	69,085	105,033	157,688	242,567	379,392	599,953	955,499	1,528,639	2,452,540
	Off-take																							
	Calves (8-12 months)	Head						1	1	1	2	2	3	4	4	4	4	4	4	4	4	4	4	4
	Calves (8-12 months) Heifer			2		- :		1	1	1	2 2	2 2	3	4	4 3	4 3	4 3	4 3	4 3	4	4 3	4	4	4
		Head Head Head		2 2	- :	- :	- :	1	1	1 1 2	2 2 4	2 2 4	3 3 6	4 4 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	3
	Heifer	Head		2	:	- :	:	1	1	1 2	2 2 4	2 2 4	3 3 6	4 4 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	3
	Heifer Total stock head	Head		2 2 WoP	:			1	1 With	1 2 -Project	4	4	3 3 6	4 4 7	7	4 3 7	7	3 7	4 3 7	7	7	4 3 7	4 3 7	3
	Heifer Total stock head Financial Budget	Head		2 2 WoP Y0	Y1	Y2		1 1	1	1 2	2 2 4	2 2 4	3 3 6	4 4 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	Y20
	Heifer Total stock head	Head		YO			Y3	1 Y4	1 With	1 2 -Project	4	4	3 3 6 Y9		7	4 3 7 Y12	7	3 7		7	3 7 Y17		4 3 7 Y19 61.145.552	Y20 98.101.596
	Heifer Total stock head Financial Budget Revenue Sales - Milk Sales - Calves	Head Head		Y0 40,822	Y1 28,121	Y2 64,369		1 Y4	1 With YS	1 2 -Project Y6 470,795 120,000	2 4 4 77 654,274 240,000	2 4 Y8 820,079 240,000	1,100,040 360,000	1,428,755	3 7 711 1,911,790 420,000	2,763,394 420,000	3 7 Y13 4,201,328 420,000	3 7 Y14 6,307,507 420,000	9,702,667	7 7 Y16 15,175,665 420,000	3 7 Y17 23,998,139 420,000	38,219,966 420,000	61,145,552 420,000	98,101,596
	Heifer Total stock head Financial Budget Revenue Sales - Milk Sales - Calves Sales - Heifers	Head Head KES KES KES		40,822 - 240,000	28,121	64,369	156,444	Y4 246,807 120,000	With Y5 327,007 120,000	1 2 -Project Y6 470,795 120,000 120,000	2 4 77 654,274 240,000 240,000	2 4 Y8 820,079 240,000 240,000	1,100,040 360,000 360,000	1,428,755 420,000 420,000	3 7 7 1,911,790 420,000 360,000	2,763,394 420,000 360,000	7 7 Y13 4,201,328 420,000 360,000	7 7 Y14 6,307,507 420,000 360,000	9,702,667 420,000 360,000	7 7 716 15,175,665 420,000 360,000	3 7 Y17 23,998,139 420,000 360,000	38,219,966 420,000 360,000	61,145,552 420,000 360,000	98,101,596 420,000 360,000
	Heifer Total stock head Financial Budget Revenue Sales - Milk Sales - Calves	Head Head		Y0 40,822			156,444	Y4 246,807 120,000	1 With Y5	1 2 -Project Y6 470,795 120,000 120,000	2 4 77 654,274 240,000 240,000	2 4 Y8 820,079 240,000 240,000	1,100,040 360,000	1,428,755	3 7 711 1,911,790 420,000	2,763,394 420,000	3 7 Y13 4,201,328 420,000	7 7 Y14 6,307,507 420,000 360,000	9,702,667 420,000 360,000	7 7 716 15,175,665 420,000 360,000	3 7 Y17 23,998,139 420,000	38,219,966 420,000 360,000	61,145,552 420,000 360,000	98,101,596 420,000 360,000
	Helfer Total stock head Financial Budget Revenue Sales - Milk Sales - Calves Sales - Helfers Total Revenue	Head Head KES KES KES		40,822 - 240,000	28,121	64,369	156,444	Y4 246,807 120,000	With Y5 327,007 120,000	1 2 -Project Y6 470,795 120,000 120,000	2 4 77 654,274 240,000 240,000	2 4 Y8 820,079 240,000 240,000	1,100,040 360,000 360,000	1,428,755 420,000 420,000	3 7 7 1,911,790 420,000 360,000	2,763,394 420,000 360,000	7 7 Y13 4,201,328 420,000 360,000	7 7 Y14 6,307,507 420,000 360,000	9,702,667 420,000 360,000	7 7 716 15,175,665 420,000 360,000	3 7 Y17 23,998,139 420,000 360,000	38,219,966 420,000 360,000	61,145,552 420,000 360,000	98,101,596 420,000 360,000
	Heifer Total stock head Financial Budget Revenue Sales - Alik Sales - Calves Sales - Heifers Total Revenue Investment Costs	Head Head KES KES KES		40,822 - 240,000	28,121	64,369	156,444	Y4 246,807 120,000	With Y5 327,007 120,000	1 2 -Project Y6 470,795 120,000 120,000	2 4 77 654,274 240,000 240,000	2 4 Y8 820,079 240,000 240,000	1,100,040 360,000 360,000	1,428,755 420,000 420,000	3 7 7 1,911,790 420,000 360,000	2,763,394 420,000 360,000	7 7 Y13 4,201,328 420,000 360,000	7 7 Y14 6,307,507 420,000 360,000	9,702,667 420,000 360,000	7 7 716 15,175,665 420,000 360,000	3 7 Y17 23,998,139 420,000 360,000	38,219,966 420,000 360,000	61,145,552 420,000 360,000	98,101,596 420,000 360,000
	Helfer Total stock head Financial Budget Revenue Sales - Milk Sales - Calves Sales - Helfers Total Revenue	Head Head KES KES KES		40,822 - 240,000	28,121 28,121 70,000	64,369	156,444	Y4 246,807 120,000	With Y5 327,007 120,000	1 2 -Project Y6 470,795 120,000 120,000	2 4 77 654,274 240,000 240,000	2 4 Y8 820,079 240,000 240,000	1,100,040 360,000 360,000	1,428,755 420,000 420,000	3 7 7 1,911,790 420,000 360,000	2,763,394 420,000 360,000	7 7 Y13 4,201,328 420,000 360,000	7 7 Y14 6,307,507 420,000 360,000	9,702,667 420,000 360,000	7 7 716 15,175,665 420,000 360,000	3 7 Y17 23,998,139 420,000 360,000	38,219,966 420,000 360,000	61,145,552 420,000 360,000	98,101,59 420,00 360,00
	Heifer Total stock head Financial Budget Revenue Sales - Alik Sales - Calves Sales - Calves Total Revenue Investment Cots Housing Heifers Total Revenue One time weterinary contribution (10) One time weterinary contribution (10)	Head Head KES KES KES KES KES KES KES KES		Y0 40,822 240,000 280,822	28,121 28,121 70,000 120,000 2,812	64,369 64,369 6,437	156,444 156,444	Y4 246,807 120,000 366,807	1 With Y5 327,007 120,000 - 447,007	1 2 -Project Y6 470,795 120,000 120,000 710,795	2 4 77 654,274 240,000 240,000	2 4 4 820,079 240,000 240,000 1,300,079	1,100,040 360,000 360,000 1,820,040	1,428,755 420,000 420,000 2,268,755	3 7 7 1,911,790 420,000 360,000 2,691,790	2,763,394 420,000 360,000 3,543,394	7 Y13 4,201,328 420,000 360,000 4,981,328	3 7 7 Y14 6,307,507 420,000 360,000 7,087,507	9,702,667 420,000 360,000 10,482,667	3 7 Y16 15,175,665 420,000 360,000 15,955,665	23,998,139 420,000 360,000 24,778,139	38,219,966 420,000 360,000 38,999,966	61,145,552 420,000 360,000 61,925,552	98,101,596 420,000 360,000 98,881,596
	Heiler Total stock head Financial Budget Recent Milk Sales - Calwis Sales - Heifers Total Recenue Investment Costs Housing One time veterinary contribution (107 Miscolanneous expenditure (5% of gr	Head Head KES KES KES KES KES KES KES KES		Y0 40,822 240,000 280,822 28,082 14,041	28,121 28,121 70,000 120,000 2,812 1,406	64,369 64,369 6,437 3,218	156,444 156,444 15,644 7,822	74 246,807 120,000 366,807	327,007 120,000 447,007	1 2 -Project Y6 470,795 120,000 120,000 710,795	2 4 4 Y7 654,274 240,000 240,000 1,134,274	2 4 Y8 820,079 240,000 240,000 1,300,079 130,008 65,004	1,100,040 360,000 360,000 1,820,040 182,004 91,002	1,428,755 420,000 420,000 2,268,755 226,875 113,438	3 7 7 1,911,790 420,000 360,000 2,691,790	2,763,394 420,000 360,000 3,543,394 354,339 177,170	7 7 7 4,201,328 420,000 360,000 4,981,328 498,133 249,066	7 Y14 6,307,507 420,000 360,000 7,087,507 708,751 354,375	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133	7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783	7 7 7 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,086
	Heifer Total stock head Flanncial Budget Revenue Sales - Alik Sales - Calves Sales - Heifers Total Revenue Investment Costs Housing Heifers One time veterinary contribution (107 Miscellaneous expenditure (5% of gro	Head Head KES KES KES KES KES KES KES KES		Y0 40,822 240,000 280,822	28,121 28,121 70,000 120,000 2,812	64,369 64,369 6,437	156,444 156,444	Y4 246,807 120,000 366,807	1 With Y5 327,007 120,000 - 447,007	1 2 -Project Y6 470,795 120,000 120,000 710,795	2 4 4 77 654,274 240,000 240,000 1,134,274	2 4 4 820,079 240,000 240,000 1,300,079	1,100,040 360,000 360,000 1,820,040	1,428,755 420,000 420,000 2,268,755	3 7 7 1,911,790 420,000 360,000 2,691,790	2,763,394 420,000 360,000 3,543,394	7 Y13 4,201,328 420,000 360,000 4,981,328	3 7 7 Y14 6,307,507 420,000 360,000 7,087,507	9,702,667 420,000 360,000 10,482,667	3 7 Y16 15,175,665 420,000 360,000 15,955,665	23,998,139 420,000 360,000 24,778,139	38,219,966 420,000 360,000 38,999,966	61,145,552 420,000 360,000 61,925,552	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,086
	Helder Total stock head Financial Budget Revenue Revenue Sales - Calves Sales - Asilers Total Revenue Heusing Helder Heusing Helder Total Revenue Financial Budget Helder Total Revenue Financial Budget Total Revenue Financial Budget Total Revenue Financial Budget Financial Budg	Head Head KES		Y0 40,822 240,000 280,822 28,082 14,041	28,121 28,121 70,000 120,000 2,812 1,406 194,218	64,369 64,369 6,437 3,218 9,655	156,444 156,444 15,644 7,822 23,467	74 246,807 120,000 366,807	327,007 120,000 447,007 44,701 22,350 67,051	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619	2 4 4 77 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012	1,100,040 360,000 360,000 1,820,040 1,820,044 91,002 273,006	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313	3 7 7 1,911,790 420,000 360,000 2,691,790 2691,790 134,589 403,768	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509	3 7 7 Y13 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199	7 Y14 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400	3 7 7 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350	3 7 7 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833	98,101,596 420,000 360,000 98,881,596 9,888,160 4,944,080 14,832,235
	Helder Total stock hed Financial fludget Revenue Sales - Milk Sales - Calves Sales - Milk Sales - Selfers Total Revenue Rev	Head		Y0 40,822 240,000 280,822 28,082 14,041	28,121 28,121 70,000 120,000 2,812 1,406 194,218 1,226	64,369 64,369 6,437 3,218 9,655	156,444 156,444 15,644 7,822 23,467	74 246,807 120,000 - 366,807 36,681 18,340 55,021	with Y5 327,007 120,000 - 447,007 44,701 22,350 67,051 6,465	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619	2 4 4 77 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012	1,100,040 360,000 360,000 1,820,040 182,004 91,002 273,006	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577	3 7 7 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509	713 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739	3 7 Y16 15,175,665 420,000 365,065 1,595,567 797,783 2,393,350 288,894	3 7 7 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439	61,145,552 420,000 360,000 61,925,552 6,1925,555 3,096,278 9,288,833 1,163,726	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 14,832,235 1,867,020
	helder Financial Budget Financial Budget Revenue Sales - Milk Sales - Calvet Milk Acardioles Acardioles	Head Head KES		Y0 40,822 240,000 280,822 28,082 14,041	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442	64,369 64,369 6,437 3,218 9,655 1,904 2,240	156,444 156,444 15,644 7,822 23,467	74 246,807 120,000 366,807 36,681 18,340 55,021 4,768 5,609	With Y5 327,007 120,000 447,007 447,701 22,350 67,051 6,465 7,606	1 2 -Project Y6 470,795 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154	2 4 4 77 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012 16,444 19,346	1,100,040 360,000 360,000 1,820,040 182,004 91,002 273,006 22,024 25,911	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577 33,620	3 7 Y11 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,789 38,206 44,948	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 55,181 64,919	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046 94,172	3 7 7 Y14 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340	3 7 716 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350	3 7 Y17 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,790 537,400	38,219,966 420,000 38,999,966 3,899,996 3,899,997 1,949,998 5,849,995 727,439 855,811	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,081 14,832,233 1,867,026
	Helder Total stock hed Financial fludget Revenue Sales - Milk Sales - Calves Sales - Milk Sales - Selfers Total Revenue Rev	Head		Y0 40,822 240,000 280,822 28,082 14,041	28,121 28,121 70,000 120,000 2,812 1,406 194,218 1,226	64,369 64,369 6,437 3,218 9,655	156,444 156,444 15,644 7,822 23,467 2,971 3,495	74 246,807 120,000 - 366,807 36,681 18,340 55,021	with Y5 327,007 120,000 - 447,007 44,701 22,350 67,051 6,465	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619	2 4 4 77 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012	1,100,040 360,000 360,000 1,820,040 182,004 91,002 273,006	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577	3 7 7 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509	713 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875	3 7 7 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439	61,145,552 420,000 360,000 61,925,552 6,1925,555 3,096,278 9,288,833 1,163,726	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 14,832,235 1,867,020 2,196,494 1,647,371
	helder Francial Budget Francial Budget Revenue Sales - Milk Sales - Libra Sales - Milk Sales - Charle In Total Revenue Investment Casts Investment Casts Investment Casts Mincelaneous expenditure (No of go Total Investment Vaccination Vacc	Head		Y0 40,822 240,000 280,822 28,082 14,041	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,442 1,082	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,344	156,444 15,644 7,822 23,467 2,971 3,495 2,621 350 2,097	74 246,807 120,000 366,807 366,807 366,81 18,340 55,021 4,768 5,609 4,207 561 3,365	with YS 327,007 120,000 447,007 447,007 44,701 22,350 67,651 6,465 7,606 5,705 761 4,564	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693	2 4 4 654,274 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274	2 4 820,079 240,000 1,300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607	1,100,040 360,000 360,000 1,820,040 1,820,040 182,004 91,002 273,006 22,024 25,911 19,433 2,591 15,547	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577 33,620 25,215 3,362 20,172	269,179 269,179 269,179 269,179 34,589 403,768 38,206 44,948 33,711 4,495 26,969	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 55,181 64,919 48,689 6,492 38,951	3 7 7 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 55,503	714 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 203,925 203,927 203,925	3 7 7 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790 537,400 403,050 537,40 322,440	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439 855,811 641,858 85,581 513,487	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,908 1,026,817 136,908 821,454	98,101,596 420,000 360,000 98,881,596 9,888,160 4,944,080 14,832,235 1,867,020 2,196,494 1,647,371 219,645 1,317,891
	Helder Total stock hed Fleandal Budget Revenue Sales - Allik Sales - Calves Sales - Milk Sales - Sales Sales - Milk Sales - Calves Sales - Milk Sales - Milk Sales - Calves Sales - Milk Sales - Milk Sales - Calves Sales - Milk S	Head		240,000 280,822 28,082 14,041 42,123	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,444 865 2,400	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,340	156,444 156,444 156,444 1,822 23,467 2,971 3,495 2,621 350 2,097 2,688	246,807 120,000 366,807 366,807 366,807 366,807 4,768 5,602 4,207 561 3,365 4,194	with YS 327,007 120,000 447,007 447,007 44,701 22,350 67,051 6,465 7,606 5,705 761 4,564 6,731	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127	2 4 477 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 18,549	1,100,040 360,000 360,000 1,820,040 182,004 91,002 273,006 22,024 25,911 15,547 23,215	1,428,755 420,000 420,000 2,268,755 113,438 340,313 28,577 33,622 20,172 31,093	3 7 V11 1,911,790 360,000 360,000 2,691,790 269,179 134,589 403,768 38,206 44,948 33,711 4,495 26,969 40,344	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 55,181 64,912 38,951 53,937 55,937	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 94,172 70,629 9,417 55,503 77,903	714 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 130,404 169,592	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 254,906 33,987 203,925 260,809	3 7 23,998,139 420,000 360,000 24,777,814 1,238,907 3,716,721 456,790 537,400 403,050 537,400 403,050 403,050 403,050	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439 855,81 54,858 85,81 513,487 644,880	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 11,026,817 136,909 81,2454 1,026,973	98,101,59 420,000 360,000 98,881,59 9,888,161 4,944,081 14,832,23: 1,867,021 2,196,49 1,647,37: 219,649 1,317,89: 1,642,01
	helder Triandiad Budget Revenue Revenue Sales - Malk Mounted Total Revenue Moustineer Costs Housing One time veterinary contribution (107 Minciclineance expenditure (5x of gro Total Investment Costs Operating Costs Acardides Deworming Soraring Veterinary services (other animal hear Fooder	Head Head		Y0 40,822 240,000 280,822 28,082 14,041 42,123	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,344 1,730 16,092	156,444 156,444 15,644 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111	74 246,807 120,000 366,807 36,681 18,340 55,021 4,768 5,609 4,207 561 3,365 4,194 91,702	327,007 120,000 447,007 447,007 447,701 22,350 67,051 6,465 7,606 5,705 761 4,564 6,731 111,752	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699	2 4 4 554,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385 283,568	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 18,549 325,020	1,100,040 360,000 360,000 1,820,040 182,004 91,002 273,006 22,024 25,911 19,433 2,591 15,547 25,547 25,547 455,010	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577 33,620 25,215 3,362 20,172 31,093 567,189	3 7 V11 1,911,790 420,000 360,000 2,691,790 134,589 403,768 38,206 4,948 33,711 4,495 40,344 67,2947	2,763,394 420,000 360,000 3,543,394 3543,394 177,170 531,509 55,181 64,919 48,689 6,689 6,689 38,951 53,937 838,848	713 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 56,503 12,45,332	714 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 169,592 2,620,667	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 254,906 33,987 203,982,916	3 7 7 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790 537,400 403,050 537,440 407,850 6,194,535	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 727,439 855,811 641,858 85,581 513,487 644,880 9,749,992	61,145,552 420,000 360,000 61,925,552 6,192,555 9,288,83 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 14,832,236 1,867,020 2,196,494 1,647,371 219,648 1,317,891 1,642,907 24,720,398
	telefer Triancial flusfiget Revenue Sales - Malina Sales -	Head Head		Y0 40,822 - 240,000 280,822 28,082 14,041 42,123	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,444 885 2,400 7,030 12,000	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,344 1,730 16,092 12,000	156,444 156,444 156,444 156,444 1,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000	246,807 120,000 366,807 36,681 18,340 55,021 4,768 5,609 4,207 561 3,3655 4,194 91,702 12,000	1 With YS 327,007 120,000 - 447,007 447,007 447,007 447,007 67,051 6,465 7,606 5,705 761 4,564 6,731 111,752 12,000	1 2 Project Y6 470,795 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699 12,000	2 4 4 77 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385 1,546 9,274 13,385 13,588 12,000	2 4 4 820,079 240,000 240,000 1300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 18,549 325,020 12,000	1,100,040 360,000 360,000 1,820,040 1820,040 182,004 91,002 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,572 25,215 3,362 20,172 31,093 567,189 12,000	3 7 Y11 1,911,790 420,000 360,000 2,691,790 134,589 403,768 38,206 44,948 33,711 4,495 26,969 40,344 672,947 12,000	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 55,181 64,919 45,689 6,492 38,951 53,937 885,848 12,000	3 7 713 4,201,328 420,000 360,000 4,981,328 498,133 249,064 94,172 70,629 9,417 56,503 77,903 1,245,332 12,000	714 6,307,507 420,000 360,000 7,087,507 708,751 31,663,125 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 169,592 2,620,667 12,000	3 7 716 15,175,665 420,000 360,000 15,955,665 1,595,567 797,733 2,393,350 288,894 339,875 254,906 33,987 203,925 260,809 3,988,916	3 7 717 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 37,76,721 456,790 537,400 403,050 6194,535 12,000 61,94,535 12,000	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439 85,811 641,858 85,581 513,487 644,880 9,743,992 12,000	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,78 9,288,833 1,163,908 1,026,817 136,908 1,026,913 15,481,388 1,026,973 15,481,388 12,000	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,086 14,832,235 1,867,026 2,196,494 1,647,371 219,648 1,317,897 1,642,900 24,720,395 12,000
	helder Triandiad Budget Revenue Revenue Sales - Malk Mounted Total Revenue Moustineer Costs Housing One time veterinary contribution (107 Minciclineance expenditure (5x of gro Total Investment Costs Operating Costs Acardides Deworming Soraring Veterinary services (other animal hear Fooder	Head Head		Y0 40,822 240,000 280,822 28,082 14,041 42,123	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,344 1,730 16,092	156,444 156,444 15,644 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111	74 246,807 120,000 366,807 36,681 18,340 55,021 4,768 5,609 4,207 561 3,365 4,194 91,702	327,007 120,000 447,007 447,007 447,701 22,350 67,051 6,465 7,606 5,705 761 4,564 6,731 111,752	1 2 Project Y6 470,795 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699	2 4 4 554,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385 283,568	2 4 820,079 240,000 240,000 1,300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 18,549 325,020	1,100,040 360,000 360,000 1,820,040 182,004 91,002 273,006 22,024 25,911 19,433 2,591 15,547 25,547 25,547 455,010	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577 33,620 25,215 3,362 20,172 31,093 567,189	3 7 V11 1,911,790 420,000 360,000 2,691,790 134,589 403,768 38,206 4,948 33,711 4,495 40,344 67,2947	2,763,394 420,000 360,000 3,543,394 3543,394 177,170 531,509 55,181 64,919 48,689 6,689 6,689 38,951 53,937 838,848	713 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 56,503 12,45,332	714 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 169,592 2,620,667	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 254,906 33,987 203,982,916	3 7 717 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 37,76,721 456,790 537,400 403,050 6194,535 12,000 61,94,535 12,000	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439 85,811 641,858 85,581 513,487 644,880 9,743,992 12,000	61,145,552 420,000 360,000 61,925,552 6,192,555 9,288,83 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,086 14,832,235 1,867,026 2,196,494 1,647,371 219,648 1,317,897 1,642,900 24,720,395 12,000
	telefer Triancial flusfiget Revenue Sales - Malina Sales -	Head Head		Y0 40,822 - 240,000 280,822 28,082 14,041 42,123	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,444 885 2,400 7,030 12,000	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,344 1,730 16,092 12,000	156,444 156,444 156,444 156,444 1,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000	246,807 120,000 366,807 36,681 18,340 55,021 4,768 5,609 4,207 561 3,3655 4,194 91,702 12,000	1 With YS 327,007 120,000 - 447,007 447,007 447,007 447,007 67,051 6,465 7,606 5,705 761 4,564 6,731 111,752 12,000	1 2 Project Y6 470,795 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699 12,000	2 4 4 77 654,274 240,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385 1,546 9,274 13,385 13,588 12,000	2 4 4 820,079 240,000 240,000 1300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 18,549 325,020 12,000	1,100,040 360,000 360,000 1,820,040 1820,040 182,004 91,002 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,572 25,215 3,362 20,172 31,093 567,189 12,000	3 7 Y11 1,911,790 420,000 360,000 2,691,790 134,589 403,768 38,206 44,948 33,711 4,495 26,969 40,344 672,947 12,000	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 55,181 64,919 45,689 6,492 38,951 53,937 885,848 12,000	3 7 713 4,201,328 420,000 360,000 4,981,328 498,133 249,064 94,172 70,629 9,417 56,503 77,903 1,245,332 12,000	714 6,307,507 420,000 360,000 7,087,507 708,751 31,663,125 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 169,592 2,620,667 12,000	3 7 716 15,175,665 420,000 360,000 15,955,665 1,595,567 797,733 2,393,350 288,894 339,875 254,906 33,987 203,925 260,809 3,988,916	3 7 717 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 37,76,721 456,790 537,400 403,050 6194,535 12,000 61,94,535 12,000	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439 85,811 641,858 85,581 513,487 644,880 9,743,992 12,000	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,78 9,288,833 1,163,908 1,026,817 136,908 1,026,913 15,481,388 1,026,973 15,481,388 12,000	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,086 14,832,235 1,867,026 2,196,494 1,647,371 219,648 1,317,897 1,642,900 24,720,395 12,000
	helder Total stock hed Financial Budget Revenue Revenue Sales- Milk Sales- Calles Sales- Milk Sales- Calles Housing Total Revenue Housing One time veterinary contribution (107 Mincellaneae expenditure (5% of gro Total Investment Costs Operating Costs Operating Costs Operating Sorrying Veterinary services (other animal hoa Deworming Sorrying Veterinary services (other animal hoa Total Operating Costs Milk Container Total Operating Costs Labour Budget Labour Budget Labour Budget Labour Budget	Head Head Head Head Head Head Head Head		28,082 14,041 280,822 280,822 28,082 14,041 42,123 70,206 3,000 73,206	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,442 1,082 1,442 1,082 1,442 1,082 1,400 2,6189 30,240	64,369 64,369 6,437 3,218 9,650 1,904 1,680 2,240 1,680 1,092 1,092 1,092 1,093	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000 65,333	246,807 120,000 366,807 366,807 366,807 366,807 4,768 5,609 4,207 5,609 4,207 5,4194 91,702 12,000 126,406	27,007 120,000 447,007 447,007 447,007 447,007 447,007 44,701 22,350 67,051 6,465 7,606 5,705 761 4,564 6,731 111,752 12,000 155,583	1 2 Project Y6 470,795 120,000 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699 12,000 235,636	2 4 4 24,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385 283,568 12,000 359,963	2 4 820,079 240,000 1,300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 12,000 419,409	1,100,040 360,000 360,000 1,820,040 1,820,040 91,002 273,006 22,024 25,911 19,433 22,024 25,911 19,547 23,215 455,010 12,000 575,732	1,428,755 420,000 420,000 2,268,755 113,438 340,313 28,577 33,520 25,215 30,22 20,172 31,093 567,189 12,000 721,228	3 7 Y11 1,911,790 420,000 360,000 2,691,790 134,589 403,768 33,716 4,948 33,711 4,495 26,969 40,344 672,947 12,000 873,619	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 55,181 64,919 48,689 64,919 48,689 15,937 885,848 12,000 1,166,019	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,179 70,629 9,417 70,629 71,790 1,245,332 12,000 1,646,001	7 Y14 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,125 141,327 105,985 141,327 14,133 84,796 113,006 1,771,877 12,000 2,363,260 30,240	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 163,005 217,340 163,005 21,7340 163,005 21,7340 163,005 21,7340 30,592 2,620,667 12,000 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 2,393,350 25,906 33,987 203,925 260,809 3,988,916 12,000 5,383,312	3 7 Y17 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790 403,050 537,400 403,050 537,400 403,050 537,400 403,050 53,740 61,94,535 12,000 8,387,805	38,219,966 420,000 360,000 38,999,966 38,999,996 1,949,998 5,849,995 727,439 855,811 641,858 644,880 9,749,992 12,000 13,231,048	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,778 9,288,833 1,163,726 1,269,089 1,026,817 136,908 1,026,973 15,481,388 12,000 21,038,357	98,101,59 420,000 360,000 98,881,59 9,888,164 4,944,081 14,832,23 1,867,021 2,196,49 1,647,37 219,64 1,317,89 1,642,90 24,720,39 12,000 33,623,731
	telefer Triancial flusfeet Revenue Scher Miller Revenue Scher Miller Revenue Scher Miller Miller Mercanical Custs Housting Heafers Total Revenue Heafers One time veterinary contribution (107 Miccolinance separabilises (516 of gir Operating Costs Aucrickels Schriving Schriving Schriving Schriving Schriving Schriving Schriving Mills Continuer Total Operating Costs Heaf Boy Heaf Mills Continuer Total Operating Costs	Head Head Head Head Head Head Head Head		Y0 40,822 240,000 280,822 28,082 14,041 42,123 70,206 3,000 73,206	28,121 70,000 120,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189	64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215	156,444 156,444 156,444 156,444 156,644 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000 65,333	74 246,807 120,000 366,807 366,881 18,340 55,021 4,768 5,609 4,207 561 13,365 4,194 91,702 12,000 126,406	44,701 22,350 6,465 7,606 5,761 4,564 6,731 111,752 12,000 155,583	1 2 Project Y6 470,795 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699 12,000 235,636	2 4 4 24,000 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,546 9,274 13,385 283,568 12,000 359,963	2 4 820,079 240,000 1,300,079 1300,079 1300,079 15,012 16,444 19,346 14,509 1,935 11,607 12,000 419,409 30,240 30,240 24,000	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732	1,428,755 420,000 420,000 2,268,755 113,438 340,313 28,577 33,620 25,215 3,362 20,172 31,093 567,189 12,000 721,228	3 7 V11 1,911,790 420,000 360,000 2,691,79 134,589 403,768 38,206 44,948 33,711 4,495 26,969 40,344 672,947 12,000 873,619 30,240 24,000	2,763,394 420,000 360,000 3,543,394 354,339 177,170 531,509 45,692 38,551 55,987 85,848 12,000 1,166,019	3 7 713 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 55,503 77,903 1,245,332 1,245,3	7, 144 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 1,113,877 12,1200 2,363,260 30,240 24,000	9,702,667 420,000 360,000 10,482,667 524,133 1,572,400 163,003 217,340 163,003 21,734 163,503 12,003 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,667 797,783 2,393,350 288,894 339,875 254,906 33,987 203,925 260,809 3,988,916 12,000 5,383,312	3 7 723,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 33,746,721 456,790 537,400 407,850 6,194,535 12,000 8,387,805	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,995 727,439 855,811 641,858 85,881 513,487 644,880 9,749,992 12,000 13,231,048	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 1,026,973 15,481,388 21,038,357	98,101,59 420,00 360,00 98,881,59 9,888,168 4,944,08 14,832,23 1,867,02 2,196,49 1,647,37 219,64 1,317,89 12,00 33,623,73
	helder Triancial Budget Revenue Sales - Malk Sales - Calves Sales - Malk Sales - Calves Sales - Malk Sales - Calves Sales - Malk Sales - Sales Mouting Tread Revenue Tread Revenue Tread Revenue Tread Revenue Tread Revenue Tread Revenue Mouting Mouting Tread Revenue Mouting Tread Revenue Tread Reven	Head Head Head Head Head Head Head Head		70,206 3,000 70,206 3,000 15,120 2,000 17,120	28,121 28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,44 1,44 1,082 1,40 1,000 26,189 30,240 24,000 54,240 5	64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,702 16,092 12,000 37,215 30,240 24,000 54,240	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000 65,333	74 246,807 120,000 366,807 366,807 366,807 366,807 4,768 5,609 4,207 561 3,365 4,194 91,702 12,000 126,406	27,007 120,000 447,007 447,007 447,007 447,007 447,007 44,701 22,350 67,051 6,465 7,606 5,705 761 4,564 6,731 111,752 12,000 155,583	1 2 Project Y6 470,795 120,000 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699 12,000 235,636	2 4 4 77 654,274 240,000 1,134,274 113,427 56,714 170,114 13,139 15,457 11,593 1,546 9,274 13,286 12,000 359,963	2 4 820,079 240,000 1,300,079 1300,079 1300,079 1300,079 130,008 65,004 195,012 16,444 19,346 14,509 1,935 11,607 18,549 215,020 419,409	1,100,040 360,000 360,000 1,820,040 1,820,040 91,002 273,002 27,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732	1,428,755 420,000 420,000 2,268,755 113,438 340,313 28,572 33,622 20,172 31,093 567,189 12,000 721,228	3 7 Y11 1,911,790 420,000 360,000 2,691,790 134,589 403,783 33,711 4,495 26,969 40,348 31,711 1,2000 873,619	2,763,394 420,000 360,000 3,543,394 3543,394 177,170 531,509 55,181 64,919 45,689 6,492 38,951 53,937 835,848 12,000 1,166,019	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,192 70,629 9,417 75,503 77,903 1,245,332 12,000 1,646,001	3 7 744 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 141,327 105,95 14,133 84,796 113,006 1,771,877 12,000 2,363,260	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 169,592 2,520,667 12,000 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,667 797,783 2,993,350 2,993,350 23,387 25,506 33,987 203,925 260,809 3,988,916 12,000 5,383,912 30,240 24,000 54,240 24,000 54,240	37 7 717 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790 537,400 403,050 6,194,535 12,000 8,387,805	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,998 5,849,949 727,439 855,811 641,858 85,811 512,487 644,858 30,240 24,000 30,240 24,040 30,240 24,040 54,240	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,928 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,59 420,00 360,00 98,881,59 9,888,16 4,944,08 14,832,23 1,867,02 2,196,49 1,647,37 219,64 1,317,89 1,642,37 30,24,720,39 30,24,720,39 30,24,20,00 54,24,00
	Heller Triancial Budget Revenue Sales - Labor Brownie Brownie	Head		70,206 3,000 73,206 15,120 2,000 17,120 132,449	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189 30,240 24,000 54,240 274,647	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000 65,333 30,240 24,000 54,240 143,040	246,807 120,000 366,807 26,681 18,340 4,768 5,609 117,02 91,702 12,000 126,406	44,701 22,350 67,051 447,065 447,007 447,007 447,007 447,007 447,001 22,350 67,051 4,564 6,731 111,752 12,000 155,583	1 2 Project Y6 470,795 120,000 120,000 710,795 71,079 35,540 106,619 9,481 11,154 8,366 1,115 6,693 9,127 177,699 12,000 235,636	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 11,597 11,597 11,597 11,597 12,385 12,000 359,963 30,240 24,000 54,240 584,344	2 4 820,079 240,000 1,300,079 130,008 65,001 195,012 1	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,044 1,002 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577 33,620 25,215 3,362 20,172 31,093 567,189 12,000 721,228	3 7 7 1,911,790 420,000 360,000 2,691,790 134,589 403,768 38,206 4,948 33,711 4,495 20,969 403,44 672,947 12,000 873,619 30,240 24,000 54,240 1,331,627	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 354,339 177,170 531,509 55,181 64,919 48,689 65,987 885,848 17,186,019 1,166,019 30,240 24,000 1,751,768	3 7 7 4,201,328 420,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 56,503 77,903 1,245,332 1,245,332 1,245,332 1,245,342 1,245,3	7 714 6,307,507 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 141,133 84,796 113,006	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 15,72,400 184,739 217,7340 163,005 21,734 130,404 169,592 2,620,667 12,000 3,519,482	3 7 716 15,175,665 420,000 360,000 15,955,667 797,783 2,393,350 288,894 339,875 254,906 33,987 203,925 260,809 33,987,916 12,000 5,383,312 30,240 24,000 54,240 7,830,902	3 7 7 23,998,139 420,000 360,000 24,778,139 1,238,907 37,740 407,850 61,94,535 12,000 8,387,805 30,240 24,000 53,240 12,158,766	38,219,966 420,000 360,000 38,999,966 3,899,997 1,949,995 727,439 855,811 641,858 85,581 513,487 644,859 9,749,992 12,000 13,231,048	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,255 1,163,726 1,269,089 1,026,817 15,481,388 12,000 21,038,357 30,240 24,000 54,240 30,381,430	98,101,59(420,000 360,000 98,881,59(9,888,164 4,944,08(14,832,23(1,867,02(2,196,49) 1,647,37(219,649) 1,2000 33,623,73(30,244 24,000 34,624,940 48,510,21(
	steller Triancial Budget Revenue Sales - Males Sales	Head Head Head Head Head Head Head Head		70,206 3,000 73,206 15,120 2,120 11,1	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 1,482 1,482 1,000 26,189 30,240 24,000 54,240 274,640 274,640 192,286 192,286	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215 30,240 24,000 54,240 101,110	156,444 156,444 156,644 7,822 23,467 2,971 3,495 2,621 350 2,097 2,688 39,111 12,000 65,333 30,240 24,000 54,240 133,040 67,644	74 246,807 120,000 366,807 366,807 4,207 561 118,340 125,609 30,240 24,000 30,240 24,000 30,240 225,667 30,240 225,667 30,240 225,667 36,240 225,667 30,240 225,267 30,240 225,267 30,240 225,267 30,240 225,267 30,240 225,240	1 With the state of the state o	1 2 Project V6 470,795 120,000 120,000 710,795 71,079 35,500 71,06619 9,481 11,154 8,366 6,693 9,127 177,699 12,000 235,636 30,240 24,000 30,240 24,000 30,240 396,495	2 4 4 77 654,274 240,000 1,134,274 240,000 1,134,274 113,427 170,141 170,141 11,593 11,595 11,595 11,595 12,000 13,995 13,285 12,000 139,993 14,000 154,240 154,000 15	2 4 820,079 240,000 1,300,079 1300,079 1300,079 1300,079 15,012 16,444 19,346 14,509 11,607 18,549 325,020 419,409 419,409 419,409 419,409 419,409 468,661 668,661	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 91,002 273,006 22,024 25,911 19,433 2,591 15,547 22,215 455,010 12,000 575,732 30,240 24,000 54,240 902,978 971,303	1,428,755 420,000 420,000 2,268,755 226,875 113,438 340,313 28,577 33,620 25,215 3,362 25,215 3,362 20,172 31,093 567,189 12,000 721,228	3 7 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206 49,948 33,711 4,495 26,969 40,344 672,947 12,000 873,619	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 177,170 531,509 55,181 64,919 45,689 6,492 38,951 53,937 885,848 12,000 1,166,019	3 7 713 4,201,328 420,000 360,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 56,503 77,903 1,245,332 12,000 1,646,001 30,240 24,000 54,240 54,	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 163,005 21,734 173,000 21,734 173,000 21,734 21,000 21,734 21,000 21,734 21,000 21,734 21,000 21,734	3 7 15,175,665 420,000 360,000 15,955,665 1,595,566 1,595,567 797,783 2,393,750 288,894 339,875 254,906 33,987 260,809 3,988,916 12,000 5,383,312	3 7 Y17 23,998,139 420,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790 537,400 403,050 537,400 403,050 537,400 403,050 519,400 404,535 12,000 8,387,805	38,219,966 420,000 360,000 38,999,966 38,999,997 1,949,998 5,849,995 727,439 855,811 641,858 85,581 513,487 644,880 9,749,992 12,000 13,231,048	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,265,973 1,026,817 1,026,817 1,026,973 15,481,388 12,000 21,038,357	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 14,832,236 14,832,236 1,642,900 24,720,396 12,000 33,623,738 30,244 24,000 54,244 55,042,515
	Heller Triancial Budget Revenue Sales - Labor Brownie Brownie	Head		70,206 3,000 73,206 15,120 2,000 17,120 132,449	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189 30,240 24,000 54,240 274,647	64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 3500 2,097 2,688 39,111 12,000 65,333 30,240 24,020 43,040 67,644 13,404 67,644	246,807 120,000 366,807 26,681 18,340 4,768 5,609 117,02 91,702 12,000 126,406	44,701 22,350 67,051 447,065 447,007 447,007 447,007 447,007 447,001 22,350 67,051 4,564 6,731 111,752 12,000 155,583	1 2 470,795 470,795 120,000 710,795 120,000 710,795 135,540 106,619 9,881 1,115 6,693 9,481 1,115 6,693 9,127 177,699 120,000 235,636 30,240 24,000 354,240 30,240 30,343,343 30,343,343,343,343,343	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 11,597 11,597 11,597 11,597 12,385 12,000 359,963 30,240 24,000 54,240 584,344	2 4 820,079 240,000 1,300,079 130,008 65,001 195,012 1	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,044 1,002 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732	1,428,755 420,000 420,000 2,268,755 2268,755 113,438 340,313 28,577 33,670 33,620 25,215 33,622 20,172 31,093 567,189 12,000 721,228 24,000 54,240 1,115,781 1,207,714	3 7 7 1,911,790 420,000 360,000 2,691,790 134,589 403,768 38,206 4,948 33,711 4,495 20,969 403,44 672,947 12,000 873,619 30,240 24,000 54,240 1,331,627	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 3543,395 177,170 531,509 55,181 64,919 48,689 64,929 38,951 53,937 885,848 12,000 1,166,019 30,240 24,000 24,000 1,51,788,566 1,791,575,788	3 7 7 4,201,328 420,000 4,981,328 498,133 249,066 747,199 80,046 94,172 70,629 9,417 56,503 77,903 1,245,332 1,245,332 1,245,332 1,245,342 1,245,3	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260 3,640 24,000 54,240 3,480,626 3,666,880	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 163,005 21,734 130,404 163,905 21,734 130,404 163,905 21,734 130,404 163,905 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 269,897 20,3925 260,809 3,388,916 12,000 5,383,312 30,40 24,000 5,283,312 30,240 24,000 5,283,912 8,179,004 8,179,004 8,179,004 8,179,004	3 7 Y17 23,998,139 420,000 360,000 360,000 24,778,139 2,477,814 1,238,907 3,716,721 456,790 537,400 403,050 537,400 403,050 537,400 407,850 6194,535 12,000 8,387,805	38, 219, 966 420, 000 420, 000 48, 999, 997 1, 949, 998 5, 849, 995 727, 439 855, 811 641, 858 85, 811 513, 487 644, 880 9, 749, 992 12, 000 13, 231, 048 19, 918, 923 19, 918, 923 19, 918, 923	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 1,867,020 2,196,499 1,647,371 219,648 1,317,897 12,000 33,623,738 30,244 24,020 24,020 50,425,615 50,425,615
	Heller Triancial Budget Revenue Revenue Sales - Albi	Head Head Head Head Head Head Head Head		70,206 3,000 73,206 15,120 2,120 11,1	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215 30,240 24,000 54,240 101,110 17,499 136,741]	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 3500 2,097 2,688 39,111 12,000 65,333 30,240 24,020 43,040 67,644 13,404 67,644	246,807 120,000 366,807 26,681 118,340 55,021 4,768 91,702 117,002 117	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 470,795 470,795 120,000 710,795 120,000 710,795 135,540 106,619 9,881 1,115 6,693 9,481 1,115 6,693 9,127 177,699 120,000 235,636 30,240 24,000 354,240 30,240 30,343,343 30,343,343,343,343,343	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,593 1,593 1,593 1,593 1,593 1,593 1,593 1,294 9,274 13,385 283,588 12,000 359,963	2 4 820,079 240,000 1,300,079 130,008 65,004 193,012 16,444 19,346 1,4509 1,935 11,607 18,549 1,935 11,607 12,000 419,400 54,240 688,661 683,618 683,618	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 1,820,040 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732 30,240 24,000 54,240 902,978 971,303 917,063	1,428,755 420,000 420,000 2,268,755 2268,755 113,438 340,313 28,577 33,670 33,620 25,215 33,622 20,172 31,093 567,189 12,000 721,228 24,000 54,240 1,115,781 1,207,714	3 7 Y11 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206 40,344 67,2947 12,000 873,619 30,240 24,000 30,240 24,000 1,331,627 1,414,402 1,331,447 1,1360,162	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 3543,395 177,170 531,509 55,181 64,919 48,689 64,929 38,951 53,937 885,848 12,000 1,166,019 30,240 24,000 24,000 1,51,788,566 1,791,575,788	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,633 249,066 747,199 80,046 94,172 70,639 77,903 12,45,332 12,000 1,446,001 30,240 24,000 24,97,440 24,240 2,533,881,127 2,553,881,127	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260 3,640 24,000 54,240 3,480,626 3,666,880	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 163,005 21,734 130,404 163,905 21,734 130,404 163,905 21,734 130,404 163,905 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 269,897 20,3925 260,809 3,388,916 12,000 5,383,312 30,40 24,000 5,283,312 30,240 24,000 5,283,912 8,179,004 8,179,004 8,179,004 8,179,004	3 7 717 23,998,139 420,000 360,000 360,000 34,778,139 2,477,814 1,238,907 3,716,721 456,790 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 40	38,219,966 420,000 420,000 436,000 38,999,997 1,949,998 5,849,995 727,439 855,811 641,858 85,581 513,487 644,850 9,749,992 12,000 13,231,048 19,918,231 19,918,523	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 1,867,020 2,196,499 1,647,371 219,648 1,317,897 12,000 33,623,738 30,244 24,020 24,020 50,425,615 50,425,615
	Helder Triancial Budget Revenue Revenue Sales - Alles Sales - Milk Sales - Calve Brownie Brown	Head Head Nead Nead Nead Nead Nead Nead Nead N		70,206 3,000 73,206 15,120 2,120 11,1	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215 30,240 24,000 54,240 101,110 17,499 136,741]	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 3500 2,097 2,688 39,111 12,000 65,333 30,240 24,020 43,040 67,644 13,404 67,644	246,807 120,000 366,807 26,681 118,340 55,021 4,768 91,702 117,002 117	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 470,795 470,795 120,000 710,795 120,000 710,795 135,540 106,619 9,881 1,115 6,693 9,481 1,115 6,693 9,127 177,699 120,000 235,636 30,240 24,000 354,240 30,240 30,343,343 30,343,343,343,343,343	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,593 1,593 1,593 1,593 1,593 1,593 1,593 1,294 9,274 13,385 283,588 12,000 359,963	2 4 820,079 240,000 1,300,079 130,008 65,004 193,012 16,444 19,346 1,4509 1,935 11,607 18,549 1,935 11,607 12,000 419,400 54,240 688,661 683,618 683,618	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 1,820,040 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732 30,240 24,000 54,240 902,978 971,303 917,063	1,428,755 420,000 420,000 2,268,755 2268,755 113,438 340,313 28,577 33,670 33,620 25,215 33,622 20,172 31,093 567,189 12,000 721,228 24,000 54,240 1,115,781 1,207,714	3 7 Y11 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206 40,344 67,2947 12,000 873,619 30,240 24,000 30,240 24,000 1,331,627 1,414,402 1,331,447 1,1360,162	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 3543,395 177,170 531,509 55,181 64,919 48,689 64,929 38,951 53,937 885,848 12,000 1,166,019 30,240 24,000 24,000 1,51,788,566 1,791,575,788	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,633 249,066 747,199 80,046 94,172 70,639 77,903 12,45,332 12,000 1,446,001 30,240 24,000 24,97,440 24,240 2,533,881,127 2,553,881,127	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260 3,640 24,000 54,240 3,480,626 3,666,880	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 163,005 21,734 130,404 163,905 21,734 130,404 163,905 21,734 130,404 163,905 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 269,897 20,3925 260,809 3,388,916 12,000 5,383,312 30,40 24,000 5,283,312 30,240 24,000 5,283,912 8,179,004 8,179,004 8,179,004 8,179,004	3 7 717 23,998,139 420,000 360,000 360,000 34,778,139 2,477,814 1,238,907 3,716,721 456,790 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 40	38,219,966 420,000 420,000 436,000 38,999,997 1,949,998 5,849,995 727,439 855,811 641,858 85,581 513,487 644,850 9,749,992 12,000 13,231,048 19,918,231 19,918,523	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,59(420,000 360,000 98,881,59(9,888,164 4,944,08(14,832,73)(1,647,37; 219,644 1,317,89; 12,000 33,623,73(30,24(48,510,21; 50,425,61; 50,425,61;
	steller Triancial Budget Revenue Sales - Maller Sa	Need Need		70,206 3,000 73,206 15,120 2,120 11,1	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215 30,240 24,000 54,240 101,110 17,499 136,741]	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 3500 2,097 2,688 39,111 12,000 65,333 30,240 24,020 43,040 67,644 13,404 67,644	246,807 120,000 366,807 26,681 118,340 55,021 4,768 91,702 117,002 117	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 470,795 470,795 120,000 710,795 120,000 710,795 135,540 106,619 9,881 1,115 6,693 9,481 1,115 6,693 9,127 177,699 120,000 235,636 30,240 24,000 354,240 30,240 30,343,343 30,343,343,343,343,343	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 170,141 13,139 15,457 11,593 1,593 1,593 1,593 1,593 1,593 1,593 1,593 1,294 9,274 13,385 283,588 12,000 359,963	2 4 820,079 240,000 1,300,079 130,008 65,004 193,012 16,444 19,346 1,4509 1,935 11,607 18,549 1,935 11,607 12,000 419,400 54,240 688,661 683,618 683,618	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 1,820,040 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732 30,240 24,000 54,240 902,978 971,303 917,063	1,428,755 420,000 420,000 2,268,755 2268,755 113,438 340,313 28,577 33,670 33,620 25,215 33,622 20,172 31,093 567,189 12,000 721,228 24,000 54,240 1,115,781 1,207,714	3 7 Y11 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206 40,344 67,2947 12,000 873,619 30,240 24,000 30,240 24,000 1,331,627 1,414,402 1,331,447 1,1360,162	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 3543,395 177,170 531,509 55,181 64,919 48,689 64,929 38,951 53,937 885,848 12,000 1,166,019 30,240 24,000 24,000 1,51,788,566 1,791,575,788	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,633 249,066 747,199 80,046 94,172 70,639 77,903 12,45,332 12,000 1,446,001 30,240 24,000 24,97,440 24,240 2,533,881,127 2,553,881,127	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260 3,640 24,000 54,240 3,480,626 3,666,880	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 163,005 21,734 130,404 163,905 21,734 130,404 163,905 21,734 130,404 163,905 3,519,482	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 269,897 20,3925 260,809 3,388,916 12,000 5,383,312 30,40 24,000 5,283,312 30,240 24,000 5,283,912 8,179,004 8,179,004 8,179,004 8,179,004	3 7 717 23,998,139 420,000 360,000 360,000 34,778,139 2,477,814 1,238,907 3,716,721 456,790 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 40	38,219,966 420,000 420,000 436,000 38,999,997 1,949,998 5,849,995 727,439 855,811 641,858 85,581 513,487 644,850 9,749,992 12,000 13,231,048 19,918,231 19,918,523	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,59(420,000 360,000 98,881,59(9,888,164 4,944,08(14,832,73)(1,647,37; 219,644 1,317,89; 12,000 33,623,73(30,24(48,510,21; 50,425,61; 50,425,61;
	helder Total stock head Financial Budget Revenue Revenue Sales- Milk Sales- Cales Sales- Milk Sales- Cales Sales- Milk Sales- Cales Housing One time veterinary contribution (107 Minciclinance sependiture (5x of gro Total Investment Casts Housing Operating	Head Head Head Head Head Head Head Head		70,206 3,000 73,206 15,120 2,120 11,1	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215 30,240 24,000 54,240 101,110 17,499 136,741]	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 3500 2,097 2,688 39,111 12,000 65,333 30,240 24,020 43,040 67,644 13,404 67,644	246,807 120,000 366,807 26,681 118,340 55,021 4,768 91,702 117,002 117	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 470,795 470,795 120,000 710,795 120,000 710,795 135,540 106,619 9,881 1,115 6,693 9,481 1,115 6,693 9,127 177,699 120,000 235,636 30,240 24,000 354,240 30,240 30,343,343 30,343,343,343,343,343	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 11,593 1,546 11,593 1	2 4 820,079 240,000 1,300,079 130,008 65,004 193,012 16,444 19,346 1,4509 1,935 11,607 18,549 1,935 11,607 12,000 419,400 54,240 688,661 683,618 683,618	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 1,820,040 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732 30,240 24,000 54,240 902,978 971,303 917,063	1,428,755 420,000 420,000 2,268,755 2268,755 113,438 340,313 28,577 33,670 33,620 25,215 33,622 20,172 31,093 567,189 12,000 721,228 24,000 54,240 1,115,781 1,207,714	3 7 Y11 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206 40,344 67,2947 12,000 873,619 30,240 24,000 30,240 24,000 1,331,627 1,414,402 1,331,447 1,1360,162	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 3543,395 177,170 531,509 55,181 64,919 48,689 64,929 38,951 53,937 885,848 12,000 1,166,019 30,240 24,000 24,000 1,51,788,566 1,791,575,788	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,633 249,066 747,199 80,046 94,172 70,639 77,903 12,45,332 12,000 1,446,001 30,240 24,000 24,97,440 24,240 2,533,881,127 2,553,881,127	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260 3,640 24,000 54,240 3,480,626 3,666,880	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 163,005 21,734 130,404 163,905 21,734 130,404 163,905 21,734 130,404 163,905 3,519,482 30,240 24,000 5,146,122 5,380,785 5,336,545	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 269,897 20,3925 260,809 3,388,916 12,000 5,383,312 30,40 24,000 5,283,312 30,240 24,000 5,283,912 8,179,004 8,179,004 8,179,004 8,179,004	3 7 717 23,998,139 420,000 360,000 360,000 34,778,139 2,477,814 1,238,907 3,716,721 456,790 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 40	38,219,966 420,000 420,000 436,000 38,999,997 1,949,998 5,849,995 727,439 855,811 641,858 85,581 513,487 644,850 9,749,992 12,000 13,231,048 19,918,231 19,918,523	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 1,867,020 2,196,499 1,647,371 219,648 1,317,897 12,000 33,623,738 30,244 24,020 24,020 50,425,615 50,425,615
	steller Triancial Budget Revenue Sales - Maller Sa	Head Head		70,206 3,000 73,206 15,120 2,120 11,1	28,121 70,000 120,000 2,812 1,406 194,218 1,226 1,442 1,082 144 865 2,400 7,030 12,000 26,189	64,369 64,369 64,369 6,437 3,218 9,655 1,904 2,240 1,680 224 1,730 16,092 12,000 37,215 30,240 24,000 54,240 101,110 17,499 136,741]	156,444 156,444 156,444 7,822 23,467 2,971 3,495 2,621 3500 2,097 2,688 39,111 12,000 65,333 30,240 24,020 43,040 67,644 13,404 67,644	246,807 120,000 366,807 26,681 118,340 55,021 4,768 91,702 117,002 117	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 470,795 470,795 120,000 710,795 120,000 710,795 135,540 106,619 9,881 1,115 6,693 9,481 1,115 6,693 9,127 177,699 120,000 235,636 30,240 24,000 354,240 30,240 30,343,343 30,343,343,343,343,343	2 4 4 240,000 1,134,274 240,000 1,134,274 113,427 56,714 11,593 1,546 11,593 1	2 4 820,079 240,000 1,300,079 130,008 65,004 193,012 16,444 19,346 1,4509 1,935 11,607 18,549 1,935 11,607 12,000 419,400 54,240 688,661 683,618 683,618	1,100,040 360,000 360,000 1,820,040 1,820,040 1,820,040 1,820,040 273,006 22,024 25,911 19,433 2,591 15,547 23,215 455,010 12,000 575,732 30,240 24,000 54,240 902,978 971,303 917,063	1,428,755 420,000 420,000 2,268,755 2268,755 113,438 340,313 28,577 33,670 33,620 25,215 33,622 20,172 31,093 567,189 12,000 721,228 24,000 54,240 1,115,781 1,207,714	3 7 Y11 1,911,790 420,000 360,000 2,691,790 269,179 134,589 403,768 38,206 40,344 67,2947 12,000 873,619 30,240 24,000 30,240 24,000 1,331,627 1,414,402 1,331,447 1,1360,162	2,763,394 420,000 360,000 3,543,394 3543,394 3543,394 3543,395 177,170 531,509 55,181 64,919 48,689 64,929 38,951 53,937 885,848 12,000 1,166,019 30,240 24,000 24,000 1,51,788,566 1,791,575,788	3 7 Y13 4,201,328 420,000 360,000 4,981,328 498,633 249,066 747,199 80,046 94,172 70,639 77,903 12,45,332 12,000 1,446,001 30,240 24,000 24,97,440 24,240 2,533,881,127 2,553,881,127	3 7 7 420,000 360,000 7,087,507 708,751 354,375 1,063,126 120,128 141,327 105,995 14,133 84,796 113,006 1,771,877 12,000 2,363,260 3,640 24,000 54,240 3,480,626 3,666,880	9,702,667 420,000 360,000 10,482,667 1,048,267 524,133 1,572,400 184,739 217,340 163,005 21,734 130,404 163,005 21,734 130,404 163,905 21,734 130,404 163,905 21,734 130,404 163,905 3,519,482 30,240 24,000 5,146,122 5,380,785 5,336,545	3 7 Y16 15,175,665 420,000 360,000 15,955,665 1,595,567 797,783 2,393,350 288,894 339,875 269,897 20,3925 260,809 3,388,916 12,000 5,383,312 30,40 24,000 5,283,312 30,240 24,000 5,283,912 8,179,004 8,179,004 8,179,004 8,179,004	3 7 717 23,998,139 420,000 360,000 360,000 34,778,139 2,477,814 1,238,907 3,716,721 456,790 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 3,72,40 403,007 40	38, 219, 966 420, 000 420, 000 48, 999, 997 1, 949, 998 5, 849, 995 727, 439 855, 811 641, 858 85, 811 513, 487 644, 880 9, 749, 992 12, 000 13, 231, 048 19, 918, 923 19, 918, 923 19, 918, 923	61,145,552 420,000 360,000 61,925,552 6,192,555 3,096,278 9,288,833 1,163,726 1,369,089 1,026,817 136,909 821,454 1,026,973 15,481,388 12,000 21,038,357	98,101,596 420,000 360,000 98,881,596 9,888,166 4,944,080 1,867,020 2,196,499 1,647,371 219,648 1,317,897 12,000 33,623,738 30,244 24,020 24,020 50,425,615 50,425,615

Profitability Indicators	
Return to family labour	9,608
Discount rate	12%
NPV (KES)	17,689,180
IRR	43%
PVb	4,202,913
PVc	2,966,266
B/C ratio	1.42
Switching values Benefits	(0.29)
Control law colores Control	0.43

Table 5a Dairy model – Economic Analysis

Marketing	Assumptions and parameters Purchase price - Heifer (10-15 month)	Unt KES/Head	Unit Cost 107,384	Qty		ynamics roduction Los	ses	10%	5%															
-	Bull costs - Insermination	KES/Head	3,579		0	lwn consumpt	ion		10%															
Labour	Milk, sale price on farm Herd boy	KES/Ltrs KES/Month	36 14,319	2.00																				
Labour	Family Labour	Kes/Day	189	120.00																				
Feeds	Fodder	% of gross revenue	25%																					
Animal husbandry	Vaccination	KES/Head	761																					
	Acaricides	KES/Head	895																					
	Deworming	KES/Head treamen																						
	Spraying Veterinary services (other animal hea	KES/Head treamen	89 537																					
	Milk hygiene	KES	1.074																					
Investment	One-time veterinary contribution	% of gross revenue	10%																					
	Housing	Kw	62,641																					
	Miscellaneous expenditure	% of gross revenue	5%																					
Operating	Milk containers	KES/Pc	2,685																					
			Quantity																					
			Quantity	WoP										Wi	ith-Project									
	Assumptions and Parameters	Unit		YO	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
	Technical Parameters																							
	Calving rate	%		60%	65%	75%	75%	80%	85%	90%	90%	90%	90%	90%	90%	90%	80%	80%	80%	80%	80%	80%	80%	80%
	Fertility rate	%		85% 20%	85% 20%	90% 18%	90%	90% 16%	90% 15%	90%	90% 15%	90% 15%	90% 15%	90%	90% 15%	90% 15%	90% 15%	90% 15%	90%	90% 15%	90% 15%	90% 15%	90% 15%	90% 15%
	Calves mortality Adult mortality	%		20%	20% 5%	18% 5%	1/%	16%	15%	15%	15%	15% 5%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
	Lactating cows	%		35%	35%	40%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
	Milk production	Ltrs/head		6	8	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Lactating period	Days/Year		270	270	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
	Stock Head									7	_	11		20	27		58	88		211			849	1.363
	Heifer Calves	Head Head		2	1	1	2	3 2	5	5	9	8	15 11	14	18	38 26	36	88 54	135 83	129	333 204	531 325	520	1,363
	Total	Head		2	1	2	3	6	8	11	15	19	26	34	45	65	94	141	217	340	537	856	1,369	2,196
	Milk Production	Ltrs/Year		1,134	756	1,730	4,032	6,291	8,296	11,891	16,478	20,623	27,622	35,840	47,916	69,206	105,154	157,809	242,688	379,513	600,075	955,620	1,528,760	2,452,661
	Production Losses	%		113	53	121	282	440	581	832	1,153	1,444	1,934	2,509	3,354	4,844	7,361	11,047	16,988	26,566	42,005	66,893	107,013	171,686
	Own consumption Net production	Ltrs/Year Ltrs/Year		113 1.021	76 703	173 1.609	403 3,750	629 5,851	830 7,716	1,189 11.059	1,648 15.325	2,062 19,179	2,762 25.689	3,584 33,331	4,792 44.562	6,921 64.362	10,515 97,794	15,781 146,762	24,269 225,700	37,951 352,947	60,007 558,069	95,562 888,727	152,876 1,421,747	245,266 2,280,975
	Net production	LUS/ Year		1,021	/03	1,005	3,730	3,031	7,710	11,055	15,525	15,175	23,003	33,331	44,302	04,302	37,734	140,702	225,700	332,347	330,003	000,727	1,421,747	2,200,373
	Off-take																							
	Calves (10-15 months)	Head						1	1	1	2	2	3	4	4	4	4	4	4	4	4	4	4	4
	Heifer	Head		2						1	2	2	3	4	3	3	3	3	3	3	3	3	3	3
				WoP					10/10/	Project														
	Financial Budget			YO	Y1	Y2	Y3	Y4	YS	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
	Revenue																							
	Sales - Milk	KES		36,530	25,165	57,602	134,228	209,431	276,175	395,839	548,535	686,522	919,513	1,193,078	1,595,071	2,303,798	3,500,482	5,253,297	8,078,835			31,811,647	50,890,894	81,646,641
	Sales - Calves	KES						107,384	107,384	107,384	214,768	214,768	322,152	375,844	375,844	375,844	375,844	375,844	375,844	375,844	375,844	375,844	375,844	375,844
	Sales - Heifers Total Revenue	KES		214,768						107,384	214,768	214,768	322,152	375,844	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152
	Total Revenue	KES		251,298	25,165	57,602	134,228	316,815	383,559	610,607	978,071	1,116,058	1,563,816	1,944,765	2,293,067	3,001,793	4,198,478	5,951,292	8,776,830	13,331,597	20,673,880	32,509,642	51,588,889	82,344,636
	Investment Costs																							
	Housing	KES			62,641																			
	Heifers	KES			107,384																			
	One time veterinary contribution (10)			25,130	2,516	5,760	13,423	31,681	38,356	61,061	97,807	111,606	156,382	194,476	229,307	300,179	419,848	595,129	877,683		2,067,388	3,250,964	5,158,889	8,234,464
	Miscellaneous expenditure (5% of gro Total Investment Costs	s: KES		12,565 37,695	1,258	2,880 8,640	6,711 20,134	15,841 47,522	19,178 57,534	30,530 91,591	48,904 146,711	55,803 167,409	78,191 234,572	97,238 291,715	114,653 343,960	150,090 450,269	209,924 629,772	297,565 892,694	438,842 1,316,525	1,999,740	1,033,694 3,101,082	1,625,482 4,876,446	2,579,444 7,738,333	4,117,232 12,351,695
	Operating Costs			37,093	1/3,/33	0,040	20,134	47,322	37,334	31,331	140,711	107,409	234,372	251,/15	343,300	430,203	025,772	032,034	1,310,323	1,555,740	3,101,082	4,070,440	1,130,333	12,331,033
	Vaccination	KES			1,226	1,904	2,971	4,768	6,465	9,481	13,139	16,444	22,024	28,577	38,206	55,181	80,046	120,128	184,739	288,894	456,790	727,439	1,163,726	1,867,020
	Acaricides	KES			1,290	2,005	3,128	5,019	6,806	9,982	13,832	17,312	23,187	30,085	40,222	58,094	84,271	126,468	194,491	304,142	480,901	765,836	1,225,151	1,965,567
	Deworming	KES			968	1,503	2,346	3,765	5,105	7,486	10,374	12,984	17,390	22,564	30,167	43,570	63,203	94,851	145,868	228,107	360,676	574,377	918,863	1,474,175
	Spraying	KES			129 537	200 537	313 537	502	681 537	998 537	1,383	1,731 537	2,319 537	3,009 537	4,022 537	5,809 537	8,427 537	12,647 537	19,449 537	30,414	48,090 537	76,584 537	122,515	196,557 537
	Veterinary services (other animal heal Milk hygiene	ItiKES KES			1.074	1.074	1.074	537 1.074	1.074	1.074	537 1.074	1.074	1.074	1.074	1.074	1.074	1.074	1.074	1.074	537 1.074	1.074	1.074	537 1.074	1.074
	Fodder	KES		62,825	6.291	14,400	33.557	79.204	95.890	152.652	244.518	279.014	390.954	486.191	573,267	750,448	1.049.619	1,487.823	2.194.208	3.332.899	5.168.470			20.586.159
	Milk Container	KES		2,685	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738
	Total Operating Costs	KES		65,509	22,253	32,362	54,663	105,606	127,296	192,948	295,595	339,834	468,224	582,775	698,233	925,452	1,297,916	1,854,266	2,751,103	4,196,805	6,527,276	10,283,996	16,339,827	26,101,828
	Labour Budget Herd Boy	KES		14.319	28.637	28.637	28.637	28.637	28.637	28.637	28.637	28,637	28.637	28.637	28.637	28.637	28.637	28.637	28.637	28.637	28.637	28,637	28.637	28.637
	Family Labour	KES		1,894	22,728	22,728	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
	Total Labour costs	KES		16,213	51,365	51,365	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637	52,637

Profitability Indicators	
Return to family labour	8,480
Discount rate	17%
NPV (KES)	7,283,183
IRR	41%
PVb	2,595,557
PVc	1,840,122
B/C ratio	1.41
Switching values Benefits	(0.29)
Switching values Costs	0.41

Table 5b: Milk collection centre model - Financial Analysis

tres of milk purchased per Month imber of days worked in a year	Ltrs Man/Days	6,000.00 280.00																					
lk purchase price	KES/Ltrs	45.00																					
lk selling price	KES/Ltrs	60.00																					
bour costs	KES/Month	12,000.00																					
vn Consumption		1%																					
nya tegrated Natural Resources Management	Project (INReMP																						
f-farm - Milk Collection Centre (MCC)																							
			Quantity WoP										With-P	rolect									
sumptions and Parameters (1 Hectare)	Unit	Unit Cost	YO	Y1	Y2	Y3	Y4	YS	Y6	¥7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16		Y18	Y19	_
archase of milk per day	Ltrs	45.00	200	225	253	293	338	450	450	450	450	450	450	450	450	450	450	45		450 4		450	
urchase of milk per year	Ltrs		56,000	63,000	70,875	81,900	94,500	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,00				126,000	
wn consumption	Ltrs		560	630	709	819	945	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,26		260 1,2		1,260	
roduction losses	Ltrs		560	630	709	819	945	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,26		260 1,2		1,260	
et Production of losses	Ltrs		55,440	62,370	70,166	81,081	93,555	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,74	40 124,	740 124,74	0 124,740	124,740	
les to local small processors	Ltrs	60.00	55,440	62,370	70,166	81,081	93,555	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,740	124,74	40 124,	740 124,74	0 124,740	124,740	
vestment costs																							
fice equiment (tables, chairs)	Number	60,000									1												
oler - 500 Litres/Day Installed Capacity	Number	100,000		1																			
merator 30 KVA	Number	80,000		1							1												
uipments - Funnels, testers	Number	10,000	1	5				5					5						>				
perating Costs																							
nt	Month	10,000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		12		2 12	12	
ater	Month	5,000	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12		12		2 12	12	
etricity	Month	1,000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		12		2 12	12	
el for generator	Liter	160	300	800	800	800	800	800	800	800 1	800	800	800	800 1	800 1	800	800		00 :	800 8I		800 1	
ense fees eaning	Year Month	1,000	1 12	12	1 12	12	12	12	1 12	12	1 12	1 12	12	12	12	1 12	1 12		1		1 1 2 12	12	
		-,								-		-		-									
bour Costs bour costs for worker	Pers/month	12,000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	1	12	12	2 12	12	
mily days	Pers/month		-	-		-	-			-	-			-	-		-					-	
red Days	Pers/month		4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,38	80 4,	380 4,31	0 4,380	4,380	
			WoP					With-P															
nancial Budget venue			YO	Y1	Y2	Y3	Y4	YS	Υ6	¥7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	
les to local small processors	KES		3,326,400	3,742,200	4,209,975	4,864,860	5,613,300	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,40				7,484,400	7,
tal Revenue	KES		3,326,400	3,742,200	4,209,975	4,864,860	5,613,300	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,400	7,484,40	00 7,484,	400 7,484,41	0 7,484,400	7,484,400	7,
oduction Costs vestment Costs																							
fice equiment (tables, chairs)	KES										60,000												
oling tanks	KES			100,000							,												
enerator 30 KVA	KES			80,000							80,000												
nnels	KES		10,000	50,000				50,000					50,000					50,00					
al Investment Costs	KES		10,000	230,000				50,000			140,000		50,000					50,00	00				
erating Costs	KES		120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,00				120,000	
erating Costs nt			50,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,00				60,000	
erating Costs at iter	KES				12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,00				12,000	
erating Costs It Iter Iter Iter Iter	KES KES		12,000	12,000		128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,000	128,00				128,000	
erating Costs at ter ctricity el for generator	KES KES		48,000	128,000	128,000				1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,00		000 1,0		1,000	
erating Costs nt ster ctricity of for generator ense fees	KES KES KES		48,000 1,000	128,000 1,000	1,000	1,000	1,000	1,000				36,000	36,000	36,000	36,000	36,000 5.670.000	36,000 5.670.000	36,00		000 36,00	0 36,000	36,000	5
erating Costs It it it it it it it it it if if	KES KES KES KES		48,000 1,000 36,000	128,000 1,000 36,000	1,000 36,000	1,000 36,000	36,000	36,000	36,000	36,000	36,000		F 670 000							000 5 570 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
erating Costs t tter terr terr terr f for generator erse fees aning R Purchase	KES KES KES KES KES		48,000 1,000 36,000 2,520,000	128,000 1,000 36,000 2,835,000	1,000 36,000 3,189,375	1,000 36,000 3,685,500	36,000 4,252,500	36,000 5,670,000	5,670,000	5,670,000	5,670,000	5,670,000	5,670,000	5,670,000	5,670,000			5,670,00				5,670,000	
erating Costs tt tter ctricity for generator nose fees aning k Purchase -total operating costs	KES KES KES KES		48,000 1,000 36,000	128,000 1,000 36,000	1,000 36,000	1,000 36,000	36,000	36,000					5,670,000 6,027,000	5,670,000 6,027,000	5,670,000 6,027,000	6,027,000	6,027,000	5,670,00 6,027,0 0				5,670,000 6,027,000	6
erating Costs tt tcricity ctricity fi for generator ruce fees aning k Purchase -total operating costs	KES KES KES KES KES KES		48,000 1,000 36,000 2,520,000 2,787,000	128,000 1,000 36,000 2,835,000 3,192,000	1,000 36,000 3,189,375 3,546,375	1,000 36,000 3,685,500 4,042,500	36,000 4,252,500 4,609,500	36,000 5,670,000 6,027,000	5,670,000 6,027,000	5,670,000 6,027,000	5,670,000 6,027,000	5,670,000 6,027,000	6,027,000	6,027,000	6,027,000	6,027,000	6,027,000	6,027,00	00 6,027,	000 6,027,0	0 6,027,000	6,027,000	6
erating Costs at tricity for generator more fees aning k Purchase -total operating costs our Costs our costs our costs	KES KES KES KES KES		48,000 1,000 36,000 2,520,000	128,000 1,000 36,000 2,835,000	1,000 36,000 3,189,375	1,000 36,000 3,685,500	36,000 4,252,500	36,000 5,670,000	5,670,000	5,670,000	5,670,000	5,670,000							00 6,027,	000 6,027,0	0 6,027,000		6
erating Costs t t t t t t t t t t t t t t t t t t	KES KES KES KES KES KES KES KES KES		48,000 1,000 36,000 2,520,000 2,787,000 144,000	128,000 1,000 36,000 2,835,000 3,192,000 144,000	1,000 36,000 3,189,375 3,546,375 144,000	1,000 36,000 3,685,500 4,042,500 144,000	36,000 4,252,500 4,609,500 144,000	36,000 5,670,000 6,027,000 144,000	5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	6,027,00 144,00 144,00	00 6,027, 00 144, 00 144,	000 6,027,01 000 144,01 000 144,01	0 6,027,000 0 144,000 0 144,000	6,027,000 144,000 144,000	
erating Costs the the ter ter ter ter ter ter ter ter ter te	KES		48,000 1,000 36,000 2,520,000 2,787,000 144,000 144,000 2,941,000	128,000 1,000 36,000 2,835,000 3,192,000 144,000 144,000	1,000 36,000 3,189,375 3,546,375 144,000 144,000	1,000 36,000 3,685,500 4,042,500 144,000 144,000	36,000 4,252,500 4,609,500 144,000 144,000	36,000 5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000 6,171,000	5,670,000 6,027,000 144,000 144,000 6,171,000	5,670,000 6,027,000 144,000 144,000 6,311,000	5,670,000 6,027,000 144,000 144,000 6,171,000	144,000 144,000 6,221,000	144,000 144,000 6,171,000	144,000 144,000 6,171,000	144,000 144,000 6,171,000	144,000 144,000 6,171,000	6,027,00 144,00 144,00 6,221,00	00 6,027, 00 144, 00 144, 00 6,171,	000 6,027,01 000 144,01 000 144,01 000 6,171,01	0 6,027,000 0 144,000 0 144,000 0 6,171,000	6,027,000 144,000 144,000 6,171,000	6
erating Costs t t t t t t t t t t t t t t t t t t	KES KES KES KES KES KES KES KES KES		48,000 1,000 36,000 2,520,000 2,787,000 144,000	128,000 1,000 36,000 2,835,000 3,192,000 144,000	1,000 36,000 3,189,375 3,546,375 144,000	1,000 36,000 3,685,500 4,042,500 144,000	36,000 4,252,500 4,609,500 144,000	36,000 5,670,000 6,027,000 144,000	5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000	5,670,000 6,027,000 144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	6,027,00 144,00 144,00	00 6,027, 00 144, 00 144, 00 6,171, 00 1,457,	000 6,027,01 000 144,01 000 144,01 000 6,171,01 400 1,457,41	0 6,027,000 0 144,000 0 144,000 0 6,171,000 0 1,457,400	6,027,000 144,000 144,000	6

Return to family labour	4,691
Discount rate	12%
NPV (KES)	4,389,796
IRR	130%
PVb	35,258,154
PVc	37,696,481
B/C ratio	0.94
Switching values Benefits	0.07
Switching values Costs	(0.06)

Table 5b: Milk collection centre model - Financial Analysis

Assumptions and parameters		
Littres of milk purchased per Month	Ltrs	6,000.0
Number of days worked in a year	Man/Days	280.0
Milk purchase price	KES/Ltrs	40.2
Milk selling price	KES/Ltrs	53.6
Labour costs	KES/Month	10,738.3
Own Consumption		1%

Integrated Natural Resources Management Project (IN

Off-farm	 Milk 	Collection	Centre	(MCC)

			Quantity WoP										With-P	Project									
Assumptions and Parameters (1 Hectare)	Unit	Unit Cost	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Purchase of milk per day	Ltrs	40.27	200	200	225	260	300	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	4
Purchase of milk per year	Ltrs		56,000	56,000	63,000	72,800	84,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,000	112,0
Own consumption	Ltrs		560	560	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	6
Production losses	Ltrs		560	560	630	728	840	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,13
Net Production of losses	Ltrs		55,440	55,440	62,370	72,072	83,160	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,88
Sales to local small processors	Ltrs	53.69	55,440	55,440	62,370	72,072	83,160	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,880	110,88
investment costs																							
Office equiment (tables, chairs)	Number	53,692	-								1											-	
Cooler - 500 Litres/Day Installed Capacity	Number	89,487	-	1																		-	
Generator 30 KVA	Number	71.589		1							1												
Equipments - Funnels, testers	Number	8,949	1	5				5					5					5					
Operating Costs																							
Rent	Month	8,949	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Water	Month	4,474	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Electricity	Ls	895	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Fuel for generator	Liter	143	300	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	8
License fees	Year	895	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cleaning	Month	2,685	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Labour Costs																							
Labour Costs Labour costs for worker	Pers/month	10.738	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
		10,738	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Family days Hired Days	Pers/month Pers/month		4.380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4.380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,31
Times buys	reraymonen			4,300	4,300	4,300	4,500			4,300	4,300	4,500	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,30
Financial Budget			WoP Y0		Y2		Y4	With-P			Y8	Y9	Y10		Y12						Y18		Y20
Revenue			10	Y1	12	Y3	14	Y5	Y6	Y7	10	19	110	Y11	112	Y13	Y14	Y15	Y16	Y17	110	Y19	120
Sales	KES		2.976.681	2.976.681	3.348.766	3,869,686	4.465.022	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.362	5.953.36
Sales Total Revenue	KES		2,976,681	2,976,681	3,348,766	3,869,686	4,465,022	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,362	5,953,36
Production Costs	KES		2,570,001	2,570,001	3,340,700	3,007,000	4,403,022	3,333,302	3,333,302	3,733,302	3,733,302	3,333,302	3,333,302	3,333,302	3,333,302	3,733,302	3,333,302	3,333,302	3,553,502	3,733,302	3,733,302	3,333,302	3,333,31
Production Costs Investment Costs																							
Office equiment (tables, chairs)	KES										53,692												
Cooling tanks	KES			89,487							33,032												
Generator 30 KVA	KES			71.589							71.589												
Generator 30 KVA Funnels	KES		8,949	71,589 44,743				44.743			/1,589		44.743					44.743					44.7
Funneis Total Investment Costs	KES		8,949 8,949	205.819				44,743			125.281		44,743					44,743					44,74
	KES		0,343	203,619				44,/43			123,201		44,743					44,743					44,71
Operating Costs																							
Rent	KES		107,384 44.743	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,384 53.692	107,31
Water																							
Electricity	KES		10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,738	10,7
Fuel for generator	KES		42,954	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,543	114,5
License fees	KES		895	895	895	895	895	895	895	895	895	895	895	895	895	895	895	895	895	895	895	895	8
	KES		32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,215	32,2
	KES		2,255,062	2,255,062	2,536,944	2,931,580	3,382,592	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,123	4,510,1
Milk Purchase			2.493.991	2.574.529	2,856,411	3,251,047	3,702,059	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,590	4,829,59
Milk Purchase Sub-total operating costs	KES		1,400,001	-,,																			
Cleaning Milk Purchase Sub-total operating costs Labour Costs	KES																						
Milk Purchase Sub-total operating costs Labour Costs Labour costs for worker	KES		144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,00
Milk Purchase Sub-total operating costs Labour Costs Labour costs for worker	KES				144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	144,000 144,000	
Milk Purchase Sub-total operating costs Labour Costs	KES		144,000	144,000																			144,0
Milk Purchase Sub-total operating costs Labour Costs Labour costs for worker Total Labour Costs	KES KES		144,000 144,000	144,000 144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	5,018,3
Milk Purchase Sub-total operating costs Labour Costs Labour costs for worker Total Labour Costs Fotal Production Costs	KES KES KES		144,000 144,000 2,646,939	144,000 144,000 2,924,348	3,000,411	144,000 3,395,047	144,000 3,846,059	144,000 5,018,333	144,000 4,973,590	144,000 4,973,590	144,000 5,098,871	144,000 4,973,590	144,000 5,018,333	144,000 4,973,590	144,000 4,973,590	144,000 4,973,590	144,000 4,973,590	144,000 5,018,333	144,000 4,973,590	144,000 4,973,590	144,000 4,973,590	144,000 4,973,590	144,00 144,00 5,018,33 1,079,03

rofitability Indicators	
Return to family labour	
Discount rate	17%
NPV (KES)	1,534,960
IRR	57%
PVb	22,420,680
PVc	22,391,316
B/C ratio	1.00
Switching values Benefits	(0.00)
Switching values Costs	0.00

Table 5c: Poultry – Improved indigenous model – Financial Analysis

Integrated Natural Resources Manage Improved Indegenous chickens - One					Assumption Dy	mamier																
	f about 100 birds of which the project will pa	v for 50 and bene	ficiaries 50 (50																			
		,			Without Project			to. of birds	32													
Local Chicken Model (KES) 100 birds					tock contribu	tion from ente	rprise group !	to. of birds	50													
Selling Price	Unt	Unit Cost	Qty		Stock from Pro	ject (50% sub:	ildy) 1	io. of birds		The project wil	promote ente	rprises of abou	ut 100 birds of	which the proj	act will pay for	50 and beneficia	aries 50 (50% sub	bsidy on a 50	D bird unit).			
Chicken	KES/Head	1,000.00		1	Total			io. of birds	100													
Eggs	KES/egg	10.00							WOP	WP												
Empty trays	KES/egg	40.00			hicks mortalit				30%	15%												
Feed Costs	KES/Bird	200.00			Adult chicken n				20%								egg costing Ksh.					
Family Labour	KES/Day	200.00	115		ggs/chicken/b		30 eggs/chick	ien			t is assumed to	hat each chick	en produces ar	average of 60	eggs in one y	or (for 2 batche	s, meaning 30 pe	er batch)				
Housing	KES	20,000.00	1		ielf consumpti					2%												
Purchase of day old chicks	KES	130.00			ielf consumpti					10												
Feeders Drinkers	KES KES	250.00 450	3		Off-take Chicke Production lose					100%						100	250					
Vaccines	KES	1.300	1		-roduction los	us.			20%	10%	on of the egg	s or 24 eggs u	re either consu	med at nome	or the eggs or	10.000	25 000					
No. of hatches in One Year	No.	2.00	1													10,000	250 000 000					
Disinfertants	KES	500	1														230,000,000					
Brooding Jiko and Charcoal	KES	3400	1																			
Plywood	Pc	500	1.5																			
Wood chippings	Bag	300	1.5																			
Land Size	Ha	200	0.25																			
		Quantity																				
Chicken Model - Financial Analysis (O	ne enterprise group - 3 people)	WoP					With-P	roject														
Assumptions and Parameters	Unit Unit Cost	YO	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Main Production (2 batches)	No. of birds	64	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Total Stock after mortality rate	No. of birds	51	160	160	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
Total New Stock	No. of birds	51	160	160	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
No. of eggs hatched per year	30 eggs per head	3,082	9,600	9,600	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200
No. of eggs available for off-take	No. of eggs	3,082	9,600	9,600	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200	10,200
			320																			
Technical Parameters																						
Chicks mortality rate	%	30%	30%	30%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Adult Chicken mortality rate Production losses	%	20%	20%	20% 10%	15% 10%	15% 10%	15% 10%	15%	15% 10%	15% 10%	15% 10%	15% 10%	15% 10%	15%	15% 10%	15%	15% 10%	15% 10%	15%	15%	15% 10%	15% 10%
Own-consumption - Chicken	No. of birds	10	10	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Self-consumption - Eggs	No. of Eggs	46	144	144	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153
Off-take (Chicken)	NO OF ERRO	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Main Production/Offtake	~	100%	100%	10070	100%	100%	20070	100%	10070	100%	20070	20070	100%	100%	20070	20074	100%	100%	100%	100%	20070	100%
Chicken	No. of birds	51	160	160	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
Eggs	No. of eggs	2.465	7.680	8.640	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180	9.180
		WOP										With Ppro										
Financial Budget		10	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Chicken	KES KES	51,360	160,000	160,000	170,000	170,000 91,800	170,000 91,800	170,000	170,000 91,800	170,000	170,000 91,800	170,000 91,800	170,000 91,800	170,000 91,800	170,000	170,000	170,000 91,800	170,000 91,800	170,000 91,800	170,000 91,800	170,000 91,800	170,000
Total Revenue	KES KES	24,653 76,013	76,800 236.800	86,400 246,400	91,800 261,800	261,800	261,800	91,800 261.800	261,800	261,800	261,800	261.800	261,800	261,800	91,800 261.800	91,800 261.800	261.800	261.800	261.800	261,800	261,800	91,800
TOTAL NEVERIDE	NEJ	70,013	130,000	240,400	202,000	101,000	101,000	101,000	201,000	101,000	101,000	101,000	101,000	201,000	101,000	101,000	201,000	101,000	101,000	101,000	101,000	101,000
Production Costs																						
Investment Costs																						
Housing			20,000																			
Empty trays (each tray = 30 eggs)		4,109	8,691			12,800			12,800			12,800			12,800			12,800			12,800	
Total Investment Costs			28,691			12,800			12,800			12,800			12,800			12,800			12,800	-
Operating Costs																						
Chicken feeds	KES	10,272	32,000	32,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000	34,000
Purchase of day old chicks	KES	8,346	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000
Vaccines - Assorted	KES	650	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
Feeders	KES		750			750			750			750			750			750			750	
Drinkers	KES	700	1,350			1,350			1,350			1,350			1,350			1,350			1,350	
Plywood	KES		750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
Wood chippings	KES KES	3,400	450 3.400	450 3,400	450 3,400	450 3.400	450 3.400	450 3.400	450 3,400	450 3.400	450 3.400	450 3.400	450 3.400	450 3,400	450 3.400	450 3.400	450 3.400	450 3,400	450 3.400	450 3,400	450 3,400	450 3.400
Brooding jiko and charcoal Disinfertants		3,400 500	3,400 500	3,400	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400 500	3,400	3,400
Total Operating Costs	Kes	23,868	66,500	64,400	66,400	68,500	500 66,400	66,400	68,500	66,400	66,400	68,500	66,400	66,400	68,500	66,400	500 66,400	68,500	66,400	66,400	68,500	66,400
rotal Operating Costs		23,008	00,500	04,400	00,400	00,300	00,400	00,400	00,500	00,400	00,440	00,300	00,400	00,400	00,500	00,400	00,400	00,300	00,400	00,400	00,300	00,400
Labour Budget																						
Family Labour	KES	4,600	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000
Total Production Costs	KES	28,468	118,191	87,400	89,400	104,300	89,400	89,400	104,300	89,400	89,400	104,300	89,400	89,400	104,300	89,400	89,400	104,300	89,400	89,400	104,300	89,400
Net Income Before Labour Costs		52,145	141,609	182,000	195,400	180,500	195,400	195,400	180,500	195,400	195,400	180,500	195,400	195,400	180,500	195,400	195,400	180,500	195,400	195,400	180,500	195,400
Net Income After Labour Costs		47,545	118,609	159,000	172,400	157,500	172,400	172,400	157,500	172,400	172,400	157,500	172,400	172,400	157,500	172,400	172,400	157,500	172,400	172,400	157,500	172,400
Not Incremental Benefits			71.064	111 455	124 955	100 055	124 955	124 955	100 055	124 955	124 955	100 055	124 955	124 955	100 055	124 955	124 955	100 000	124 955	124 955	100 055	124 955

Profitability Indicators	
Return to family labour (KES)	1,499
Discount rate	12%
NPV (KES)	839,775
IRR	Num
NPV/b - KES	1,513,162
NPV/c - KES	596,201
B/C ratio	2.54
Switching values Benefits	(0.61)
Switching values Costs	1.54

Table 5c: Poultry – Improved indigenous model – Economic Analysis

Integrated Natural Resources Manager Improved Indegenous chickens - One et	nterprise group (3 people)				Assumption Dy																	
The project will promote enterprises of a	about 100 birds of which the project	will pay for 50 and bene	ficiaries 50 (50																			
					Without Projec			lo. of birds	32 50													
Local Chicken Model (KES) 100 birds Selling Price	Unt	Unit Cost	Qty		itock contribut itock from Pro			io. of birds					a soo blade as	and the state of the same of		EQ and bounded	aries 50 (50% sut	halds an a fin	O felor control			
Chicken	KES/Head	894.87	Qty		rotal	ject (50% suus		io. of birds	100	ne project we	promote ente	rprises or abor	or 100 pings of	water the proje	act will play for	SO and Devience	ines do (dose su	usitry on a oc	o ana anny.			
Eggs	KES/egg	8.95	0		CLIII			io. oi bii us	WOP	WP												
Empty trays	KES/egg	35.79			hicks mortality	v rate			30%	15%												
Feed Costs	KES/Bird	178.97	0		Adult chicken n				20%		10% of these o	r 24 eggs are o	elther consume	d at home or t	he eggs do not	t survive, with ar	egg costing Ksh.	s 10;				
Family Labour	KES/Day	189.40	115		ggs/chicken/b		30 eggs/chick	en		60 /	t is assumed t	hat each chick	en produces an	average of 60	eggs in one ye	ear (for 2 batche	s, meaning 30 pe	er batch)				
Housing	KES	17,897.31	1	S	ielf consumptio	on - Eggs				2%												
Purchase of day old chicks	KES	116.33	0	S	ielf consumption	on - Chicken				10												
Feeders	KES	223.72	3		Off-take Chicke					100%												
Drinkers	KES	402.69	3	F	Production lose	25			20%	10%	10% of the ego	is or 24 eggs a	re either consu	med at home o	or the eggs d	100	250					
Vaccines	KES	1,163.33	1													10,000	25,000					
No. of batches in One Year	No.	1.79	0														250,000,000					
Disinfectants	KES KES	447.43 3.042.54	1																			
Brooding Jiko and Charcoal Plywood	RES Pc	3,042.54	1.5																			
Wood chippings	Bag	268.46	1.5																			
	-mg	Quantity	4.3																			
Chicken Model - Financial Analysis (On	ne enterprise group - 3 people)	WoP					With-Pr	oject														
Assumptions and Parameters		t Cost Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Main Production (2 batches)	No. of birds	64	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179
Total Stock after mortality rate	No. of birds	51	143	143	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Total New Stock	No. of birds	51	143	143	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
No. of eggs hatched per year	30 eggs per head	3,082	8,591	8,591	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128
No. of eggs available for off-take	No. of eggs	3,082	8,591	8,591	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128	9,128
			286																			
Technical Parameters	%	30%	30%	30%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Chicks mortality rate Adult Chicken mortality rate	%	20%	20%	20%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Production losses	76	20%	20%	10%	10%	15%	15%	10%	10%	10%	15%	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Own-consumption - Chicken	No. of birds	10	10	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Self-consumption - Eggs	No of Eggs	46	144	144	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153	153
Off-take (Chicken)	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Main Production/Offtake	-																					
Chicken	No. of birds	51	143	143	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Eggs	No. of eggs	2,419	6,729	7,588	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062	8,062
		WOP										With Ppro										
Financial Budget		10	Y1	Y2	Y3	Y4	Y5	Y6	¥7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue Chicken	KES	45.960	128.126	128.126	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133	136.133
	KES	45,960 21,647	60 212	67.899	77 143	77 143	77 143	72 143	77 143	77 143	77 143	72 143	72 143	72 143	72.143	72.143	136,133 72 143	72 143	72 143	77 143	72.143	72.143
Eggs Total Revenue	KES	67,608	188.337	196.025	208,276	208,276	208,276	208,276	208,276	208,276	208.276	208,276	208,276	208.276	208,276	208,276	208.276	208,276	208 276	208,276	208,276	208.276
Total Revenue	KES	67,008	100,337	190,023	200,276	200,270	200,270	208,276	200,276	200,270	200,270	200,270	200,270	200,270	200,270	200,276	200,276	200,276	200,270	200,270	200,270	200,270
Production Costs																						
Investment Costs																						
Housing			17.897																			
Empty trays (each tray = 30 eggs)		3,677	6,573			10,250			10,250			10,250			10,250			10,250			10,250	
Total Investment Costs			24,471	-	-	10,250		-	10,250			10,250	-		10,250	-	-	10,250			10,250	
Operating Costs																						
Chicken feeds	KES	9,192	25,625	25,625	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227	27,227
Purchase of day old chicks	KES	7,469	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820	20,820
Vaccines - Assorted	KES	582	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163	1,163
Feeders	KES		671			671			671			671			671			671			671	
Drinkers	KES	700	1,208 671	671	671	1,208	671	671	1,208	671		1,208	671	671	1,208	671	671	1,208	671	671	1,208	671
Plywood				671 403	671 403	671 403	671 403	671 403	671 403		671		671 403	671 403		671 403	671 403	671 403			671 403	671 403
Wood chippings Broading like and charges!	KES KES	3,043	403 3.043	403 3.043	403 3,043	403 3,043	403 3.043	403 3.043	403 3,043	403 3,043	403 3.043	403 3,043	403 3,043	403 3.043	403 3,043	403 3.043	403 3.043	403 3,043	403 3,043	403 3,043	403 3.043	403 3.043
Brooding jiko and charcoal Disinfectants	KES	3,043	3,043	3,043 447	3,043	3,043	3,043	3,043	3,043	3,043 447	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043	3,043
Total Operating Costs	NES	21.432	54.052	52.173	53,774	55.653	53,774	53,774	55,653	53,774	53,774	55.653	53,774	53,774	55,653	53,774	53,774	55,653	53,774	53,774	55.653	53,774
		22,432	34,032	32,273	33,114	33,033	33,114	33,174	33,033	33,114	33,114	33,033	33,114	33,114	33,033	33,174	33,174	33,033	33,114	33,114	33,033	33,114
Labour Budget																						
Family Labour	KES	4,356	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781	21,781
Total Production Costs	KES	25,788	100,303	73,954	75,555	87,684	75,555	75,555	87,684	75,555	75,555	87,684	75,555	75,555	87,684	75,555	75,555	87,684	75,555	75,555	87,684	75,555
Net Income Before Labour Costs		46,175	109,815	143,852	154,502	142,373	154,502	154,502	142,373	154,502	154,502	142,373	154,502	154,502	142,373	154,502	154,502	142,373	154,502	154,502	142,373	154,502
Net Income After Labour Costs		41,819	88,034	122,071	132,721	120,592	132,721	132,721	120,592	132,721	132,721	120,592	132,721	132,721	120,592	132,721	132,721	120,592	132,721	132,721	120,592	132,721
Not become and Benefits			40.490	74 526	95 176	72 047	95 176	95 176	73.047	05.176	9C 17C	73.047	05.176	05.176	72 047	95 176	05.136	73.047		05.176	73.047	05 176

Profitability Indicators	
Return to family labour (KES)	1,154
Discount rate	17%
NPV (KES)	421,098
IRR	Num
NPV/b - KES	987,894
NPV/c - KES	412,668
B/C ratio	2.39
Switching values Benefits	(0.58)
Switching values Costs	1.39

Table 5d: Avocado fruit model – Financial Analysis

			Quantity WoP										With-Pro	iect									
Assumptions and Parameters (1 Hectare)	Unit	Unit Cost	YO	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Main Production	Kg	160.00		800	850	900	940	980	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,00
No. of Harvesting Batches in a Year	No.			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Total Production	Kg			1,600	1,700	1,800	1,880	1,960	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,00
Own Consumption	Kg			160	170	180	188	196	200	200	200	200	200	200	200	200	200	200	200	200	200	200	20
Post Harvest Loses	Kg		-	80	85	90	94	98	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Total Production				1,520	1,615	1,710	1,786	1,862	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,90
Operating Costs		4,800																					
Avocado seeds	No. of Trees	100		1,000	-	-	-	-	-	-	-	-	-		-	-	-	-	-			-	
Manure	Ls	1.000		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Fertilizers	Kg	200		100	-		-	-		-	-		-								-		
Slashers	Pcs	600		5		5		5		5		5		5		5		5		5		5	
Hoes	Pcs	600		5		5		5		5		5		5		5		5		5		5	
Seedling pots	Pcs	2.000		1																			
accuming pota	103	2,000																					
Labour Budget																							
Land clearing	Man/Days	400	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
Fertilizer application	Man/Days	600		6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Planting	Man/Days	400	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Watering	Man/Days	400	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Weeding	Man/Days	400	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
Mulching	Man/Days	400		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Prunning	Man/Days	400		5	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Harvesting	Man/Days	400		-	-		-	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Packaging	Man/Days	400		-	-		-	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Family days	Man/Days			90	25	30	30	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	81
Hired Days	Man/Days		-	6.0			-	-		-	-		-			-		-		-		-	
Financial Budget			WoP Y0	Y1	Y2	Y3	Y4	With-Pro	y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Sales (Hectare)	KES		-	-	-	-	256,000	272,000	288,000	300,800	313,600	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000
Total Revenue	KES		-				256,000	272.000	288,000	300,800	313,600	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,00
Production Costs							,	,	,	,	,	,	,	,	,	,	,	,	,			,	,
Operating Costs																							
Avocado seeds																							
Manure				100.000																			
	KES		-	100,000	-	- 700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	501
Fortille	KES		-	1,000	800	700	600	600	600	600	600	600	600	600	600	600	600	600	- 600	600	600	600	600
Fertilizers	KES KES		:	1,000 20,000	800 -	-	600	-	-	-	600	-	600	-	-	-	600	-	600	-	- 600 -	-	601
Slashers	KES KES KES		-	1,000 20,000 3,000	800 - -	3,000	600	3,000	600	3,000	600	3,000	600	3,000	600	3,000	600	3,000	- 600 -	3,000	- 600 -	3,000	
Slashers Hoes	KES KES KES		- - - -	1,000 20,000 3,000 3,000	800 - -	-	600	-	-	-	600	-	600	-	-	-	600	-	600	-	600	-	601
Slashers Hoes Seedling pots	KES KES KES		- - - -	1,000 20,000 3,000 3,000 2,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000		3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	
Slashers Hoes Seedling pots Total Operating Costs	KES KES KES		- - - - - -	1,000 20,000 3,000 3,000	800 - - - - - 800	3,000	600 - - - - - -	3,000	-	3,000	600 - - - - - 600	3,000	600 - - - - - -	3,000	-	3,000	- 600 - - - - -	3,000	- 600 - - - - -	3,000	- 600 - - - - - -	3,000	
Slashers Hoes Seedling pots Total Operating Costs Labour Costs	KES KES KES KES		- - - - - - -	1,000 20,000 3,000 3,000 2,000 129,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000		3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	
Slashers Hoes Seedling pots Total Operating Costs Labour Costs Land clearing	KES KES KES KES KES		-	1,000 20,000 3,000 3,000 2,000 129,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000		3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	
Slashers Hoes Seedling pots Total Operating Costs Labour Costs Land clearing Fertilizer application	KES KES KES KES KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000		3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	
Slashers Hoes Seedling pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting	KES KES KES KES KES KES KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000		3,000 3,000	-	3,000 3,000	-	3,000 3,000	-	3,000 3,000	
Slashers Hoes Seedling pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting Watering	KES KES KES KES KES KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000	800	3,000 3,000 - 6,700	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600 -	600	3,000 3,000 - 6,600	601
Slashers Notes Seedling pots Seedling pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting Watering Weeding	KES		- - - - - - - - - - - - - - - - - - -	1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000	- - - 800	3,000 3,000 - 6,700	600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600	- - - 600	3,000 3,000 - 6,600	- - - - 600	3,000 3,000 - 6,600	- - - - 600	3,000 3,000 - 6,600	600	3,000 3,000 - 6,600 - - - - - 2,000	600	3,000 3,000 - 6,600 - - - - - 2,000	- - - - 600 - - - - - - - - - -	3,000 3,000 - 6,600	2,000
Slashers Hoes Seedling pots Total Operating Costs Labour Costs Land clearing Fertillier application Planting Waeding Weeding Mulching	KES		- - - - - - - - - - - - - - - - - - -	1,000 20,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000 4,000	- - - 800	3,000 3,000 - 6,700 - - - - 2,000 4,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - - 2,000 4,000	- - - 600	3,000 3,000 - 6,600 - - - - - 2,000 4,000	- - - 600	3,000 3,000 - 6,600 - - - - 2,000 4,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - - - 2,000 4,000	- - - 600	3,000 3,000 - 6,600 - - - - - 2,000 4,000	- - - 600	3,000 3,000 - 6,600 - - - - - 2,000 4,000	- - - 600	3,000 3,000 - 6,600 - - - - 2,000 4,000	- - - 600	3,000 3,000 - 6,600 - - - - - 2,000 4,000	2,000 4,000
Slashers Hoes Seedling pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting Watering Weeding Mulching Prunning	KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000	- - - 800	3,000 3,000 - 6,700	600	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - - 600	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - 600	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - - 600 - - - - 2,000 4,000 6,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - 600	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - - 600	3,000 3,000 - 6,600 - - - - - 2,000 4,000 6,000	- - - 600	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - 600 - - - 2,000 4,000 6,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	2,000 4,000 6,000
Slashers Hotes Seedling pots Total Operating Costs Labour Costs Land clearing Fertilizer application Parting Weeding Mulching Prunning Prunning Harvesting	KES			1,000 20,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000 4,000	- - - 800	3,000 3,000 - 6,700 - - - - 2,000 4,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- 600 - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - - - - - - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	2,000 4,000 10,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - - - - - - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - - - 2,000 4,000 6,000 10,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000	- - - - - - - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - - - 2,000 4,000 6,000	2,000 4,000 6,000
Slashers Holes Seeding pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting Watering Watering Mulching Prunning Harvesting Harvesting Parkaiging	KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000 4,000 2,000	800 - - - 2,000 4,000 4,000	3,000 3,000 - 6,700 - - - - - 2,000 4,000 6,000	600 - - - 2,000 4,000 6,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000	600 	3,000 3,000 - 6,600 - - - - 2,000 4,000 10,000	- - - - - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - - - 2,000 4,000 10,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - - - 2,000 4,000 10,000	600 	3,000 3,000 - 6,600 - - - - 2,000 4,000 10,000	- - - - - - - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000	- - - - - - - - - - - - - - - - - - -	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000	- - - - - - - - 2,000 4,000 6,000 10,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000	2,000 4,000 6,000 10,000
Slabers Seeding pots Total Operating Costs Labour Costs Lam Cleaning Fertilizer application Partiting Watering Watering Watering Factor Partiting Partiting Partiting Factor Fact	KES			1,000 20,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000 4,000 2,000 	800 - - - 2,000 4,000 4,000 - - 10,000	3,000 3,000 6,700 - 6,700 	600 - - - 2,000 4,000 6,000 - -	3,000 3,000 6,600 		3,000 3,000 6,600 		3,000 3,000 6,600 	2,000 4,000 10,000 10,000 32,000	3,000 3,000 6,600 		3,000 3,000 6,600 - - - 2,000 4,000 6,000 10,000 32,000	2,000 4,000 6,000 10,000 32,000	3,000 3,000 6,600 - - - 2,000 4,000 6,000 10,000 32,000	2,000 4,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 32,000	- - - - - - 2,000 4,000 6,000 10,000 32,000	3,000 3,000 6,600 - - - 2,000 4,000 6,000 10,000 32,000	2,000 4,000 6,000 10,000 32,000
Slabers Seeding pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting Watering Watering Watering Harvesting Harvesting Parkaging Total Jabour Costs Total Production cost	KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 2,000 4,000 2,000 4,000 2,000 3,600 8,000 16,000 16,000 16,000	800 	3,000 3,000 6,700 	2,000 4,000 6,000 - 12,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000 10,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 10,000 32,000	2,000 4,000 6,000 10,000 32,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000 10,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 10,000 32,000 38,600		3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 10,000 32,000	2,000 4,000 6,000 10,000 32,000	3,000 3,000 6,600 - - 2,000 4,000 6,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 32,000 38,600	- - - - - - - - - - - - - - - - - - -	3,000 3,000 6,600 - - 2,000 4,000 6,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 32,000
Slabers Seeding pots Total Operating Costs Labour Costs Lam Cedening Fertilizer application Planting Watering Weeling Watering Planting Planting Planting Planting Planting Total Labour Costs Total abour Costs Total Postuction cost Net Income Before Labour Costs	KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 16,000 2,000 2,000 39,600 168,600 1129,000	2,000 4,000 4,000 10,800 (800)	3,000 3,000 6,700 - - - - 2,000 4,000 - - - 12,000 18,700 (6,700)	2,000 4,000 6,000 12,600 2255,400	3,000 3,000 - 6,600 - - - 2,000 4,000 10,000 10,000 32,000 38,600 265,400	2,000 4,000 10,000 10,000 32,000 287,400	3,000 3,000 6,600 - - 2,000 4,000 6,000 10,000 32,000 38,600 294,200	2,000 4,000 10,000 10,000 32,000 31,000 31,000	3,000 3,000 6,600 - - - 2,000 4,000 10,000 10,000 32,000 313,400	2,000 4,000 10,000 10,000 32,000 31,400	3,000 3,000 6,600 - - 2,000 4,000 10,000 10,000 32,000 38,600 313,400	2,000 4,000 10,000 10,000 32,000 31,000 31,400	3,000 3,000 6,600 - 2,000 4,000 10,000 10,000 32,000 38,600 313,400	2,000 4,000 10,000 10,000 32,000 31,400	3,000 3,000 6,600 - 2,000 4,000 10,000 10,000 32,000 31,400	2,000 4,000 10,000 10,000 32,000 31,000 31,400	3,000 3,000 6,600 - - 2,000 4,000 10,000 10,000 32,000 33,600 313,400	2,000 4,000 10,000 10,000 32,000 32,600	3,000 3,000 6,600 - 2,000 4,000 10,000 10,000 32,000 31,400	2,000 4,000 6,000 10,000 32,000 32,600 319,400
Slabers Seeding pots Total Operating Costs Labour Costs Land clearing Fertilizer application Planting Watering Watering Watering Harvesting Harvesting Parkaging Total Jabour Costs Total Production cost	KES			1,000 20,000 3,000 3,000 2,000 129,000 4,000 3,600 8,000 2,000 4,000 2,000 4,000 2,000 3,600 8,000 16,000 16,000 16,000	800 	3,000 3,000 6,700 	2,000 4,000 6,000 - 12,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000 10,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 10,000 32,000	2,000 4,000 6,000 10,000 32,000	3,000 3,000 - 6,600 - - - - 2,000 4,000 6,000 10,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 10,000 32,000 38,600		3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 10,000 32,000	2,000 4,000 6,000 10,000 32,000	3,000 3,000 6,600 - - 2,000 4,000 6,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 32,000	3,000 3,000 - 6,600 - - - 2,000 4,000 6,000 10,000 32,000 38,600	- - - - - - - - - - - - - - - - - - -	3,000 3,000 6,600 - - 2,000 4,000 6,000 10,000 32,000 38,600	2,000 4,000 6,000 10,000 32,000

Profitability Indicators	
Return to family labour	3,593
Discount rate	12%
NPV (KES)	403,753
IRR	23%
PVb	1,029,554
PVc	300,939
B/C ratio	3.42
Switching values Benefits	(0.71)
Switching values Costs	2.42

Table 5d: Avocado fruit model – Economic Analysis

			WoP										With-Pro										
Assumptions and Parameters (1 Hectare)	Unit	Unit Cost	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Main Production	Kg	143.18	-	800	850	900	940	980	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,0
No. of Harvesting Batches in a Year	Unit			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Total Production	Kg			1,600	1,700	1,800	1,880	1,960	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,0
Own Consumption	Kg			160	170	180	188	196	200	200	200	200	200	200	200	200	200	200	200	200	200	200	20
Post Harvest Loses	Kg			80	85	90	94	98	100	100	100	100	100	100	100	100	100	100	100	100	100	100	10
Total Production			-	1,520	1,615	1,710	1,786	1,862	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,90
Operating Costs																							
Avocado seeds	Kg	89	-	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Manure	Ls	895	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Fertilizers	Ltrs	179	-	100	-		-						-			-	-				-	-	
Slashers	Pcs	537	-	5	-	5	-	5		5		5	-	5		5	-	5		5	-	5	
Hoes	Pcs	537		5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	-	5	
Seedling pots	Pcs	1,790	-	1	-	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	
Labour Budget																							
Land clearing	Man/Days	378.8		10		_		_					_										
Fertilizer application	Man/Days	568.2		6																			
Planting	Man/Days	568.2		20																			
Watering	Man/Days	568.2		40						-	-				-				-				
Weeding	Man/Days	568.2	-	5	5	5	5	5	5	5	5		5	5		5	5		5	5		5	
Mulching	Man/Days	568.2	-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Prunning	Man/Days	568.2	-	5	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	1
Harvesting	Man/Days	568.2	-	-	-	-	-	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	- 3
Packaging	Man/Days	568.2	-	-	-	-	-	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Family days	Man/Days			90	25	30	30	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	8
Hired Days	Man/Days		-	6.0	-		-			-	-		-		-		-		-		-		
			WoP					With-Pro	ject														
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Sales (Hectare)	KES			-	-	-	229,086	243,403	257,721	269,176	280,630	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,35
Total Revenue	KES		-	-	-	-	229,086	243,403	257,721	269,176	280,630	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,357	286,35
Production Costs																							
Operating Costs																							
Avocado seeds	KES		-	89.487	-	-		-				-	-				-				-		
Manure	KES		-	895	716	626	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	537	53
Fertilizers	KES			17.897				-		-	-				-	-			-	-	-		
Slashers	KES			2,685		2,685		2,685		2.685		2,685		2,685		2,685		2,685		2,685		2,685	
Hoes	KES			2,685		2,685		2,685		2,685		2,685		2,685		2,685		2,685		2,685		2,685	
Seedling pots	KES			1,790		2,003		2,003		2,003		2,003		2,003		2,003		2,003		2,003		2,003	
Total Operating Costs				115,438	716	5,996	537	5,906	537	5,906	537	5,906	537	5,906	537	5,906	537	5,906	537	5,906	537	5,906	53
Labour Costs				110,730	, 10	3,330	337	3,300	337	3,300	331	3,300	331	3,300	331	3,300	331	3,300	237	3,300	331	3,300	- 33
	KES			3.700																			
Land clearing			-	3,788	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fertilizer application	KES		-	3,409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	KES		-	11,364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Planting				22,728	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Watering	KES					2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,84
Watering Weeding	KES		-	2,841	2,841																		
Watering Weeding Mulching	KES KES		-	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	5,682	
Watering Weeding Mulching	KES KES		-						5,682 8,523		5,682 8,523	5,682 8,523	8,523	5,682 8,523	5,682 8,523	5,682 8,523	5,682 8,523					5,682 8,523	8,5
Watering Weeding Mulching Prunning	KES KES		-	5,682	5,682	5,682	5,682	5,682		5,682								5,682	5,682	5,682	5,682		8,5
Watering Weeding Mulching Prunning Harvesting	KES KES		-	5,682	5,682	5,682	5,682	5,682 8,523	8,523	5,682 8,523	8,523	8,523	8,523	8,523	8,523	8,523	8,523	5,682 8,523	5,682 8,523	5,682 8,523	5,682 8,523	8,523	8,5 14,2
Watering Weeding Mulching Prunning Harvesting Packaging	KES KES KES		-	5,682	5,682	5,682	5,682	5,682 8,523 14,205	8,523 14,205	5,682 8,523 14,205	8,523 14,205	5,682 8,523 14,205	5,682 8,523 14,205	5,682 8,523 14,205	5,682 8,523 14,205	8,523 14,205	8,52 14,20 14,20						
Watering Weeding Mulching Prunning Harvesting Packaging Total Labour Costs	KES KES KES KES		-	5,682 2,841 -	5,682 5,682	5,682 8,523 -	5,682 8,523	5,682 8,523 14,205 14,205	8,523 14,205 14,205	5,682 8,523 14,205 14,205	8,523 14,205 14,205	5,682 8,523 14,205 14,205	5,682 8,523 14,205 14,205	5,682 8,523 14,205 14,205	5,682 8,523 14,205 14,205	8,523 14,205 14,205	8,52 14,20 14,20 45,4 5						
Watering	KES KES KES KES		-	5,682 2,841 - 52,653 168,091	5,682 5,682 - 14,205 14,921	5,682 8,523 - - 17,046	5,682 8,523 - - 17,046	5,682 8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456	5,682 8,523 14,205 14,205 45,456 51,362	8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456 45,993	8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456 51,362	8,523 14,205 14,205 45,456	5,682 8,523 14,205 14,205 45,456	5,682 8,523 14,205 14,205 45,456 45,993	5,682 8,523 14,205 14,205 45,456	5,682 8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456 51,362	14,21 14,21 45,41
Watering Weeding Mulching Prunning Harvesting Packaging Total Labour Costs Total Production cost	KES KES KES KES KES		-	5,682 2,841 - - 52,653	5,682 5,682 - - - 14,205	5,682 8,523 - - 17,046 23,042	5,682 8,523 - 17,046 17,583	5,682 8,523 14,205 14,205 45,456 51,362	8,523 14,205 14,205 45,456 45,993	5,682 8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456 45,993	8,523 14,205 14,205 45,456 51,362	8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456 51,362	8,523 14,205 14,205 45,456 45,993	8,523 14,205 14,205 45,456	8,523 14,205 14,205 45,456 45,993	5,682 8,523 14,205 14,205 45,456 51,362	5,682 8,523 14,205 14,205 45,456	5,682 8,523 14,205 14,205 45,456 51,362	5,682 8,523 14,205 14,205 45,456 45,993	8,523 14,205 14,205 45,456	5,68 8,53 14,20 14,20 45,45 45,99 285,83 240,36

rofitability Indicators	
Return to family labour	2,671
Discount rate	16.8%
NPV (KES)	9,932
IRR	17%
PVb	690,405
PVc	275,328
B/C ratio	2.51
Switching values Benefits	(0.60)
Switching values Costs	1.51

Table 5e: Bee keeping model – Financial Analysis

			Quantity WoP										With-Pr	oject									
Main Production	Unit	Unit Cost	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Yields	Kg	800	100	240	390	420	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
Own Consumption	Kg		10	24	39	42	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Post Harvest Loses	Kg		15	12	20	21	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Total Production			85	228	371	399	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428
Investment Costs Bee families and bee hives	No.	15.000	2	10			3			3				3				3				3	
Bee ramilles and bee nives	NO.	15,000	2	10	-	-	3		-	3	-	-	-	3	-	-	-	3	-	-	-	3	-
Operating inputs																							
Protective gears	No.	3,000		1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-
Harvesting Kit	No.	2,000	1	2			2			2			2			2			2			2	
Airtight containers Labour Budget	No/2Kgs each	400	50	70	125	85	140	85	140	85	140	85	140	85	140	85	140	85	140	85	140	85	140
Beehive installation	Man/Davs	600	1	5	5	5																	
Supervision of beehives	Man/Days	600	15	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Water supply	Man/Days	200	5	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Harvesting	Man/Days	200	20	40	45	50	55	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Packaging	Man/Days	200	20	40	45	50	55	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Family days	Man/Days	200	45	100	110	120	130	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
Hired Days	Man/Days	600	16	35	35	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Timed Days	Hillin Days	000	10	33	33	33	30	30	30	30	30	30	30	30	50	30	30	30	30	30	50	30	30
			WoP					With-Pr	oject														
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Sales (Hectare)	KES		68,000	182,400	296,400	319,200	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000
Total Revenue	KES		68,000	182,400	296,400	319,200	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000	342,000
Investment Costs																							
Bee families and bee hives	KES		30,000	150,000	-	-	45,000	-	-	45,000	-	-	-	45,000	-	-	-	45,000	-	-	-	45,000	-
Operating Inputs																							
Protective gears	KES			3.000	-	-	3.000	-	-	3.000	-	-	3.000	-	-	3.000	-	-	3.000	-	-	3.000	-
Harvesting Kit	KES		2.000	4.000	-		4.000			4.000			4.000			4.000			4,000			4,000	-
Airtight containers	KES		20.000	28.000	50.000	34.000	56,000	34.000	56.000	34.000	56.000	34.000	56,000	34.000	56.000	34.000	56.000	34.000	56,000	34.000	56,000	34,000	56.000
Total Operating Costs	KES		52,000	185,000	50,000	34,000	108,000	34,000	56,000	86,000	56,000	34,000	63,000	79,000	56,000	41,000	56,000	79,000	63,000	34,000	56,000	86,000	56,000
Labour Costs																							
Beehive installation	KES		600	3,000	3,000	3,000		-				-										-	
Supervision of beehives	KES		9.000	18.000	18.000	18.000	18,000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000
Water supply	KES		1,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Harvesting	KES		4.000	8.000	9.000	10.000	11.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12,000	12,000	12.000
Packaging	KES		4,000	8,000	9,000	10,000	11,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Total Labour Costs	KES		18,600	41,000	43,000	45,000	44,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000
Total Costs	KES		100,600	376,000	93,000	79,000	197,000	80,000	102,000	177,000	102,000	80,000	109,000	170,000	102,000	87,000	102,000	170,000	109,000	80,000	102,000	177,000	102,000
N-41 P-6 1-1 64-	KES		(44.000)	(453 500)	245 400	205 200	400.000	200.000	205 000	244.000	205 000	200 000	270 000	240.000	205 000	204 000	205 000	240 000	270 000	200 000	205 000	244 000	205 000
Net Income Before Labour Costs			(14,000)	(152,600)	246,400	285,200	189,000	308,000	286,000	211,000	286,000	308,000	279,000	218,000	286,000	301,000	286,000	218,000	279,000	308,000	286,000	211,000	286,000
Net Income After Labour Costs	KES		(32,600)	(193,600)	203,400	240,200	145,000	262,000	240,000	165,000	240,000	262,000	233,000	172,000	240,000	255,000	240,000	172,000	233,000	262,000	240,000	165,000	240,000
Net Incremental Benefits	KES			(161,000)	236,000	272,800	177,600	294,600	272,600	197,600	272,600	294,600	265,600	204,600	272,600	287,600	272,600	204,600	265,600	294,600	272,600	197,600	272,600

Return to family labour	2,330
Discount rate	12%
NPV (KES)	1,169,843
IRR	150%
PVb	2,151,450
PVc	1,060,863
B/C ratio	2.03
Switching values Benefits	(0.51)
Switching values Costs	1.03

Table 5e: Bee keeping model – Economic Analysis

			Quantity WoP										With-Pr	oject									
Main Production	Unit	Unit Cost	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Yields	Kg	716	100	240	390	420	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
Own Consumption	Kg		10	24	39	42	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Post Harvest Loses	Kg		15	12	20	21	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Total Production			85	228	371	399	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428	428
Investment Costs																							
Bee families and bee hives	No.	13,423	2	10	-	-	3	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-
Operating inputs																							
Protective gears	No.	2,685	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-
Harvesting Kit	No.	1,790	1	2	-	-	2	-		2	-	-	2	-	-	2	-		2	-		2	-
Airtight containers Labour Budget	No/2Kgs each	358	50	70	125	85	140	85	140	85	140	85	140	85	140	85	140	85	140	85	140	85	140
Beehive installation	Man/Days	537	1	5	5	5																	
Supervision of beehives	Man/Days	568	15	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Water supply	Man/Days	189	5	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Harvesting	Man/Days	189	20	40	45	50	55	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Packaging	Man/Days	189	20	40	45	50	55	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Family days	Man/Days	189.4	45	100	110	120	130	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
Hired Days	Man/Days	568.2	16	35	35	35	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Timed Days	many buys	300.1	10	33	33	33	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
			WoP										With-Pro	oject									
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Sales (Hectare)	KES		60,851	163,223	265,238	285,641	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044
Total Revenue	KES		60,851	163,223	265,238	285,641	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044	306,044
Investment Costs																							
Bee families and bee hives	KES		26,846	150,000	-	-	45,000	-	-	45,000	-	-	-	45,000	-	-	-	45,000	-	-	-	45,000	-
Operating Inputs																							
Protective gears	KES		-	2,685	-	-	2,685	-	-	2,685	-	-	2,685			2,685	-	-	2,685	-	-	2,685	-
Harvesting Kit	KES		1,790	3,579	-	-	3,579	-	-	3,579	-	-	3,579			3,579	-	-	3,579	-	-	3,579	-
Airtight containers	KES		17,897	25,056	44,743	30,425	50,112	30,425	50,112	30,425	50,112	30,425	50,112	30,425	50,112	30,425	50,112	30,425	50,112	30,425	50,112	30,425	50,112
Total Operating Costs	KES		46,533	181,320	44,743	30,425	101,377	30,425	50,112	81,689	50,112	30,425	56,377	75,425	50,112	36,689	50,112	75,425	56,377	30,425	50,112	81,689	50,112
Labour Costs																							
Beehive installation	KES		537	2,685	2,685	2,685	-	-		-	-	-	-	-	-	-	-		-			-	
Supervision of beehives	KES		8,523	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046	17,046
Water supply	KES		947	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788
Harvesting	KES		3,788	7,576	8,523	9,470	10,417	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364
Packaging	KES		3,788	7,576	8,523	9,470	10,417	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364	11,364
Total Labour Costs	KES		17,583	38,671	40,565	42,459	41,668	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562	43,562
Total Costs	KES		90,962	369,991	85,308	72,884	188,045	73,987	93,674	170,251	93,674	73,987	99,939	163,987	93,674	80,251	93,674	163,987	99,939	73,987	93,674	170,251	93,674
Net Income Before Labour Costs	KES		(12,528)	(168,097)	220,495	255,216	159,668	275,619	255,932	179,355	255,932	275,619	249,668	185,619	255,932	269,355	255,932	185,619	249,668	275,619	255,932	179,355	255,932
Net Income After Labour Costs	KES		(30,111)	(206,767)	179,930	212,757	118,000	232,057	212,370	135,793	212,370	232,057	206,106	142,057	212,370	225,793	212,370	142,057	206,106	232,057	212,370	135,793	212,370
Net Incremental Benefits	KES			(174,167)	212,530	245,357	150,600	264,657	244,970	168,393	244,970	264,657	238,706	174,657	244,970	258,393	244,970	174,657	238,706	264,657	244,970	168,393	244,970

Return to family labour	2,061
Discount rate	179
NPV (KES)	771,615
IRR	125%
PVb	1,398,043
PVc	791,581
B/C ratio	1.77
Switching values Benefits	(0.43
Switching values Costs	0.77

Table 5f: Cabbage crop model - Financial Analysis

Part				Quantity																				
Mary Mary Mary Mary Mary Mary Mary Mary	Assumptions and Barameters (1 Hostare)	Unit	Unit Cort	WoP	V1	V2	V2	V4	VE	VG	V7	ve	V0			V12	V12	V14	V1E	V16	V17	V10	V10	V20
Performent Per							_																	
Performement Perf							,	-,	-,		-,	-,			-,		-,	-,	-,		-,	-,		
The stands																								400
Part				160																		400		400
Part	Total Production				1,440	2,340	2,700			3,600	3,600		3,600		3,600	3,600		3,600		3,600	3,600		3,600	3,600
Property No. Prop																								
Profession Pro																								
Part				100																				
Part		Kg	1,000	-	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mathematic Mat					400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Supplies Pais Sup																								
Mathematic						20		20		20		20		20		20		20	20	20		20		20
Martinger Index Martinger Martinger Index				2															5					
Tempor T				2					-		-		-						6		-		-	
Part				1		1	-	1	-	1	-	1	-	1	-	1		1	-	1	_	1		1
Line Company Line		Pcs		14	14	23	27	32	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
Mary Plane Mary Plane 50																								
Martiper-paragentation Martiper-paragentat	Labour Budget																							
Pertine performance Man/Days 100 15 15 15 15 15 15 1	Land clearing	Man/Days	500	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Pestionary-(Persistenting Many Clays 200 5	Nursery bed preparation	Man/Days	500	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Planting May Days Sol 15 20 20 20 20 20 20 20 2	Fertilizer application	Man/Days			6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
First venerhing May/Nays 500 10 10 10 10 10 10 10 10 10 10 10 10 1						-	-	-		_	-		-	-	-	-			_	-	-			6
Many																								20
Markering Mar/Day 500 10 20 30 30 30 30 30 30 30 30 30 30 30 30 30				10																				10
Manuflays Sol				8	-	-	-	-	-	-	-		-	-		-			-	-	-			8
Harmording Man/Days S00 7																								
Packagning May	0																							
Family days May Toys 87 118 133 148 133 148 133 148 133 153				,																				
Final Cub Plane Part Par			500	- /																				
Mor				0/																				
Part	Till ed Days	iviali, Days		-	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Part				WoP					With-P	roject														
Fine Method Met	Financial Budget			Y0	Y1	Y2	Y3	Y4			Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Transport from fixed KES 144,000 144,000 234,000 234,000 234,000 234,000 360,0	Revenue																							
Production Costs Production Cost Productio	Sales (Hectare)																							360,000
Part	Total Revenue	KES		144,000	144,000	234,000	270,000	324,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000	360,000
Recylind Seed																								
Marche Meste Mes																								
Pack-processing Pack-proce				50,000		-		-	-							-	-	-	-	-			-	-
Pesticides Fest F				-																				
Salphers RES 1,200 3,000 -				-																				
Horse Hors				1 200	-,	2,000	-,	2,000	-,	2,000	,	2,000		2,000	-,	2,000		2,000		2,000	,	2,000	-,	2,000
Matering cases RES 800 840						-				-		-				-				-		-		
Transport from field KES 800 800 800 800 800 800 800 800 800 80								-		-		-						-		-		-		
Packaging has gal bas of 1000/gs1 RES 8,640 12,46						800		800		800		800		800		800		800		800		800		800
Total Departing Corts CS CS CS CS CS CS CS C																								21,600
Land clearing KES 5,000 7,500																								129,400
Nerse ped preparation KES 5,000 5,00	Labour Costs																							
Name plee preparation KES 5,000 5,00	Land clearing	KES		5,000	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Pestidides/Herbicides	Nursery bed preparation			5,000					5,000															5,000
Parting RES 7,500 1,00				-																				3,600
First weeding KES 5,000				-																				3,600
Second weeding KES 4,000																								10,000
Mulching KES 5,00																								5,000
Variencing KES 5,000 12,500 15,000 1																								
Harvesting KES 3,500 5,000 7,500 10,000 12,5																								
Packaging KES 3,500 5,000 - 1,000 10,000 12,	0																							
Total Fundaution Costs KES 43,00 62,00 73,70 78,70																								
Total Production Costs KES 106,140 191,040 195,540 211,100 210,940 215,050 213,100 221,500 213,100 221,500 213,100 221,500 213,100 221,500 213,100 221,500 213,100 221,500 213,100 215,000 213,100 213,100 215,000 213,100 215,000 213,100 215,000 213,100 215,000 213,100 215	rackaging	KE2		3.500	5,000	7,500	10,000	12,500	12,500	12,500	12,500	12,500	12,500											
Net Income Before Labour Costs	Total Lahour Costs				66 200	73 700	78 700	83 700	83 700	83 700	83 700	83 700	83 700	83 700	83 700							83 700	83 700	
Net Income After Labour Costs KES 37,800 (47,040) 38,460 58,900		KES		43,500																				
	Total Production Costs	KES		43,500 106,140	191,040	195,540	211,100	210,940	221,500	213,100	221,500	213,100	221,500	213,100	221,500	213,100	221,500	213,100	221,500	213,100	221,500	213,100	221,500	213,100
	Total Production Costs Net Income Before Labour Costs	KES KES KES		43,500 106,140 81,360	191,040 19,160	195,540 112,160	211,100 137,600	210,940 196,760	221,500 222,200	213,100 230,600														

Return to family labour	1,245
Discount rate	12%
NPV (KES)	446,693
IRR	53%
PVb	1,748,623
PVc	64,628
B/C ratio	27.06
Switching values Benefits	(0.96)
Switching values Costs	26.06

Table 5f: Cabbage crop model – Economic Analysis

CF/Good 0.8949

Horticulture - Cabbage Model (Economic A	nalvsis)	CF/Good CF/Labour	0.8949																				
	,	,	Quantity																				
			WoP											Project									
Assumptions and Parameters (1 Hectare)	Unit	Unit Cost	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Yields	Kg	89.49	800	800	1,300	1,500	1,800	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,00
Batches in 1 Year Own Consumption	No. Kg	2.00	1,600 80	1,600 160	2,600 260	3,000 300	3,600 360	4,000	4,000 400	4,000 400	4,000	4,000 400	4,000 400	4,000	4,000 400	4,000	4,000 400	4,000 400	4,000	4,000	4,000	4,000 400	4,00 40
Post Harvest Loses	Kg		160	160	260	300	360	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	40
Total Production	6		1,440	1,440	2,340	2,700	3,240	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,60
Operating Costs																							
Recycled Seed	Kg	447	100																				
Improved Seeds	Kg	895	-	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	10
Fertilizers																							
DAP	Kg	45		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Pesticides/Herbicides	Ltrs	89		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Slashers	Pcs	537	2	5		5		5		5		5		5		5		5		5		5	
Hoes Watering cans	Pcs Pcs	537 358	2	6		5 6		6		5 6		6		5 6		6		6		5		6	
Transport from field	ls	716	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Packaging bags	Pcs	537	29	29	47	54	65	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
						-																	
Labour Budget																							
Land clearing	Man/Days	474	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Nursery bed preparation	Man/Days	474 568	10	10 6	10	10	10	10	10 6	10	10	10 6	10	10 6	10	10 6	10 6	10	10 6	10	10	10 6	10
Fertilizer application Pesticides/Herbicides	Man/Days Man/Days	568 568		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Planting	Man/Days	474	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
First weeding	Man/Days	474	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Second weeding	Man/Days	474	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Mulching	Man/Days	474	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Watering	Man/Days	474	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Harvesting	Man/Days	474	7	10	15	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Packaging	Man/Days	474	7	10	15	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Family days	Man/Days		102	113	123	133	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143
Hired Days	Man/Days			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
			WoP					With-P															
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue Sales (Hectare)	KES		128,861	128,861	209,399	241,614	289,936	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152
Total Revenue	KES		128,861	128,861	209,399	241,614	289,936	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152	322,152
Production Costs																				-			
Operating Costs																							
Recycled Seed	KES		44,743						-	-		-	-	-		-			-		-	-	
Improved Seeds	KES		-	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487
DAP	KES		-	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474	4,474
Pesticides/Herbicides Slashers	KES KES		1.074	1,790 2,685	1,790	1,790 2.685	1,790	1,790 2.685	1,790	1,790 2,685	1,790	1,790 2.685	1,790	1,790 2.685	1,790	1,790 2,685	1,790	1,790 2,685	1,790	1,790 2,685	1,790	1,790 2.685	1,790
Hoes	KES		1,074	2,685		2,685		2,685		2,685		2,685		2,685		2,685		2,685		2,685		2,685	
Watering cans	KES		716	2,148		2,148		2,148		2,148		2,148		2,148		2,148		2,148		2,148		2,148	
Transport from field	KES		716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716	716
Packaging bags	KES		15,463	15,463	25,128	28,994	34,792	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658	38,658
Total Operating Costs	KES		63,786	119,447	121,594	132,977	131,259	142,642	135,125	142,642	135,125	142,642	135,125	142,642	135,125	142,642	135,125	142,642	135,125	142,642	135,125	142,642	135,125
Labour Costs																							
Land clearing	KES		4,735	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103	7,103
Nursery bed preparation Fertilizer application	KES KES		4,735	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841	4,735 2,841
Pesticides/Herbicides	KES			2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841
Planting	KES		9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470
First weeding	KES		4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735
Second weeding	KES		3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788	3,788
Mulching	KES		4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735	4,735
Watering	KES		9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470	9,470
Harvesting	KES		3,315	4,735	7,103	9,470	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838
Packaging	KES		3,315	4,735	7,103	9,470	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838	11,838
Total Labour Costs	KES		48,297	59,188	63,923	68,658	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393	73,393
Total Production Costs	KES		112,083	178,634	185,517	201,635	204,651	216,034	208,517	216,034	208,517	216,034	208,517	216,034	208,517	216,034	208,517	216,034	208,517	216,034	208,517	216,034	208,517
Net Income Before Labour Costs Net Income After Labour Costs	KES KES		65,075 16,778	9,414 (49,774)	87,804 23,882	108,637 39.979	158,678 85,285	179,510 106.118	187,027 113.634	179,510 106.118	187,027 113.634	179,510 106.118	187,027 113,634	179,510 106.118	187,027 113.634	179,510 106.118	187,027 113.634	179,510 106.118	187,027 113.634	179,510 106.118	187,027 113.634	179,510 106.118	187,027 113,634
Net Income Arter Labour Costs Net Incremental Benefits	KES		10,770	(87,634)	(13,978)	2,119	47,425	68,258	75,774	68,258	75,774	68,258	75,774	68,258	75,774	68,258	75,774	68,258	75,774	68,258	75,774	68,258	75,774
				. , 1	, ,	,	,	,	.,	,===	.,,		.,										

Profitability Indicators	
Return to family labour	1,006
Discount rate	16.8%
NPV (KES)	151,298
IRR	36%
PVb	1,252,458
PVc	48,425
B/C ratio	25.86
Switching values Benefits	(0.96)
Switching values Costs	24.86

Reforestation Model – Economic Analysis

Existing but degraded foerst lands - reforest with project															
support		Price (KES)	Rates	With Project											
Fuelwood production (logging is not encourage)	Unit	FIICE (KES)	ľ	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10-20		
With Project Scenario															
With Project Scenario With Project support: fuelwood yeild will increase	%/Yr		5%												
Average production	Kg/ha		581,750	465,400	465,400	488,670	513,104	538,759	565,697	581,750	581,750	581,750	581,750		
Price of fuelwood	KES/kg	2.00	361,730	403,400	403,400	400,070	313,104	330,733	303,037	361,730	1,163,500	361,730	301,730		
Water source protection through SALT/Agroforestry/EP	KE3/Kg	2.00									1,103,300				
Nursery establishment and associated facilities	KES/ha	200			200										
Plantation establishment/Out-planting	KES/ha	200			200										
Maintenance & protection	KES/ha	200			160	150	150	150	150	150	150	150	150		
	KES/ha				200	20	20	20	20	20	20	20	20		
TA/replacement planting & M&E					200	20	20	20	20	20	20	20	20		
Forest ecosystem and conserving biodiversity within the sub					240										
Nursery establishment and associated facilities	KES/ha				240										
Plantation establishment/Out-planting	KES/ha				310	450	450	450	450	450	450	450	4.50		
Maintenance & protection	KES/ha				120	150	150	150	150	150	150	150	150		
TA/replacement planting & M&E	KES/ha				25	40	40	40	40	40	40	40	40		
Total Cost of foresty rehabilitation	KES/ha				1,255	360	360	360	360	360	360	360	360		
Cost of extraction of fuelwood															
Fuelwood extraction per day	kg/md		20												
Nb days collecting fuelwood	days/yr		100												
Fuelwood extraction	kg/man-year		2000												
Labour units for extraction and hauling	md/kg		0.0005												
Cost of labour	KES/ha	365.00													
Without Project Scenario															
1															
Loss of forest if there is no project	%		0.37%	0%	0.7%	1.1%	1.5%	1.8%	2.2%	2.6%	2.9%	3.3%	3.7%		
Average production	Kg/ha			463,701	462,003	483,319	505,612	528,926	553,308	566,886	564,763	562,640	560,516		
1	KES/ha											1,125,279			
Incremental Production with project	Kg/ha			1,699	3,397	5,351	7,491	9,832	12,389	14,864	16,987	19,110	21,234		
Labour used for the increment	md			0.8	1.7	2.7	3.7	4.9	6.2	7.4	8.5	9.6	10.6		
Cost of labour	KES/Yr			310	620	977	1,367	1,794	2,261	2,713	3,100	3,488	3,875		
Incremental analysis															
Total Cost	KES			310	1,875	1,337	1,727	2,154	2,621	3,073	3,460	3,848	4,235		
Total Gross revenue	KES			3,397	6,795	10,702	14,983	19,665	24,778	29,727	33,974	38,221	4,235		
Total Net revenue	KES	#DIV/0!		3,087	4,920	9,365	13,255	17,510	22,157	26,655	30,514	34,373	38,233		
Total Net revenue	KES	#DIV/0:		3,087	4,520	5,505	13,233	17,510	22,137	20,033	30,314	34,373	30,233		
Model profitability: before project financing:															
Discount rate	7%	WOP	WP												
IRR	#DIV/0!	1,121,431	1,160,040												
Incremental PV-benefit (KES)	388,682														
Incremental NPV-benefits (KES)	348,797														
Incremental PV-cost (KES)	39,885	l													
B/C ratio	9.75	l													
Switching Value of Benefits	-90%	•													
Switching Value of Cost	875%														
Return to family labour at full development (KES/md)	3,962														
Aggregation of Incremental Benefits - No of Ha under Natural	ha														
Resource Mgt			169,600	15,499	25,071	28,584	5,163	32,862	33,548	27,464	1,409				
Incremental Benefits Y1	KES '000			47,853	77,404	88,251	15,940	101,458	103,576	84,794	4,349				
Incremental Benefits Y2	KES '000				76,254	123,344	140,629	25,400	161,674	165,049	135,120	6,930			
Incremental Benefits Y3	KES '000					145,157	234,796	267,701	48,351	307,761	314,187	257,213	13,192		
	KES '000						205,452	332,325	378,898	68,435	435,598	444,692	364,054		
Incremental Benefits Y4	KE3 000							274 200	100.007	500 540	90,402	575,419	587,433		
Incremental Benefits Y4 Incremental Benefits Y5	KES '000							271,399	438,997	500,519	90,402	5/5,419			
								2/1,399	438,997 343,414	500,519 555,483	633,330	114,390	728,104		
Incremental Benefits Y5	KES '000							2/1,399							
Incremental Benefits Y5 Incremental Benefits Y6	KES '000 KES '000							2/1,399		555,483	633,330	114,390	728,104		
Incremental Benefits Y5 Incremental Benefits Y6 Incremental Benefits Y7 Incremental Benefits Y8	KES '000 KES '000 KES '000							2/1,399		555,483	633,330 668,257	114,390 761,908 765,012	728,104 137,613 872,223		
Incremental Benefits Y5 Incremental Benefits Y6 Incremental Benefits Y7	KES '000 KES '000							2/1,399		555,483	633,330 668,257	114,390 761,908	728,104 137,613		

Bench Terrace construction – Financial and Economic Analysis

					Financ	ial Analysis:	Bench Terr	aces with Ca	ibbage (Amou	nt in KES)							
Unit: One hectare																	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Without Bench Terraces																	
Costs																	
Construction costs																	
Materials tools and other																	
Maintenance cost																	
Annual cost Cabbage (1/3 of main production)		38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,53
Total Costs	-	38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,53
Revenue																	
Cabbage yield (Kg/ha/Year)		400	650	750	900	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	13,70
Gross value of Cabbage		40,000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,370,00
Total Revenue	-	40,000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,370,00
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	55
Net Cash Flow	_	1.090	26.090	32.950	48.740	56.100	58.200	56,100	58.200	56.100	58.200	56.100	58.200	56.100	58.200	56.100	736,470
Cumulative Net Cash Flow	_	1.090	27.180	60.130	108.870	164.970	223.170	279.270	337,470	393,570	451,770	507.870	566,070	622.170	680.370	736,470	750,470
cumulative recediment		1,050	27,100	00,150	100,070	104,570	113,170	213,210	337,470	333,310	431,770	307,070	300,070	011,170	000,370	750,470	
With Bench Terraces																	
Costs																	
Construction costs	120,000																120,00
Materials tools and other	3,000	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	6,03
Maintenance cost		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,000
Annual cost - Cabbage		38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,530
Total Costs	123,000	59,112	59,112	62,252	61,462	64,102	62,002	64,102	62,002	64,102	62,002	64,102	62,002	64,102	62,002	64,102	1,059,56
Revenue																	
Cabbage yield (Kg/ha/Year)		600	975	1,125	1,350	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	20,55
Gross value of Cabbage		60,000	97,500	112,500	135,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	2,055,00
Gross value of residues		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,00
Gross value of Napier		34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	518,70
Total Revenue	0.0	115,180	153,055	168,205	190,930	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	2,894,25
Labour Days		59	67	72	77	77	77	77	77	77	77	77	77	77	77	77	1,11
Net Cash Flow	(123,000)	56,068	93,943	105,953	129,468	141,978	144,078	141,978	144,078	141,978	144,078	141,978	144,078	141,978	144,078	141,978	1,834,69
Cumulative Net Cash Flow	(123,000)	56,068	150,011	255,964	385,432	527,410	671,488	813,466	957,544	1,099,522	1,243,600	1,385,578	1,529,656	1,671,634	1,815,712	1,957,690	
Incremental Net Cash Flow	(123.000)	54.978	67.853	73.003	80.728	85,878	85,878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	1,221,22
meremental recessor row	(123,000)	54,370	57,633	. 3,003	55,726	55,676	53,676	53,676	33,070	33,676	33,676	33,676	33,676	33,676	33,676	53,676	1,221,22

2,442	Returns to family labour
12%	Discount rate
527,484	NPV (@12%) KES
55%	IRR
1,236,356	NPVb (12%) KES
419,333	NPVc (12%) KES
2.9	B/C Ratio
419,332.4	Switching Values/Benefits
1.236.355	Switching Values/Costs

Switching values/costs	1,230,333																
					Econor	nic Analysis	: Bench Terr	races with Ca	abbage (Amou	int in KES)							
Unit: One hectare																	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Without Bench Terraces																	
Costs																	
Construction costs																	-
Materials tools and other																	-
Maintenance cost																	-
Annual cost Cabbage (1/3 of main production)		47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Total Costs	-	47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
			-					·	-			-	-			-	
Revenue																	
Cabbage yield (Kg/ha/Year)		400	650	750	900	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	13,700
Gross value of Cabbage		35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Total Revenue		35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
			-					·	-			-	-			-	
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	558
Net Cash Flow	-	(11,913)	9,112	13,635	26,999	32,154	34,659	32,154	34,659	32,154	34,659	32,154	34,659	32,154	34,659	32,154	404,052
Cumulative Net Cash Flow	-	(11,913)	(2,801)	10,834	37,833	69,987	104,646	136,800	171,459	203,613	238,273	270,426	305,086	337,239	371,899	404,052	
With Bench Terraces																	
Costs																	
Construction costs	120,000																120,000
Materials tools and other	3,000	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	6,030
Maintenance cost		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,000
Annual cost - Cabbage		47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Total Costs	123,000	67,909	69,256	73,682	73,741	77,535	75,029	77,535	75,029	77,535	75,029	77,535	75,029	77,535	75,029	77,535	1,247,944
Revenue																	
Cabbage yield (Kg/ha/Year)		600	975	1,125	1,350	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	20,550
Gross value of Cabbage		53,692	87,249	100,672	120,807	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	1,838,949
Gross value of residues		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,000
Gross value of Napier		34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	518,700
Total Revenue	0.0	108,872	142,804	156,377	176,737	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	2,678,199
Labour Days		59	67	72	77	77	77	77	77	77	77	77	77	77	77	77	1.115
		33		/-					"					"			1,113
Net Cash Flow	(123,000)	40,963	73,548	82,695	102,996	112,775	115,281	112,775	115,281	112,775	115,281	112,775	115,281	112,775	115,281	112,775	1,430,255
Cumulative Net Cash Flow	(123,000)	40,963	114,511	197,206	300,202	412,977	528,258	641,033	756,313	869,088	984,369	1,097,144	1,212,425	1,325,200	1,440,480	1,553,255	
Incremental Net Cash Flow	(123.000)	52.875	64,436	69,060	75.997	80,621	80,621	80,621	80.621	80.621	80.621	80.621	80.621	80.621	80.621	80,621	1,149,203
	, 10,000,	. ,,0.0	. ,	,	.,,	,,		,	. 0,022	,	. 0,022	70/022	,,,,,,,	,	,	. 0/0111	, ,,===

Returns to family labour	1,954
Discount rate	17%
NPV (@12%) KES	387,237
IRR	53%
NPVb (12%) KES	888,039
NPVc (12%) KES	394,352
B/C Ratio	2.3
Switching Values/Benefits	394,350.6
Switching Values/Costs	888,038

Fanya-Juu Terrace construction – Financial and Economic Analysis

					Financ	ial Analysis:	Fanya Juu Te	erraces with Ca	ibbage (Amou	int in KES)							
Unit: One hectare																	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Without Fanya Juu																	
Costs																	
Construction costs																	
Materials tools and other																	
Maintenance cost																	
Annual cost Cabbage (1/3 of main production)		38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,5
Total Costs	-	38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,
Revenue																	
Cabbage yield (Kg/ha/Year)		400	650	750	900	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	13,
Gross value of Cabbage		40,000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,370,
Gross value of residues										-							
Gross value of Napier																	
Total Revenue	-	40,000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,370,0
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	
Net Cash Flow		1,090	26,090	32,950	48,740	56,100	58,200	56,100	58,200	56,100	58,200	56,100	58,200	56,100	58,200	56,100	736,4
Cumulative Net Cash Flow		1,090	27,180	60.130	108.870	164.970	223.170	279.270	337.470	393,570	451,770	507.870	566.070	622.170	680.370	736,470	730,
canadave nee casi now		1,030	27,200	00,130	100,070	104,570	223,270	273,270	337,470	333,370	431,770	307,070	300,070	022,270	000,570	730,470	
With Fanya Juu																	
Costs																	
Construction costs	110,000																110,
Materials tools and other		202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	
Maintenance cost	3,035	202 20,000	202	20,000	202	202 20,000	202 20,000	202	202 20,000	202	202	20.000	202 20,000	202	202 20.000	202 20,000	6,0 300,0
Annual cost - Cabbage		38.910	38.910	42.050	41.260	43.900	41,800	43.900	41.800	43,900	41.800	43,900	41,800	43.900	41.800	43,900	633.5
	442.025		,	,	,	.,		-,	,	-,	,	.,		-,	,	-,	,
Total Costs	113,035	59,112	59,112	62,252	61,462	64,102	62,002	64,102	62,002	64,102	62,002	64,102	62,002	64,102	62,002	64,102	1,049,5
Revenue																	
Cabbage yield (Kg/ha/Year)		600	975	1,125	1,350	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	20,
Gross value of Cabbage		60.000	97.500	112.500	135.000	150,000	150.000	150.000	150.000	150.000	150,000	150.000	150,000	150.000	150.000	150.000	2.055.
Gross value of residues		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,
Gross value of Napier		34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	518,
Total Revenue	-	115,180	153,055	168,205	190,930	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	2,894,
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	
Net Cash Flow	(113,035)	56,068	93,943	105,953	129,468	141,978	144,078	141,978	144,078	141,978	144,078	141,978	144,078	141,978	144,078	141,978	1,844
Cumulative Net Cash Flow	(113,035)	56,068	150,011	255,964	385,432	527,410	671,488	813,466	957,544	1,099,522	1,243,600	1,385,578	1,529,656	1,671,634	1,815,712	1,957,690	
Incremental Net Cash Flow	(113.035)	54.978	67.853	73.003	80.728	85.878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	85.878	1,221

Returns to family labour	12,914.0
Discount rate	12%
NPV (@12%) KES	723,867
IRR	60%
NPVb (12%) KES	1,236,356
NPVc (12%) KES	419,333
B/C Ratio	2.9
Switching Values/Benefits	419,332.4
Switching Values/Costs	1.236.355

Without Finary June Post	Economic Analysis: Fanya Juu Terraces with Cabbage (Amount in KES)																	
Without Plays have Costs Construction costs Materials tools and other Mainternance cost Administration of the Materials tools and other Mainternance cost Administration of the Mainternance cost Administrati	Unit: One hectare							,										
Costs Construction costs Materials tools and other Materials tools and		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Construction costs Maintenance cost Amounts of Charles (1) of main production) 47,707	Without Fanya Juu																	
Materians tools and other Materians tools an	Costs																	
Maintenanc cost Annual cost Lobage (1/3 of main production) 47,707 49,054 53,480 53,539 57,333 54,827 57,333 54,82	Construction costs																	-
Annual Costabbage (J/3 of main production) 47,707 49,054 53,480 53,539 57,333 54,827 5	Materials tools and other																	-
Total Costs	Maintenance cost																	-
Revenue (albage yield (kg/ha/Year)	Annual cost Cabbage (1/3 of main production)		47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Cabbage yield Kg/ha/Year) Gross value of Cabbage Gross value of Cabb	Total Costs	-	47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Gross value of Cabbage Gross value of Cabbage Gross value of Cabbage Gross value of Cabbage Gross value of Name Gross value of	Revenue																	
Gross value of residues Gross value of Rapier Total Revenue - 35,795	Cabbage yield (Kg/ha/Year)		400	650	750	900	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	13,700
Gross value of Napier Costs Construction costs 110,000 113,035 20,000 2	Gross value of Cabbage		35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Total Revenue	Gross value of residues										-			-				
Labour Days 3 3 3 3 6 38 38 38 38 38 38 38 38 38 38 38 38 38	Gross value of Napier																	-
Net Cash Flow - (11,913) 9,112 13,635 26,999 32,154 34,659 34,659	Total Revenue	-	35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Value Valu	Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	558
Mith Fampa Juu Costs Construction cests Constructio	Net Cash Flow	-	(11,913)	9,112	13,635	26,999	32,154	34,659	32,154	34,659	32,154	34,659	32,154	34,659	32,154	34,659	32,154	404,052
Costs Construction costs 110,000 Construction costs 110,	Cumulative Net Cash Flow	-	(11,913)	(2,801)	10,834	37,833	69,987	104,646	136,800	171,459	203,613	238,273	270,426	305,086	337,239	371,899	404,052	
Costs Construction costs 110,000 Construction costs 110,																		
Construction costs 110,000 3,035 202 202 202 202 202 202 202	With Fanya Juu																	
Materiata tools and other 2,005 202 202 202 202 202 202 202 202 202	Costs																	
Maintenance cost 4 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 30	Construction costs																	
Annual cost - Cabbage 4, 77,07 40,054 53,480 33,539 57,333 54,827 57,328 57,529	Materials tools and other	3,035			202				202	202				202	202		202	6,065
Total Costs 113,035 67,909 69,256 73,682 73,741 77,535 75,029 75,029 77,535 75,029 77,	Maintenance cost																	300,000
Revenue Cabbage yield (Kg/hal/Year) Gross value of Cabbage Gross value of residues 20,000 20,	Annual cost - Cabbage			49,054	53,480	53,539		54,827		54,827				54,827	57,333		57,333	
Cabbage yield Kig/ha/Year) 600 975 1,125 1,350 1,500 1	Total Costs	113,035	67,909	69,256	73,682	73,741	77,535	75,029	77,535	75,029	77,535	75,029	77,535	75,029	77,535	75,029	77,535	1,237,979
Gross value of Cabbage 53,692 87,249 100,672 120,807 134,230 1	Revenue																	
Gross value of Residues (20,000 20,00	Cabbage yield (Kg/ha/Year)		600	975	1,125	1,350	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	20,550
Gross value of Napier 34,580 3	Gross value of Cabbage												134,230	134,230	134,230			
Total Revenue - 108,872 142,804 156,377 176,737 190,310 190,31	Gross value of residues				20,000	20,000	20,000		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,000
Labour Days 3 0 33 36 38 38 38 38 38 38 38 38 38 38 38 38 38																		
Net Cash Flow (113,035) 40,963 73,548 82,695 102,996 112,775 115,281 112,775 1	Total Revenue	-	108,872	142,804	156,377	176,737	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	2,678,199
Cumulative Net Cash Flow (113,035) 40,963 114,511 197,206 300,202 412,977 528,258 641,033 756,313 869,088 984,369 1,097,144 1,212,425 1,325,200 1,440,480 1,553,255	Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	558
	Net Cash Flow																	1,440,220
Incremental Net Cash Flow (113.035) 52.875 64.436 69,060 75,997 80.621 8	Cumulative Net Cash Flow	(113,035)	40,963	114,511	197,206	300,202	412,977	528,258	641,033	756,313	869,088	984,369	1,097,144	1,212,425	1,325,200	1,440,480	1,553,255	
	Incremental Net Cash Flow	(113,035)	52,875	64,436	69,060	75,997	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	1,149,203

Returns to family labour	12,123.5
Discount rate	17%
NPV (@12%) KES	482,633
IRR	57%
NPVb (12%) KES	888,039
NPVc (12%) KES	394,352
B/C Ratio	2.3
Switching Values/Benefits	394,350.6
Switching Values/Costs	888,038

Cut-Off Drains Construction – Financial and Economic Analysis

Without Cat-Off Drains Costs Author Cat-Off Drains Author Cat								nt in KES)	bbage (Amour	Prains with Ca	sis: Cut-Off [ancial Analy	Fin					
Without Cut-Off Drains Costs Construction costs Costs Construction costs Costs Construction costs Costs Costs Construction costs Costs Construction costs Costs Costs																		Unit: One hectare
Costs Construction costs Materials tools and other Maintenance cost whomat cost Cabbage (1/3 of main production) 38,910 38,910 42,050 41,260 43,900 41,800 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 4	ear 15 Tot	Year 15	Year 14	Year 13	Year 12	Year 11	Year 10	Year 9	Year 8	Year 7	Year 6	Year 5	Year 4	Year 3	Year 2	Year 1	Year 0	
Construction costs Materials tools and other Maintenance cost Annual cost Cabbage (1/3 of main production) 38,910 38,910 42,050 41,260 43,900 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800																		Without Cut-Off Drains
Materials tools and other Maintenance cost Annual cost Cabbage (1/3 of main production) 38,910 42,050 41,260 43,900 41,800 41,80																		Costs
Maintenance cost Annual cost Cabbage (1/3 of main production) 38,910 38,910 38,910 42,050 41,260 43,900 41,800 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 41,800 43,900 41,800 43,900 41,800 41,800 43,900 41,800 43,900 41,800 41,800 43,900 41,800 43,900 41,800 43,900 41,800 43,900 41,800 41,800 43,900 41,800 43,900 41,800 41,800 43,900 41,800 43,900 41,800 41,800 41,800 43,900 41,800 41,																		Construction costs
Annual cost Cabbage (1/3 of main production) 38,910 38,910 42,050 41,260 43,900 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,800 41,80																		Materials tools and other
Total Costs 38,910 38,910 42,050 41,260 43,900 41,800																		Maintenance cost
Revenue Cabbage yield (Kg/ha/Year) 40,000 65,000 75,000 90,000 100,000	43,900 633	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,260	42,050	38,910	38,910	ction)	Annual cost Cabbage (1/3 of main produ
Cabbage yield (Kg/ha/Year) Gross value of Cabbage Gross value of National A0,000 G5,000 T5,000 T5,0	43,900 633	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,260	42,050	38,910	38,910		Total Costs
Gross value of Cabbage Gross value of Cabbage Gross value of Cabbage Gross value of Napier Total Revenue 40,000 65,000 75,000 90,000 100,000																		Revenue
Gross value of Rapier Total Revenue 40,000 65,000 75,000 90,000 100,	1,000 13	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	900	750	650	400		Cabbage yield (Kg/ha/Year)
Gross value of Napier Total Revenue - 40,000 65,000 75,000 90,000 10	100,000 1,370	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	90,000	75,000	65,000	40,000		Gross value of Cabbage
Total Revenue				-														Gross value of residues
Labour Days 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3																		Gross value of Napier
Net Cash Flow	100,000 1,370	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	90,000	75,000	65,000	40,000	-	Total Revenue
Custruction costs 110,000 Construction costs 110,000 Con	38	38	38	38	38	38	38	38	38	38	38	38	38	36	33	30		Labour Days
With Cut-Off Drains Costs Construction costs 110,000 Americals tools and other 3,035 202 202 202 202 202 202 202 202 202 20	56,100 736	56,100	58,200	56,100	58,200	56,100	58,200	56,100	58,200	56,100	58,200	56,100	48,740	32,950	26,090	1,090		Net Cash Flow
Costs Construction costs 110,000 Construction Costs 113,035 Costs 11	736,470	736,470	680,370	622,170	566,070	507,870	451,770	393,570	337,470	279,270	223,170	164,970	108,870	60,130	27,180	1,090	-	Cumulative Net Cash Flow
Costs Construction costs 110,000 Construction Costs 113,035 Costs 11																		
Construction costs 110,000																		With Cut-Off Drains
Materials tools and other 3,035																		Costs
Maintenance cost 20,000	110																110,000	Construction costs
Annual cost - Cabbage 6,387 37,387 45,867 65,587 74,067 76,867 74,067 74	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	3,035	Materials tools and other
Total Costs 113,035 26,589 57,589 66,069 85,789 94,269 97,069 94,269 94,269 97,069 94,269 97,069 94,269 94,269 94,269 94,269 94,269 94,269 94,269 94,269 94,	20,000 300	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000		Maintenance cost
Revenue 600 975 1,125 1,350 1,500 1	74,067 98	74,067	76,867	74,067	76,867	74,067	76,867	74,067	76,867	74,067	76,867	74,067	65,587	45,867	37,387	6,387		Annual cost - Cabbage
Cabbage yield (Kg/ha/Year) 600 975 1,125 1,350 1,500 1	94,269 1,400	94,269	97,069	94,269	97,069	94,269	97,069	94,269	97,069	94,269	97,069	94,269	85,789	66,069	57,589	26,589	113,035	Total Costs
Gross value of Calbbage 60,000 97,500 112,500 135,000 150,000																		Revenue
Gross value of residues 20,000	1,500 20	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,350	1,125	975	600		Cabbage yield (Kg/ha/Year)
Gross value of Napier 34,580 3	150,000 2,059	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	135,000	112,500	97,500	60,000		Gross value of Cabbage
Total Revenue - 115,180 153,055 168,205 190,930 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080 206,080	20,000 300	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000		Gross value of residues
	34,580 518	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580		34,580		Gross value of Napier
Labour Days 59 67 72 77 77 77 77 77 77 77 77 77 77 77 77	206,080 2,894	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	190,930	168,205	153,055	115,180	-	Total Revenue
	77 :	7	77	77	77	77	77	77	77	77	77	77	77	72	67	59		Labour Days
Net Cash Flow (113,035) 88,591 95,466 102,136 105,141 111,811 109,011 111,811 109,011 111,811 109,011 111,811 109,011 111,811 109,011	111,811 1,494	111,811	109,011	111,811	109,011	111,811	109,011	111,811	109,011	111,811	109,011	111,811	105,141	102,136	95,466	88,591	(113,035)	Net Cash Flow
Cumulative Net Cash Flow (113,035) 88,591 184,058 286,194 391,335 503,147 612,158 723,969 832,981 944,792 1,053,803 1,165,615 1,274,626 1,386,437 1,495,449 1	,607,260	1,607,260	1,495,449	1,386,437	1,274,626	1,165,615	1,053,803	944,792	832,981	723,969	612,158	503,147	391,335	286,194	184,058	88,591	(113,035)	Cumulative Net Cash Flow
Incremental Net Cash Flow (113,035) 87,501 69,376 69,186 56,401 55,711 50,811 55,711 50,811 55,711 50,811 55,711 50,811 55,711 50,811	55,711 870	55,711	50,811	55,711	50,811	55,711	50,811	55,711	50,811	55,711	50,811	55,711	56,401	69,186	69,376	87,501	(113,035)	

Returns to family labour	1,348.94
Discount rate	12%
NPV (@12%) KES	558,459
IRR	65%
NPVb (12%) KES	1,236,356
NPVc (12%) KES	528,390
B/C Ratio	2.3
Switching Values/Benefits	528,388.7
Switching Values/Costs	1,236,355

	Economic Analysis: Cut-Off Drains with Cabbage (Amount in KES)																
Unit: One hectare																	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Without Cut-Off Drains																	
Costs																	
Construction costs																	
Materials tools and other																	
Maintenance cost																	
Annual cost Cabbage (1/3 of main produ	ction)	47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Total Costs	-	47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Revenue																	
Cabbage yield (Kg/ha/Year)		400	650	750	900	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	13,700
Gross value of Cabbage		35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Gross value of residues		,	,	. , .	,	, -	, -	,	,	,	,		,	,	,	,	, .,
Gross value of Napier																	
Total Revenue	-	35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	558
Net Cash Flow	-	(11,913)	9,112	13,635	26,999	32,154	34,659	32,154	34,659	32,154	34,659	32,154	34,659	32,154	34,659	32,154	404,052
Cumulative Net Cash Flow	-	(11,913)	(2,801)	10,834	37,833	69,987	104,646	136,800	171,459	203,613	238,273	270,426	305,086	337,239	371,899	404,052	
With Cut-Off Drains																	
Costs																	
Construction costs	110,000																110,000
Materials tools and other	3,035	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	6,065
Maintenance cost		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,000
Annual cost - Cabbage		47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Total Costs	113,035	67,909	69,256	73,682	73,741	77,535	75,029	77,535	75,029	77,535	75,029	77,535	75,029	77,535	75,029	77,535	1,237,979
Revenue																	
Cabbage yield (Kg/ha/Year)		600	975	1,125	1,350	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	20,550
Gross value of Cabbage		53,692	87,249	100,672	120,807	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	134,230	1,838,949
Gross value of residues		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,000
Gross value of Napier		34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	518,700
Total Revenue		108,872	142,804	156,377	176,737	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	190,310	2,678,199
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	558
Net Cash Flow	(113,035)	40,963	73,548	82,695	102,996	112,775	115,281	112,775	115,281	112,775	115,281	112,775	115,281	112,775	115,281	112,775	1,440,220
Cumulative Net Cash Flow	(113,035)	40,963	114,511	197,206	300,202	412,977	528,258	641,033	756,313	869,088	984,369	1,097,144	1,212,425	1,325,200	1,440,480	1,553,255	
Incremental Net Cash Flow	(113,035)	52,875	64,436	69,060	75,997	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	80,621	1,149,20
IRR 57 %	I	1	l									1		1			l

Returns to family labour	3,904.18
Discount rate	17%
NPV (@12%) KES	482,633
IRR	57%
NPVb (12%) KES	888,039
NPVc (12%) KES	394,352
B/C Ratio	2.3
Switching Values/Benefits	394,350.6
Switching Values/Costs	888,038

Infiltration Ditches - Financial and Economic Analysis

				F	inancial Ana	alysis: Infiltra	ation Ditches	s with Cabba	ige (Amount	in KES)							
Unit: One hectare																	
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Without Infiltration Ditches																	
Costs																	
Construction costs																	
Materials tools and other																	
Maintenance cost																	
Annual cost Cabbage (1/3 of main production)		38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,53
Total Costs	-	38,910	38,910	42,050	41,260	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	41,800	43,900	633,53
Revenue																	
Cabbage yield (Kg/ha/Year)		400	650	750	900	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	13,70
Gross value of Cabbage		40.000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100.000	1,370,00
Gross value of Cabbage Gross value of residues		40,000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,370,00
Gross value of Papier																	
Total Revenue		40,000	65,000	75.000	90.000	100,000	100.000	100.000	100,000	100,000	100.000	100.000	100.000	100.000	100.000	100.000	1.370.00
Total Revenue	_	40,000	65,000	75,000	90,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,370,00
Labour Days		30	33	36	38	38	38	38	38	38	38	38	38	38	38	38	55
Net Cash Flow		1.090	26,090	32.950	48.740	56.100	58.200	56.100	58.200	56,100	58.200	56.100	58.200	56.100	58.200	56.100	736,47
Cumulative Net Cash Flow	-	1.090	27.180	60.130	108,870	164,970	223,170	279.270	337,470	393,570	451,770	507.870	566,070	622.170	680,370	736,470	
												-					
With Infiltration Ditches																	
Costs																	
Construction costs	110,000																110.00
Materials tools and other	3.035	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	6.06
Maintenance cost	0,000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	450.00
Annual cost - Cabbage		51,880	51,880	56,067	55,013	58,533	55,733	58,533	55,733	58,533	55,733	58,533	55,733	58,533	55,733	58,533	844,70
Total Costs	113,035	82,082	82,082	86,269	85,215	88,735	85,935	88,735	85,935	88,735	85,935	88,735	85,935	88,735	85,935	88,735	1,410,77
i_																	
Revenue																	
Cabbage yield (Kg/ha/Year)		600	975	1,125	1,350	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	20,55
Gross value of Cabbage		60,000	97,500	112,500	135,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	2,055,00
Gross value of residues		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	300,00
Gross value of Napier		34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	518,70
Total Revenue	-	115,180	153,055	168,205	190,930	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	2,894,25
Labour Days		59	67	72	77	77	77	77	77	77	77	77	77	77	77	77	1,11
Net Cash Flow	(113.035)	33.098	70.973	81.936	105.715	117,345	120.145	117,345	120.145	117.345	120.145	117.345	120.145	117.345	120.145	117.345	1.483.4
Cumulative Net Cash Flow	(113,035)	33,098	104,071	186,007	291,722	409,067	529,211	646,556	766,701	884,045	1,004,190	1,121,535	1,241,679	1,359,024	1,479,169	1,596,513	,,
				- /		- /		.,									
Incremental Net Cash Flow	(113.035)	32.008	44.883	48.986	56.975	61.245	61.945	61.245	61.945	61.245	61.945	61.245	61.945	61.245	61.945	61.245	860.0

1223.67	Returns to family labour
12%	Discount rate
503,883	NPV (@12%) KES
42%	IRR
1,236,356	NPVb (12%) KES
581,237	NPVc (12%) KES
2.1	B/C Ratio
581,236.2	Switching Values/Benefits
1,236,355	Switching Values/Costs

Gross value of residues Gross					F	conomic An	alysis: Infiltr	ation Ditche	s with Cabb	age (Amoun	t in KES)							
Without infiltration Ditches Costs Construction costs Makerials looks and other Maintenance cost Amunications tolobage (1/3 of main production) 47/707 49/054 53,480 53,539 57,333 54,827 57,333 54,82	Unit: One hectare																	
Costs Construction costs Materials tools and other Maintenance cost of Construction Costs (1) of main production) 47,707 49,054 53,480 53,539 57,333 54,827		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Construction costs Materials tools and other Maintenance cost Annual cost Scabbage (1/3 of main production) 47,707 49,054 53,480 53,589 57,333 54,827 5	Without Infiltration Ditches																	
Materials tools and other Maintenance cost Annual cost (abhage (1/3 of main production)	Costs																	
Maintenance cost Annual cost Cabage (1/2 of main production) 47,707 49,054 53,480 53,539 57,333 54,827 57,333 54,8	Construction costs																	
Annual cost Cabbage (1/3 of main production)	Materials tools and other																	
Total Costs - 47,707 49,064 53,480 53,539 57,333 54,827 57,333 54,	Maintenance cost																	
Revenue Calbage yield (Kg/ha/Year) Gross value of Calbage Gross value of Residues Gross value of Resid	Annual cost Cabbage (1/3 of main production)		47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Cabbage yield (Kg/ha/Year)	Total Costs	-	47,707	49,054	53,480	53,539	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	54,827	57,333	821,914
Gross value of Cabbage Gross value of Cabbage Gross value of Cabbage Gross value of Napier Total Revenue 35,795 58,166 67,115 80,538 89,487 89,	Revenue																	
Gross value of Cabbage Gross value of Cabbage Gross value of Cabbage Gross value of Napier Total Revenue 35,795 58,166 67,115 80,538 89,487 89,	Cabbage vield (Kg/ha/Year)		400	650	750	900	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	13.700
Gross value of Napier Total Revenue 35,795 58,166 67,115 80,538 89,887			35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Total Revenue . 35,795 S8,166 67,115 80,538 89,487	Gross value of residues									-				-				
Total Revenue . 35,795 S8,166 67,115 80,538 89,487	Gross value of Napier																	
Net Cash Flow		-	35,795	58,166	67,115	80,538	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	89,487	1,225,966
Cumulative Net Cash Flow (11,913) (2,801) 10,834 37,833 69,987 104,646 136,800 171,459 203,613 238,273 270,426 305,086 337,239 371,899 404,052 With Infiltration Ditches Costs 110,000 30,	Labour Days		480	780	900	1,080	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	16,440
Cumulative Net Cash Flow (11,913) (2,801) 10,834 37,833 69,987 104,646 136,800 171,459 203,613 238,273 270,426 305,086 337,239 371,899 404,052	Not Carb Flow		(11 012)	0 112	12 625	26 000	22 154	24 650	22 154	24 650	22 154	24 650	22 154	24 650	22 154	24 650	22 154	404.052
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Costs Construction costs 110,000 Materials tools and other 3,035 202 202 202 202 202 202 202 202 202 20	Culturative Net Casil Flow		(11,513)	(2,001)	10,034	37,033	03,367	104,040	130,800	171,433	203,013	230,273	270,420	303,080	337,233	371,033	404,032	
Costs Construction costs 110,000 Materials tools and other 3,035 202 202 202 202 202 202 202 202 202 20	With Infiltration Ditches															1		
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Materials tools and other 3,035 202 202 202 202 202 202 202 202 202 20		110,000																110,000
Maintenance cost 30,000			202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	6.065
Annual cost - Cabbage 47,707 49,054 53,480 53,539 57,333 54,827 57,333		3,033						-		-		-	-					450,000
Total Costs 113,035 77,909 79,256 83,682 83,741 87,535 85,029 87,535 85,																		821,914
Revenue Calbbage yield (Kg/ha/Year) 600 975 1,125 1,350 1,50		113 035																1,387,979
Cabbage yield (Kg/ha/Year) 600 975 1.125 1.350 1.5000 1.5000	Total costs	113,033	77,505	73,230	03,002	03,741	07,555	03,023	0,,555	03,023	07,555	03,023	0,,555	03,023	07,555	03,023	07,555	1,507,575
Gross value of Cabbage 60,000 97,500 112,500 125,000 150,000 1	Revenue																	
Gross value of Cabbage 60,000 97,500 112,500 125,000 150,000 1	Cabbage vield (Kg/ha/Year)		600	975	1.125	1.350	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1,500	20.550
Gross value of residues (20,000 20,00			60.000	97.500	112,500			150,000	150,000	150,000			150,000	150.000		150,000	150,000	2.055.000
Total Revenue - 115,180 153,055 168,205 190,930 206,08			20.000	20.000	20.000			20,000		20,000	20,000	20,000	20.000	20.000		20,000	20.000	300.000
Labour Days 720 1,170 1,350 1,620 1,800 1,	Gross value of Napier		34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	34,580	518,700
Net Cash Flow (113,035) 37,271 73,799 84,523 107,189 118,545 121,051 118,545 121,051 118,545 121,051 118,545 121,051 118,545 121,051 118,545	Total Revenue	-	115,180	153,055	168,205	190,930	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	206,080	2,894,250
	Labour Days		720	1,170	1,350	1,620	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	24,660
	Net Cash Flow	(113,035)	37,271	73,799	84,523	107,189	118,545	121,051	118,545	121,051	118,545	121,051	118,545	121,051	118,545	121,051	118,545	1,506,271
Cumulative Net Cash Flow (113,035) 37,271 111,069 195,592 302,782 421,327 542,378 660,923 781,973 900,519 1,021,569 1,140,115 1,261,165 1,379,710 1,500,761 1,619,306	Cumulative Net Cash Flow	(113,035)	37,271	111,069	195,592	302,782	421,327	542,378	660,923	781,973	900,519	1,021,569	1,140,115	1,261,165	1,379,710	1,500,761	1,619,306	
Incremental Net Cash Flow (113,035) 49,183 64,687 70,888 80,190 86,391 86,391 86,391 86,391 86,391 86,391 86,391 86,391 86,391 86,391 86,391	Incremental Net Cach Flow	(112.025)	40 192	64 697	70 000	90 100	96 201	96 201	96 201	96 201	96 201	96 201	96 201	96 201	96 201	96 201	96 201	1.215.254

Returns to family labour	91.42
Discount rate	0%
NPV (@12%) KES	2,430,508
IRR	58%
NPVb (12%) KES	2,894,250
NPVc (12%) KES	1,274,944
B/C Ratio	2.3
Switching Values/Benefits	1,274,942.7
Switching Values/Costs	2,894,249



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 5: Social Environment and Climate Assessment (SECAP) Review Note

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern 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

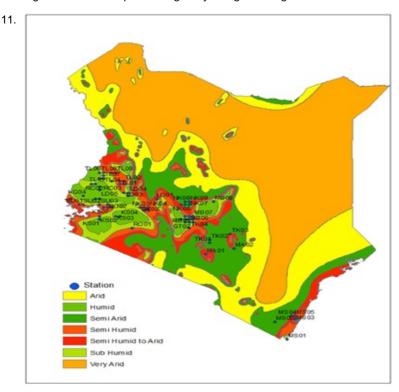
- 1. The purpose of this SECAP review note is to provide elements of context and guidance for the Kenya's Integrated Natural Resources Management Programme (INReMP) concept note to better integrate social, environmental and climate dimensions. Thus, the SECAP Review Note describes the main socio-economic, climate and environmental trends in Kenya and analyses the potential contribution or risks related to the INReMP. In terms of methodology, data was collected through an extensive literature review, various tools of IFAD and WB, and consultations with stakeholders during the design filed mission.
- 2. INReMP is not IFAD's first engagement in the country on aspects of Kenya's natural resources management constraints affecting food security and development of sustainable livelihoods. IFAD has previously worked with GoK and its other development partners to support the following interventions: a) Upper Tana Natural Resources Management Project (UTaNRMP); b) Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods (KCEP-CRAL); and c) Upper Tana Nairobi Water Fund (UTNWF). Thus, INReMP design is informed by several lessons of experience generated by the successful implementation of those interventions.
- 3. INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support the implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem.
- 4. Selection of participating sub-counties and wards will be guided by the following set of criteria: a) be within a targeted County micro-catchment area; b) degree of natural resource and environmental degradation; c) population and population density; d) poverty and vulnerability index; e) extent of land fragmentation; f) environmental risks presented by economic activities (e.g. extent of charcoal burning, sand harvesting and brick making); g) vulnerability to climate change and extreme weather events h) potential for improved productivity, food security, nutrition status, and commercialization; and g) complementarity with other initiatives/projects/programmes and potential for co-financing (e.g. Global Environment Facility (GEF), Green Climate Fund 34(GCF), counties' counterpart contribution, development partners, etc.)
- 5. This SECAP Review Note is prepared based on IFAD's SECAP 2021 and will be aligned with similar requirements of the GCF, for a better and smooth implementation. The document describes policy and regulatory framework and strategic actions to mainstreaming environmental, climate change, gender youth and nutrition. In addition, it provides mitigations measures to address potential risks associated to programme implementations.
- 1. The programme focuses on the following components:
 - 1. a) Community-led Enhanced Environment and INRM, Improved Ecosystem Services, and Climate Action
 - 2. b) Improved, Inclusive and Sustainable Rural Livelihoods.
 - 3. c) The third Component will focus on Institutional Strengthening, Policy Support and Programme Coordination to ensure effective Programme implementation.

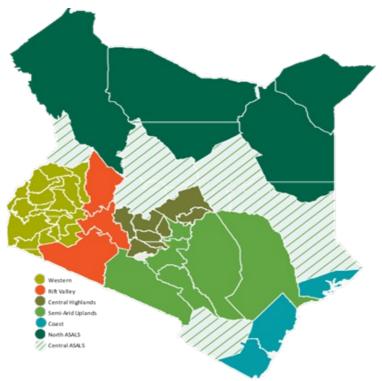
2. Situational analysis and potential project impacts

- 2. **Geography and demographics.** Kenya is a Tropical country that lies between latitudes <u>5°N</u> and <u>5°S</u>, and longitudes <u>34°</u> and <u>42°E</u>. The country's total size is 582 646 km² of which 1.9% (11,227 km²) is covered in water. The country has a tropical climate, with the hottest months being December to March[1] as well as bimodal rainfall patterns. Long rains are experienced between March and June and short ones between October and December. Rainfall is unevenly distributed over the country in both spatial as well as temporal scales, varying from about 200 mm in the dry areas to over 2000 mm in the humid zones, the latter being mostly in the highlands.[2] Kenya has 18 gazetted water towers/catchments, the main ones being five, namely: Aberdares; Mt. Kenya; Mau Complex; Cherangany Hills and Mt. Elgon.
- 3. Kenya has a population of 57,052,004 million as of 2023, a total life expectancy of 70 years[3] and a sex ratio of 98.77 males per 100 females. The country's urban population comprises 29.5% of the total population, while 70.5% of the population is rural.
- 4. The Constitution of 2010 ushered in the devolved system of governance that led to the formation of 47 semi-autonomous Counties. Each county is headed by a Governor and its affairs are run by a county assembly elected by the electorate and staff working in the Governor's office. Through the 2010 constitution, the national government devolved the following functions to county governments: agriculture; health; education; transport; trade; public works; cultural activities; policy implementation and

coordination etc.

- 5. **Agro-ecological zones (AEZs).** Kenya is subdivided into 8 agro-ecological zones (AEZs) namely: AEZ 0 (ever wet evergreen rainforest); AEZ 1 (evergreen rainforest); AEZ 2 (seasonal rainforest); AEZ 3 (seasonal semi-deciduous moist forest or a high grass, broad leaved trees savanna); AEZ 4 (deciduous woodland or hard-leaved evergreen); AEZ 5 (short grass savannah with small leafed thorny trees and bushes); AEZ 6 (bush land with very short perennial grass); AEZ 7 (Semi-desert); and AEZ 8 is full desert[4]. These zones are further articulated as:
 - 1. moderate to deep red soils of medium-high fertility and two seasons of medium rains of 2 seasons, long season in March, short season in November. Suitable for mixed staples and cash crops including maize, French beans, sugar cane, groundnuts, sweet potatoes, Irish potatoes, dairy, poultry and a variety of fish species.
 - Rift Valley. Mixed shallow/low with deep/highly fertile soils and one season of moderate rainfall, 1 season in March suitable
 for mixed staples, cash crops and livestock including maize, wheat, sorghum, Irish potatoes, honey, goats, sheep, chicken
 and dairy cattle.
 - 3. **Central highlands**. Deep red highly fertile soils, two seasons of high rainfall, 2 seasons, March & Nov. suitable for cash crops including coffee, tea, Irish potatoes, French beans, bananas, tomatoes and other staples including dairy cattle and poultry.
 - 4. **Semi-arid uplands.**Red, acidic, low to moderately fertile soils, with one season, in November of low rains suitable for dryland crops such as sorghum and pigeon peas, and beef cattle.
 - 5. **Northern ASALs.** Sandy, saline, shallow, low-fertility soil with one season of rain at best, suitable for livestock pastoralism including camels, goats and sheep, with occasional maize cultivation on raised plateaus.
 - 6. **Central ASALs**. Saline, low-fertility soils, with one season of rain at best, suitable for livestock pastoralism including beef cattle, goats and sheep, with occasional maize cultivation on raised plateaus.
 - mix of sandy, deep, low and highly fertile soil and two seasons of moderate rainfall suitable for mixed staples and cash crops including maize, sorghum, millet, cashew nuts, mangoes, marine fish, crustaceans and molluscs and livestock such as poultry.
- 6. [1] Climate and weather in Kenya (2019). https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine-in-Kenya
- 7. [2] Ministry of Environment and Forestry (2016). Kenya Strategic Investment Framework for Sustainable Land Management (2012-2027). Ministry of Environment and Natural Resources Management.
- 8. [3] CIA Fact book (2023). Kenya. https://www.cia.gov/the-world-factbook/countries/kenya/
- 9. [4] FAO (1996). Agro-ecological Zoning Guidelines. FAO Soils Bulletin 73. Rome. www.fao.org
- 10. Figures 1 and 2: Maps showing Kenya's Agro-ecological Zones





Source: FAO (1996)

12. **Rural livelihoods.** Agriculture is the mainstay of Kenya's economy with a direct contribution of around 33% to the GDP and employing about 40% of the total population and 75% of the rural population. Only 20 percent of the total land is arable and considered suitable for farming. Smallholders form the bulk of the rural population engaged in agriculture (90%). The agriculture sector is mainly subsistence and characterised by low productivity and poor value addition thereby, limiting food security and job creation. The sector is 98% rainfed, making it highly vulnerable to climate change and extreme weather events such as unreliable rainfall patterns, droughts, floods, and heat waves among others. These factors altogether contribute to low yields and food security as well as loss of livelihoods among the rural poor.

2.1 Socio-economic assessment

a. Overall poverty situation

13. Overall poverty situation

- 14. INReMP will be implemented in a phased approach in the counties served by the Cherangany Hills and Mau West water towers. In the first phase, implementation will focus on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support the implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem. Details of the second phase will be developed at the time of detailed design.
- 15. The Cherangany-Elgeyo Hills and Mau Ecosystems are important natural resources that lie within the Lake Victoria and Rift Valley drainage basins; they drain their water to Lake Victoria and serve more than 10 million people. Participating sub-counties and wards will be selected during the detailed design guided by a set of criteria that include: a) degree of natural resource and environmental degradation; b) population and population density; c) poverty and vulnerability index; d) extent of land fragmentation; e) environmental risks presented by economic activities (e.g. extent of charcoal burning); f) vulnerability to climate change and extreme weather events h) potential for improved productivity, food security and nutrition status; and g) complementarity with other initiatives/projects/programmes and potential for co-financing (e.g. Global Environment Facility (GEF), Green Climate Fund (GCF), counties' counterpart contribution, development partners, etc.).
- 16. The population is rural and depend on livestock and crop production for their livelihood. Poverty levels are higher in the Rift valley Counties. There are also pockets of deep poverty in the other counties. In the Western, Nyanza and Rift Valley regions small scale farmers practice mixed farming, with poor segments of the population growing crops, keeping small ruminants, poultry and engage in honey production.

b. Gender

- 17. Approximately 50.3% of the Kenyan population are women. With the introduction of the progressive rights-based Constitution of Kenya (2010), the permit of basic rights for women, children and other marginalized groups have been prioritized and safeguarded by succeeding policy and legal frameworks. However, women continue to face barriers in accessing economic and socio-political resources and opportunities (UN Women, 2019). Kenya is ranked 177 out of the 146 countries that were rated on their progress towards gender parity in 2023 and has a Gender Inequality Index (GII) of 0.708 with significant inequalities between males and females in education attainment, health outcomes, representation in parliament and participation in the labour market. Women are underrepresented in decision-making, especially in rural areas and are not adequately represented either at the county government level or at the national level.
- 18. According to World Bank modelled estimates (ILO), women account for about 64% participation in the labour force, and the percentage of women salaried workers (23%) are starkly lower than men (53%). Women and girls living in rural areas spend long hours collecting water and firewood and this and other household chores limit school attendance and work options. Women have less access to land tenure, education, and employment opportunities. While over 80% of Kenyan women are engaged in smallholder farming, only 5% own land in their own right, access less than 10% of available credit. The main obstacles to women's full participation in production and value-addition are cultural norms of access to and control over primary resources, affordable credit, and knowledge, information, and agriculture inputs. Women typically receive less than 10% of the credit awarded to smallholders and only 1% of the total credit directed to agriculture. This is much lower for younger women and those with disability, who have no access to assets. Gender Based Violence (GBV) at 45%, sexual harassment and certain cultural practices such as female genital mutilation further exacerbate the situation. disparities in labour force participation (men 77.35% and women 72.51%5), unequal workloads and unequal participation in decision making further exacerbate the situation for women.

c. Youth

19. Around 35.7 million Kenyans (75.1%) are below 35 years, and 32.73 million (68.9%) live in rural areas, with unemployment rate at 39% [6]. The Government has put in place various legal, institutional and policy frameworks and institutions to empower the youth. These include the State Department in charge of youth, the Kenya Youth Employment and Opportunities Project, the National Youth Council, National Youth Service, the Youth Enterprise Fund, among others. The Kenya Youth Development Policy (2019) and Kenya Youth Agribusiness Strategy (2017) underscore the importance of positioning the youth at the forefront of agricultural growth and transformation for national development. The Government is keen to support the youth's involvement in agri-businesses through access to innovative agricultural technologies and integrated use of ICT [7]. Currently, over one million young people enter the labour market annually having either dropped out of school or completed high school and are not enrolled in any institution of higher learning or lack requisite skills. Despite few opportunities in the job market, agriculture is not considered by the youth as a preferred business option largely because majority of farmers practice traditional farming methods or operate poorly remunerated rural enterprises that do not lead to decent livelihoods. As a result, the youth perceive agriculture only as a second-best option or a career of last resort [8]

d. Indigenous peoples

20. In Kenya, the people who identify with the indigenous groups are estimated to number approximately 79,000, and are found among the pastoralist communities of Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus, Somali, Gabra, Pokot and Endorois communities, mainly living in the Arid and Semi-Arid Lands (ASALs). Few of these groups are expected within the potential IFAD-supported projects' catchment areas. They regularly experience land tenure and food insecurity, poor service delivery, weak political representation, as well as general discrimination and exclusion. Kenya has no specific legislation governing indigenous peoples and abstained from voting when the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the UN General Assembly in 2007. Kenya has yet to ratify the ILO Convention 169 on indigenous and tribal peoples. However, the 2010 Constitution specifically recognises minorities and marginalized communities because of various historical processes, with specific reference to indigenous peoples and guarantees protection of minorities and marginalized groups. Despite these progressive constitutional provisions, indigenous peoples continue to suffer because of the State's lack of compliance with these provisions and with legal rulings on land issues. Moreover, the principle of Free, Prior and Informed Consent (FPIC) remains a dream for indigenous peoples in Kenya [9].

e. Marginalised groups

21. Kenya is a country of great ethnic, linguistic, cultural, and religious diversity. The 2010 Constitution guarantees the rights of minorities, such as the Nubians and Somalis. However, access to basic services and opportunities remains a challenge. Although the relationship has generally been one of tolerance, divisions between Christians and Muslims are of growing significance. In recent years political conflict on ethnic lines has increased, exacerbated by the combination of divisive politics and economic decline. Particularly vulnerable minorities include Muslims and nomadic pastoralists such as Somali and Maasai. Others include Persons Living with HIV and AIDS and Persons Living with Disabilities (PWDs), who are estimated to represent around 4.6 per cent of the whole population in Kenya. More PWDs live in rural than in urban areas. A quarter of PWDs work on family farms or MSMEs but about a third are unemployed. As the other marginalised people, PWDs often face challenges in accessing education, health care and financial services and are vulnerable to food insecurity and hunger. To address this, PWDs access grants and loans from the Government National Council of PWDs and the Uwezo Fund.

f. Nutrition

22. Malnutrition in Kenya is characterized by the coexistence of (i) undernutrition as manifested by stunting, wasting, underweight; (ii) micronutrient deficiencies; and (iii) overweight and obesity including diet-related non-communicable diseases [10]. Out of 7.22 million children under five, nearly 1.9 million are stunted (26 per cent); 290,000 wasted (4 per cent); and 794,000 (11 per cent) underweight [11]. There are notable geographical and social demographic variations in the severity of malnutrition. Out of the 47 counties, nine have prevalence of stunting above 30%, a level categorized as "severe" and of public health significance. Annual costs for malnutrition related to health, education and labour productivity are estimated between 1.9% and 16.5% GDP. Further, the risk of overweight/obesity and diet-related non-communicable diseases in adults is rising [12]. A total of 28% of adults aged 18-69 years were either overweight or obese, with the prevalence for women at 38.5% and men 17.5%. On the other hand, considerable progress has been made in reducing the prevalence of micronutrient deficiencies, except for zinc deficiency. The prevalence of anaemia was highest in pregnant women (41.6 per cent), followed by children of 6-59 months (26.3%) and school-age children (5-14 years) at 16.5%. An analysis on breastfeeding and complimentary feeding shows remarkable improvement, with 81% of breastfed children aged 6-9 months receiving complementary foods in addition to breastfeeding [13]. On dietary diversity, 95% of adults aged 18-69 years did not consume the World Health Organisation (WHO) daily recommended five servings of fruits and/or vegetables; fruits were consumed on average about 2.4 days in a week, and vegetables were consumed five days in a week. The underlying causes for the above are food insecurity including availability, economic access and use of food; feeding and care practices at individual, household and community level; environment; and poor access to and use of health services.

2.2 Environment and climate context, trends and implications

23. The Kenyan economy relies heavily on natural resources and climate-sensitive sectors such as agriculture, water, fisheries, forestry and energy to support people's livelihoods and to contribute to national income. Kenya's main natural resource base are forests, wetlands, dryland, aquatic and marine resources. Approximately 80% of Kenya's population is directly and indirectly dependent on rain-fed agriculture for basic livelihoods. Different communities based on their social-economic needs and cultural practices and determined by, among others, weather patterns, soil fertility, ecology and level of social development, practice various forms of land used.

a. Environmental assessment

- 24. **Forests:** Kenya's forest ecosystems include savannah woodlands,montanerainforests,dry forests, mangroves and coastal forests. The country's forest cover is estimated at 10%, against a national target of 30% by 2032. The GoK has launched a national tree planting campaign that seeks to plant 15 billion trees by 2032. The forest sector is critical for Kenya's economic, social and environmental wellbeing, as well as climate resilience. It is estimated that the forest sector contributes about 7 billion Kshs (USD 70 million) to GDP, while employing 50 000 people directly and a further 300 000 indirectly. Kenya has experienced a rapid depletion of its forest resources, with an 11% decrease from 2001 and 2021. This has resulted in reduced water availability and economic losses. The key challenges facing the forestry sector are: illegal logging; degradation; and forest fires.
- 25. Water: Kenya is endowed with several water resources such as lakes, rivers, dams, ocean, streams, springs, ground water resources among other sources. However, the country is still considered a water-stressed country because its renewable water resources are estimated at 650M³ per annum (a country is classified as 'water-scarce' if the renewable fresh water generated per annum is below 1000M³). Kenya's water scarcity is exacerbated by variable and unreliable rainfall patterns, as well as climate change. Coupled with an increasing population, the demand for water already outstrips supply. Water resources in Kenya face several challenges such as over abstraction in some catchments; inappropriate land use; destruction of riparian land; soil erosion; water resource use conflicts; and effluent discharge into water bodies. The effects of water scarcity are much more pronounced in the ASALs, which receive very low rainfall.
- 26. Land: Land in Kenya is either national/public land, communal land or privately owned. Only 17% of the country's total land cover is arable, and suitable for rainfall dependent agriculture, while the rest is semi-arid and arid land (ASALs). Although the irrigation potential is high, it is still underdeveloped and only 10% of the total land cover is under irrigation to date. Additionally, some parts of Kenya still face land tenure issues that in some cases result in violent community conflicts or inability to access and productively utilize land resources, especially among women and the youth, and indigenous peoples. The pace of land reforms in the country, to address recurrent land use conflicts has been slow with very limited results to date. Vast land in the country faces high risks of land degradation, particularly in the arid and semi-arid regions. Land degradation is mostly human induced and mainly manifests in the form of: soil erosion; rangeland degradation; salinity; deforestation; desertification; salinization, soil nutrient loss; and sedimentation.
- 27. **Agriculture.** The agriculture sector in Kenya contributes 20% to the GDP. The drought cycle in the country has progressively reduced: from 20 years (between 1964-1984) to 12 years (between 1964-1984) to two years (between 2004-2006) and the current yearly occurrence of drought (since 2007), resulting in shorter rain cycles and longer droughts. As a result, multiple crops have experienced decline in national productivity (e.g. Maize by 6.3% and tea by 7% between 2016 and 2017), negatively impacting 75% of livelihoods in rural areas. A study undertaken by the Central Bank of Kenya in 2023[1] showed thatmost farmers cited high input costs (24 Percent) and weather patterns (15 Percent) as the main factors affecting agricultural production. Farmers recommended lowering of input and fuel prices followed by increasing subsidized fertiliser and irrigation in that order. The country's total Greenhouse Gas (GHG) emissions are expected to increase to 143MtCO₂e in 2030 from 93.7MtCO₂e in 2015, with the agriculture sector being the largest contributor (40%), mostly due to the livestock sector related

emissions[2].

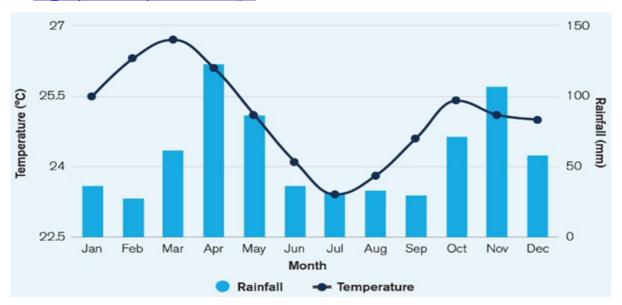
- 28. **Livestock**. Livestock is a key sub-sector in the agricultural sector and contributes approximately 40% of the agricultural sector's contribution to national GDP. A large concentration of livestock activities are around Arid and Semi- Arid Lands (ASALs). Furthermore, Kenya's dairy industry is the single largest agricultural sub-sector in the country. It contributes about 14% of agricultural GDP and 3.5% of the national GDP. The industry is a source of livelihood to over 1.8 million dairy farming households and additional 700,000 jobs along the value chain. However, it is highly vulnerable to climate change. Past and current evidence shows that climate change risks such as droughts, floods and extreme temperatures have negatively affected dairy productivity[3]. The Livestock sector contributes significantly to GHG emissions, particularly the dairy sector, largely due to poor animal and herd management (enteric methane), poor manure management (nitrous oxide), poor fodder and pasture management practices. These emissions are expected to account for an increase of 30% in GHG emissions by 2030).
- 29. **Fisheries**. The fisheries sub-sector has been rapidly growing into an export industry in the past few years. Almost 95% of total weight of fish is sourced from fresh water (of which 50% is sourced from Lake Victoria and 4% from Kenya's coastline. The fisheries sub-sector provides employment to over 500 000 Kenyans. Although the fisheries sector only accounts for about 0.8%, it has vast potential for growth and numerous benefits such as increased nutrition, if scaled-up sustainably. However, impacts of climate change further hamper opportunities for improvement of deep-sea fishing due to: i) changing of fish breeding patterns due to increasing water temperatures; ii) movement of marine fish deeper into waters; and iii) concurrent lack of technology of farmers to access deeper seas. Aquaculture is constrained by: i) high price of maintaining fish farms; and ii) drying up of ponds due to drought.
- 30. **Mining.** Kenya has known mineral deposits of oil and natural gas, soda ash, gold, coal, fluorspar, iron, gypsum, diatomite, titanium, limestone etc. The discovery of oil and gas in 2012 is expected to boost the country's economy. The Constitution of Kenya, 2010, vests all minerals under the ownership of the national government, and mandates it to ensure sustainable extraction and utilization, and conservation, health and safety of the environment. The primary challenges experienced among smallholders in relation to mining is stone quarrying and sand harvesting which result in land degradation, as well as dust and water pollution. The development of quarry and sand harvesting management guidelines at county level could mitigate these risks if enforcement is done diligently.
- 31. **Water resources.** Kenya is endowed with several water resources such as lakes, rivers, dams, ocean, streams, springs, ground water resources among other sources. However, the country is still considered a water-stressed country because its renewable water resources are estimated at 650M³ per annum. Kenya's water scarcity is exacerbated by variable and unreliable rainfall patterns, as well as climate change. Coupled with an increasing population, the demand for water already outstrips supply. Water resources in Kenya face several challenges such as: over abstraction in some catchments; inappropriate land use; destruction of riparian land; soil erosion; water resource use conflicts; and effluent discharge into water bodies. As such, Kenya needs to invest substantially in sustainable water management technologies and practices.
- 32. Land resources. Land remains the most important resource for most Kenyans, particularly the majority of rural farmers, whose livelihoods are agro-based. Land in Kenya is either national/public land, communal land or privately owned. Only 17% of the country's total land cover is arable, and suitable for rainfall dependent agriculture, while the rest is semi-arid and arid. Although the irrigation potential is high, it is still underdeveloped and only 10% of the total land cover is under irrigation to date. Additionally, Kenya still faces land tenure issues which in some cases result in violent community conflicts or inability to access and productively utilise land resources, especially among women and the youth, and indigenous peoples. The pace of land reforms in the country, to address recurrent land use conflicts has been slow with very limited results to date.
- 33. **Energy resources.** Kenya's energy sector is green (81%) and the country plans to be 100% renewable energy driven by 2030. The primary sources of green energy include geothermal, hydro, solar and wind. The government is making tremendous strides towards improving electrification which currently stands at 75%. The reliance on hydropower for energy production requires that water catchments continue to be well conserved in order to ensure a reliable and quality supply of water to the hydro stations. Moreover, overreliance on wood fuel has increased deforestation levels across the country, in addition to contributing to greenhouse gas emissions, thereby accelerating the rate of climate change. The move towards renewable energy sources such as biogas, solar, wind, geothermal, hydropower etc., is likely to reverse this situation[4].
- 34. [1] Central Bank of Kenya (2023). Agriculture Sector Survey. CBK, January 2023.
- 35. [2] Kenya Updated Nationally Determined Contributions (NDCs), 2021.
- 36. [3] National Livestock Policy, GoK 2020
- 37. [4] Energypedia (2022). Kenya Energy Outlook. Energypedia.

b. Climate trends and impacts

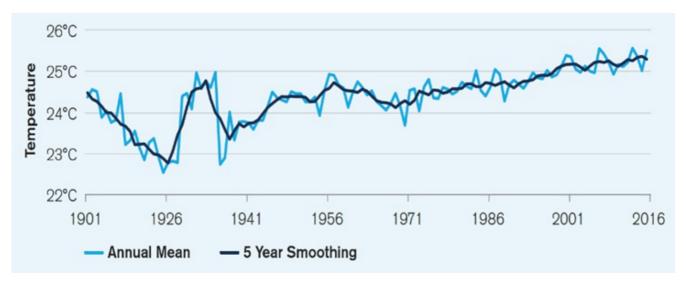
38. Kenya has marked variation in climate due to proximity to the ocean, with the eastern coastal regions having a humid, tropical climate, compared to the country's northern region, which is described as arid. The central highlands of Kenya have a cooler, moderate climate. Average annual temperatures range from 18°C in the central highlands to 26°C along the coast. Average monthly temperatures range from 22°C in July to 25.6°C in March (Figure 3). Kenya's mean annual rainfall is 668 mm, with most of the precipitation occurring from March to June and October to December (Figure 3). Average rainfall varies across the country, with the western and highland regions receiving 2,000 and 1,000 mm of precipitation per year respectively, compared to Kenya's

northern regions which receive less than 250 mm annually[1].

39. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf

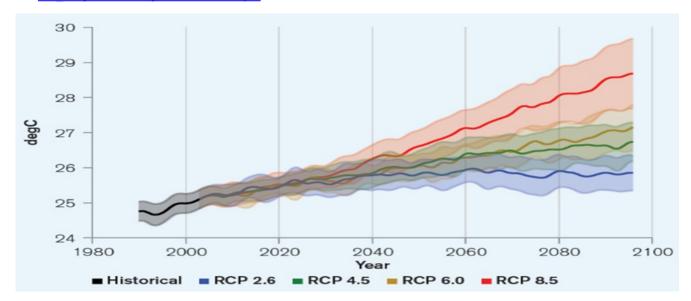


- 40. Figure 3. Average monthly temperature and rainfall for Kenya for the period 1991–2020[19].
- 41. Historical climate change trends
- 42. Temperature
- 43. While temperatures vary across Kenya, a distinct warming trend is evident, particularly since the 1960s, (Figure 4) with inland areas registering larger increases in minimum and maximum temperatures. During this time the annual mean increase has risen by approximately 1.0°C, at an estimated average rate of 0.21°C per decade. The most significant rise in temperature was observed for the start of the primary rainy and humid, spring season (March to May), in the arid and semi-arid regions of the country.

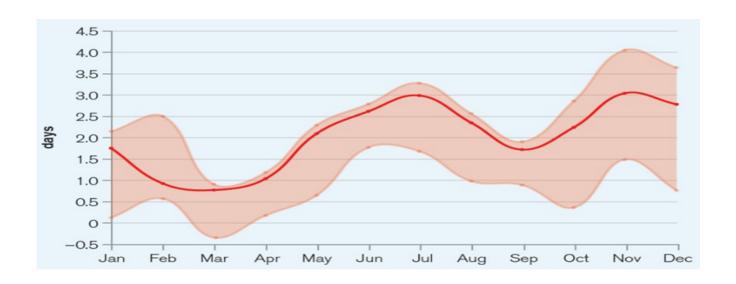


- 44. Figure 4. Observed temperature for Kenya for the period 1901–2016.
- 45. Precipitation
- 46. Precipitation trends for Kenya have been highly variable. However, there is significant geographical diversity in observed rainfall trends. Northern areas have become wetter, and Southern areas have become drier since the 1960s, although this has had a high degree of variability. Extreme rainfall events are occurring with greater frequency and intensity. Increased aridity and droughts have also been observed, with moderate drought events recorded on average every three to four years and major droughts every ten years. Since 2000, prolonged droughts have become more common[1].

- 47. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 48. Projected climate change trends
- 49. Temperature
- 50. Across all emissions scenarios, temperatures in Kenya will continue to rise. As shown in Figures 5 and 6 below, under a high-emission scenario (RCP 8.5/SSP5), average temperatures are expected to increase rapidly by mid-century. Increased heat and extreme heat conditions will result in significant implications for human and animal health, agriculture, and ecosystems[1].
- 51. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 52. Precipitation
- 53. Precipitation trends for Kenya have been highly variable. However, there is significant geographical diversity in observed rainfall trends. Northern areas have become wetter, and Southern areas have become drier since the 1960s, although this has had a high degree of variability. Extreme rainfall events are occurring with greater frequency and intensity. Increased aridity and droughts have also been observed, with moderate drought events recorded on average every three to four years and major droughts every ten years. Since 2000, prolonged droughts have become more common[1].
- 54. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf



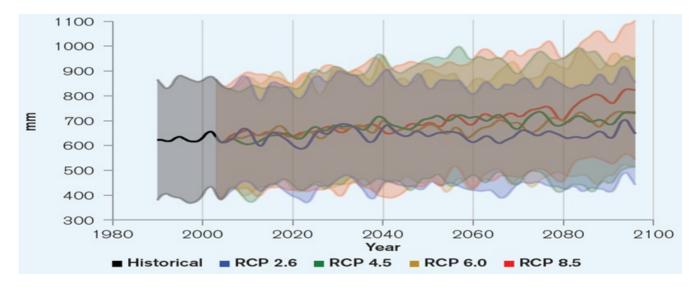
- 55. Figure 5: Historical and projected average temperature for Kenya from 1986 to 2099[1].
- 56. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf



- 57. Figure 6: Projected change in summer days (Tmax >25°C)[1].
- 58. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 59. Temperatures in Kenya are projected to continue rising by 1.7°C by the 2050s and by approximately 3.5°C at the end of the century. Under the SSP 2 4.5 mid-emission scenario, relative to a baseline period of 1981–2010, mean temperatures in the near term (2021–2040) are expected to increase by between 0.7 and 1.3°C. Additionally, the number of hot days and nights will increase, with 'hot days' projected to occur on 19%–45% of days by mid-century. Hot nights are expected to increase more quickly, projected to occur on 45%–75% of nights by mid-century and on 64%–93% of nights by end of the century. Cold days and nights are expected to become increasingly rare[1]. The number of days per annum with maximum temperatures above 35°C, relative to a baseline period of 1981–2010, will increase by between 8 and 24 in by 2040[2].

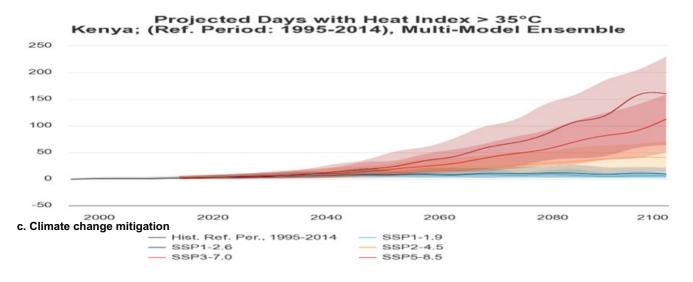
60. Precipitation

- 61. Precipitation in Kenya is projected to remain highly variable and uncertain, however average rainfall is expected to increase by mid-century, particularly during the 'short rains', which occur between October and December. Extreme rainfall events are also expected to increase in frequency, duration and intensity and the proportion of heavy rainfall that occurs in heavy events will increase. However, the period between heavy rainfall events may increase. Importantly, rainfall in the arid zones is generally projected to decrease. As seen in Figure 7, annual average precipitation across Kenya is expected to increase slightly by the of turn the century under a high emissions scenario (RCP8.5/SSP2)[3]. Under a mid-emissions scenario (SSP2 4.5), near term (2021–2040) total precipitation is expected to increase by between 1.4 and 9.9% across Kenya relative to a baseline period of 1981 to 2010. Additionally, the models project that maximum one-day precipitation under the SSP2 4.5 mid-emissions scenario, in the near term (2021–2040), will increase by 4.2–16.5% relative to a baseline of 1981–2010[4].
- 62. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB_Kenya%20Country%20Profile-WEB.pdf
- 63. [2] Online Available: https://interactive-atlas.ipcc.ch
- 64. [3] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 65. [4] Online Available: https://interactive-atlas.ipcc.ch



66. Figure 7: Annual average precipitation tends and projections for Kenya for the period 1986 to 2099[1].

- 67. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 68. Extreme weather events
- 69. Kenya faces various types of extreme weather events including droughts, floods, landslides, and heat waves. Droughts and floods are the most common extreme weather events. As many as 28 droughts have been recorded in the past 100 years, and these appear to be increasing in frequency. Droughts are often nation-wide, but normally have the most severe impacts in the country's highly arid zones. Flood and drought events are becoming more frequent, with drought cycles occurring every 2–3 years instead of every 5–10 years. A severe and prolonged drought from 2008–2011 affected 3.7 million people, caused \$12.1 billion in damages and losses, and cost over \$1.7 billion in recovery and reconstruction needs. Additionally, deforestation, watershed degradation, land use changes, urbanization and poor management of settlements have exacerbated the likelihood of and impact from floods and droughts. Water stress may be further exacerbated as household consumption and agriculture continue to compete for limited supply[1]. Increased heat will further strain water resources and agricultural productivity, thus negatively impacting on the livelihoods of poor smallholder farmers in rural Kenya. Figure 8 below shows that the projected number of days with a heat index above 35°C will increase under ensemble model.
- 70. [1] World Bank (2021). Climate Change Country Profile: Kenya. WBG.



^{71.} Figure 8: Projected days with heat index above 35⁰C

- 72. Impacts of climate change on crop and livestock production
- 73. Crops, livestock, and forestry constitute the agricultural production in Kenya and account for more than 65% of the country's exports. Rain-fed, small-scale farming remains the primary source of livelihood for rural communities[1]. Reliance on precipitation to grow crops in the face of climate change and reduced access to agricultural technologies has resulted in extensive soil degradation and increased chemical fertilizer utilization. This has resulted in notable yield losses and poor crop productivity[2]. Small-scale farming in Kenya is usually limited to 0.3 to 3 ha of land with limited irrigation and is comprised of crops mixed with livestock production for home use and partially commercial production. The dairy sub-sector is a key economic lifeline for many smallholder farmers in Kenya and contributes to about 14% of the GDP.
- 74. INREMP will invest in dairy as one of its core value chains. The dairy sector is impacted by climate change. Heat stress is likely to have negative impacts on dairy productivity, reducing milk yields and increasing susceptibility to pests and diseases. Water scarcity is a contributor to fodder shortages thus impacting yields. The dairy industry however is also a key contributor of GHGs in Kenya and emissions emanate from use of high emission energy sources, poor feeding practices, poor herd and dairy waste management[3]. Enhancing dairy productivity, promoting access to clean energy and improving herd and dairy waste management has potential to reduce poverty, enhance dairy farmers' climate resilience and reduce GHG emissions in line with Kenya's Nationally Determined Contributions and the National Adaptation Plan. Effort will also be made to invest in counties with a high dairy return.
- 75. [1] Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 76. [2] Online Available: https://unfccc.int/resource/docs/natc/kennc2.pdf
- 77. [3] (FAO, (2017). Options for Low Emission Development in Kenya Dairy Sector. Reducing enteric methane for food security and livelihoods. FAO
- 78. **Mitigation**: INReMP will not directly generate greenhouse gas (GHG) emissions. Nonetheless, the EX-ACT tool will be utilized to assess its comprehensive mitigation potential during the entire project implementation phase. In essence, the project will actively contribute to reducing GHG emissions and promoting sequestration through the adoption of renewable energy technologies, energy-saving practices, and the utilization of lower-emission livestock such as poultry. Furthermore, it will incorporate Climate Smart Agriculture (CSA) techniques, encompassing forestry, agroforestry, and various watershed management initiatives. The project will be meticulously crafted and executed in alignment with the policies of IFAD and GCF, as well as in accordance with the government's climate strategy and plans.
- 79. **Adaptation**: The project aims to integrate established climate-smart technologies, including conservation agriculture, composting, and agroforestry, alongside biophysical soil, and water conservation methods, to reinforce adaptation efforts. Additionally, the utilization of IFAD's Climate Adaptation in Rural Development (CARD) tool will facilitate the identification of crops whose productivity will be increased under climate change during project implementation. It's important to acknowledge that while the CARD tool offers valuable insights, it may not encompass the yield potential of all crops available within the country/regions.

2.3 Target group profiles

80. The project has identified different target groups in inclusive manner to leave no one behind. The following table shows a list of the stakeholders identified:

Туре	Poverty level	Needs	How the project impacts them		
	Poor and ultra-poor				
	Causes		· Access to farm inputs		
	(i) Poor environment soil and water conservation	· Food and nutrition security	· Trainings		
Poor rural small food insecure households	(ii) Illiteracy levels (iii) Lack of land, productive assets	· Access to finances · Access to Land	Extension services Enhance access to matching grants/soft loans		

Туре	Poverty level	Needs	How the project impacts them		
	(iv) Low productivity(v) Lack of food and nutrition security	· Access to irrigation and portable water	Provide training in good agricultural practices		
	(vi) Limited economic opportunities for women, youth, IPs, PLWHAs and vulnerable groups		· Promote livestock IGAs		

Moderately food insecure small rural producers	Moderately poor and food insecure Causes i. Drought ii. Illiteracy levels iii. Lack of land, productive assets iv. High population v. Youth unemployment vi. Low productivity vii. Climate change impacts viii. Lack of women economic empowerment, heavy workloads, low participation and decision-making	 Food and nutrition security Access to finances Access to Land Access to irrigation and portable water 	Nutrition and education interventions Climate smart agriculture Training in good agricultural practices Formation of INRM farmer organizations Payment of Ecosystem Services Natural Resources conservation GALS to address heavy workloads for women, joint benefits
Medium smallholder households with market potential and enterprise development	Food secures with market potential and enterprise development. Causes Some food security and have surplus. Low yields and production Post-harvest losses Lack of access to finance Support for commercialization	 Food and security Increased access to finances Improved water access Extension services Better crop varieties Access to input and output markets Good road network Own farm machinery and implements. Access to market information 	 Development of irrigation schemes Provision of agricultural extension services Provision of market information Provision of matching grants Provision credit facilities Promotion of resilient livestock Nutrition interventions Climate smart agriculture Training in good agricultural practices Formation of water users, conservation organizations Linkage to markets Training in agribusiness Promotion farm mechanization

3. Institutional analysis

81. The GoK has put in place several policies, legislations, and institutional frameworks to regulate and address environmental, climate and social inclusion thematic areas as illustrated in Table 1 below.

Thematic Area	Policies/Legislations/Guidelines/Strategies/ Action Plans	Key Institutions
Livestock	Draft (reviewed) National Livestock Policy (Feb 2019); Kenya Veterinary policy (2015); Draft Livestock Breeding Bill (2015); Livestock identification and traceability system regulations, 2019; Pest Control Products Act Cap 346; Kenya Meat Commission Act; Fertilizers and Animal Foodstuffs Act, Cap 345 2012; Animal Health Bill 2019	Ministry of Agriculture, Livestock, Fisheries and Irrigation, Pest Control Product Board
Gender equality	Kenya National Policy on Gender and Development, 2000; National Plan of Action for the Elimination of Female Genital Mutilation in Kenya (1999-2019); Sexual Violence: Setting the Research Agenda for Kenya (2009); National Guidelines on Management of Sexual Violence in Kenya, 2nd Edition (2009)	National Gender and Equality Commission (NGEC), Women Enterprise Fund, Ministry of Labour, Social Security and Services, Ministry of Public Service, Gender and Youth Affairs, National Council for People with Disabilities, National Council for Children Services
Youth	Kenya Youth Policy (2006); Kenya Youth Agribusiness Strategy (2017-2021); Kenya Youth Development Policy (2018)	Youth Enterprise Development Fund in Kenya, Ministry of Labour, Social Security and Services, Ministry of Public Service, Gender and Youth Affairs
Nutrition	National Comprehensive School Health policy (2007); National Food and Nutrition Security Policy (2011); National School Health Strategy Implementation Plan (2011), National Nutrition Action Plan (2012); The Breast Milk Substitutes (Regulation and Control) Act Number 34 (2012); Kenya National Strategy for the Prevention and Control of Non-Communicable Diseases (2015-2020)	Ministry of Health, Ministry of Education, Ministry of Agriculture, Livestock, Fisheries and Irrigation
Climate Change	Climate Change Act, 2016; The National Climate Change Response Strategy, 2010; Kenya Nationally Determined Contributions, 2015; Meteorology Policy, 2019; National Policy on Climate Finance, 2016; Climate Finance Bill, 2018; Green bonds Guidelines, 2019; National Adaptation Plan (NAP 2015-2030); Kenya Climate Smart Agriculture Strategy (2017-2026); Climate Risk Management Framework (2017); National Climate Change Policy (2018); National Climate Finance policy (2018); and Kenya Climate Smart Agriculture Implementation Framework (2018-2027)	Ministry of Environment and Forestry, Ministry of Water and Irrigation, Ministry of Agriculture, Kenya Meteorological Department. Water Resources Management Authority, National Disaster Management Authority

Thematic Area	Policies/Legislations/Guidelines/Strategies/ Action Plans	Key Institutions
Environment and Natural Resources Management	The Environmental Management and Coordination Act 1999 and the amendment Act 2015; Wildlife Conservation and Management Act 2013; Forest Conservation and Management Act, 2016, Natural Resources Act, 2016; Water Act 2016, National Solid Waste Management Strategy, 2015; Forest Conservation and Management Act, 2016; Fisheries Act 2016; Natural Resources (Benefit Sharing) Bill, 2018; Environmental Management and Coordination (Water Quality) Regulations (2006); Environmental Management and Coordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulations (2009); Irrigation Policy (2011); Water Act (CAP 372) No. 8 (2002) (Revised 2012, 2016); Land Act (2012); National Environment Policy, 2013, Constitution of Kenya, 2010, Lands Act, 2012	Ministry of Environment and Forestry, National Environment Management Authority, Kenya Forest Service, Ministry of Water and Irrigation, Water Resources Management Authority, National Environment Trust Fund, Kenya Water Towers Agency, Kenya Wildlife Services
Indigenous Peoples	Kenya Constitution, 2010, Bill of Rights; Kenya Community Land Act (2016); Kenya Agricultural and Livestock Research Act (2013); National Cohesion and Integration Act (2008)	Ministry of Sports, Culture and Arts

- 82. **Environment and Natural Resources Management.** The Environmental Management and Coordination Act, 1999 and the 2015 amendment provides an institutional framework for environmental management in Kenya and entitles every citizen to a clean and healthy environment. The ACT operates on the following principles: polluter pays; public participation; international cooperation, cultural and social principles; inter and intra-generational equity; and the precautionary principle. The ACT also establishes the National Environment Management Authority and provides regulations and guidelines for mitigation of environmental risks through the EIA guidelines.
- 83. **Climate Change:** The Government of Kenya (GoK) has undertaken several initiatives aimed at addressing climate change and sustaining the resilience of key sectors, such as agriculture and natural resources. Kenya's Vision 2030, its overarching development strategy, aims to modernize and enhance the competitiveness of smallholder agriculture through innovation. Additionally, the Climate Change Act of 2016 establishes a regulatory framework for enhanced response to climate change, implement measures for resilience-building, and foster low-carbon development. This legislation also prioritizes the integration of climate resilience into all development plans.
- 84. Moreover, the National Climate Change Policy Framework of 2017 aims to strengthen the country's capacity for climate change adaptation, enhance resilience to climate variability, and promote pathways towards low-carbon development. Complementing this, the National Adaptation Plan of 2015 outlines a comprehensive set of short, medium, and long-term actions designed to sustain resilience across livelihoods and natural resources management.
- 85. The Kenya Climate Change Act (2016) provides a regulatory framework for an enhanced response to climate change, provides mechanisms and measures to improve resilience to climate change and promotes low carbon development. The act seeks to mainstream climate resilience in all development plans and encourages the use of climate proof/clean/green technologies. Furthermore, the National Climate Change Response Strategy involves comprehensive strategies developed to respond to climate variability and climate change. It proposes a programme of activities and actions to adapt, mitigate, and cope with climate change management. The county governments have domesticated the Act at county level, with majority of them having county climate change bills and Acts, that allocate county budgets to climate change activities at county levels.
- 86. **The National Adaptation** Plan 2015-2030 emphasizes the importance of adaptation and resilience building in all development sectors, as well as synergies between adaptation and mitigation actions in order to attain a low carbon climate resilient economy. The Plan also aims to enhance resilience of vulnerable populations to climate shocks through adaptation and disaster risk reduction strategies. The National Climate Change Directorate is the body established under Section 9 the Climate Change Act to act as the lead agency on climate change action plans and delivery of climate change related operational plans.
- 87. **Green Economy:** The Green Economy Strategy and Implementation Plan (GESIP) for Kenya, spanning from 2016 to 2030, serves as a framework aimed at fostering a low-carbon, resource-efficient, fair, and inclusive socioeconomic transformation. GESIP is designed to facilitate the country's shift towards a sustainable trajectory across five key thematic areas and corresponding strategies, which include: advancing sustainable infrastructure, enhancing resilience, managing natural resources sustainably, fostering resource efficiency, social inclusion, and promoting sustainable livelihoods. The implementation of GESIP will adhere to sustainable development principles, encompassing sustainable consumption and production, equity, social inclusion, resource efficiency, the Pollution Pays Principle, the precautionary principle, and good governance.
- 88. **Nationally Determined Contributions (NDCs).** Kenya is a signatory to the Paris Agreement and has committed to climate mitigation and adaptation actions under its NDCs. The mitigation contribution intends to abate greenhouse gas (GHG) emissions

- by 32% by 2030 relative to the Business as Usual (BAU) scenario of 143MtCO₂ eq. the total costs of implementing the NDCs are expected to be USD67 billion, with 13% being GoK contribution and 87% sourced from international donors. The key mitigation priorities are renewable energy and energy efficiency; afforestation and reforestation; land degradation neutrality; nature-based solutions; REDD+ activities; climate smart agriculture; carbon markets, payment for ecosystem services; and sustainable waste management.
- 89. The adaptation and loss and damage related actions include: increasing adaptation and resilience in all sectors at national and county government levels; promoting locally led climate adaptation actions; application of climate risk management tools in risk management; addressing loss and damage in the production sector; generation, packaging and widespread uptake of climate and early warning information; enhancing uptake of climate adaptation technologies especially by women and vulnerable groups; strengthening the climate change directorate and climate units across sectors; and enhancing M&E and learning[1].
- 90. Convention on Biological Diversity (CBD). Kenya is a signatory to the United National Convention of Biological Diversity (CBD) The three goals of the CBD are to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources. Kenya has developed its National Biodiversity Strategy and Action Plan to guide it in meeting its commitments under the CBD and the 2020 Aichi Targets. The NBSAP seeks to enhance biodiversity conservation and sustainable utilisation of genetic resources, informed and empowered communities in biodiversity conservation and utilisation of genetic resources, strengthen communities and institutions in biodiversity conservation, as well as develop an inventory of biological resources and technologies.
- 91. United Nations Convention to Combat Desertification (UNCCD). UNCCD seeks to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world. The <a href="https://www.ncc.nc/unccenter-neutral-neut
- 92. **The Bottom-Up Economic transformation 2022-2027**. The project will align with the GoK's bottom-up approach in promoting the attainment of 30% forest cover by 2032 and planting 15billion trees by 2032. This will be done through promotion of agroforestry and reforestation, nature-based solutions, and development of nature-based enterprises to create employment for women and the youth.
- 93. **Institutions.** The project will work collaboratively with other institutions that will contribute to the delivery of its environment and climate ambition. These include the relevant County Governments' Ministries and Departments, Ministry of Environment, Forestry and Climate Change, National Environment Management Authority (NEMA), Water Resources Authority (WRA), Meteorology Authority, National Drought Management Authority (NDMA), Kenya Forest Service (KFS), Kenya Water Towers Agency (KWTA), Water Services Trust Fund, National Disaster Risk Management Authority, The Nature Conservancy (TNC), private sector, financial institutions, farmer organisation, women and youth organisations, and community-based conservation organisations. Other institutions will include the State departments for Gender, Youth, Women and Youth Enterprise Funds, and the National Council for PWD.
- 94. [1] GoK (2021). Updated Nationally Determined Contributions for Kenya. GoK.
- Environmental and social category
 [2] UNCCD (2017). Roadmap for Kenya to set LDN targets. https://www.unccd.int/news-events/kenya-launches-roadmap-set-land-degradation-neutrality-targets

- 96. INREMP's preliminary environment and social risk category is *Substantial*. The main environmental and social risks relate to GHG emissions from dairy production, land degradation, pollution from use of agrochemicals, inappropriate land use practices and deforestation, water infrastructure development, resource use conflicts, teenage pregnancies and GBV etc. These risks pose adverse threats to the environment and humans but are also site-specific and reversible and/or manageable through proposed mitigation actions. Some of the sub-projects likely to have significant or adverse risks include water infrastructure development, processing and marketing infrastructure development, and agrochemicals use. INReMP will receive additional funds from the GCF, some of which will go towards providing a line of credit for green investments for producers and value chain actors. Hence, the project will engage financial intermediaries such as bank thus triggering the need for environment and social governance (ESG) due diligence and robust environment and social management systems (ESMS) for these financial institutions.
- 97. The measures to address environment and social risks will entail: sustainable land management practices; agroforestry and reforestation; water harvesting; nature based enterprises; nature-based infrastructure; integrated pest management and use of biofertilizers; payment for ecosystem services through a Water Fund approach; access to climate financing for green investments; circular economy approaches for waste management; robust ESMS for financial intermediaries; GALs methodology to address gender-based violence and conflicts; indigenous peoples action plan; and community health and labour management action plans etc.
- 98. Preliminary results show that INReMP has triggered the following SECAP 2021 standards: a) resource use efficiency and pollution; b) community health and safety; c) climate change, d) financial intermediaries and direct investments, e) labour and working conditions, and f) indigenous peoples. In line with IFAD's SECAP 2021 procedures and the results of the ORMS SECAP online screening tool, the project will develop the following safeguards instruments as part of the design process: Environment, Social and Climate Management Framework (ESCMF); an Environment, Climate and Social Management Plan (ECSMP); Pesticides Management Plan (PMP); Stakeholder Engagement Plan (SEP); Grievance Redress Mechanism (GRM); and Free Prior and Informed Consent (FPIC) and Indigenous Peoples Action Plan (IPAP). A preliminary Stakeholder Engagement Plan has been developed and attached to this SECAP review note.

5. Climate risk category

- 99. INReMP's climate risk classification is **Substantial**. The World Bank reports thatKenya is ranked 152 out of 181 in the ND-GAIN Index and is therefore highly vulnerable to climate change impacts. Historical and current climate change trends indicate that whereas temperatures vary across country, a distinct warming trend is evident, particularly since the 1960s, with inland areas registering larger increases in minimum and maximum temperatures. During this time the annual mean increase has risen by approximately 1.0°C, at an estimated average rate of 0.21°C per decade. The most significant rise in temperature was observed in the arid and semi-arid regions of the country. Precipitation trends for Kenya are highly variable. Northern areas have become wetter, and southern areas have become drier since the 1960s, although this has had a high degree of variability. Extreme rainfall events are occurring with greater frequency and intensity. Increased aridity and droughts have also been observed, with moderate drought events recorded on average every three to four years and major droughts every ten years.
- 100. Temperatures in Kenya are projected to continue rising by 1.7°C by the 2050s and by approximately 3.5°C at the end of the century.24 Additionally, the number of hot days and nights will increase, with 'hot days' projected to occur on 19%–45% of days by mid-century. Hot nights are expected to increase more quickly, projected to occur on 45%–75% of nights by mid-century and on 64%–93% of nights by end of century. Cold days and nights are expected to become increasingly rare. Across all emissions scenarios, temperatures in Kenya will continue to rise. Under a high-emission scenario (RCP 8.5), average temperatures are expected to increase rapidly by mid-century. Increased heat and extreme heat conditions will result in significant implications for human and animal health, agriculture, and ecosystems.
- 101. Precipitation in Kenya is projected to remain highly variable and uncertain, however average rainfall is expected to increase by mid-century, particularly during the 'short rains', which occur between October and December. Extreme rainfall events are expected to increase in frequency, duration and intensity and the proportion of heavy rainfall that occurs in heavy events will increase. However, the period between heavy rainfall events may increase. Rainfall in the arid zones is generally projected to decrease[1].
- 102. Some preliminary measures to enhance adaptation, mitigation and resilience building will include: promotion of climate smart agriculture practices; renewable energy; agroforestry and reforestation; fodder conservation; green enterprises; climate and early warning information system; improved and resilient varieties and species; climate insurance; carbon markets; sustainable land management practices; manure management; irrigation; precision farming; access to climate financing for green investments; and climate proofing water, production and marketing infrastructure.
- 103. In line with the project's substantial climate risk categorisation, a Targeted Adaptation Assessment (TAA) will be prepared prior to DRM and the assessment will propose several adaptation measures for selected value chains.
- 104. [1] World Bank Group (2021). Climate Change Risk Profile for Kenya. WBG.

6. Recommendations for project design and implementation

- 105. The INReMP will be delivered through three components, namely, Enhanced Environment and INRM, Ecosystem Services, and Climate Resilience; Improved, Inclusive and Sustainable Rural Livelihoods; and, Institutional Strengthening, Policy Support and Programme Coordination. This being an integrated natural resource management (INRM) project, a lot of investments will go into INRM, environmental sustainability, climate mitigation adaptation and resilience, hence overall, the project will have a do-no-harm approach. The components will all work in harmony to enhance global environmental benefits, climate resilience and improve farmers' livelihoods. Component 1 should promote sustainable land management practices, nature-based solutions, and establish a water fund through a public-private partnership for sustainable management of the targeted water tower (catchments) and payment for ecosystem services. The component should also develop water infrastructure to enhance irrigation, water access for animals and domestic uses. Other interventions ought to include promotion of renewable energy, climate insurance to de-risk investments, fodder conservation, climate financing for green investments, water harvesting, GHG emissions accounting and carbon marketing.
- 106. **Gender Equality:** Integrating gender perspectives in reforestation empowers women by providing them with opportunities for meaningful participation in decision-making processes, access to resources, and economic benefits from forest restoration activities. This helps in challenging traditional gender roles and promoting gender equality within communities.
- 107. Environmental Sustainability: Considering gender dynamics in reforestation projects can lead to more sustainable outcomes by ensuring that local knowledge and practices related to forest management are leveraged effectively. Women often possess valuable traditional knowledge about forest ecosystems, which can contribute to the success of reforestation efforts and the preservation of biodiversity.
- 108. Enhanced Community Resilience: By involving both men and women in reforestation activities, communities can build resilience to environmental challenges such as climate change and natural disasters. Diverse perspectives and skills contribute to more holistic and adaptive approaches to forest restoration, which in turn can strengthen community resilience and livelihoods.
- 109. **Economic Opportunities:** Integrating gender considerations into reforestation can create economic opportunities for women, such as employment in tree planting, agroforestry, and sustainable forest management activities. This not only improves household incomes but also fosters economic empowerment and reduces gender disparities in income and access to resources.
- 110. Component two will focus on Improved, Inclusive and Sustainable Rural Livelihoods. The project will engage smallholder farmers within value chains in sustainable land management practices such as agroforestry, afforestation, soil erosion control, protection of riparian lands, wetland protection as well as good agricultural practices and climate smart agriculture (CSA) practices. The component will identify suitable and profitable nature-based enterprises and promote them among youth and women, through support for start-ups (incubators and accelerators) and through a challenge fund. Climate proofing of water, production and marketing infrastructure will also be done under this component. A green financing facility under the GCF will be established to provide a line of credit for financial institutions, MSMEs, and private sector players along the value chains to invest in green technologies. Renewable energy alternatives will also be promoted under this component.
- 111. Component 3 on Institutional Strengthening, Policy Support and Programme Coordination will ensure the recruitment of an environment, climate and safeguards specialist into the PMU, to drive the environment, climate and safeguards agenda of INReMP. Policy gaps will be assessed at design and appropriate green focused policy review and strengthening at national or county levels.
- 112. INReMP has mobilised additional resources from the GEF 8 Food Systems Impact Program for Kenya (USD 8M) and is in the process of mobilising an additional USD 70M (Grant (USD 42M) and Ioan (USD 28M)) from the GCF. The funds will be blended with the IFAD Ioan.

7. Further studies needed

113. During design of INReMP the following studies were carried out: Targeted Adaptation Assessment; A preliminary ESCMF including an ESCMP, A detailed grievance redress mechanism. (GRM), A Stakeholder engagement plan (SEP), Pest management Plan (PMP), Free, Prior and Informed Consent (FPIC) Implementation Plan, and budget for carrying out the FPIC Implementation Plan, Indigenous People Action Pan (IPAP) and Ex- A target adaptation assessment Plan and Ante EXACT analysis. These studies are annexed to the project design report package and presented at DRM.

8. Monitoring and evaluation

- 114. The project will develop a detailed stakeholder engagement plan and grievance redress mechanism to ensure there is sufficient feedback loops from various project actors and stakeholders. Key environment, climate and safeguards related indicators will be identified and included in the project's M&E framework and logframe. The Environment, climate and safeguards (ECS) specialist and the M&E specialist will be responsible for ensuring data is collected at baseline, mid-term and at completion, and that the same is also done annually. The ECS specialist will work closely with NEMA, and component leads as well as the M&E Specialist to ensure that the mitigation actions in the overall ECSMP and site specific ECSMPs of sub-projects are implemented and that compliance monitoring is done periodically. An Ex-Ante EXACT analysis will be done at design and an Ex-Post EXACT analysis done prior to completion.
- 115. **Procurement and SECAP.** INReMP will use the full set of IFAD's Standard Procurement Documents, which will include the IFAD SECAP requirements, choice of "value for money" bid evaluation methodology, stipulation of special conditions of contract and the frequency and rigour of implementation supervision. The Borrower/Recipient/Implementing Partner must require all contractors, subcontractors and primary suppliers engaged in the project to operate in a manner consistent with the SECAP Standards, as reflected in their contracts. INReMP's procurement activities should comply with the SECAP 2021 standards, and relevant safeguards actions contained in the design report package. INReMP should ensure that the Borrower/Recipient/Implementing Partner manages all contractors and vendors in compliance with SECAP Standards.
- 116. **Disclosure of SECAP studies.** Disclosure will be donein compliance with the IFAD Policy on Disclosure. Thefinal ECSMF, and ECSMP, SEP, PMP, GRM, Targeted Adaptation Assessment, FPIC and IPAP will be availed to relevant stakeholders in easily accessible formats e.g., DRM, IFAD website, and MoA website and in the project area.
- 117. Capacity building. Capacity needs of the PMU, Government agencies, implementing partners and project stakeholders will be assessed at design and capacity strengthening actions identified and promoted. This will be financed through a provision in the cost tabs.
- 118. **Costs.** The costs of preparing the SECAP studies and site-specific studies that will be identified at design will be financed by the borrower through the project design budget. The total costs of SECAP studies, capacity building and monitoring will be determined at design stage.

9. References

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- 2. Climate and weather in Kenya (2019). https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine-in-Kenya.
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- 7. Central Bank of Kenya (2023). Agriculture Sector Survey. CBK, January 2023.
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- 9. National Livestock Policy (2020). GoK.
- 10. Energypedia (2022). Kenya Energy Outlook. Energypedia.
- 11. World Bank Climate Change Portal (2022). Online Available: https://climateknowledgeportal.worldbank.org/sites/default/files/2021-01/15724-WB Kenya%20Country%20Profile-WEB.pdf
- 12. World Bank (2021). Climate Change Country Profile: Kenya. WBG.
- 13. FAO, (2017). Options for Low Emission Development in Kenya Dairy Sector. Reducing enteric methane for food security and livelihoods. FAO.
- 14. GoK (2021). Updated Nationally Determined Contributions for Kenya. GoK.
- 15. UNCCD (2017). Roadmap for Kenya to set LDN targets. https://www.unccd.int/news-events/kenya-launches-roadmap-set-land-degradation-neutrality-targets.
- 16. Kenya National Determined Contribution

ESCMP Matrix

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)		
1.0	ENVIRONMENTAL IMPACTS								
1.1	MOBILIZATION PHASE								
a)	Vegetation Clearance during site surveys and pegging for establishment of new infrastructure. Dust generation and soil erosion during mobilization at construction sites	 Cutline clearance is to be minimized as far as possible to reduce the potential for dust generation and other impacts. Dust suppression measures are to be implemented, which shall include Water sprinklers and covering mounds with nets. 	Stakeholder engagement and participation during meetings and field visits	The program Management Unit(PMU) With the assistance of: - Local Leadership Beneficiaries Contractors.	Site Inspection reports, visual observatio ns, pictures, geo- mapping	Monthly during mobilization	50,000		
1.2	CONSTRUCTION PH	HASE							

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
a)	Vegetation Clearing o Limited Vegetation clearing may occur during the establishment of the INReMP project as new infrastructure will be erected. o Preparation of land for Agriculture o Construction of Sheds, Warehouses, o Construction of Erosion Control Structures. o Establishment of new and rehabilitation of old water infrastructure. Etc.	- Sensitive habitats should be avoided. (Wetlands and river banks) - Clearing should be limited to working areas only, and these include areas for foundations of infrastructure - Revegetation and reforestation must be prioritized. (e.g., Planting grass, and trees as appropriate) - Over abstraction of construction materials like sand and gravel should be avoided. - Habitat restoration must be done where effects have been caused i.e., refilling burrows pits and regressing bare areas. - Sustainable Catchment management must be practiced. - Dust suppression: - Dust suppression measures are to be implemented, which shall include covering soil mounds, - Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts. - Water sprinklers to be used, especially on the roads leading to the project sites.	Stakeholder engagement and participation during meetings and field visits	INReMP PMU. With the assistance of: -Local LeadershipBeneficiariesContractors	Site Inspection reports, visual observatio ns, pictures, geo- mapping	Monthly during Constructio n	20,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
b)	Temporary Visual Intrusions (Marred landscape), erosion control infrastructure, Construction of micro dams and irrigation infrastructure, agricultural infrastructure, and other possible facilities will change in the characteristics of the area and leave a marred landscape.	- Contractors should ensure minimum footprint of construction activities All altered landscapes (Sand pits, borrow pits, brick moulding sites etc) should be rehabilitated by the contractor, i.e., filled and regrassed.	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: - Local Leadership. - Beneficiaries. - Contractors - County Agriculture Office.	Site Inspection reports. Contractor s' reports	Monthly during Constructio n	20,000
c)	Impacts on soil and Point source contamination from diesel, lubricants etc. around working areas. - Increased soil erosion due to vegetation clearing, soil trampling and compaction. - Increased rapid runoff due to vegetation clearing and soil compaction diminishing infiltration capacity during construction phase. - Deterioration of soil characteristics due to increased erosion.	- Appropriate containment measures for all operational areas and proper disposal of used lubricants Soil erosion control measures (e.g., revegetation, reseeding of grasses, land preparation, terracing, use of gabions, stabilization of banks etc.) - Restoration of borrow pits, sand and quarry stone abstraction sites and Revegetation, regrassing of all bare surfaces - Minimization of vegetation clearing to working areas only - Installing soil erosion control structures like, gabions, contour ridges, swells and catch dams Use existing roads to access the fields and farm sites and employ drainage control measures and culverts to control natural runoff and overland flow.	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: - Local Leadership Beneficiaries Contractors	Site Inspection reports. Contractor s' reports	Monthly during constructio n	20,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
d)	Solid waste nuisance - Pollution of soil and water resources from construction sites. - Littering and indiscriminate dumping. - Deterioration of the aesthetics of the areas.	 Seek guidance of local environmental officers to identify acceptable disposal sites. Collection of all construction debris for proper disposal at designated landfills. 	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipContractorsCounty environmental officers	Site Inspection reports. Contractor s reports	Monthly during constructio n	20,000
e)	Habitat loss and biodiversity disturbances. - Noise and vibrations cause small wild animals to migrate, - contamination of the rivers may cause fish kills and destruction of other aquatic life.	- Use of low noise equipment, - Avoid contamination of soil and water - Noisy operations should be conducted at certain times of the day Always use well serviced equipment that will be less noisy Noise management measures are to be implemented and shall include maintenance of vehicles and equipment to run quietly, and avoidance of leaving engines running unnecessarily Avoid repair of equipment near water sources - Environmental flows must be reserved at all times	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipBeneficiariesContractorsLocal Environment Officers at County Level	Site Inspection reports. Contractor s reports	Monthly during constructio n	20,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
f)	Ambient air pollution - Pollution of air increases bronchial disorders. - Impaired Visibility on the roads. - Disturbs normal developments of vegetation.	- Dust suppression measures must be instituted at all sites which shall include covering soil mounds and spraying bare areas with water Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts Minimize dust during transportation of construction materials by using covers and/or control equipment Manage and control emissions from vehicles transporting construction material by operating in compliance with relevant vehicle emission standards and regular maintenance to minimize air pollution Rehabilitate quarry sites to its original status	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipBeneficiariesContractorsLocal Environment Officers at County Level Local Environment Officers.	Site Inspection reports. Contractor s reports	Monthly during Constructio n	20,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
g)	Ambient Water pollution - Water quality may be impacted by Construction activities including onsite sewage and rainwater run-off will also impact on water quality. - Soil and water pollution resulting from the accumulation of solid and liquid waste at construction sites.	- Contractors to erect proper sanitary facilities Toilets at convenient locations throughout the project area Pollution from lubricants and other wastes to be avoided Contain all oil leaks at workshops and equipment and surfaces by collecting in oil separators Controlled disposal of wastes and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, use of cleaner technologies, proper storage of materials, awareness campaigns Waste must be recycled and reused to avoid dumping in waterways Polluted water shall be treated prior to disposal to watercourses Maintain all vehicles and equipment to avoid oil and grease leaks Install oil and grease separators to collect rain runoff around workshops and parking areas.	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipBeneficiariesLocal Environment Officers at county level	reports.	Monthly during Constructio n	20,000
1.3	OPERATION PHASE	<u>:</u>					
a)	Soil Erosion - Much less potential for soil erosion - loose soil at the sides of construction sites, steep slopes will still be susceptible to erosion	- Taking good care of Revegetated areas, regrassing of all bare surfaces, - Installing soil erosion control structures like, gabions, contour ridges, swells and catch dams Establishment of grassed drainage systems to prevent erosion.	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesLocal Environment Officers - Officers at County level	Project Monitoring reports	Quarterly	60,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
b)	Solid waste generation - Less quantities of solid wastes generated include domestic wastes, plastics, etc.	 Collection of all solid waste in a systematic manner for disposal at designated landfills. Placing of waste collection bins at strategic positions throughout the project area. Solid waste should never be burnt on site. develop a solid waste management plan and implement it. 	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesCounty Environment Officers	Project Monitoring reports	Quarterly	50,000
с)	Effluent Discharges - Most agricultural, agro- processing, packaging, operations produce liquid effluent	Installation of appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc. Collecting and channeling all effluent to a properly constructed effluent treatment plant, which could be oxidation ponds, septic tanks or biogas digesters Monitoring the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards.	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesLocal Environment Officers at county level	Project Monitoring reports	Quartely	50,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
d)	Agro chemical Pollution - Poisoning of farmers by chemicals. - Poisoning of aquatic and inland ecosystems by the chemicals. - Poisoning of the soil by the chemicals. - Poisoning of farm products consumers by chemicals.	- Train farmers on appropriate use and disposal of agrochemical products - Provision of PPEs to agrochemical handlers - Encourage organic farming and limit the use of Agro chemicals like inorganic fertilizers. - Use integrated Pest Management approaches to minimize pesticide use. - Conduct awareness training & workshops on safe handling of chemicals. - Erect separate storerooms for all agro chemicals so that they are always under lock and key away from food staffs. - Use split application of fertilizer to avoid excess being washed away. - No application before major storms - Don't store fertilizers and agrochemicals and food in the same sore room. - All workers to use appropriate PPE every time. - Use the least potent variants of pesticides to minimize poisoning.	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesWater Resources Users Associations -Local Environment Officers at County level	Observation, inspection, existence and implement ation of a pesticides management plan, reports of respiratory or skin illnesses by farmers	Quarterly	50,000
e)	Ambient Water pollution - Oil and grease leak and spills prevalent in most work areas like the farm sheds. - Leaks can be washed into water ways and end up polluting the water resources.	 Contain all oil leaks at workshops and surfaces. Maintain all vehicles and equipment to avoid oil and grease leaks. Install oil and grease separators to collect rain runoff around workshops and parking areas. 	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesWater Resources Users Associations -Local Environment Officers at County level	Water quality Reports	Quarterly	50,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
f)	Green house gas emissions	Have in place Efficient dairy management systems Efficient manure management Efficient feed regimes Proper animal husbandry	Meetings with stakeholders and undertaking field visits	PMU with assistance of County environmental officers	FAO EX- ACT tool	Semi- Annually	20,000
2.0	SOCIAL AND HEALT	TH IMPACTS					
a)	Limited Stakeholder Participation	- Use the Stakeholder Engagement Plan - Engage, outline, agree and disseminate clear roles and responsibility of all stakeholders - Sign result-based MoU/agreements/contracts with all partners and enhance performance monitoring system - Make use of clear channels of communication	Start-up workshop with all the stakeholders -SEP dissemination -GRM dissemination	PMU	-Workshop report -Updated Stakeholde r database Workshop report	Project inception and quarterly	50,000
b)	Stakeholder Anxiety and anticipation	Use the Stakeholder Engagement Plan Timeous implementation of agreed activities and Regular follow-ups	Start-up workshop with all the stakeholders	PMU	Workshop report	Project inception and quarterly	

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Main Project Estimated cost(USD)
c)	Potential exclusion of disadvantaged and vulnerable groups	- Conducting social inclusion analysis and impact assessment of key issues of exclusion, discrimination and marginalization of vulnerable groups - Utilize community/traditional structures to mobilize minority groups to participate in meetings and consultations - Apply only agreed and acceptable approaches - Provide local language interpreters to ensure understanding and ability to give feedback during engagement as a risk reduction measure	-Stakeholder Consultation workshop -SEP dissemination -GRM dissemination	PMU	GRM and SEP communic ation/outre ach strategy, guidelines, gender and age disaggrega ted data, project beneficiary records	Annual	
d)	Formation and/or Strengthening of Community Based Organisations	- Carry out an assessment to determine current status in all the beneficiary areas - Support improved policies and appropriate legal framework for CBOs - Facilitate a clear line of communication between the CBOs and County structures through the programme SEP - Promote community empowerment and comanagement through the CBOs with an emphasis on inclusive participation - Train and offer mentorship/counselling to CBOs on financial management, market positioning and operation and maintenance among other topics Promote and facilitate information sharing and cooperation	-Stakeholder Consultation workshop -Training and mentorship	PMU	-Workshop report -Detailed Inventory list of CBOs	Annual	Main Project

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
e)	Disputes over land	 Conduct an in-depth assessment on the key potential areas of conflicts Engage the County Government, local/traditional leadership and the community Activate project GRM 	-Start-up workshop with all the stakeholders -Participatory mapping -GRM dissemination	PMU	-Workshop report -Project maps	Project inception and Annually	20,000
f)	Conflicts over water	- Conduct an in-depth assessment on the key potential areas of conflicts which are well known by the community members Engage the County Government, local/traditional leadership and the community - Activate project GRM	-Start-up workshop with all the stakeholders -GRM dissemination	PMU	Water use agreement s	Project inception and Annually	20,000
g)	Challenges with Carbon Markets	- Sensitisation and education of all stakeholders - Provide Guidance on how to optimize community land/forests for carbon trading - Set out clear rules of engagement to ensure equitable distribution of carbon payments and conduct regular monitoring - Facilitate private sector partnerships with the community after careful investigation of the companies - Emphasise on the greater benefit of carbon sequestration	-Sensitization and Training -Participatory development of Carbon trading guidelines	PMU	-Training report - Guidelines developed	Project inception	Main Project

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
h)	Procurement of Goods and Services	- Develop a framework for sustainable natural resource procurement to guide the project - Support staff and suppliers through sustainable procurement training Develop an evaluation criterion for service providers/suppliers that includes commitment to environmental sustainability, minimum environmental standards that should be met (documented or project specific)	Procurement policy dissemination workshops	PMU	Workshop report	Annually	Main project
i)	Conflict between Community and Projects	Activate SEP and GRM	SEP and GRM dissemination workshops	PMU	Workshop report	Continuous	Budgeted in (a) above
j)	Labour and Working Conditions	- Labour and Employment Plan and Worker Grievance MechanismContractors should develop and implement an Occupational Health and Safety Management System (OHSMS) in line with good industry practice - Conduct hazard identification, OHS risk assessment and control for different tasks (identify OHS control measures that include the mitigation hierarchy - (a) elimination/substitutions; (b) engineering controls; (c) administrative controls; (d) OHS training and supervision at the field level) and (e) use of PPE, incident investigation and reporting and tracking of near misses, incidents, etc Include an emergency response plan that tie in with existing emergency response procedures for the programme.	Sensitization and participatory hazard identification	PMU	Sensitizati on reports -Hazard map	Continuous	20,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
k)	Community Health and Safety	- Extensive occupational health and safety training for community members - PPE during site visits - Adequate signage at construction sites Include an emergency response plan that tie in with existing emergency response procedures for the programme	Sensitization and participatory hazard identification	PMU	Sensitizati on reports Hazard map	Continuous	20,000
I)	Sexually Transmitted Diseases	- Follow the project labour management guidelines - Conduct awareness campaigns on HIV/AIDS among the workers and the locals through Barazas (village meetings), ward meetings, agro-trainings etc. This can be undertaken by the various partner NGOs and government agencies in the Counties - Project workers to sign a code of conduct that promotes good behavioral practices - Erect billboards to sensitize locals on the need to practice safe sex to help in the fight against HIV/AIDS and provision of free condoms to the workers Encourage all farmers to have a latrine and promote safe water management at point of use	- Education and awareness raising Training of implementation and county personnel	PMU	- Number of awareness raising sessions - Number of training workshop Number of participant s trained	Monthly	50,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
m)	Impact of Extreme events on communities (floods and droughts)	- Conduct flood risk assessment for the project and incorporate findings into programme design, - Repair stormwater drainages (affected during civil works) - Build infrastructure resilient to flooding and - Prioritize implementing nature-based solutions (NBS) such as reforestation and afforestation, wetland restoration, and green infrastructure (e.g. solar energy, permeable pavements, etc.) - Intensify plans to promote small scale rainwater harvesting at household and institutional	Participatory assessment of risk Education and awareness raising	PMU	Risk mapping Training reports	Monthly	20,000
n)	Gender Based Violence (GBV), Sexual Exploitation and Abuse, and Sexual Harassment (SEA/SH) and	- Train and mentor and monitor staff on GBV and SEA/SH throughout project implementation - Incorporate GBV and SEA/SH mitigation measures into in all project related training Provide multiple channels to initiate complaints, including specific procedures for GBV and SEA/SH related complaints including confidential reporting with safe and ethical documentation of SEA/SH	- Education and awareness raising Training of implementation and county personnel	PMU	- Number of awareness raising sessions - Number of training workshop Number of participant s trained	Monthly	50,000
0)	Child labour	 Apply IFAD Environmental and Social Exclusion list Train Government and implementing partners/service providers on child labour in relation to IFAD and national laws Sensitize communities on child rights and ensure that there is no child labour on project. Partner with ministry and department responsible for effective child labour monitoring 	- Education and awareness raising Training of Government personnel	PMU	- Number of awareness raising sessions - Number of training workshop - Number of participant s trained	Monthly	20,000

No.	Potential Impacts/Risks/Issu es	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementatio n	Means of Verificatio n	Frequency of Verificatio n	Estimated cost(USD)
p)	Economic Displacements or shifts of livelihood activities.	- Conduct an in-depth assessment of current livelihoods and their main sources including possible alternatives Efforts should be made to ensure minimum disruptive effect on the day-to-day life of the locals based on context and - Provide the next best alternatives and/or compensation to affected communities	Participatory assessment of livelihoods including alternative options	PMU	- Livelihoods assessme nt report	Project inception	Main Project
q)	Threats on Local Security	 Facilitate a security management plan commensurate with envisaged risks per each sub-project. Consider fencing, signposting, and perhaps a night watchman. Consider hiring or contracting public or private security personnel to protect employees, facilities, assets, and operations for high-risk assets 	Sensitization and community planning workshops	PMU	- Security Manageme nt Plan	Project inception	Main Project
r)	Impacts from Decomissioning Phase	- Include decommissioning plan in the project design. - Recommend the project to replace all components that have a shorter lifespan such as solar power backup systems and vehicles etc. - Gradually encourage communities to be self-sufficient so that they will be able to operate and maintain project infrastructure including procurement of required worn out parts - Prepare an appropriate decommissioning plan at least one year in advance. The decommissioning plan should put into consideration advances in technology as there may be need to upgrade some components	- Participatory decommissio ning planning	PMU	- Decommis sioning plan	Programme completion	Main Project

No.	impacts/Risks/issu	Recommended Mitigation	Public Consultation	ın	Means of Verificatio	-	Estimated cost(USD)	
	TOTAL						690,000	

Footnotes

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- WB Kenya%20Country%20Profile-WEB.pdf
- [25]Online Available: https://unfccc.int/resource/docs/natc/kennc2.pdf
- [26] (FAO, (2017). Options for Low Emission Development in Kenya Dairy Sector. Reducing enteric methane for food security and livelihoods. FAO

Environmental and Social Safeguards Classification: Substantial

Environmental and Socia	l Safegua	rds		
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?	No			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?	Yes	Possible	Minor Poject may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Moderate
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

Environmental and Social	l Safegua	ards		
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	Possible	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.	Moderate
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?	Yes	Almost certain	Moderate A significant component of the project is focused on forestry, and this aspect is well regulated.	Substantial
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Yes	Possible	Major The project will require consumption of raw materias, energy, and/or water. This will be a significant component of the project, and regulatory controls are weak.	Substantial
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	Possible	Major The project relies entirely on water-based (groundwater and/or surface water) development. It includes new construction or updgrade of mediumsized irrgation schemes between 300 ha and 999 ha per scheme.	Substantial
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Almost certain	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Substantial
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	Almost certain	Minor The project only requires minimal amounts of pesticide.	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

Environmental and Socia	l Safegua	rds		
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	Yes	Almost certain	Moderate Intensive/extensive livestock/aquaculture systems are in place, but these are only one component of the project.	Substantial
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)?	Yes	Possible	Minor The project is not sited in an area where indigenous people are present, but associated facilities may impact on indigenous people.	Moderate
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

Environmental and Socia	l Safegua	rds		
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)	No			Low
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
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	Minor The project does not operate in sectors or value chains where the employment of children has ever been reported.	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	Moderate 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 weak or non-existent.	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 waterborne or other vectorborne diseases, or communicable/noncommunicable 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 Socia	l Safegua	rds		
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Yes	Possible	Moderate The project involves the construction/ rehabilitation/upgrade of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - between 5metres and 9 metres high wall, and/or with a reservoir below 100,000 m3.	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?	No			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

Environmental and Socia	l Safegua	rds		
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)?	Yes	Likely	Minor Communities and stakeholders can contact the institution and and a process is in place for institutionalizing the communication channels (e.g. complaint-management system) and training staff accordingly.	Moderate
8.7 Does the organization provide auxiliary or capacity building support services.	Yes	Likely	Minor The institution offers basic training services to customers (directly or thrid party service providers to imrpove business and livelihood opportunities.	Moderate

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	No
Landslide	Yes
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?	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)	No
Very warm areas (subtropical)	Yes
Tropical areas (rainforests)	Yes
Arid and semi-arid areas (deserts)	Yes
Mountains zones and permafrost areas (tundra)	Yes
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?	Yes
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?	Yes
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

No
Yes
Yes
Yes
Yes
No, Yes, TBD
No
Yes
Yes
Yes
Yes
No
Yes



Kenya

Integrated Natural Resources Management Programme
Project Design Report

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

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department



Republic of Kenya

Integrated Natural Resources Management Programme (INReMP)

Annual Work Plan and Budget

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CURRENCY EQUIVQLENTS

Currency Unit = Kenya Shilling (KSh)

USD 1.0 = KSh ???

Weights and Measures

1 kilogram = 1000 g 1 kg = 2.204 lb. 1 kilometre (km) = 0.62 mile 1 metre = 1.09 yards

1 metre = 1.09 yards 1 square metre = 10.76 square feet 1 acre = 0.405 hectare 1 hectare = 2.47 acres 1 Feddan = 1 acre

FISCAL YEAR

1st July - 30th June

Abbreviations and Acronyms

ABDP Aquaculture Business Development Programme

AI Artificial Insemination
AMR Antimicrobial Residues
ASALs Arid and Semi-Arid Lands

ASTGS Agricultural Sector Transformation and Growth Strategy

AWPB Annual Work Plan and Budget

BCR Benefit-Cost Ratio

BETA Bottom-Up Economic Transformation Agenda

BMU Beach Management Unit CAP Community Action Plan CBA Cost-Benefit Analysis

CEC County Environment Committee
CFA Community Forest Association
CIDP County Integrated Development Plan

CIG Common Interest Group

CIMES County Integrated Monitoring and Evaluation System

COSOP Country Strategic Opportunities Programme

CSF Capital Stimulation Fund

CSPE Country Strategy and Programme Evaluation

DRSRS Directorate of Resource Surveys and Remote Sensing

EFA Economic and Financial Analysis

ESCMP Environment, Social and Climate Management Plan

ESIA Environmental Social Impact Assessment

EU European Union

FAO Food and Agriculture Organization of the United Nations

FGM Female Genital Mutilation FO Farmer Organization

GALS Gender Action Learning System

GBV Gender-Based Violence GCF Green Climate Fund GDP Gross Domestic Product

GEWE Gender Equality and Women's Empowerment

GEF Global Environment Facility
GHG Greenhouse Gas Emissions

GHI Global Hunger Index

GIS Geographical Information Systems

GoK Government of Kenya GR4W Green Roads for Water

GTA Gender Transformative Approach

ICP IFAD Client Portal

ICRAF International Centre for Research in Agroforestry IFAD International Fund for Agricultural Development

IFR Interim Financial Report
IRR Internal Rate of Return
IMF International Monetary Fund

INReMP Integrated Natural Resources Management Programme

INRM Integrated Natural Resources Management

IoT Internet of Things
IP Indigenous Peoples

IWUA Irrigation Water Users' Association

KALRO Kenya Agricultural and Livestock Research Organization

KeLCoP Kenya Livestock Commercialization Programme

KCEP/CRAL Kenya Cereal Enhancement Programme/Climate Resilient Livelihoods

KMCS Knowledge Management and Communication Strategy

LMP Livestock Master Plan MCC Milk Collection Centre

MDA Ministries, Departments and Agencies

MECCF Ministry of Environment, Climate Change and Forestry

MIS Management Information System

MNO Mobile Network Operator

MoALD Ministry of Agriculture and Livestock Development

MoU Memoranda of Understanding

MRV Monitoring, Reporting, and Verification MSMEs Micro, Small and Medium Enterprises

MTP Medium-Term Plan NAP National Adaptation Plan

NCCSRP National Climate Change Security Response Programme

NDC Nationally Determined Contributions

ND-GAIN University of Notre Dame Global Adaptation Initiative

NEET Not in Employment, Education or Training NGAO National Government Administrative Officers

NRM Natural Resources Management

NPV Net Present Value

NUS Neglected Underutilized Species
OPEN Online Procurement End-to-end

ORMS Operational Results Management System

PAL Procurement Arrangement Letter

PCMU Programme Coordination and Management Unit

PDO Programme Development Objective

PDT Programme Delivery Team
PES Payment for Ecosystem Services
PIM Programme Implementation Manual
PLWHAS Persons Living with HIV/AIDS
PLWDs People Living with Disabilities

PP Procurement Plan

PPADA Public Procurement and Asset Disposal Act
PPRA Public Procurement Regulatory Authority
PPS Programme Procurement Strategy

PRA Participatory Rural Appraisal
PSC Programme Steering Committee

PWD Persons with Disabilities

RCMRD Regional Centre for Mapping of Resources for Development

RDMT Resilience Design and Monitoring Tool
RK-FINFA Rural Kenya Financial Inclusion Facility
RLMA Rural Labour Market Assessment
SAI Supreme Audit Institution

SBD Supreme Audit Institution
SBD Standard Bidding Document

SECAP Social, Environment and Climate Assessment Procedures

SME Small and Medium Enterprise SLM Sustainable Land Management

SO Strategic Objective ToC Theory of Change ToT Training of Trainers

UNDP United Nations Development Programme

UNSDCF United Nations Sustainable Development Cooperation Framework

USD United States Dollar

UTaNRMP Upper Tana Natural Resources Management Programme

UTNWF Upper Tana Nairobi Water Fund

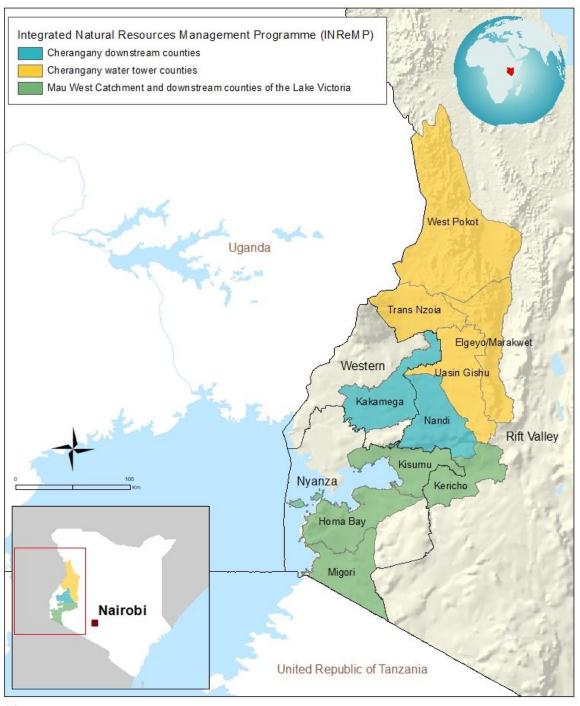
VfM Value for Money

VIP Ventilation Improved Pit-latrine

VPH Veterinary Public Health

WCCC Ward Climate Change Committee
WRUA Water Resources Users Association

Map of INReMP Focal 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 | 07-08-2023

EXECUTIVE SUMMARY

Plan Objective – The objective of this inaugural Annual Work Plan and Budget (AWPB) is, essentially, to set the stage for the effective implementation of the Integrated Natural Resources Management Programme (INReMP). This plan primarily focuses on establishing processes and procedures that will guide the effective and successful implementation of the Programme following established guidelines.

Strategic Approach and Focus – INReMP will largely build on the Upper Tana Natural Resources Management Programme (UTaNRMP) experience; UTaNRMP generated several lessons of experience that informed INReMP design. The Programme's implementation will also make use of lessons of experience generated by several ongoing or concluded Programmes funded by IFAD and those funded by other donors (e.g. Upper Tana Nairobi Water Fund (UPNWF), Rural Kenya Financial Inclusion Facility (RK-FINFA), Kenya Cereal Enhancement Programme/Climate Resilient Livelihoods (KCEP/CRAL), Kenya Livestock Commercialization Programme (KeLCoP), etc.)

This being the first year of INReMP implementation, the approach to be employed during the course of 2025 will largely focus on establishing firm, but simple, processes and procedures to serve as a solid basis for Programme implementation in the subsequent years. Essentially, the approach will include the following:

- a) Ensuring the Programme Coordination and Management Unit (PCMU) core staff are recruited and adequately facilitated (in terms of skills and equipment) to work for the effective implementation of the Programme;
- b) Liaising with ongoing Projects/Programmes (funded by either IFAD, GoK or other GoK development partners) to exploit any existent synergies as a way of avoiding duplication and, therefore, ensuring effective resource use;
- c) Establishing effective collaboration between and among the different implementing institutions to ensure that the different activities are appropriately sequenced. This collaboration will also serve as a learning mechanism whereby some institutions will learn from others so as to pass on relevant experience and ensuring that past mistakes are avoided;
- d) Developing, and effectively communicating to all stakeholders, a reasonable schedule to ensure that they all know what to do, when to do it, and respecting all the implicit approval processes.

Summary Description of the 2025 Plan – The plan contained herein is summarised hereunder by components and subcomponents.

Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action – This component will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and quality; d) improve dietary diversity; and e) capacity building of relevant institutions, such as County Environment Committees (CECs) and community-based organisations, such as Focal Development Areas (FDAs), Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs) to strengthen

sustainable management of natural resources. The component will be implemented under two subcomponents.

Subcomponent 1.1: Community Empowerment, Youth and Gender Transformative Approaches – Community mobilization and empowerment will be the entry for planning and roll out of project activities. The following activities are planned for INReMP's first year to gradually contribute to the subcomponent's objective:

- > Training and sensitization of National and County staff on project, PRA, GTA, etc.;
- > Training materials and printing; and
- > Awareness creation and sensitization of development committees.

Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services—The objective of this subcomponent is to improve community-based management of natural resources to sustain ecosystem services. Activities planned for the first year include:

- > Targeted NRM interventions
 - Forests restoration-Promoting agroforestry, afforestation, and reforestation (2,500ha).
- > Payment for Ecosystem Services, Carbon and Carbon Credit Schemes
 - Capacity building for Counties staff on Carbon market and PES (10 sessions)
- > SECAP and Compliance
 - Implementation of ESCMP and Stakeholder engagements (3 studies);
- > Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming.

Component 2: Improved, Inclusive and Sustainable Rural Livelihoods – This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base.

Subcomponent 2.1: Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises – Interventions under this subcomponent aim at enhancing productivity and production of the target value chains. Activities planned for the first year include:

- Dairy Value Chain
 - Good Animal Practices and Health
 - Support for Feed Production
 - Support to public and private service providers
 - Animal waste management
- Poultry Value Chain
 - Support for establishment of hatcheries
 - Training of farmers on modern production techniques
 - Training of farmers on farm feed production
 - Capacity building for public and private service providers
- Apiculture Value Chain
 - Capacity building on bee hive management
- > Fruit Tree Value Chain
 - Support for nursery establishment (20 nurseries)

- Training of farmers on good tree management
- ➤ Horticulture Value Chain
 - Training farmers in good agricultural practices
 - Setting up demonstrations and field days
- > Trainings of farmers on Nutrition with special emphasis on varieties, cultivars, breeds
- Provision of Motor Vehicles for Extension services (12)
- Provision of Motor Cycles for Extension services (105)
- Documentation on fruit trees, herbal/medicinal plants, non-timber forest products and neglected underutilized species

Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises - Access to profitable markets is considered a key element of sustainable natural resources management interventions (Subcomponent 1.2); target beneficiaries must be provided with an avenue to market their surplus produce. Value chain studies conducted as part of this design have confirmed existence of market opportunities. The following activities are planned for the first AWPB:

- Market opportunity assessments (dairy, poultry, avocado, horticulture);
- Marketing Information Support (120 bulletins);
- Dairy Value Chain
 - Business development support to Milk Collection Centres (MCC)
 - Marketing Training of cooperative members and leaders.

Component 3: Institutional Strengthening, Policy Support and Programme Coordination – This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It comprises two subcomponents.

Subcomponent 3.1: Institutional Strengthening and Policy Support – The subcomponent will have a dual focus: institutional strengthening and policy support.

Institutional Strengthening – The objective of this intervention is to augment the capacity of the institutions (public and private sector/community-based organisations) that will be responsible for overseeing and/or implementing the different Programme activities. The activities planned for the first AWPB under this intervention:

- > Strengthening the capacity of national and county governments' relevant institutions to coordinate environmental conservation;
- > Support the CPMU staff to enhance their coordination abilities.

Policy Support – The focus of this intervention will be to facilitate the development, review and update of policies and strategies in areas identified as critical for the effective integrated natural resources management. Activities planned under the policy arena for the first year include:

Support Counties to mainstream resilience into their plans, strategies, policies, regulations.

Subcomponent 3.2: Programme Coordination and Implementation Support Services – This subcomponent's objective will be to manage the Programme in an efficient and effective manner by providing overall coordination, including planning and implementation, financial management and control, procurement support, monitoring and evaluation, knowledge management, and progress reporting. It will also ensure liaison and linkage with all other relevant Programmes/Programmes being implemented in the country

that seek to address similar or related constraints; this would be aimed at taking advantage of existent synergies and avoiding duplications. The following activities are planned:

- Nutrition Activities
 - M&E support to county's nutrition/Agri nutrition action plans, strategies and assessments;
 - Support cost on enactment of nutrition county policies and legislations
- Project Management and Coordination Unit (PMCU) vehicles
 - Utility Vehicles (4WD) 3
 - Double Cabin Vehicles (2)
- > Office Rehabilitation National PMCU and Regional PMCU
- Office Equipment for PCMU
 - Laptops (18)
 - Desktops (3)
 - Printer/Photocopier (1)
 - Printer/Photocopier (1)
 - Safe Box (4)
 - Projector (1)
 - A set of Video Conference Equipment (1)
 - Server;
 - Internet Network Equipment
 - Internet Network Equipment
 - Smartphones (25)
- Audit
 - External Audit
 - Internal Audit
- Workshops
 - Launch and Start-up workshop (1)
 - Sensitization Workshops (10)
 - Annual planning & review workshops (2)
 - Other Workshops (portfolio reviews, etc.) (1)
- Monitoring & Evaluation
 - TA for M&E during implementation
 - Development of M&E plan and data collection and reporting tools
 - Provision of Tablets for field data collection by county M&E officers (10)
 - Development of the Programme MIS including related infrastructure, accessories and training of staff
 - Maintenance of the MIS/ Software including web-shooting of the servers
 - COI Surveys Baseline (1)
 - Periodic Monitoring and Supervision and field data collection
 - TA for GIS services
 - Mobile Tablets to support delivery of advisory Services by Extension Agents (500)
- Knowledge Management and Communication
 - Maintenance of the Knowledge Management Portal
 - TV and radio awareness campaigns on environmental, gender and nutrition issues;
 - Production and Printing of Knowledge Products and Communications materials
 - Organise Exchange and learning visits
 - Participation in Programme Quarterly implementation Review workshops &SSTC
- Staff Salaries
 - National PMCU

- Project Coordinator (12 months)
- Financial Controller (12 months)
- Monitoring and Evaluation and KM Specialist (12 months)
- Procurement Specialist (12 months)
- NRM Specialist (12 months)
- Infrastructure Specialist (12 months)
- Agricultural Livelihood Specialist (12 months)
- o Community Development, Gender and Youth Specialist (12 months)
- Nutrition and Social Inclusion Specialist (12 months)
- Agribusiness Development Specialist (12 months)
- Programme Accountant (12 months)
- Accounts Assistant (12 months)
- KM Officer (12 months)
- M&E Assistant (12 months)
- ICT Assistant (12 months)
- Procurement Assistant (12 months)
- Programme Assistant (12 months)
- Office Assistant (12 months)
- Drivers (48 months)
- Regional PCMU
 - Deputy Coordinator (Regional Coordinator (12 months)
 - Regional Accountant (12 months)
 - Programme Assistant (12 months)
 - Office Assistant (12 months)
 - Driver (12 months)
- County Staff Salaries (including top-up allowance)
 - County Coordinator (120 months)
 - County Project Accountant (120 months)
 - Country Procurement Officer (120 months)
 - County M&E Officer (120 months)
 - County Office Secretary (120 months)
- Operating costs
 - Office space (PCMU)
 - Office space Regional PCMU
 - Office space (10 counties)
 - General operating expenses for PCMU
 - General operating expenses for counties
 - Vehicle O & M -all vehicles including county vehicles
 - o Vehicle insurance all vehicles including county vehicles
 - o Field per diem

Summary Budget and Financing – Presented in this section are summary tables giving an overall picture of financial resources required for the INReMP's 2025 AWPB. The budget information is presented by component, financier and categories of expenditure. The total budget for INReMP's 2023 AWPB is about US\$ 11 million.

First Year Annual Work Plan and Budget by Financier and by Component (US\$ million)

Kenya									
Integrated Natural Resources Management Project (INReMP)									
Components by Financiers								Local	
(US\$ '000)	GC	OK	IFAD	-12	To	tal	For.	(Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action									
Community Empowerment, Youth and Gender Transformative Approaches	-	-	-	-	-	-	-	-	-
Improve Environmental Sustainability, INRM, and Ecosystem Services	-	-	1,410	100	1,410	13	141	1,269	-
Subtotal			1,410	100	1,410	13	141	1,269	-
B. Improved, Inclusive and Sustainable Rural Livelihoods									
Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises	-	-	2,959	100	2,959	27	296	2,663	-
Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises	-	-	391	100	391	4	39	353	-
Subtotal	-	-	3,351	100	3,351	31	335	3,016	-
C. Institutional Strengthening, Policy Support and Programme Coordination									
Institutional Strengthening and Policy Support	29	11	243	89	273	3	27	245	-
Programme Coordination and Implementation Support Services	509	9	5,445	91	5,954	54	582	5,238	135
Subtotal	539	9	5,688	91	6,227	57	609	5,483	135
Total PROJECT COSTS	539	5	10,449	95	10,988	100	1,085	9,768	135

First Year Annual Work Plan and Budget by Financier and by Category (US\$ million)

Į	K	e	n	ıy	а

Integrated Natural Resources Management Project (INReMP)

Expenditure Accounts by Financiers (US\$ '000)	GC)K	IFAD	-12	To	tal	For.	Local (Excl.	Duties &
(Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs									
Goods, Services and Inputs	13	1	1,837	99	1,850	17	185	1,665	-
Equipment and Materials	95	5	1,958	95	2,053	19	196	1,763	95
Consultancies	16	1	1,139	99	1,155	11	115	1,040	-
Training	-	-	1,272	100	1,272	12	127	1,145	-
Civil Works	40	3	1,250	97	1,290	12	125	1,125	40
Total Investment Costs	164	2	7,456	98	7,620	69	748	6,737	135
II. Recurrent Costs									
Operations and Maintenance	203	25	595	75	798	7	80	718	-
Salaries and Allowance	172	7	2,398	93	2,569	23	257	2,312	
Total Recurrent Costs	375	11	2,993	89	3,367	31	337	3,031	-
Total PROJECT COSTS	539	5	10,449	95	10,988	100	1,085	9,768	135

I. INTRODUCTION

1.1. Country Background and the Programme Area

- 1. Kenya is classified as a lower middle-income economy. According to the World Bank, the country's Gross Domestic Product (GDP) was \$113.42 billion in 2022. It's economy is Sub-Saharan Africa's fourth largest and one of its most diverse, with a vibrant services sector¹. It relies on a balanced mix of agriculture, industry, and services, with the sectors contributing 53%, 29% and 18%, respectively². Kenya has made significant political and economic reforms that have contributed to sustained economic growth, social development, and political stability gains over the past decade. However, its key development challenges still include poverty, inequality, youth unemployment, transparency and accountability, climate change, continued weak private sector investment, and the vulnerability of the economy to internal and external shocks.
- 2. Between 2015 and 2019, Kenya achieved broad-based economic growth, averaging 4.8% per year. This growth significantly reduced poverty, with the poverty rate declining from 36.5% in 2005 to 27.2% in 2019 (measured at the \$2.15/day poverty line). However, in 2020, the COVID-19 pandemic severely impacted the economy by disrupting international trade, transport, tourism, and urban services. Despite these challenges, the agricultural sector remained resilient, limiting the contraction in GDP to only 0.3%. In 2021, Kenya experienced a strong recovery, with the economy growing at 7.5%.³ The real GDP growth accelerated from 4.8% in 2022 to an estimated 5% in 2023, according to the World Bank.
- 3. For 2024, the International Monetary Fund (IMF) is forecasting Kenya's real GDP growth to stay healthy at 5.3%, given the prospects of favourable rainfall and a strong performance in agriculture. The persistence of tight fiscal and monetary policy, and a fragile global context, present downsides. Growth will accelerate in 2025-28, supported by structural reforms, broad based digitalisation and deeper regional integration⁴.
- 4. Kenya's population is estimated at about 55.1 million people in 2024 and projected to reach about 56.2 million people by July 2024⁵. Kenya's population is growing at about 1.98% annually. The total fertility rate in Kenya has decreased over the years. In 1977, the fertility rate was 8.1 births per woman. An estimated 71% of Kenya's population live in rural areas⁶where most of whom (over 70%) are relying on agriculture for their livelihoods⁷.
- 5. Programme Target Area INReMP implementation will follow a programmatic approach done in phases across different water towers in Kenya. In the first phase, INReMP will be implemented in the Cherangany Hills and Mau West water towers focusing on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the

¹Economist Intelligence Report, 3rd February 2024

²Economy of Kenya - Wikipedia

³World Bank, Kenya-At-A-Glance

⁴Economist Intelligence Report, 3rd February 2024

⁵Kenya Population 2024 (Live) (worldpopulationreview.com)

⁶Kenya - Rural Population - 2024 Data 2025 Forecast 1960-2022 Historical (tradingeconomics.com)

⁷Agriculture, Food and Water Security | Kenya | U.S. Agency for International Development (usaid.gov)

Cherangany-Elgeyo Hills Ecosystem. The second phase focal areas will be decided as and when additional funding is accessed. The Cherangany-Elgeyo Hills and Mau Ecosystems are important natural resources that lie within the Lake Victoria and Rift Valley drainage basins; they drain their water to Lake Victoria and serve more than 10 million people.

1.2. Policy Environment for Agriculture, Natural Resources and Climate Change

- 6. Kenya's Vision 2030 launched in 2008 is the country's long-term development blueprint. The vision emphasizes sustainable development, poverty reduction, and inclusive growth focusing on three pillars economic, social and political. The Vision 2030 is implemented through a series of Medium-Term Plans (MTPs), each covering a five-year period. The current MTP is MTP IV, covering the period from 2023 to 2027 and draws inspiration from the Kenya Kwanza Bottom-Up Economic Transformation Agenda (BETA), which focuses on six key pillars of affordable housing, manufacturing, universal healthcare, food security, expanding tax base and inclusive growth to drive economic empowerment and sustainable growth.
- 7. The Kenyan Government positions agriculture as the backbone of its economy. The sector remains a central pillar of the country's economy, contributing significantly to both income and employment for its citizens.
- 8. Kenya's commitment to agricultural development is evident through various policies and strategies. The Agricultural Policy outlines Kenya's approach to crop and animal husbandry, fisheries development, and disease control. It emphasizes collaboration between the national government and county governments to enhance agricultural productivity and sustainability. To achieve the desired outcomes, the country is implementing the Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029, which aims to transform the agricultural sector from small-scale subsistence production to a sustainable, equitable, and remunerative system. The key objectives of the ASTGS are: a) increasing small-scale farmer, pastoralist, and fisherfolk incomes; b) boosting agricultural output and value addition; c) enhancing household food resilience; d) enabling skill development; e) strengthening research and innovation; and f) monitoring food system risks. The Country is also drafting the agriculture and livestock master plans to galvanize Government's determination to transform these sectors in the medium-and long-term.
- 9. The country is also implementing the Kenya Climate Smart Agriculture Strategy (CSA); covering the period 2017 to 2026 and aims to implement Kenya's Nationally Determined Contributions (NDCs) for the agricultural sector. It emphasizes climate resilience and low-carbon growth in agriculture and integrates adaptation, resilience-building, and greenhouse gas (GHG) mitigation.
- 10. The livestock sub-sector is widely considered to have the potential to reduce poverty and improve nutritional status for household. The subsector is guided by several policies and strategies to enhance its development and sustainability, key ones being the National Livestock Policy (2008), the Veterinary Policy (2016) and the Policy for Arid and Semiarid Areas (2012). These policies collectively contribute to Kenya's comprehensive strategy for livestock development, aligning with the ASGTS, 2019-20298. The country has also initiated a process to develop a Livestock Master Plan (LMP). The purpose of this plan is to identify investment options in various livestock value chains through evidence-based sector analysis.
- 11. Regarding Environment, Climate Change and Natural Resources Management, the Government has developed and is implementing various policies, strategies and

⁸Kenya | Africa Sustainable Livestock 2050 | Food and Agriculture Organization of the United Nations (fao.org)

programmes. The key policies/strategies include: a) the National Climate Change Action, which aims to achieve Kenya's NDC under the Paris Agreement⁹; b) Kenya National Adaptation Plan (NAP) 2015-2030¹⁰; c) National Forest Policy 2014; and d) Master Plan for the Restoration, Conservation, and Sustainable Management of Water Catchment Areas in Kenya.

12. Concerning the water sector, the country has developed key policies and strategies that play a crucial role in ensuring sustainable water management and equitable access to water resources in Kenya. These include: a) National Water Master Plan 2030; b) National Water Resources Strategy (2020-2025)¹¹; c) National Irrigation Policy 2017; and d) National Irrigation Services Strategy in Kenya as well as formulating a National Irrigation Sector Investment Plan (NISIP) which intends to adopt a programmatic approach to irrigation services provisioning and inclusive institutional and governance arrangements for water resources management and development.

1.3. Key Stakeholders and Involvement of Smallholders

13. GoK institutions at the national and county levels have an inherent interest in the successful implementation of this Programme. These include all State Departments and the corresponding county departments/divisions whose mandates are directly related to the INReMP's development objective.

14. Communities/smallholders and their organisations are the central focus of INREMP; they will be involved variously during the course of Programme implementation. Their involvement, not only as beneficiaries but also as active participants, will ensure ownership of the Programme and sustainability of the different interventions. Community mobilisation, awareness creation and participatory community development planning will be the first step to INREMP implementation. That, *de facto*, makes Community-Based Organisations (CBOs) key players in identifying the existent community/smallholders' problems, prioritizing them, development of Community Development Plans (CDPs) and oversee the process of implementing subprojects that will emanate from the CDPs. The design process established that many of these institutions have various capacity limitations. Accordingly, the respective institutions' capacities will be augmented through capacity strengthening interventions.

1.4. Focus of the Programme

15. The combination of Kenya's good economic performance coupled with a high population growth rate, contribute to an increase in demand for agricultural products and the resultant pressure on existing natural resources. Although the country has a number of high agricultural potential areas, agricultural yields have been declining over time, largely due to poor natural resources management practices and impacts of climate change. The country's Green Growth Index stagnated in the 48%-51% range during 2010-21, about halfway to its green growth target¹². This implies that with increased emphasis on green growth policies, Kenya could promote economic growth while reducing vulnerability to climate change. It is highlighted that good natural resources management practices are not only good for enhanced agricultural productivity, they also have an implication on the country's economic performance, considering that nature-based tourism is susceptible to environmental degradation, climate variability and change, and extreme weather events. It is also important to point out that sustainable natural resources management is not the responsibility of few stakeholders but all stakeholders, inclusive of individuals/households/communities, public and private sector stakeholders.

⁹National Climate Change Action Plan (NCCAP) 2018 - 2022. | UNEP Law and Environment Assistance Platform

¹⁰Unfccc.int

 $^{^{11} \}underline{\text{https://leap.unep.org/en/countries/ke/national-legislation/national-water-resource-strategy-2020-2025}$

¹²African Economic Outlook 2023, African Development Bank

16. IFAD has demonstrated, through Upper Tana Natural Resources Management Project (UTaNRMP), Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window (KCEP-CRAL), and GEF-funded Upper Tana Nairobi Water Fund (UTNWF) that: a) natural resources can be sustainably managed by communities, while achieving improved livelihoods and sustaining food and nutrition security; b) supporting communities with irrigation facilities is a game changer in the agriculture sector, leading to communities having three to four cropping cycles in a year; c) the private sector can contribute to ensure sustainable natural resources management; and d) communities can be supported to increase resilience to climate change. These projects have been successfully implemented and have generated lessons and best practices that will be scaled-up by INReMP to address similar constraints in other parts of the country.

17. Based on IFAD's track record, the GoK requested IFAD to liaise with other development partners to scale-up the successful experiences in the area of sustainable natural resources management, diversified livelihood options, as well as improving mitigation and adaptation measures to the impact of climate change in the Cherangany Hills and Mau West water towers.

II. SUMMARY OF PROGRAMME DESCRIPTION

2.1 Goal, Objective and Strategic Approach

- 18. **Programme Goal and Objective** INReMP's goal is to 'contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem'. Its Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'. The Programme will be implemented over an eight-year period.
- 19. *Approach* INReMP's target beneficiaries will be active participants in the Programme's implementation. Community mobilization and empowerment will be the entry for planning and roll out of INReMP activities. This will be guided by County Integrated Development Plans (CIDPs) working closely with community, county and national government administrative structures in each area. Community empowerment will include community awareness, sensitization, prioritization of actions and development of Community Action Plans (CAPs). The process will facilitate the identification and prioritisation of challenges which would need to be addressed to help the target beneficiaries to live harmoniously in their respective ecosystems. The engagement/participation of the beneficiaries in the process would not only enable them grow the social capital between communities, it would also strengthen vertical engagements with local governments. The likelihood for sustainability will also be enhanced through this implementation approach since the process will be managed by the beneficiary communities themselves.

2.2 Target Group

20. **Target Groups** – INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people). These will be selected from the following target groups: a) food insecure and vulnerable rural farmer households (20% of project target); b) Moderately food insecure rural farmer households (40% of project target); c) Food secure, semi-structured and structured medium farmer households (30% of project target); and d) Micro, small and medium scale enterprises (10% of project target).

2.3 Component Summary Description

- 21. The Programme's Development Objective will be achieved through the effective implementation of two technical components and a third component that will focus on augmenting the capacity of communities, institutions, and contributing to a conducive policy environment towards INReMP implementation. Following hereunder is a summary of the expected focus of the different components.
- 22. Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams and lakes).
- 23. **Component 2: Improved, Inclusive and Sustainable Rural Livelihoods** This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live.
- 24. **Component 3: Institutional Strengthening, Policy Support and Programme Coordination** This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

2.4 Programme Costs and Financing Plan

25. INReMP's total costs, including base cost and price and physical contingencies, is estimated at US\$ 263.5 million, over an 8-year implementation period. The Programme will be financed as follows: a) IFAD contribution of US\$171 million; equivalent to 66% of the total cost (comprising IFAD 12 loan of US\$126.8 million and a financing gap of US\$44 million to be covered from the IFAD-13 cycle); b) Co-financing from GCF and GEF is estimated at US\$40 million and US\$8 million respectively; (15% and 3% of the total cost); c) domestic co-financing from GoK is estimated at US\$23.3 million in form of in-kind contribution, including duties and taxes; equivalent to 9% of the total cost; d) contribution from Programme beneficiaries is estimated at US\$8 million (3%); and e) Co-financing from the private sector is estimated at US\$10 million (4 % of the total costs). The INReMP costs by component and by categories of expenditure are shown in the below tables.

Table 1: Costs by Components/Subcomponents) and Financier ('000 USD)

1/ -----

Kenya																			
Integrated Natural Resources Management Project (INReMP)									Glo	bal									
Components by Financiers					IFAD	13 -	Green (Climate	Enviro	nment								Local	
(US\$ '000)	GC	K	IFAD)-12	Financi	ng Gap) Fu	nd	Fac	ility	Benefi	ciarie	s Private	Sector	To	tal	For.	(Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Community-led Enhanced Environment and INRM, Ecosystem Services, an																			
Community Empowerment, Youth and Gender Transformative Approaches			5,933	70	2,506	30				-	•	-			8,439	3	827	7,612	-
Improve Environmental Sustainability, INRM, and Ecosystem Services	11_		19,048	29	604	1	37,894	58	7,521	12	•				65,078	25	6,376	58,702	
Subtotal	11		24,981	34	3,110	4	37,894	52	7,521	10		-		•	73,517	28	7,203	66,313	•
B. Improved, Inclusive and Sustainable Rural Livelihoods																			
Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains ar	8,772	9	60,203	63	21,042	22					5,126	5			95,143	36	8,459	77,913	8,772
Improve Value Addition and Market Linkages of Selected Value Chains and Nature-b	2,816	6	21,917	44	11,917	24					2,874	6	10,172	21	49,695	19	4,599	42,280	2,816
Subtotal	11,587	8	82,120	57	32,959	23	-	-	•	-	8,000	6	10,172	7	144,838	55	13,058	120,193	11,587
C. Institutional Strengthening, Policy Support and Programme Coordination																			
Institutional Strengthening and Policy Support	357	7	4,477	86	395	8									5,229	2	518	4,711	
Programme Coordination and Implementation Support Services	11,372	29	18,423	46	7,536	19	2,106	5	479	1					39,916	15	3,902	35,776	239
Subtotal	11,729	26	22,900	51	7,931	18	2,106	5	479	1	•				45,145	17	4,420	40,487	239
Total PROJECT COSTS	23,328	9	130,000	49	44,000	17	40,000	15	8,000	3	8,000	3	10,172	4	263,500	100	24,681	226,993	11,826

Table 2: INReMP Costs by Category and Financier ('000 USD)

Kenya Integrated Natural Resources Management Project (INReMP)									Glol	bal									
Expenditure Accounts by Financiers					IFAD	13 -	Green	Climate	e Enviror	nment								Local	
(US\$ '000)	G	OK	IFAD	-12	Financi	ng Gap) Fu	nd	Faci	ility	Benefi	ciaries	Private	Secto	or To	tal	For.	(Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs																			
Goods, Services and Inputs	154	0	34,496	60	12,939	23	8,731	15			1,311	2			57,632	23	5,662	51,944	25
Equipment and Materials	216	6	3,173	94	7	0				-				-	3,395	1	317	2,863	216
Consultancies	392	2	12,241	74	4,017	24				-				-	16,650	7	1,645	15,004	
Training	0		3,709	57	2,828	43				-				-	6,537	3	646	5,891	
Civil Works	8,742	6	52,284	38	24,209	17	29,162	21	7,521	5	6,689	5	10,172	7	138,780	55	12,726	117,311	8,742
Total Investment Costs	9,504	4	105,903	48	44,000	20	37,894	17	7,521	3	8,000	4	10,172	5	222,994	88	20,996	193,014	8,984
II. Recurrent Costs																			
Operations and Maintenance	1,788	25	2,697	38			2,106	30	479	7					7,070	3	692	6,378	
Salaries and Allowance	1,536	7	21,400	93						-				-	22,937	9	2,246	20,690	
Total Recurrent Costs	3,324	11	24,097	80			2,106	7	479	2		·		$\overline{\cdot}$	30,007	12	2,939	27,068	•
Total PROJECT COSTS	12,828	5	130,000	51	44,000	17	40,000	16	8,000	3	8,000	3	10,172	4	253,000	100	23,935	220,082	8,984

2.5 Programme Organization and Implementation Arrangements

- 26. The Programme delivery systems will be integrated into the decentralised organisational structures that cascade from the national to county. The State Department for Agriculture of the Ministry of Agriculture and Livestock Development will be INReMP's lead implementing agency. The Department will delegate the day-to-day operation of the Programme to a Programme Coordination and Management Unit (PCMU) reporting directly to the Principal Secretary, State Department for Agriculture.
- 14. The PCMU will be established comprising a team of officers recruited through a competitive process led by the State Department for Agriculture. In addition to the PCMU's core staff of Programme Coordinator, Financial Controller, Monitoring and Evaluation Specialist and Procurement Specialist, the PCMU will comprise technical officers and support staff as follows: NRM Specialist, Infrastructure Specialist, Agricultural Livelihood Specialist, Community Development Specialist, Agribusiness Development Specialist, Programme Accountants (2), Accounts Assistant, Knowledge Management Officer, M&E Assistant, ICT Assistant, Programme Assistants (2), Office Assistant (2), Drivers (5). Detailed Terms of

Reference (ToRs) for all PCMU positions are included in the PIM. The PCMU responsibilities will include, *inter alia*, the: a) facilitation of a conducive environment for Programme activities, including the multiple partnerships required for effective implementation; b) implementation of the Programme activities in line with the AWPBs approved by the National Programme Steering Committee (NPSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for Programme implementation; d) financial and administrative management of Programme resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and f) provision of the procurement function.

National Programme Steering Committee (NPSC) - A NPSC under the cochairmanship of the Principal Secretaries, State Department for Agriculture and State Department for Environment and Climate Change, will be set up to provide overall policy and strategic guidance to the Programme. The other members will be Principal Secretaries drawn from: a) National Treasury; b) State Department for Livestock Development; c) State Department for Water and Sanitation; d) State Department for Irrigation; e) State Department for the Blue Economy and Fisheries; f) State Department for Forestry; g) State Department for Cooperatives; h) State Departments for Gender and Youth; i) Ministry of Interior and Coordination of National Government; and j) State Department for Environment and Climate Change. The NPSC will also include: a) a representative of the Council of Governors; and b) Two Executive Committee Members (CECM) from the Programme counties. The main responsibility of the NPSC will be to ensure successful implementation of the Programme. The NPSC tasks will include, inter alia: a) policy and strategic guidance on the INReMP focus; and b) priority setting and institutional strengthening to ensure that the Programme achieves its objective and contributes to the higher-level sector policy and strategic goals. This will necessitate reviewing Programme progress against targets, assessing management effectiveness, appraisal of annual performance and recommending renewal of contracts of PCMU staff, deciding on corrective measures, where appropriate, identifying lessons learned and good practices, approving AWPBs and Procurement Plans.

National Technical Advisory Committee (NTAC) – A National Technical Advisory Committee shall be established to provide technical advice to the NPSC. The NTSC shall consist of technical experts preferably at the Director/Commissioner level, appointed by the individual NPSC members. The membership in terms of institutional representation will therefore mirror that of the NPSC. The NTAC shall provide technical advice on matters that require approval and/or discussion by the NPSC.

27. Implementing Partners – The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the KALRO, Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.

2.6 Beneficiaries, Expected Benefits and Sources

28. INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people). These will be selected from the following target groups: a) food

insecure and vulnerable rural farmer households(20% of project target); b) Moderately food insecure rural farmer households (40% of project target); c) Food secure, semi-structured and structured medium farmer households (30% of project target); and d) Micro, small and medium scale enterprises (10% of project target).

- 29. The following targeting strategy will ensure that women, men, youth and other vulnerable groups benefit from equitable participation: a) Geographic Targeting; b) Direct Targeting INReMP will apply representation targets in interventions to ensure 40% women, 30% youth and 5% persons with disabilities, PLWHAs and other vulnerable groups are targeted; c) Self-Targeting The selection of value chains and related infrastructure development will be done based on how likely they will benefit smallholder men, women and youth; and d) Empowerment and Capacity Building Measures INReMP will work with women, youth, IPs and other vulnerable minorities and their organizations to ensure their participation in planning and decision-making processes.
- 30. The economic and financial analysis undertaken shows that a wide adoption of climate-smart and improved farming management would have important financial and economic benefits in the form of better on-farm economic returns, households' livelihood, reduced poverty and, most importantly, increased resilience to climate change. Results suggest significant potential for creating positive net cash flows for targeted households in their productive activities through INReMP interventions, confirming attractiveness for the farmers. Cash flows show that the households will have the capacity to cover the necessary operating costs, hence sustainability. Some of the unquantifiable benefits include sustainable natural resources management and the health benefits associated with the use of improved cookstoves and renewable energy.

III. SUMMARY OF IMPLEMENTATION TO-DATE

31. This chapter is supposed to present the summary of achievements to date both in physical terms (physical achievements in relation to targets) and financial terms (disbursement status). It is also supposed to highlight the constraints encountered during implementation (thus far); the constraints highlighted are supposed to be addressed for improved implementation. Lastly, the chapter is supposed to state the number of target beneficiaries reached, disaggregated by gender. However, this is the first Programme year of the 8-year Programme and, as such, there is no implementation progress to report herein. But, as part of the design process, some steps, such as preparation of this draft AWPB, Procurement Plan and the Programme Implementation Manual, were undertaken. These will greatly help kick-start actual, on-the-ground, Programme implementation once INReMP gets launched.

IV. THE 2025 WORK PLAN

4.1 The Planning Process

- 32. Ideally, the planning process for an Annual Work Plan and Budget should be participatory, involving all the relevant stakeholders through consultative meetings/workshops at various levels. Under such a situation, there are three major sources of information and these include:
 - a) Programme Design Report it provides the general framework for Programme implementation;
 - b) the findings of the needs assessment and participatory planning exercises in the Programme areas; and

- c) the findings of annual strategic reviews and performance evaluation.
- 33. However, this being INReMP's first AWPB, its preparation was largely based on the Programme Design Report and was prepared as part of the design process. It is expected that starting with the 2026 AWPB onwards, the decentralised, bottom-up and participatory planning process will take over where the process will, necessarily, utilise all three sources of information as listed above.

4.2 Plan Focus

- 34. This being the first INReMP Year, the focus of the plan is to put processes and procedures in place to facilitate a smoother implementation of the Programme during the proceeding Programme Years. This will include: a) establishing of the INReMP coordination structures at the national and county levels; b) establish the national Programme Steering and Technical Committees and introduce INReMP to them. Agree on how to proceed with the provision of the oversight function (frequency and modality of meetings); c) initiate the undertaking of the INReMP baseline survey; d) conduct awareness creation on INReMP objectives and implementation arrangements; e) review and finalise the targeting strategy for the selection of the specific participating wards; etc.
- 35. It is hoped that once the systems have been put in place, subsequent AWPBs will benefit and receive effective implementation. However, in the event that the specified activities get completed before the end of the Programme year, the PCMU will revise the AWPB and include additional activities. When/if such a revision is done, the revised AWPB would be resubmitted to the NPSC for review and approval and to IFAD for review and provision of a No Objection.

4.3 Description of the Work Plan

- 36. Following below is the description of the work plan; this has been done by component and subcomponent.
- 37. Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams and lakes). It comprises two subcomponents.
- Youth 38. Subcomponent 1.1: Community Empowerment, and Transformative Approaches-Community mobilization and empowerment will be the entry for planning and roll out of INReMP activities. This will be guided by County Integrated Development Plans (CIDPs) working closely with community, county and national government administrative structures in each area. INReMP will undertake mapping (including GIS co-ordinates) of existing river basins as defined by the WRA to identify participating FDAs, community groups and a number of eligible beneficiary households per basin. Once this is done, INReMP will undertake community sensitization and awareness creation about the Programme. The community organizations to be targeted include County Community Forest Associations (CCFAs), WRUAs (Water Resources Users Associations (WRUAs), Ward Climate Change Committees (WCCCs), Farmer organizations (FOs) and Common Interest Groups (CIGs) and other community-based organizations (CBOs). These groups will include those established under the Water Resources Authority (WRA), Forest

Service and other relevant government institutions and are involved in NRM and targeted VCs. The following activities are planned for INReMP's first year to gradually contribute to the subcomponent's objective:

- > Training and sensitization of National and County staff on project, PRA, GTA, etc.;
- > Training materials and printing; and
- > Awareness creation and sensitization of development committees.
- 39. **Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services**—The objective of this subcomponent is to improve community-based management of natural resources to sustain ecosystem services; this process will be facilitated by the provision of alternative livelihood options as detailed in Component 2. The subcomponent will be complemented by the processes and procedures to be established by subcomponent 1.1 where communities would have been empowered enough to appreciate the need to sustainably manage the natural resources in the ecosystems in which they live. Activities planned for the first year include:
- Targeted NRM interventions
 - Forests restoration-Promoting agroforestry, afforestation, and reforestation (2,500ha).
- > Payment for Ecosystem Services, Carbon and Carbon Credit Schemes
 - Capacity building for Counties staff on Carbon market and PES (10 sessions)
- > SECAP and Compliance
 - Implementation of ESCMP and Stakeholder engagements (3 studies);
- Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming
- 40. **Component 2: Improved, Inclusive and Sustainable Rural Livelihoods** This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live. The component consists of two Subcomponents.
- 41. Subcomponent 2.1: Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises - Interventions under this subcomponent aim at enhancing productivity and production of the target value chains. Value chains have been selected based on the following criteria: a) neutral or beneficial environmental impacts; b) the commodity is produced or can be easily produced by most targeted beneficiaries (potential for volume aggregation and scale); c) availability of profitable and structured markets (existence of MSMEs, processors, aggregation centres); d) potential to contribute to household nutrition; and e) potential for inclusivity (youth, women, PWDs, PLWHAs and other vulnerable groups participation). For an effective value chain approach, the availability of complementary support to the other actors along the value chain is also an important consideration. Based on this set of criteria and consultations with all ten target counties, the following value chains were prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees (avocado, mangoes); and e) horticulture (tomatoes, leafy vegetables). INReMP is expected to review these value chains regularly to determine continued relevance and take on board any new ones that best respond to INReMP's objective. The following interventions are planned for the first year:
- Dairy Value Chain

- Good Animal Practices and Health
- Support for Feed Production
- Support to public and private service providers
- Animal waste management
- Poultry Value Chain
 - Support for establishment of hatcheries
 - Training of farmers on modern production techniques
 - Training of farmers on farm feed production
 - Capacity building for public and private service providers
- Apiculture Value Chain
 - Capacity building on bee hive management
- Fruit Tree Value Chain
 - Support for nursery establishment (20 nurseries)
 - Training of farmers on good tree management
- ➤ Horticulture Value Chain
 - Training farmers in good agricultural practices
 - Setting up demonstrations and field days
- > Trainings of farmers on Nutrition with special emphasis on varieties, cultivars, breeds
- Provision of Motor Vehicles for Extension services (12)
- Provision of Motor Cycles for Extension services (105)
- Documentation on fruit trees, herbal/medicinal plants, non-timber forest products and neglected underutilized species
- 42. Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises Access to profitable markets is considered a key element of sustainable natural resources management interventions (Subcomponent 1.2); target beneficiaries must be provided with an avenue to market their surplus produce. Value chain studies conducted as part of this design have confirmed existence of market opportunities. Follow-up assessments during implementation will identify additional market opportunities. These opportunities will drive the production support activities under 2.1. The following activities are planned:
- Market opportunity assessments (dairy, poultry, avocado, horticulture);
- Marketing Information Support (120 bulletins);
- Dairy Value Chain
 - Business development support to Milk Collection Centres (MCC)
 - Marketing Training of cooperative members and leaders.
- 43. **Component 3: Institutional Strengthening, Policy Support and Programme Coordination** This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps. It comprises two subcomponents.
- 44. **Subcomponent 3.1: Institutional Strengthening and Policy Support** Interventions under this subcomponent will contribute to the achievement of Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources

management and rural livelihoods. The subcomponent has a dual focus: institutional strengthening and policy support.

- 45. *Institutional Strengthening* The objective of this intervention is to augment the capacity of the institutions (public and private sector/community-based organisations) that will be responsible for overseeing and/or implementing the different Programme activities. The activities planned for the first AWPB under this intervention:
- > Strengthening the capacity of national and county governments' relevant institutions to coordinate environmental conservation;
- > Support the CPMU staff to enhance their coordination abilities.
- 46. **Policy Support** The focus of this intervention will be to facilitate the development, review and update of policies and strategies in areas identified as critical for the effective integrated natural resources management. Activities planned under the policy arena for the first year include:
- Support Counties to mainstream resilience into their plans, strategies, policies, regulations.
- 47. Subcomponent 3.2: Programme Coordination and Implementation Support Services this subcomponent seeks to provide INReMP with efficient and effective coordination, including planning and implementation, financial management and control, procurement support, digital monitoring and evaluation system, knowledge management, and progress reporting. It will also ensure liaison and linkages with all other projects/programmes being implemented in the countries that seek to address similar constraints so as to take advantage of existent synergies and avoiding duplications. A national Programme Coordination and Management Unit (PCMU) will be established to coordinate the different Programme activities. The following activities are planned:
- Nutrition Activities
 - M&E support to county's nutrition/Agri nutrition action plans, strategies and assessments;
 - Support cost on enactment of nutrition county policies and legislations
- Project Management and Coordination Unit (PMCU) vehicles
 - Utility Vehicles (4WD) 3
 - Double Cabin Vehicles (2)
- > Office Rehabilitation National PMCU and Regional PMCU
- Office Equipment for PCMU
 - Laptops (18)
 - Desktops (3)
 - Printer/Photocopier (1)
 - Printer/Photocopier (1)
 - Safe Box (4)
 - Projector (1)
 - A set of Video Conference Equipment (1)
 - Server;
 - Internet Network Equipment
 - Internet Network Equipment
 - Smartphones (25)
- Audit
 - External Audit
 - Internal Audit

Workshops

- Launch and Start-up workshop (1)
- Sensitization Workshops (10)
- Annual planning & review workshops (2)
- Other Workshops (portfolio reviews, etc.) (1)

Monitoring & Evaluation

- TA for M&E during implementation
- Development of M&E plan and data collection and reporting tools
- Provision of Tablets for field data collection by county M&E officers (10)
- Development of the Programme MIS including related infrastructure, accessories and training of staff
- Maintenance of the MIS/ Software including web-shooting of the servers
- COI Surveys Baseline (1)
- Periodic Monitoring and Supervision and field data collection
- TA for GIS services
- Mobile Tablets to support delivery of advisory Services by Extension Agents (500)

> Knowledge Management and Communication

- Maintenance of the Knowledge Management Portal
- TV and radio awareness campaigns on environmental, gender and nutrition issues;
- Production and Printing of Knowledge Products and Communications materials
- Organise Exchange and learning visits
- Participation in Programme Quarterly implementation Review workshops &SSTC

Staff Salaries

- National PMCU
 - Project Coordinator (12 months)
 - Financial Controller (12 months)
 - Monitoring and Evaluation and KM Specialist (12 months)
 - Procurement Specialist (12 months)
 - NRM Specialist (12 months)
 - Infrastructure Specialist (12 months)
 - Agricultural Livelihood Specialist (12 months)
 - Community Development, Gender and Youth Specialist (12 months)
 - Nutrition and Social Inclusion Specialist (12 months)
 - Agribusiness Development Specialist (12 months)
 - Programme Accountant (12 months)
 - Accounts Assistant (12 months)
 - KM Officer (12 months)
 - M&E Assistant (12 months)
 - ICT Assistant (12 months)
 - Procurement Assistant (12 months)
 - Programme Assistant (12 months)
 - Office Assistant (12 months)
 - Drivers (48 months)
- Regional PCMU
 - Deputy Coordinator (Regional Coordinator (12 months))
 - Regional Accountant (12 months)
 - Programme Assistant (12 months)
 - Office Assistant (12 months)
 - Driver (12 months)

- County Staff Salaries (including top-up allowance)
 - County Coordinator (120 months)
 - County Project Accountant (120 months)
 - Country Procurement Officer (120 months)
 - County M&E Officer (120 months)
 - County Office Secretary (120 months)
- Operating costs

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- Office space (PCMU)
- Office space Regional PCMU
- Office space (10 counties)
- General operating expenses for PCMU
- General operating expenses for counties
- Vehicle O & M -all vehicles including county vehicles
- Vehicle insurance all vehicles including county vehicles
- Field per diem

V. BUDGET ESTMATES AND FINANCING ARRANGEMENTS

5.1 Summary Budget and Funding

48. Presented in this section are summary tables giving an overall picture of financial resources required for the INReMP 2025 AWPB. The budget information is presented by component, financier and categories of expenditure. The total budget for INReMP's 2025 AWPB is about US\$ 12.3 million. A total of about US\$ 2.1 million (or17% of the budget) is allocated to Component 1: Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action; about US\$ 3.6 (or 29% of the budget) is allocated to Component 2: Improved, Inclusive and Sustainable Rural Livelihoods; and about US\$ 6.6 million (or 54% of the budget) is allocated to Component 3: Institutional Strengthening, Policy Support and Programme Coordination. About 88% of the budget will be financed by the IFAD-12 and the remaining 12% will be from the Government of Kenya. The following tables present the INReMP AWPB costs by component, category and financier.

Table 3: First Year Annual Work Plan and Budget and Financing by Component (US\$ million)

ricitya									
Integrated Natural Resources Management Project (INReMP) - 12 Months AWPB									
Components by Financiers								Local	
(US\$ '000)	G	OK	IFAD)-12	To	tal	For.	(Excl.	Duties &
	Amount	%	Amount	<u>%</u>	Amount	%	Exch.	Taxes)	Taxes
A. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action									
Community Empowerment, Youth and Gender Transformative Approaches			89	100	89	1	9	80	-
Improve Environmental Sustainability, INRM, and Ecosystem Services			1,993	100	1,993	16	197	1,795	-
Subtotal			2,081	100	2,081	17	206	1,875	-
B. Improved, Inclusive and Sustainable Rural Livelihoods									
Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Ent			3,159	100	3,159	26	313	2,846	-
Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises			414	100	414	3	41	373	-
Subtotal			3,573	100	3,573	29	354	3,220	-
C. Institutional Strengthening, Policy Support and Programme Coordination									
Institutional Strengthening and Policy Support	21	7	269	93	290	2	29	261	-
Programme Coordination and Implementation Support Services	1,418	23	4,894	78	6,312	52	617	5,554	140
Subtotal	1,439	22	5,162	78	6,602	54	646	5,815	140
Total PROJECT COSTS	1,439	12	10,817	88	12,257	100	1,206	10,910	140

Table 4: First Year Annual Work Plan and Budget and Financing by Category (US\$ million)

Kenya Integrated Natural Resources Management Project (INReMP) - 12 Months AWPB **Expenditure Accounts by Financiers** Local (US\$ '000) **GOK** IFAD-12 Total For. (Excl. Duties & Amount % Amount % Amount % Exch. Taxes) Taxes I. Investment Costs Goods, Services and Inputs 1,996 100 2,006 199 1,806 9 1 16 98 96 207 1,874 **Equipment and Materials** 5 2,081 2,179 18 98 Consultancies 12 1 1,147 99 1,159 10 115 1,043 Training 0 2,046 100 2,046 17 203 1,843 Civil Works 1,096 42 3 1,217 97 1,259 10 121 42 **Total Investment Costs** 162 2 8,487 98 8,649 71 845 7,663 140 **II. Recurrent Costs** Operations and Maintenance 202 21 761 79 963 8 96 867 Salaries and Allowance 2,644 22 2,380 1,076 41 1,569 59 264 29 **Total Recurrent Costs** 35 2,330 65 3,608 361 3,247 1,278 **Total PROJECT COSTS** 12 10,817 88 12,257 100 1,206 10,910 140 1,439

5.2Detailed Budget by Component

49. Presented in this section are the detailed cost tables giving an overall picture of financial resources required for the 2025 AWPB and corresponding activities on which funds will be utilised.

INReMP 2025 AWPB Detailed Budget by Component and Subcomponents

Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action

Subcomponent 1.1: Community Empowerment, Youth and Gender Transformative Approaches

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 1.1. Community Empowerment, Youth and Gender Transformative Approaches

Detailed Costs

(US\$)	Quantities				Totals Including Contingencies ('00							
	Unit	Q1	Q2	Q3	Q4	Total	Unit Cost	Q1	Q2	Q3	Q4	Total
I. Investment Costs												
A. Community empowerment: Sensitization and awareness raising												
Training and sensitization of National and County staff on project, PRA, GTA etc	Per County	2.5	2.5	2.5	2.5	10	2,500	7	7	7	7	27
Training materials and printing	Per County	2.5	2.5	2.5	2.5	10	2,500	7	7	7	7	27
Awareness creation and sensitization of development committees	Per County	1	1	-	-	2	16,000	17	17	-	-	34
Total								30	31	14	14	89

Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 1.2. Improve Environmental Sustainability, INRM, and Ecosystem Services

Detailed Costs

Detailed Costs													
(US\$)			Qı	uantitie	es		Totals Including Contingencies ('000						
	Unit	Q1	Q2	Q3	Q4	Total	Unit Cost	Q1	Q2	Q3	Q4	Total	
I. Investment Costs													
A. Baseline studies and Mapping of Key NRs													
Mapping and Monitoring of key natural resources	Units	1	-	-	-	1 '	50,000	53	-	-	-	53	
B. Targeted NRM interventions													
Forests restoration-Promoting agroforestry, afforestation, and reforestation	Hectare	625	625	625	625	2,500	350	233	236	239	243	952	
Capacity building of National Administration Officers on CC to support National Greening Priorities	Per Year	125	125	125	125	500	1,200	160	162	164	167	652	
Subtotal								393	398	403	410	1,604	
C. Payment for Ecosystem Services, Carbon and Carbon Credit Schemes													
Capacity building for Counties staff on Carbon market and PES	Training	2.5	2.5	2.5	2.5	10	20,000	53	54	55	56	217	
D. SECAP and Compliance													
Implementation of ESCMP and Stakeholder engagements	Study	1	1	1	-	3	10,000	11	11	11	-	32	
E. Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Prec	Lumpsum	1	-	-	-	1 '	80,000	85	-	-	-	85	
Total .								596	463	469	465	1,993	

Component 2: Improved, Inclusive and Sustainable Rural Livelihoods

Subcomponent 2.1: Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 2.1. Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Na

Detailed Costs

(US\$)		Quantities					Tota	ntingencies ('00				
	Unit	Q1	Q2	Q3	Q4	Total	Unit Cost	Q1	Q2	Q3	Q4	Total
I. Investment Costs												
A. Dairy Value Chain												
Support for Feed Production	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Good Animal Practices and Health	Per County	2.5	2.5	2.5	2.5	10	5,000	13	13	14	14	54
Support to public and private service providers	Per County	2.5	2.5	2.5	2.5	10		27	27	27	28	109
Animal waste management	Per County	2.5	2.5	2.5	2.5	10	1,000	3	3	3	3	11
Subtotal	•							69	70	71	72	283
B. Poultry Value Chain												
Support for establihment of hatcheries	Hatcheries	2.5	2.5	2.5	2.5	10	5,000	13	13	14	14	54
Training of farmers on modern prodution techniques	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Training of farmers on farm feed production	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Capacity building for public and private service providers	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Subtotal								93	94	96	97	381
C. Apiculture Value Chain												
Capacity building on bee hive management	Per County	2.5	2.5	2.5	2.5	10	5,000	13	13	14	14	54
D. Fruit Tree Value Chain	•											
Support for nursery establishment	Nurseries	5	5	5	5	20	5,000	27	27	27	28	109
Training of farmers on good tree managemnt	Per County	2.5	2.5	2.5	2.5	10 ^l	10,000	27	27	27	28	109
Subtotal								53	54	55	56	217
E. Horticulture												
Training farmers in good agricultural practices	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Setting up demostrations and field days	Per County	2.5	2.5	2.5	2.5	10 ¹	5,000	13	13	14	14	54
Subtotal								40	40	41	42	163
F. Climate Resilient Infrastructure												
1. Trainings of farmers on Nutrition with special emphasis on varieties, cultivars, breeds	Day	12.5	12.5	12.5	12.5	50 ^l	1,000	13	13	14	14	54
Motor Vehicles for Extenstion services	Number	3	3	3	3	12	60,000	192	194	197	200	783
3. Motor Cycles for Extenstion services	Number	26.25	26.25	26.25	26.25	105	5,000	140	142	143	146	571
Subtotal								345	349	354	360	1,408
G. Training of farmers on nutrition												
Documentation on fruit trees, herbal/medicinal plants, non-timber forest products and neglected und	Per County	150	150	150	150	600 ^l	1,000	160	162	164	167	652
Total								775	783	794	807	3,159

Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 2.2. Improve Value Addition and Market Linkages of Selected Value Chains and Nature-Based

Detailed Costs

(US\$)		Quantities					Totals Including Contingencies					
	Unit	Q1	Q2	Q3	Q4	Total	Unit Cost	Q1	Q2	Q3	Q4	Total
I. Investment Costs						_	_					
A. Market opportunity assessments (dairy, poultry, avocado, horticulture)	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
B. Marketing Information Support	Bulletins	30	30	30	30	120	500	16	16	17	17	66
C. Dairy Value Chain												
Business development support to MCC	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Marketing Training coop members and leaders	Per County	2.5	2.5	2.5	2.5	10	10,000	27	27	27	28	109
Subtotal								53	54	55	56	217
D. Nutrition Activities												
M&E support to county's nutrition/Agri nutrition action plans, strategies and assessments	Per County	2.5	2.5	2.5	2.5	10	1,000	3	3	3	3	11
Support cost on enactment of nutrition county policies and legislations	Per County	2.5	2.5	2.5	2.5	10	1,000	3	3	3	3	11
Subtotal								5	5	 5	6	22
Total								102	103	104	106	414

Component 3: Institutional Strengthening, Policy Support and Programme Coordination

Component 3: Institutional Strengthening, Policy Support and Programme Coordination

Kenya

Integrated Natural Resources Management Project (INReMP)

Table 3.1. Institutional Strengthening and Policy Support

Detailed Costs

(US\$)		Quantities					Totals Including Contingencies ('0						
	Unit	Q1	Q2	Q3	Q4	Total	Unit Cost	Q1	Q2	Q3	Q4	Total	
I. Investment Costs													
A. Institutional Strenghtening													
Strengthening the capacity of national and county governments' relevant institutions to coordinate en	Session	1	-	-	-	1	100,000	107	-	-	-	107	
Support the CPMU staff to enhance their coordination abilities /b	Session	1	-	-	-	1	20,000	21	-	-	-	21	
Subtotal								128	-	-	-	128	
B. Policy Support													
Support Counties to mainstream resilience into their plans, strategies, policies, regulations	Per County	1	1	1	-	3	50,000	53	54	55		162	
Total								182	54	55		290	

a Specific interventions will be identified by the systems and capcity needs assessment of the different national and county institutions.

b Focus will be on coordination abilities, financial management, procurement, planning, monitoring and evaluation, knowledge management and main streaming themes

Subcomponent 3.2: Programme Coordination and Implementation Support Services

(enya ntegrated Natural Resources Management Project (INReMP)												
Fable 3.2. Programme Coordination and Implementation Support Services **Detailed Costs** US\$1			0	ıantitie	_		т.	otals Inc	ludina	Conti		los ('00
US#)	Unit	Q1	Q2	Q3	Q4	Total	Unit Cost	Q1	Q2	Q3	Q4	Total
I. Investment Costs A. Project Management and Coordination Unit (PMCU) - vehicles												
Utility Vehicles 4WD Double Cabin Vehicles	number	1	1	1	-	3	88,000	109	109	109	-	328
Subtotal	Numbers	1	1	-	-	2	58,000	71 181	181	109	 -	143 471
Office Rehabilitation - National PMCU and Regional PMCU Office Equipment for PMCU	Lumpsum	1	-	-	-	1	250,000	308	-	-	-	308
Laptop	Number	18	-	-	_	18	1,500	33	-	-	-	33
Desktop Printer/Photocopier	Number Number	3 1	_	_	_	3 1	1,200 9,000	4 11	_	_	_	4 11
Accounting software Safe box	Number	1	-	-	-	1	60,000	74 6	-	-	-	74
Projector	Number Number	4	=	-	_	4	1,800	2	_	=	_	6
Video Conference Equipments Server	Number Number	1	_	_	-	1	10,000 10,000	12	_		_	12
Internet Network Equipment	Number	i	=	=	=	i	3,000	12 4	=	=	=	12 4
Internet Network Equipment Smartphone	Lumpsum Units	1 25	_	_	_	1 25	50,000 600	62 18	_	_	_	62 18
Subtotal D. Audit								239	_	_	-	239
External Audit	Yearly	-	-	-	1	1	2,000	-	-	-	2	2
Internal Audit Subtotal	semi-annually	1	-	-	1	2	4,000	4	 -	 -	6	11
E. Workshops												
Launch and Startup workshop Sensitization Workshops	Lumpsum Lumpsum	2.5	2.5	2.5	2.5	1 10	35,000 15,000	37 40	40	40	40	37 159
Annual planning & review workshop Other Workshops (porfolio reviews etc.)	Lumpsum Lumpsum	1	=	=	1	2 1	35,000 50.000	37 53	=	=	37	74 53
Subtotal	Lampsam	•				•	30,000	167	40	40	77	324
F. Monitoring & Evaluation TA for M&E during implementation	Lumpsum	1	_	_	_	1	20,000	21	_	_	_	21
TA for M&E during implementation Development of M&E plan and data collection and reporting tools Procurement of Tablets for field data collection by county M & E officers	Lumpsum Number	1 10	-	-	-	1 10	50,000 800	53 8	-	-	-	53 8
Development of the programme MIS including related infrastructure, accessories	Lumpsum	10	=	-	_	10	100,000	106	_	=	_	106
Maintenance of the MIS/ Software including webshoting of the servers COI Surveys (Baseline, Midline, Endline)	Lumpsum Lumpsum	1	-	-	-	1	100,000	106 117	-	-	-	106 117
Periodic Monitoring and Supervison and field data collection	Per Year	i	=	=	=	i -	150,000	159	=	=	=	159
TA for GIS services Mobile Tablets to support delivery of advisory Services by Extension Agents	Lumpsum Unit	1 500	_	_	_	1 500	30,000 1,200	31 637	_	_	_	31 637
Subtotal G. Knowledge Management and Communication							,	1,240	_	-	-	1,240
Maintenance of the Knowledge Management Portal	Per Year	1	-	_	-	1	20,000	21 21	_	_	_	21
TV and radio awareness campaings on environmental, gender and nutrition issues Production and Printing of Knowledge Products and Communications materials	Per Year Per Year	1	_	_	_	1	20,000 15.000	21 16	_	_	_	21 16
Organise Exchange and learning visits	Per Year	- 1	-	-	-	<u> </u>	10,000	11	-	-	-	11
Participation in programme Quarterly implementation Review workshops &SSTC Subtotal	Per Year	1	-	-	-	1	40,000	42 112			 -	42 112 2,704
Fotal Investment Costs I. Recurrent Costs							•	2,251	221	149	83	2,704
A. Staff Salaries												
Project Management and Coordinating Unit Staff Costs (including salaries a. National PMCU												
Project Coordinator	Mths	3	3	3	3	12	6,500	20	20	20	20	81
Financial Controller Monitoring and Evaluation and KM Specialist	Mths Mths	3 3 3 3	3	3	3 3 3	12	5,500 5,000	17 16	17 16	17 16	17 16	69 62
Procurement Specialist NRM Specialist	Mths Mths	3	3	3 3	3	12 12	5,000 5,000	16 16	16 16	16 16	16 16	62 62
Infrastructure Specialist	Mths	3	3	3	3	12	5,000	16	16	16	16	62
Agronomist Community Development, Gender and Youth Specialist	Mths Mths	3 3	3	3	3 3 3	12 12	5,000 5,000	16 16	16 16	16 16	16 16	62 62
Livestock Specialist Agribusiness Development Specialist	Mths Mths	3	3	3	3	12 12	5,000 5,000	16 16	16 16	16 16	16 16	62 62
Programme Accountant Accounts Assistant	Mths	3	3	3	3	12 12	4,000	12	12	12	12	50 31
Accounts Assistant KM Officer	Mths Mths	3 3	3	3 3	3 3 3	12 12	2,500 4,000	8 12	8 12	12	8 12	31 50
M&E Assistant	Mths Mths	3	3	3	3 3 3	12 12	3,500	11	11	11	11	44
ICT Assistant Procurement Assistant	Mths	3 3	3 3		3	12	3,500 3,500	11	11	11	11	44
Programme Assistant Office Assistant	Mths Mths	3	3	3 3 3	3	12 12	2,500 1,500	8 5	8	8 5	8 5	31 19
Drivers	Mths	12	12	12	12	48	1,200	15	15	15	15	60
Subtotal 2. Regional PMCU								255	255	255	255	1,020
Deputy Coordinator (Regional Coordinator)	Mths Mths	3	3	3	3	12	6,000	19 12	19 12	19 12	19 12	75 50
Regional Accountant Programme Assistant	Mths	3 3	3 3	3	3	12 12	4,000 2,500	8	8	8	8	31
Office Assistant Driver	Mths Mths	3 3	3 3	3	3	12 12	1,500 1,200	5	5	5	5	19 15
Subtotal		_	_	_	_		.,	47	47	47	47	190
County Staff Salaries (including top-up allowance)County Coordinator	Mths	120	-	-	_	120 🔽	3,000	374	-	-	-	374
County Project Accountant	Mths Mths	120	-	-	=	120	2.500	312 312	-	-	-	312 312
Country Procurement Officer County M&E Officer	Mths	120 120	_	-	_	120 120	2,500 2,500	312	_	_	-	312
County Office Secretary Subtotal	Mths	120	-	-	-	120	1,000	125 1,435	-	-	- -	125 1,435
Subtotal B. Operating costs							-	1,737	302	302	302	2,644
1. Office space (PMCU)	Lumpsum	1	_	_	-	1 💆	60,000	64	-	-	_	64
2. Office space Regional PMCU 3. Office space (10 Counties)	Lumpsum Lumpsum	1	_	-	=	1 10	18,000 12,000	18 120	=	=	_	18 120
General operating expenses for PMCU	Mths	3	3	3	_		6,000	18	18	18	Ė	54
General operating expenses for Counties Vehicle O & M -all vehicles including county vehicles	Mths Units	3 3.75	3 3.75	3 3.75	3 3.75	16	1,500 7,500	5 30	5 30	5 30	5 30	18 119
Vehicle of a relief whicles including county vehicles Field per diem	Units	3.75	3.75	3.75	3.75 900	15	1,500	6	6	6	6	23 360
9. Allowances for NPSC, NTAC and PCSC	Units Per Year	900	900	900	900	3,600	100 187,500	90 188	90	90	90	188
Subtotal Fotal Recurrent Costs								537 2.274	148 450	148 450	130 432	963
Total Recurrent Costs Fotal							-	4,525	671	600	516	3,608 6,312

veriya ntegrated Natural Resources Management Project (INReMP) Fable 3.2. Programme Coordination and Implementation Support Services Jetailed Costs US\$) Q4 Total Unit Cost Q1 Unit Q1 Q2 QЗ Q2 Q3 I. Investment Costs M&E support to county's nutrition/Agri nutrition action plans, strategies and assessments Support cost on enactment of nutrition county policies and legislations Per County 2.5 2.5 2.5 10 10 1,000 Per County 10 20 Subtotal

B. Project Management and Coordination Unit (PMCU) - vehicles
Utility Vehicles 4WD
Double (Abin Vehicles number 88.000 328 328 3 135 C. Office Rehabilitation - National PMCU and Regional PMCU

D. Office Equipment for PMCU Lumpsum 250,000 290 290 1,500 1,200 9,000 60,000 1,200 1,800 10,000 3,000 31 4 10 70 6 2 Number 18 3 18 3 31 40 70 6 2 12 12 38 Number Desktop Printer/Photocopier Accounting software Safe box Projector Video Conference Equipments Server Number Number Number Number Number Number Number 12 12 3 58 17 Internet Network Equipment Number Internet Network Equipment Smartphone Lumpsum 50,000 Internet Network Equipment
Smartphone
Subtotal
E Audit
Audit
Internal Audit
Subtotal
F. Workshops
Launch and Startup workshop
Sensitization Workshops
Annual planning & review workshop
Sensitization Workshops
Annual planning & review workshop
Subtotal
G. Monitoring & Evaluation
TA for M&E during implementation
Development of M&E plan and data collection by county M & E officers
Procurement of Tablets for field data collection by county M & E officers
Procurement of the MIS/ Software including webshoting of the servers
COI Surveys (Baseline, Midline, Endline)
Periodic Monitoring and Supervision and field data collection
TA for GIS services
Mobile Tablets to support delivery of advisory Services by Extension Agents
Subtotal
Maintenance of the Knowledge Management Portal 25 35,000 15,000 35,000 50,000 35 150 70 50 305 38 38 20,000 50,000 800 100,000 110,000 150,000 30,000 20 50 8 100 110 150 31 600 Lumpsum Number Lumpsum Lumpsum Lumpsum Per Year 10 10 150 Lumpsum Unit 500 500 Subtotal

H. Knowledge Management and Communitation

H. Knowledge Management and Communitation

TV and radio awareness campaings on environmental, gender and nutrition issues

Production and Printing of Knowledge Products and Communications materials

Organise Exchange and learning visits

Participation in programme Quarterly implementation Review workshops &SSTC

Total Investment Cores Per Year Per Year Per Year Per Year Per Year 20,000 20,000 15,000 10,000 40,000 Fotal Investment Costs I. Recurrent Costs
I. Recurrent Costs
A. Staff Salaries
1. Project Management and Coordinating Unit Staff Costs (including salaries, allowances an
a. National PMCU
Project Coordinator
Financial Controller 6,500 5,500 5,000 5,000 5,000 5,000 5,000 Mths 111111111111111111 Mths Mths Financial Controller
Monitoring and Evaluation and KM Specialist
Procurement Specialist
NRM Specialist
Infrastructure Specialist
Agricultural Livelihood Specialist
Community Development, Gender and Youth Specialist
Nutrition and Social Inclusion Specialist Mths Mths Mths Mths Mths 5,000 5,000 4,000 2,500 4,000 Mths Nutrition and Social Inclusion Speciali Agribusiness Development Specialist Programme Accountant Accounts Assistant KM Officer Mths Mths Mths Mths KM Officer
M&E Assistant
ICT Assistant
Procurement Assistant
Programme Assistant
Office Assistant 3,500 3,500 3,500 2,500 Mths Mths Mths 12 12 3 12 12 15 248 58 991 Subtotal 248 Subtotal and PMCU
2. Regional PMCU
2. Regional Coordinator (Regional Coordinator)
Regional Accountant
Programme Assistant
Office Assistant
Driver 6,000 4,000 2,500 73 48 30 18 Mths Mths 15 46 46 Subtotal
3. County Staff Salaries (including top-up allowance)
County Coordinator
County Project Accountant
Country Procurement Officer
County M&E Officer
County Office Secretary
Subtotal 120 120 120 120 120 3,000 2,500 2,500 2,500 91 76 76 76 30 348 642 364 303 303 303 121 1,394 2,569 30 30 30 30 30 Subtotal
Subtotal
Subtotal
B. Operating costs
1 Office space (PMCU)
2. Office space (10 Counties)
4. General operating expenses for PMCU
5. General operating expenses for County vehicles
5. Vehicle O & M -all vehicles including county vehicles
6. Vehicle O & M -ce - all vehicles including county vehicles
7. Field per diem
8. Field per diem
8. Field Recurrent Costs
Fotal 60,000 18,000 12,000 6,000 1,500 7,500 1,500 2.5 3 3 3.75 3.75 900 2.5 30 18 5 30 6 363 798 3,367

VI. IMPLEMENTATION ARRANGEMENT

6.10verall coordination and Link to the Review and Approval Process

- 50. Programme Year 2025, being INReMP's inaugural implementation period, many of the Programme's activities during the first few months will mainly be preparatory in nature. The PCMU will work to put processes, procedures and structures in place for effective INReMP's implementation. It is expected that after the inaugural implementation period, the rate of activity implementation will pick up fast.
- 51. As the PCMU and the CPITs coordinate the different INReMP activities, due regard will be given to the time needed for the different institutions (IFAD and GoK, and other cofinanciers) to review and approve the different aspects of Programme implementation. This will be important to avoid implementation delays. This will be particularly important for the procurement function. The PCMU CPITs will have to ensure that proper procedures with regard to prior review are adhered to. The time needed to accommodate the review and approval of the different procurements is incorporated in the Procurement Plan. The Programme Implementation Manual (PIM) also provides guidance on all aspects of Programme implementation. The CPITs will have to coordinate with the respective county administrations during the process of activity implementation; this should include planning, implementation, management, reporting, monitoring and evaluation.
- 52. In order to implement Programme activities effectively, areas which lack capacity will be addressed by providing the relevant capacity that is specific to the identified capacity gaps. Capacity building is the responsibility of one of INReMP's subcomponents. Accordingly, capacity building programmes have been allowed for in the AWPB.

6.2Progress Reporting

- 53. The PCMU and CPITs will aim at providing informative progress reports; this is a formal requirement stipulated in the Financing Agreement. The six-monthly and annual reports will be prepared and submitted to IFAD, the GoK and all collaborating institutions. The national PCMU will produce a consolidated report for all Programme activities. The consolidated implementation progress report will be submitted to the oversight body (NPSC/NPTC) for review, comment and endorsement. The PCMU would address any comments emanating from the oversight body before submitting the reports to IFAD. Efforts will be made to ensure a timely submission of the reports to IFAD. The progress reports will provide:
- a) a review of implementation progress compared to planned activities, and expenditures compared to budgets;
- b) details of problems encountered during the reporting period and any remedial actions taken to resolve the problems;
- c) an analysis of strength and weaknesses, opportunities and threats;
- d) a discussion of quantitative and qualitative progress made in achieving the overall objectives; and,
- e) the strategic direction for the next planning cycle.
- 54. In the process of producing progress reports, the PCMU and CPITs will reflect on outputs, evaluate performance, and identify weaknesses that can be improved and successes that can be up-scaled. It is hoped that this process would lead to better plans and implementation in the future.

6.3Monitoring and Evaluation & Knowledge Management

55. Performance monitoring will be the primary responsibility of the Monitoring & Evaluation/Knowledge Management team at the PCMU and CPITs. The team will ensure that there are enough resources for all entities involved in implementing Programme activities. These will be assigned specific M&E duties, to enable them to play an active part in the participatory M&E process. Resources will be provided for the operational costs related to M&E activities. The essence of the M&E system is the ability to supply regular data, to monitor progress towards the achievement of set objectives and to detect emergence of unexpected developments and to draw those developments to the attention of management.

56. In situations where Programme activities are to be implemented by qualified Service Providers, monitoring responsibilities may be formally agreed between the Service Providers as part of the agreements to be signed by the parties. Each of those Service Providers/Participating Institutions will be responsible for monitoring the activities they implement. Heads of the various institutions will take the lead role and responsibility for monitoring, especially in setting implementation milestones, collection of the necessary data, and reporting to the PCMU. They will also take the lead role in interpreting outcomes of performance and impact M&E in terms of policy adaptations and requirements. To that end, the PCMU will provide a clear common framework for planning and progress reporting, and to ensure that all parties have a clear understanding of the tools, formats, definition and applicability of indicators, and the means to conduct quality assurance. The PCMU will be responsible for receiving and collating M&E data from the different institutions and producing consolidated progress reports. Results of M&E will be shared with other implementing partners during the M&E and national planning and review workshops. The focus will be to ensure a continuous process of feedback to stakeholders and management to enhance timely responses.

57. During the course of 2025, a baseline survey will be conducted to provide information about verifiable indicators as a benchmark for assessing impact of INReMP interventions in line with the Programme's goal, objectives and activities as contained in the logical framework. Such benchmarks will be developed as a reference point when organising repeat surveys and or when conducting programme Mid-term Review and end-of-programme evaluation.

58. It is planned that supervision/monitoring exercises will be jointly undertaken by IFAD and the GoK at least once every year.

59. With regard to Knowledge Management (KM), the focus of this first year AWPB will be on the preparation of INReMP's KM action plan whose objectives would be to: a) identify knowledge gaps and prioritization of knowledge products to be developed; b) systematically document methods to ease the up-scaling of best practices in Kenya or repackaging of innovative approaches developed elsewhere; c) disseminate knowledge using various communication tools. The dissemination will serve as an avenue for sharing relevant information among implementing partners and other stakeholders.

6.4 Procurement, Disbursements, Accounts and Finance Management

60. Financial management will involve budgeting, receipt of funds, procurement, making of payments, justification, generating withdrawal applications and reporting on all Programme activities implemented. The PCMU will establish a sound financial management system for the Programme, consistent with the requirements of IFAD Guidelines on Financial Management covering the financial management cycle from Programme start-up to

financing closing, including budgeting, accounting and financial reporting; establishing internal controls with internal audit arrangements; funds flow management including disbursements; and statutory audit throughout the Programme cycle.

- 61. The authority to incur expenditure is the approval of the AWPB with expenditure incurred outside the approved AWPB declared ineligible for financing from the Programme funds.
- 62. Regarding procurement, each contract to be financed by proceeds of IFAD's investment will be included in the Programme Procurement Plan (PP) prepared by the PCMU¹³, certified by the NPSC and receiving No Objection from IFAD. The PCMU procurement unit will be in charge of, inter alia, procurement planning, handling of the bidding process, conducting bid openings and evaluations of bids, and contract monitoring. A Procurement Committee will be established at the PCMU and would be expected to review and certify the following documents or actions: procurement plan, draft advertisements and bidding documents, evaluation reports and contract award recommendations, rejection of bids, contracts or contract amendments above pre-defined thresholds.
- 63. It should be noted that this being the inaugural year of INReMP implementation, the Procurement Plan was prepared by a consultant. In the subsequent years, the Procurement Plan will be prepared from a consolidated list of goods and services for the different cost centres.

VII. EXPECTED BENEFITS AND BENEFICIARIES

- 64. The planned period (2025) being the inaugural year of an 8-year implementation period, the focus is expected to be on putting in place processes and procedures to help guide INReMP implementation for the rest of the Programme period. Therefore, it is assumed that the number of beneficiaries to be reached will be less than in subsequent years. This is consistent with INReMP's Programmed disbursement by semester which is expected to be low at the beginning of the Programme and will increase in subsequent years.
- 65. With regard to benefits, INReMP will promote integrated natural resources management, inclusive of climate sensitive agricultural technologies or practices and these are expected to increase productivity, enhance resilience and reduce carbon emissions. However, there will also be non-quantifiable benefits to accrue to different institutions and/or individuals and these will likely be immediate. The different scenarios are presented hereunder:
 - a) There will be more capacity to coordinate and oversee effective Programme implementation;
 - b) The watershed management approach being adopted for INReMP will lead to longer term environmental rejuvenation and returns on improved soil and sustainable access to water; and
 - c) There are other non-tangible benefits, such as employment creation from off farm activities and an overall contribution to the stability/livelihood improvement of the target communities.

VIII. CONSTRAINTS, RISKS AND MITIGANTS

37

 $^{^{13}}$ For the first AWPB, the INReMP design process prepared the draft Procurement Plan. The PCMU would need to review and finalise the draft AWPB and the associated Procurement Plan.

66. Presented in the below table are the possible constraints and risks that may hamper the implementation of the INReMP 2023 AWPB. The table also provides the suggested mitigation measures.

Table 6: Possible Constraints and Risks and Suggested Mitigation Measures

Risk **Risk Mitigation Measures** Ensure the application/use of efficient procurement 1. Delay procurement • in resulting in delay in planning. implementation. 2. Delay in disbursement of • Follow proper financial management procedures and funds resulting in delay in ensure submission of all supporting documentation implementation. when asking for replenishments. 3. Delayed receipt Ensure proper planning that gives adequate time for of No • Objection from **IFAD** receipt of requisite approvals. resulting in delay in implementation.



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 7: Procurement Plan for first 18 months

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern 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 Live	Community Livestock and Agriculture Project (CLAP)												
Project ID:	2000001234	2000001234												
Version	1.0													
Version Date	01-Jan-20													
Prepared by:														
Approved by:														
crocurement Category	Plan Actual													
category														
Currency	USD	LCU	USD	LCU										
	USD -	LCU -	USD -	LCU -										
Currency	USD -	LCU -	USD -	LCU .										
Currency Goods	-	-	-	ιαυ - -										
Currency Goods Works Consulting	-	-	-											
Goods Works Consulting Services Non-Consulting	-	-	-											

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 IFAD NC

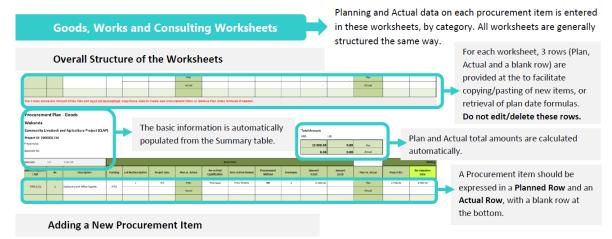
Do not populate this section. Total amounts are automatically calculated from the Procurement Plan Sheets for each category.

			MoU/Agreements	1		
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	
	ng and Single-Source book), or based on th			ent with IFAD		
The exchange rate	at time of submission	will be used for review	VS.			
		Procurer	nent 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 contrac duration of 3 months or less; subject to prior review)
	Direct Contracting	Shopping	NCB	ICB	Other Procureme Arranger	nents
Goods and goods- 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 amou of: US\$ 0.00 (subject to prior review)
Works and works- related Non- Consulting	>= US\$ 0.00 (subject to prior review. Justification	<= US\$ 0.00	< US\$ 0.00	>= US\$ 0.00	Community Participation	Allowed OR

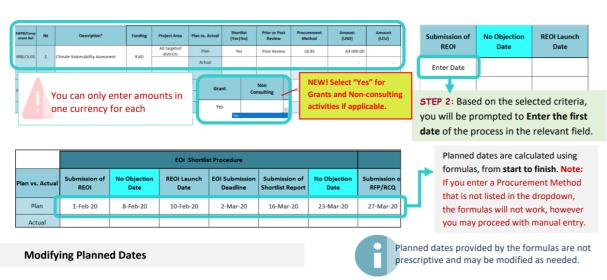


Note: If currency is neither USD nor LOCAL CURRENCY, modify the USD labels in the template using the dropdowns where provided or typing directly if required option is not available.

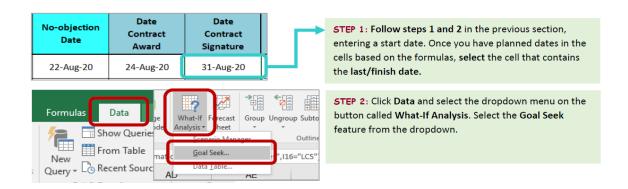
STEP 2: Enter the Prior Review Thresholds and Procurement Method Thresholds for the project. These are defined in the Letter to the Borrower.

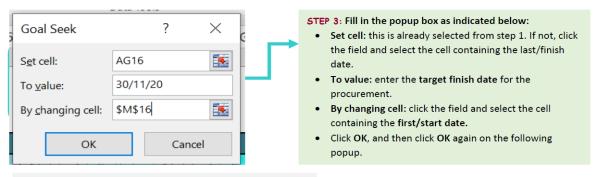


STEP 1: To add a new procurement where rows are still available, fill out all the items in the Plan until you get to the date. This is the "Basic Data" section, and reference to the corresponding AWPB, Procurement No., Description, Funding, Number of Lots, Project Area (where applicable), Procurement/selection 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.



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:



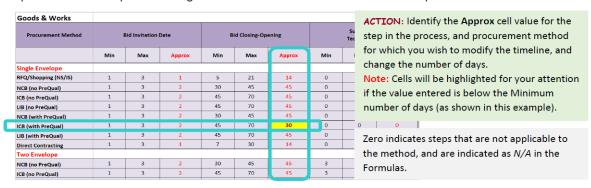


The timeline will be adjusted, with a new calculated start date.

- 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.

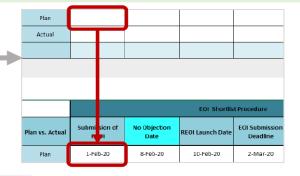


Directly modifying planned dates

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.



Entering Actual Dates and Information



	035	200	
Total	80 000.00	0.00	Plan
Amount	65 000.00	0.00	Actual
Non-	30 000.00	0.00	Plan
Consulting:	20 000.00	0.00	Actual

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

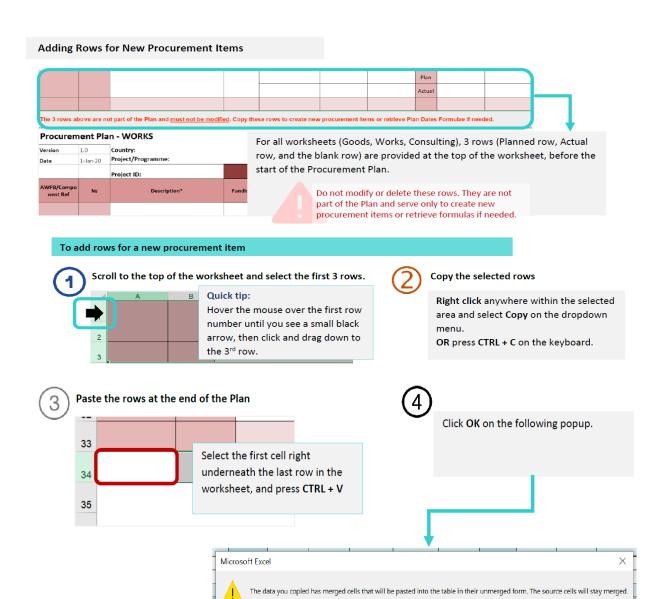
Procurement Category	PI	an	Act	ual
Currency	USD	LCU	USD	LCU
Goods	50 000.00	-	45 000.00	-
Works	-	80 000.00	-	75 000.00
Consulting Services	15 000.00	-	10 000.00	-
Non-Consulting Services	30 000.00	-	20 000.00	-
TOTAL	95 000.00	80 000.00	75 000.00	75 000.00

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.



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.



Things to Note

- χ Do not insert or delete a column in the Time Estimation worksheet;
- χ 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;
- χ Do not copy rows and columns from other Plan worksheets to paste in a worksheet;
- χ Users of the Plan are advised not to change any of the formulas in the document, with the exception of changing dates (a copy of the formulas are provided at the top of every worksheet for new rows or inadvertent deletions).

Procurem	ent Plan S	UMMARY		
Country:	KENYA			
Project Name:	Integrated Natura	al Resources Mana	agement Program	me (INReMP)
Project ID:				
Version	1 (At Design)			
Version Date	8-Apr-24			
Prepared by:	Robert Maina Wa	niganjo - IFAD Prod	curement Consulta	ant
Approved by:	Mariatu Kamara -	- IFAD Country Rep	oresentative	
Procurement Category	PI	an	Act	tual
Currency	USD	LCU	USD	LCU
Goods	6,219,000.00	-	-	-
Works	250,000.00	-	-	-
Consulting Services	7,165,000.00	-	-	-
Non-Consulting Services	-	-	-	-
Grants	-	-	-	-
TOTAL	13,634,000.00	-	-	-

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 Revie	w Thresholds	3	
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\$ 70,000.00	>= US\$ 150,000.00	>= US\$ 60,000.00	>= US\$ 30,000.00	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.

		Procuren	nent Method	Thresholds		
	cqs	LCS/FBS	QCBS	Shortlisting	SSS - Firms	SSS - Individuals
Consulting Services and related Non- Consulting Services	<= US\$ 70,000.00	< US\$ 150,000.00	>= US\$ 150,000.00	>= US\$ 60,000.00	<= US\$ 0.00 (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\$ 5,000 per annum)	<= US\$ 0.00 (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\$ 5,000 per annum)
	Direct Contracting	Shopping	NCB	ICB	Other Procureme Arrangen	
Goods and goods- related Non- Consulting Services	>= US\$ 0.00 (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 estimated cost of US\$ 500 or less per purchase up to an aggregate amount of US\$ 5,000 per annum.)	<= US\$ 100,000.00	< US\$ 200,000.00	>= US\$ 200,000.00	Force Account	Up to a maximum aggregate amount of: US\$ 0.00 (subject to prior review)

Works and works- related Non- Consulting Services	>= US\$ 0.00 (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 or alternatively without prior IFAD's NO for low-value unforeseen purchases with estimated cost per each purchase of US\$ \$500 or less up to an aggregate amount of US\$ 5,000 per annum)	<= US\$ 250,000.00	< US\$ 1,000,000.00	>= US\$ 1,000,000.00	Community Participation	Not Allowed
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Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 8: Project Implementation Manual (PIM)

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department



Republic of Kenya

Integrated Natural Resources Management Programme (INReMP)

PROJECT IMPLEMENTATION MANUAL (PIM)

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ABBREVIATIONS AND ACRONYMS

ABDP	Aquaculture Business Development Programme
AFD	Agence Française de Développement/ French Development Agency
AfDB	African Development Bank
AI	Artificial Insemination
AMR	Antimicrobial Residues
ASALs	Arid and Semi-Arid Lands
ASTGS	Agricultural Sector Transformation and Growth Strategy
AWPB	Annual Work Plan and Budget
BCR	Benefit-Cost Ratio
BETA	Bottom-Up Economic Transformation Agenda
BMU	Beach Management Unit
CAP	Community Action Plan
CBA	Cost-Benefit Analysis
CEC	County Environment Committee
CFA	Community Forest Association
CIDP	County Integrated Development Plan
CIG	Common Interest Group
CIMES	County Integrated Monitoring and Evaluation System
COSOP	Country Strategic Opportunities Programme
CSF	Capital Stimulation Fund
CSPE	Country Strategy and Programme Evaluation
DRSRS	Directorate of Resource Surveys and Remote Sensing
EFA	Economic and Financial Analysis
ESCMP	Environment, Social and Climate Management Plan
ESIA	Environmental Social Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FGM	Female Genital Mutilation
FO	Farmer Organization
GALS	Gender Action Learning System
GBV	Gender-Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEWE	Gender Equality and Women's Empowerment
GEF	Global Environment Facility
GHG	Greenhouse Gas Emissions
GHI	Global Hunger Index
GIS	Geographical Information Systems
GoK	Government of Kenya
GR4W	Green Roads for Water
GTA	Gender Transformative Approach
ICP	IFAD Client Portal
ICRAF	International Center for Research in Agroforestry
IFAD	International Fund for Agricultural Development
IFR	Interim Financial Report
IRR	Internal Rate of Return
IMF	International Monetary Fund
INReMP	Integrated Natural Resources Management Programme
INRM	Integrated Natural Resources Management
IoT	Internet of Things
IP	Indigenous Peoples
IWUA	Irrigation Water Users' Association
KALRO	Kenya Agricultural and Livestock Research Organization

KeLCoP	Kenya Livestock Commercialization Project		
KCEP-CRAL			
KCEP-CKAL	Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window		
KMCS	Knowledge Management and Communication Strategy		
LMP	Livestock Master Plan		
	Milk Collection Center		
MCC			
MDA	Ministries, Departments and Agencies		
MECCF	Ministry of Environment, Climate Change and Forestry		
MIS	Management Information System		
MNO	Mobile Network Operator		
MoALD MoU	Ministry of Agriculture and Livestock Development		
	Memoranda of Understanding		
MRV	Monitoring, Reporting, and Verification		
MSMEs	Micro, Small and Medium Enterprises		
MTP	Medium-Term Plan		
NAP	National Adaptation Plan		
NCCSRP	National Climate Change Security Response Programme		
NDC	Nationally Determined Contributions		
ND-GAIN	University of Notre Dame Global Adaptation Initiative		
NEET	Not in Employment, Education or Training		
NGAO	National Government Administrative Officers		
NRM	Natural Resources Management		
NPV	Net Present Value		
NUS	Neglected Underutilized Species		
OPEN	Online Procurement End-to-end		
ORMS	Operational Results Management System		
PAL	Procurement Arrangement Letter		
PCMU	Programme Coordination and Management Unit		
PDO	Programme Development Objective		
PDT	Project Delivery Team		
PES	Payment for Ecosystem Services		
PIM	Programme Implementation Manual		
PLWHAs	Persons Living with HIV/AIDS		
PLWDs	People Living with Disabilities		
PP	Procurement Plan		
PPADA	Public Procurement and Asset Disposal Act		
PPRA	Public Procurement Regulatory Authority		
PPS	Programme Procurement Strategy		
PRA	Participatory Rural Appraisal		
PSC	Programme Steering Committee		
PWD	Persons with Disabilities		
RCMRD	Regional Centre for Mapping of Resources for Development		
RDMT	Resilience Design and Monitoring Tool		
RK-FINFA	Rural Kenya Financial Inclusion Facility		
RLMA	Rural Labour Market Assessment		
SAI	Supreme Audit Institution		
SBD	Standard Bidding Document		
SECAP	Social, Environment and Climate Assessment Procedures		
SME	Small and Medium Enterprise		
SLM	Sustainable Land Management		
SO	Strategic Objective		
ToC	Theory of Change		
ToT	Training of Trainers		
UNDP	United Nations Development Programme		
UNSDCF	United Nations Sustainable Development Cooperation Framework		
	h h		

USD	United States Dollar
UTaNRMP	Upper Tana Natural Resources Management Project
UTNWF	Upper Tana Nairobi Water Fund
VfM	Value for Money
VIP	Ventilation Improved Pit-latrine
VPH	Veterinary Public Health
WCCC	Ward Climate Change Committee
WRUA	Water Resources Users Association

PART I: FRAMEWORK AND RESPONSBILITIES

I.1: DEFINITIONS

- 1. **Farmer Field School (FFS) approach** It is a methodology that was originally developed by the Food and Agriculture Organization (FAO) as a participatory approach for people-centred learning. Practical field exercises using direct observation, discussion and decision making encourage learning-by-doing and participants can exchange knowledge in a risk-free environment. Local knowledge and outside scientific insights are tested, validated and integrated directly in farmers' fields, under their localized ecosystems and socio-economic settings.
- 2. **Watershed** It is a hydrological unit that discharges rainfall runoff to an outlet in the downstream. It has been described and used as a physical-biological unit that could be easily monitored using objectively verifiable indicators and also, on many occasions, as a socio-economic-political unit for planning and management of natural resources.
- 3. **Watershed Management Plans (WMPs)** are consolidated overviews of a given watershed, identifying geographical features of the watershed, of the main economic activities, in particular farming and livestock, as well as the local communities. They represent a holistic planning approach for project site selection. They are finalized upon site selection and technical assessment of proposed project activities.
- 4. **Water Users Association (WUA)** It is a local institution established with the objective of supporting the construction of water-related schemes and managing them after completion. Its major roles include: a) creating enabling environment (including community contribution/mobilization) during construction; b) ensure proper distribution of water after construction; c) managing water conflicts as well as carrying out the operation and maintenance. This could be an irrigation scheme, a multipurpose water point, etc.
- 5. **Food Insecurity** It is the inability to obtain sufficient food (in terms of calories) and other essential goods and services to lead a healthy life.
- 6. **Food Security** "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". (World Food Summit, 1996).
- 7. **Implementing Agencies (IA)** It is the agency assigned the responsibility of implementation of the Project. It leads the participatory process of preparing the Annual Work Plan and Budget (AWPB) and receives funding to support implementation of the approved activities. It also has the responsibility of monitoring, documenting and reporting progress towards achieving the Project's development objective.
- 8. **Nutrition-related Knowledge, Attitude and Practices (KAP) survey** It assess and explore peoples' KAP relating to nutrition, diet, foods and closely related hygiene and health issues. KAP studies are mainly used to: a) collect key information during a situation analysis, feeding into the design of nutrition interventions; and b) to evaluate nutrition education interventions.
- 9. **Project Implementation Manual (PIM)** It is an annex to the Project Design Report (PDR). It provides practical guidance to Project implementers on key implementation aspects. It describes in detail how the Project components and activities outlined in the PDR are intended to be implemented. The PIM outlines the detailed mechanisms, processes and procedures, formats, eligibility criteria, etc. which will ensure efficient Project implementation and achievement of the envisaged results. The PIM is a living document and may be updated at any time, as needs arise, during implementation.
- 10. **Time and Labour-Saving Technologies (TLST) and practices** These are tools and equipment that reduce the drudgery and/or improve the efficiency of performing various farming, off-farm and household activities. These may include: a) the use of draught animals for land preparation, planting, weeding and rural transport; b) cooking

on fuel efficient stoves; c) harvesting roof water for domestic purposes, agro processing and value addition, etc.

- 11. Climate Smart Agriculture (CSA) Comprises the actions needed to transform and reorient agricultural systems to effectively support development and ensure food security under a changing climate. It aims at sustainably increasing agricultural productivity and incomes and adapting and building resilience to climate change. The term covers practices such as: a) Conservation Agriculture (CA); b) water and soil management; c) integrated production systems with efficient use of resources and less external inputs; d) diversification to increase resilience, etc.
- 12. **Conservation Agriculture (CA)** A farming system that promotes minimum soil disturbance (i.e. no tillage), maintenance of a permanent soil cover, and diversification of plant species. It enhances biodiversity and natural biological processes above and below the ground surface, which contribute to increased water and nutrient use efficiency and to improved and sustained crop production (FAO, 2016).
- 13. **Nature-based Solutions (NbS)** "Actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits" (IUCN, 2020)
- 14. **Social and Behaviour Change Communication** a research-based, consultative process that uses communication to promote and facilitate behaviour change and support the requisite social change for the purpose of improving positive behavioural outcomes such as nutrition.

I.2: PROGRAMME OVERVIEW

- 15. INReMP was jointly designed by GoK and IFAD. The Programme's rationale is premised on the fact that the combination of the country's good economic performance coupled with a high population growth rate, contribute to an increase in demand for agricultural products and the resultant pressure on existing natural resources. Although the country has a number of high agricultural potential areas, agricultural yields have been declining over time, largely due to poor natural resources management practices and impacts of climate change.
- 16. On the other hand, it has been severally demonstrated (by the Upper Tana Natural Resources Management Project (UTaNRMP), Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window (KCEP-CRAL), and GEF-funded Upper Tana Nairobi Water Fund(UTNWF) that: a) natural resources can be sustainably managed by communities, while achieving improved livelihoods and sustaining food and nutrition security; b) supporting communities with irrigation facilities is a game changer in the agriculture sector, leading to communities having three to four cropping cycles in a year; c) the private sector can contribute to ensure sustainable natural resources management; and d) communities can be supported to increase resilience to climate change. These projects have been successfully implemented and have generated lessons and best practices that will be scaled-up by INReMP to address similar constraints in other parts of the country. Thus, the Programme will upscale successful interventions from past and ongoing projects to enhance natural resources management, resilience to climate change, and productivity of the target value chains and an overall improvement in the beneficiaries livelihoods.
- 17. The Programme Goal is to 'contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem' and the Programme Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'. The Programme will be implemented over a seven-year period.

18. The Programme will be implemented with particular emphasis on the following themes:

Kenya - INReMP 2025 - 2032

- > Gender Equality and Women's Empowerment (GEWE) Kenya has made significant progress over the years in the advancement of GEWE. The Global Gender Gap Index 2020 ranks Kenya at 109th out of 153. The country has supportive laws and policies, including the 2010 Constitution, Vision 2030, national and county gender policies, support increased gender equality, reserving opportunities for women or men affirmatively, youth, persons with disabilities and vulnerable groups. However, challenges of implementation of laws at the different levels, entrenched socio-cultural norms and attitudes continue to disadvantage women in Kenya. Female farmers in the rural areas have limited access and control to land, access to credit, resources and business assets. At community level, discrimination in land ownership and property rights, and unequal intra-household power relations disadvantage women's access and control over resources and limit their decision-making power in the households. Women usually receive credit from informal sources, such as friends, relatives and group savings. This limits women's economic development and is one of the root causes of poverty. Women often lack management skills, due to relatively low levels of education and technical skills, especially in the rural areas. Women's empowerment is hindered by cultural and traditional practices, such as early marriages and harmful traditional practices, such as Female Genital Mutilation (FGM), leading to schooldropouts. Women are actively engaged in environmental management, farming, livestock husbandry and marketing of some produce with limited control over those resources. The income from sales of eggs and poultry is considered to belong to women. Traditionally, women had a limited role in honey production although they were involved in selling honey in the local markets. Women in pastoralist households perform all the household tasks. One of the most time-consuming tasks is the collection of water; women and girls living in rural areas spend long hours collecting water and firewood and continue to face gender-based violence (GBV). They are also responsible for the care of livestock, especially small ruminants, in addition to childcare, household and community roles:
- > Youth Kenya's population is largely young, with 35.7 million Kenyans (75.1%) below the age of 35 years and offers a dynamic workforce that is highly adaptable, with a high uptake of technological innovations. Yet, youth record a high unemployment rate of 35%. The challenges faced by rural youth include lack of access to entrepreneurial opportunities, finance, acquiring relevant skills and job qualifications. The key challenges for the participation of youth in agriculture include negative perception and attitude to agriculture, inadequate skills, knowledge and information, limited agricultural innovation, limited access to finance and resources such as land, as well as inadequate policies to support youth in agribusiness. Due to pressure on land in rural areas and the preference of many young women and men for jobs outside agriculture, there are high levels of youth migration to urban areas. On the other hand, gender disparities tend to exacerbate the situation. For example, in 2019, the share of young women not in employment, education or training (NEET) was nearly twice as high as the male rate (14.9%)¹. The GoK has put in place various legal, institutional and policy frameworks to empower the youth at national level. The five-year County Integrated Development Plans (CIDPs) articulate regional development aspirations and youth empowerment as key. CIDPs seek to increase the quantity and quality of education and training to match labour market needs and creating decent employment opportunities for youth, with a focus on agribusiness, environmental management and ICT;
- > Indigenous and Marginalised Groups The peoples who identify with the indigenous groups in Kenya are estimated to number approximately 79,000, and are found among the pastoralist communities of Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus,

¹Kenya Youth Agribusiness Strategy (KYAS), 2017-2021

Somali, Gabra, Pokot and Endorois communities. Some of these groups may be found living in the Nandi, Elgeyo Marakwet and West Pokot counties. They experience land and resource tenure insecurity, poor service delivery, weak political representation, as well as general discrimination and exclusion². Marginalised groups also include Persons Living with HIV and AIDS (PLWHDs) and Persons with Disabilities (PWDs), who are estimated to represent around 4.6% of the whole population in Kenya. More PWDs live in rural than in urban areas. A quarter of PWDs work on family farms or Micro, Small and Medium Enterprises (MSMEs) but about one-third are unemployed³. As the other marginalized people, PWDs often face challenges in accessing education, health care and financial services and are vulnerable to food insecurity and hunger;

- Food and Nutrition Security Enhancing food and nutrition security is a top priority for GoK, as stated in the Kenya Constitution (2010). This commitment is further emphasized in the government's Bottom-Up Economic Transformation Agenda (BETA) focusing on achieving Food and Nutrition Security for the country's population, especially the marginalised groups and those in the lower pyramid. About 2.8 million people were reported to be food insecure by January 2024 and over 940,000 children suffered from severe wasting (acute malnutrition)⁴. In the 2023 Global Hunger Index (GHI) report, Kenya ranked 90th out of the 125 countries with a level of hunger that is serious with a score of 22.05. Kenya's ranking reflects the consequences of a combination of climatic shocks and stress, such as irregular rainfall patterns and increased frequency of extreme weather events, resulting in underperforming food systems and high food prices. Although Kenya has made improvements in reducing stunting and underweight among children under the age of five in the past 20 years, 18% of children under 5 are stunted, 5% are wasted and over 30% of adults are overweight or obese⁶. The underlying causes for malnutrition and food insecurity include: a) unavailability, economic access, and utilization of required food groups and dietary requirements; b) inadequate feeding and caring practices at individual, household, and community level; c) poor environmental hygiene; (d) lack of clean portable water. It is estimated that Kenya has suffered a loss of KSh 373.9 billion, equivalent to approximately 6.9% of the GDP, due to malnutrition. However, the Return on Investment for nutrition in Kenya is high, with an estimated return of USD 22 for every USD 1 invested in nutrition⁷. The country has prioritized access to diverse diets as a key area to achieve sustainable consumption patterns and promote good nutrition8;
- ➤ Climate and Environment Kenya is recognized as highly vulnerable to Climate change impacts and changing weather events and is ranked 152nd out of 181 countries in the 2019 ND-GAIN Index. Events of climate change have the potential to change species habitats, their interactions, and the timing of key biological actions, leading to significant transformations in existing ecosystems and food chains. It can exceed ecosystems' ability to cope with extreme events and disturbances like wildfires, floods, and droughts. According to the Word Bank Climate Country Profile report, Temperatures in Kenya are projected to continue rising by 1.7°C by the 2050s and by approximately 3.5°C at the end of the century. In addition, it is projected to experience highly variable and uncertain precipitation that is expected to increase by mid-century, particularly during the 'short rains', which occur between October and December.
- 19. **Programme Outcomes** INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing

²https://www.iwgia.org/en/kenya

³Kenya National Survey for PWDs, preliminary report, 2007

⁴https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Kenya_Acute_Food_Insecurity_Malnutrition_2023_Jul2024Jan_Report.pdf

⁵https://www.globalhungerindex.org/pdf/en/2023.pdf

Data from KDHS 2022, available at https://www.knbs.or.ke/kenya-demographic-and-health-survey-kdhs-2022/

⁷https://www.unicef.org/esa/sites/unicef.org.esa/files/2019-05/UNICEF-Kenya-2016-An-Investment-Framework-for-Nutrition-Knowledge-Brief.ndf

⁸Kenya Food Systems Draft Action Plan

alternative livelihood opportunities to the target groups. The following are the expected outcomes: a) Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action; b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

- 20. INReMP's Development Objective will be achieved through the effective implementation of two technical components and a third component that will focus on augmenting the capacity of communities, institutions, and contributing to a conducive policy environment towards Programme implementation. The nutrition actions will be integrated into the three project components as entry points to enhance the nutrition benefits of the interventions. Job creation for young women and men, including persons with disabilities, will be a main focus of all investments in the Programme. Following below is a summary of the expected focus of the different components.
- 21. Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams and lakes).
- 22. **Component 2: Improved, Inclusive and Sustainable Rural Livelihoods** This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live.
- 23. **Component 3: Institutional Strengthening, Policy Support and Programme Coordination** This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

I.3: Targeting, Gender, Youth and Persons with disabilities Mainstreaming I.3.1: Targeting

24. INReMP Target Counties - NReMP will be implemented in ten counties served by the Cherangany Hills and Mau West water towers. In the first phase, implementation will focus on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem. The second phase focal areas will be decided as and when additional funding is accessed. The Cherangany-Elgeyo Hills and Mau Ecosystems are important natural resources that lie within the Lake Victoria and Rift Valley drainage basins; they drain their water to Lake Victoria and serve more than 10 million people. Participating sub-counties and wards will be selected as a Programme activity and this will guided by a set of criteria that is included in the Targeting strategy section below.

- 25. **Target Group** INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people). INReMP will support the target households to: a) sustainably manage natural resources and climate-related risks for increase resilience and income, b) access technologies that sequester carbon or reduce greenhouse gas emissions; and c) develop/rehabilitate 25,000 ha of farmland under water-related infrastructure. INReMP's outreach will be 40% women, 30% young males and females and 5% comprising of IPs, PWDs, PLWHAs and other vulnerable groups from the following socio-economic groups:
 - a) Poor food insecure and vulnerable rural farmer households (30% of project target) who have little or no capacity to generate incomes, have limited productive assets and face environmental and climate shocks. This group includes those vulnerable to poverty as well as those vulnerable populations such as IPs, women-headed, PWDs and PLWHAs who are at risk of falling into poverty, with a priority on the poorest and most excluded, the poor and near pooras identified by the community empowerment processes. This group may be benefitting from existing social assistance programmes. Their coping mechanisms include reliance on traditional safety nets, such as borrowing from family, friends, and 'village savings groups' where each person contributes a part of their daily earnings and each day a different person receives the sum collected on a revolving basis. They will gradually participate in Programme activities through their group membership benefiting from INRM-based and livelihood interventions (e.g. soil and water conservation, reforestation):
 - b) Moderately food insecure rural farmer households (40% of project target), who already meet their minimal needs through subsistence farming, but remain vulnerable to shocks that hinder their capacity for surplus production for consumption and to make their production market oriented. Only a few smallholders are involved in farmer organizations; about 10% are members of a planting, weeding, and harvesting groups. In addition, they generally do not have access to ecosystem services and livelihood opportunities to enhance their production. They may be members of informal or community organizations at village level but need support to organize collective action. These farmers will be instrumental to supporting poor and near poor food insecure farmers to build their capacities and aid in knowledge transfer through Farmer Field Schools as they act as lead farmers to host demonstrations and provide extension advice to others. This group will provide input and output markets for others due to bulking of orders and having a large enough demand for the presence of service providers, like agrodealers and rural finance services:
 - c) Food secure, semi-structured and structured medium farmer households (30% of Programme target) capable of engaging in market activities in the selected VCs but require additional support to productivity and production increase and entrepreneurship activities. Structured farmers may have some assets and/or are organized into formally established and legally registered operational and viable producer and/or processor cooperatives or organizations. These farmers may have a market-oriented approach but lacking entrepreneurial/management skills to farm as a business and have limited access to extension services and to more commercial markets. They will benefit from Programme activities, such as improved access to markets through skills training, infrastructure and engaging in markets. These are included in INReMP interventions because they have the ability to support poor smallholders towards market orientation for sustainable livelihoods and production; and
 - d) Others who will benefit from INReMP include: i)Micro, small and medium scale enterprises who support climate smart technologies, value addition and market linkages in selected VCs. These enterprises are already engaged in some entrepreneurial logic, and will be supported through a combination of technical, business capacity building to ensure all the three Programme target groups above

benefit from backward and forward market facilitation/linkages. This will be provided in the scope of innovative value chain arrangements that enable the participation of smallholders in the selected value chains; and ii) Government officials who will benefit from capacity strengthening activities.

- 26. **Targeting Strategy** INReMP will develop a detailed Targeting strategy at start-up. This will be led by the Community Empowerment specialist. The targeting strategy will guide beneficiary identification at community levels. The PCMU will develop a detailed Beneficiary database should be developed (as part of M and E database). This will include bio data of all identified beneficiaries and their community groups. INReMP will use the following targeting measures:
- a) Geographic Targeting the participatory community empowerment and planning processes will be conducted during the first year of implementation. During this process, INReMP will determine the participating sub-counties in each County based on the following criteria; (i) Vulnerability to climate change risks (ii) Identify potential value chains with the highest possible degree of inclusion such as horticulture, fruit trees, apiculture etc. (iii) rural poverty rate, ethnic minorities poverty, and poverty severity of sub-counties and opportunities for women, and youth; (iv) potential scale-up and economic impact of selected value chains development; and (v) selected MSMEs will include those with "good market linkages" to serve as a springboard for the target groups and communities. Subsequently, about 5 value chains have been selected;
- b) Direct Targeting INReMP will apply representation targets in interventions to ensure 40% women, 30% youth and 5% persons with disabilities, PLWHAs, nutritionally vulnerable groups and other vulnerable groups are targeted. Close attention will be paid to procedural matters such as duration, timings and location of trainings etc. to ensure that target groups participate in Programme activities;
- c) Self-Targeting The selection of value chains and related infrastructure development will be done based on how likely they will benefit smallholder men, women and youth. The selected INRM and livelihood activities will be suitable for all target groups, in particular women and youth considering their potential for processing and value-adding opportunities; and
- d) Empowerment and Capacity Building Measures –INReMP will work with women, youth, IPs and other vulnerable minorities and their organizations, including the Women, Youth to ensure their participation in planning and decision-making processes and strengthens their capacities of groups formed these will be achieved through targeted capacity building activities for the different target groups, using a mix of strategies to increase participation. INReMP participatory planning, coupled with free, prior and informed consent procedures and an established grievance mechanism will mitigate against elite capture and trigger remedial actions, should such malpractice occur.
- 27. The targeting principles that INReMP will apply will include: a) targeting the poor and the vulnerable rural people especially in marginalized counties of Elgeyo Marakwet and West Pokot; b) recognizing the dynamic nature of poverty and the importance of tackling the multiple forms of vulnerability; c) ensuring that working with relatively better-off stakeholders, especially on the value chains results to direct benefits for the vulnerable; d) testing innovative targeting approaches by strengthening existing partnerships, such as on the Youth Agribusiness Hubs; e) adopting consultative and participatory approaches to targeting; and f) empowering and building the capacity of those who have less of a voice and fewer assets.

I.3.2: Gender and Youth Strategies

28. The GEWE, youth sensitive and Social inclusion strategies will be implemented through all the Components using community empowerment activities as the entry point. To achieve gender transformation in gender equality and women empowerment, INReMP will undertake a Gender analysis at baseline incorporating the COI Indicator on Empowerment in the baseline module. The Gender analysis will inform the development

of a detailed GEWE strategy and Gender action plan. At start-up PCMU, County, National government staff and implementing partners will be trained on Gender transformative Approaches (GTA) and GALS as part of development of the GEWE strategy.

- 29. The GEWE strategy and action plan will specifically detail how INReMP will address the following objectives of the IFAD Gender policy per Component and Subcomponents: (a) increase women economic empowerment through increasing their engagement in community activities, NRM, nutrition education awareness, crop production and livelihoods opportunities. 40 percent women will be targeted in all INReMP activities and affirmative measures will ensure women can equally participate in the activities; (b) increase participation of women, representation and decision-making at household, in farmers organizations, CCFAs, WRUAs, Cooperatives, COGs, CBOs etc and at community levels; (c) reduce women workloads by introducing technologies to increase resilient production, reduce post-harvest losses, increased access to water, water harvesting and labour-saving technologies and clean energy for cooking; (d) increase joint benefits sharing between men and women at households and community by promoting more equitable gender norms and practices. At household level, INReMP will apply GTA and tools such as the Gender Action Learning System (GALS) household methodology; (e) reduce Gender Based Violence, especially amongst women in fishing communities, by raising awareness and prevention of harmful traditional practices, such as child marriages and Female Genital Mutilation (FGM). Where relevant, partnerships with stakeholders already involved in addressing such issues will be sought for effectiveness; and (f) support policy engagement through review or development of gender policies and guidelines at County levels.
- 30. The Project will also ensure women participation and access to digital advisory services and access to inputs through the voucher services while ensuring targeted interventions through GTA bearing in mind addressing barriers for access to technology for women. GALS methodology will be key in ensuring that advisory services are targeting women through the community groups and content is gender sensitive. The Project Coordinator will be overall responsible for gender transformation. The Component leads will work closely with the PCMU Community Development, Gender and Youth specialist to ensure integration. At the Community levels, the PCMU will work with the Counties Departments for Gender and Social Development. Details are included in the draft Gender Equality and Women Empowerment Strategy in Appendix 4.
- 31. To be youth sensitive, INReMP will support a youth targeted Rural Labour Market Assessment (RLMA) for the 10 counties at start-up/baseline to inform youth participation in the selected value chains. INReMP will leverage on learning by the ongoing IFAD/USTADI initiative to roll out this study. The study will aim to identify the barriers and opportunities for Youth employment along the selected VCs focusing on the below key areas that are critical for youth empowerment. Once the study is done, a detailed Youth sensitive strategy will be developed to roll out youth programming. To achieve youth empowerment INReMP will support a) youth targeted skills training, capacity building, mindset change focusing on farming as a business, entrepreneurship and equipping youth with tools, and confidence-building; b) engaging with counties to increase youth access to land; c) increase youth participation, and representation in decision making in WRUAs, CFAs, FOs, cooperatives, CIGs and other community structures; d) digital solutions to increase youth participation; e) establishment of at least three Youth agribusiness hubs and strengthen the existing IFAD/USTADI supported hub in Kakamega to leverage learning and best practices, learnings to inform scale-up of the new hubs. The youth agribusiness hubs will be critical to achieve market linkages for youth. The hubs will create at least 3,000 new and decent jobs through wage and self-employment. INReMP will target 30% young females and males aged 18 to 35. Younger youth below 18 years in schools will receive trainings and participate in school greening activities while those out of school will be reached through community groups. Details are included in the draft Youth empowerment and social inclusion strategy in Appendix 5.

I.3.3: Food and Nutrition Security Strategies

32. Nutrition sensitive strategies will be mainstreamed in the three project components as entry points to enhance the nutrition benefits of the INReMP project interventions. The aim is to increase supply and demand of affordable, nutritious, culturally appropriate, and safe foods to meet the dietary requirements of target population in a sustainable and healthy way. This will be accomplished through several strategies: a) Introducing nutrientdense varieties and promoting viable nutrient-dense commodities derived from natural resources to preserve agrobiodiversity. b) Implementing good post-harvest practices, techniques, and equipment to maintain the nutritional quality and safety of foods. c) Supporting the preservation, processing, and marketing of selected nutrition-sensitive value chains. d) Promoting nutrition-sensitive market standards and certifications to the farmers and private sector to enhance market systems and infrastructure. e) Utilizing Social Behaviour Change Communication, social marketing, and consumer education to raise awareness about food and nutrition and promote hygiene practices. f) Building capacity and institutionalizing nutrition-sensitive outputs and strategies to foster ownership and sustainability.

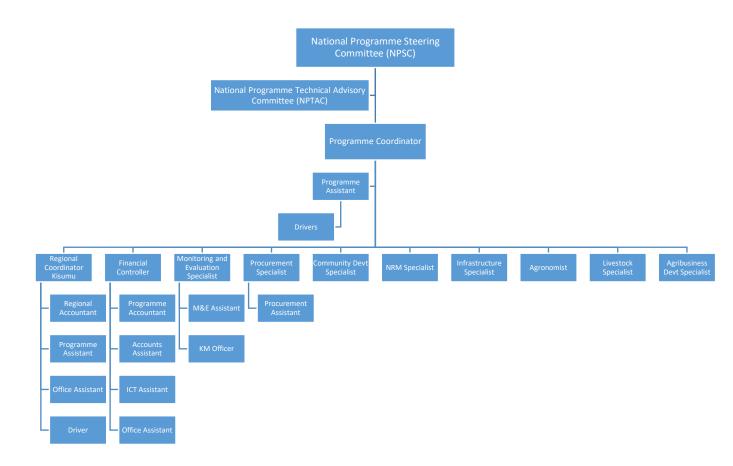
I.4: CLIMATE AND ENVIRONMENT

- 33. The Integrated Natural Resources Management Program has three components and respective subcomponents. The subcomponent that specifically addresses Climate and Environment is subcomponent 1.2 which seeks to improve environmental sustainability, INRM, and Ecosystem Services. The objective of this subcomponent is to enhance Integrated Natural Resource management, reduce degradation, rehabilitate, restore and sustainably manage available natural resources, protecting watershed and promote land management practices. The subcomponent will focus on forests, rangelands, arable land, wetlands and water resources using an ecosystem approach across the ten counties of the intervention. The programme will support rolling out, education and create awareness of communities on various Environmental Management and Coordination regulations. The expected outcomes include enhanced environmental sustainability and integrated management of natural resources and increased provision of ecosystem services, strengthening early warning systems and facilitating access to comprehensive climate data.
- 34. **The protection of riparian zones.** The areas of land adjacent to water bodies such as rivers, lakes, and wetlands, are crucial for safeguarding water catchments and maintaining the health of aquatic ecosystems. These zones serve as natural buffers that filter pollutants, prevent erosion, regulate water temperature, and provide habitat for diverse flora and fauna. Protecting riparian zones involves implementing measures to minimize human disturbances and promote ecological restoration, ultimately ensuring the sustainability of water resources and biodiversity. Riparian zones act as natural filters, trapping sediments, nutrients, and pollutants from runoff before they reach water bodies. By preserving these buffer areas, the quality of water in rivers and other water catchments can be enhanced, benefiting both aquatic ecosystems and human communities that rely on clean water for drinking, agriculture, dairy and diverse water utilities such as agri business and processing industries. The protection of riparian ecosystem will be realised through planting of appropriate vegetation like bamboos and vetiver grass within riparian zones which help stabilize riverbanks and reduce soil erosion by absorbing excess water and binding soil particles. This prevents sedimentation in water bodies, maintains channel stability and protects adjacent lands from the damaging effects of erosion such as loss of fertile soil and property damage.
- 35. **Forest Landscape Restoration**: This is the ongoing process of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes. It is more than just planting trees but rather restoring a whole landscape to meet present and future needs and to offer multiple benefits and land uses over time. This intervention will be undertaken through different processes such as: new tree plantings, managed natural regeneration, agroforestry, or improved land management to accommodate a mosaic of land uses, including agriculture and protected forest reserves.

36. **Wetland restoration**: This involves taking efforts to restore a former or degraded wetland's physical, chemical, or biological characteristics to return its natural functions. Wetland restoration and protection often include on-the-ground collaborations between Community Based organizations, local Communities, and country government to advance shared interests. This approach often emphasizes wetland functionality to best support broader ecosystems and ecosystem services

I.5: INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

- 37. Implementation of the Programme will be mainstreamed into the GoK system, both at national and county levels.
- 38. Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer.
- 39. The Programme Organization Structure is outlined in the figure below:



I.5.1: Programme Coordination and Management Unit (PCMU)

40. **Programme Coordination and Management Unit (PCMU)** will be established comprising a team of officers recruited through a competitive process led by the State

Department for Agriculture. The recruitment process will be subject to IFAD No Objection at the key stages of development of terms of reference, shortlisting, interviewing, and contracting. In addition to the PCMU's core staff of Programme Coordinator, Financial Controller, Monitoring and Evaluation Specialist and Procurement Specialist, the PCMU will comprise technical officers and support staff as follows: Deputy Coordinator (Regional Coordinator), Agronomist, Livestock Specialist, NRM Specialist, Infrastructure Specialist, Community Development Specialist, Agribusiness Development Specialist, Programme Accountants (2), Accounts Assistant, Knowledge Management Officer, M&E Assistant, ICT Assistant, Programme Assistants (2), Office Assistant (2), Drivers (5). Detailed Terms of Reference (ToRs) for the key PCMU positions provided in this PIM. The PCMU responsibilities will include, inter alia, the: a) facilitation of a conducive environment for Programme activities, including the multiple partnerships required for effective implementation; b) implementation of the Programme activities in line with the AWPBs approved by the National Programme Steering Committee (NPSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for Programme implementation; d) financial and administrative management of Programme resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, management, learning and reporting implementation progress; f) provision of the procurement function; and g) ensure collaboration mechanisms with other relevant projects/programmes.

- 41. In addition to the already established roles and responsibilities, the PCMU will: a) establish coordination mechanisms/strategies, including identifying key stakeholders involved in the Programme; b) develop tailored engagement strategies for different stakeholder groups, based on their profiles and expected contributions/roles; c) implement effective communication and feedback mechanisms; d) provide technical and institutional support to the different actors, especially the local institutions on how to effectively carry out their roles; and e) support regular stakeholders inter and intra meetings.
- 42. The PCMU shall be based in Eldoret, housed in a suitable National Government building.
- 43. **Interim Start-up Team** In view of the historical start-up delays in the Kenya Portfolio and following an agreement with GoK during the entry meeting to ensure INReMP deviates from this, an Interim Start-up team will be constituted to proactively take the lead in ensuring that all the identified key start-up activities are fulfilled within the stipulated timeframe. To kickstart and ensure full integration of the start-up team to the design process, the existing IFAD-GoK-EU funded KCEP-CRAL Programme Coordination Team (PCU) (which is also under the State Department for Agriculture) will onboard INReMP and act as the interim start-up team (for a maximum period of not more than six months). The key role and responsibilities of this start-up team to be completed within the six-months period will include but not limited to:
 - a) expediting all required processes to ensure entry into force, fulfilling disbursement conditions which entails drafting workplan and budget and procurement plans, opening of designated and operational accounts, ensuring the Programme budget is captured in the national and line Ministry's approved budget for relevant fiscal year, procuring and operationalising accounting system; finalising ToRs for competitive recruitment of PMCU staff and ensuring their smooth onboarding.
 - b) finalising draft programme implementation manual, setting up M&E framework including drafting ToRs for procurement of consultants to conduct baseline survey and relevant thematic studies.
 - c) drafting and finalising frameworks for onboarding of key implementing partners including supporting key county implementation structures set-up plans; and
 - d) overseeing the preparation and planning for the Programme launching and startup workshop based on an elaborate plan within the first of Programme implementation.

- e) Finalizing the TORs and procuring the consultants to conduct the relevant SECAP studies.
- 44. Composition of the PCMU is presented hereunder and the respective ToRs/JoDs of all the PCMU staff are presented in the Annex 1. I.
- a) Project Coordinator;
- b) Financial Controller;
- c) Monitoring and Evaluation and KM Specialist;
- d) Procurement Specialist;
- e) NRM Specialist;
- f) Infrastructure Specialist;
- g) Agricultural Livelihood Specialist;
- h) Community Development, Gender and Youth Specialist;
- i) Nutrition and Social Inclusion Specialist;
- j) Agribusiness Development Specialist;
- k) Programme Accountant;
- I) Accounts Assistant;
- m) KM Officer;
- n) M&E Assistant;
- o) ICT Assistant;
- p) Procurement Assistant;
- q) Programme Assistant;
- r) Office Assistant; and
- s) Drivers (4).
- 45. A **Regional Coordination Office** shall be established and based in Kisumu, housed in a suitable National Government building. While the PCMU will be responsible for overall coordination of Programme activities in the ten counties, the Regional Coordination Office will support in coordination of the western and Lake Victoria counties (Kakamega, Kisumu, Homa Bay and Migori).
- 46. Composition of the Regional Coordination Office (RCO) is presented hereunder and the respective ToRs/JoDs of all the RCO staff are presented in the Annex 1:
- a) Deputy Coordinator (Regional Coordinator;
- b) Regional Accountant;
- c) Programme Assistant;
- d) Office Assistant; and
- e) Driver.

I.5.2: County Programme Implementation Teams (CPITs)

- 47. County Programme Implementation Team (CPIT) At County level, CPIT with representation mirroring the CPST, composed of members at the level of a director will be established and will be responsible for the day-to-day implementation of Programme activities. Also, a dedicated programme coordinating team composed of a Coordinator, Accountant, Procurement Officer and M&E Officer shall be seconded on a full-time basis by the county for day-to-day coordination of the Programme activities at the county level. The Coordinator shall be the head of the CPIT and the Secretary to the CPST. As much as possible, the coordinating team shall be ring-fenced to avoid interruption of Programme implementation. In direct collaboration with the CPIT, the responsibility of the dedicated Programme coordinating team at the county level shall be:
- a) facilitation of a conducive environment for Programme activities at the county level, including the multiple partnerships required for effective implementation;
- b) identification of project beneficiaries in close collaboration with the National Administration Officers;
- c) implementation of the Programme activities in line with the approved county AWPBs;
- d) development of operational strategies and establishment of effective tools for Programme implementation at the county level;

- e) financial and administrative management of Programme resources, coordination of the preparation of county AWPBs arising from the community action plans;
- f) mobilisation and coordination of implementation partners;
- g) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and
- h) provision of the delegated procurement function.
- i) Ensuring collaboration and synergy with other relevant projects/programmes at the county.

I.5.3: Programme Governance Structures

- 48. National Programme Steering Committee (NPSC) A NPSC under the co-chairmanship of the Principal Secretaries, State Department for Agriculture and State Department for Environment and Climate Change, will be set up to provide overall policy and strategic guidance to the Programme. The other members will be Principal Secretaries drawn from: a) National Treasury; b) State Department for Livestock Development; c) State Department for Water and Sanitation; d) State Department for Irrigation; e) State Department for the Blue Economy and Fisheries; f) State Department for Forestry; g) State Department for Cooperatives; h) State Departments for Gender and Youth; i) State Department for Interior and Coordination of National Government; and j) State Department for Environment and Climate Change. The NPSC will also include a) a representative of the Council of Governors; and b) Two Executive Committee Members (CECM) from the Programme counties. The main responsibility of the NPSC will be to ensure successful implementation of the Programme. The NPSC tasks will include, inter alia:
- a) policy and strategic guidance on the INReMP focus;
- b) priority setting and institutional strengthening to ensure that the Programme achieves its objective and contributes to the higher-level sector policy and strategic goals;
- reviewing Programme progress against targets, assessing management effectiveness and appraisal of annual performance and recommending renewal of contracts of PCMU staff;
- d) deciding on corrective measures, where appropriate;
- e) identifying lessons learned and good practices; and
- f) approving AWPBs and Procurement Plans.
- 49. The NPSC will meet at least twice in a year and on a need basis to deliberate on Programme matters. The Programme Coordinator will serve as the secretary to the NPSC and in this regard will prepare and circulate to members a calendar of meetings at the beginning of the Financial Year. The Committee will work closely with the County Project Coordination Committees (CPCC) and PCMU).
- 50. National Technical Advisory Committee (NTAC) A National Technical Advisory Committee shall be established to provide technical advice to the NPSC. The NTAC shall consist of technical experts preferably at the Director/Commissioner level, appointed by the individual NPSC members. The membership in terms of institutional representation will therefore mirror that of the NPSC. The NTAC shall provide technical advice on matters that require approval and/or discussion by the NPSC. In line with standard practice for good governance, members nominated to serve in this Committee shall not serve in the NPSC.

County Programme Steering Team (CPST)

51. At County level – A multi-sectoral County Programme Steering Team (CPST) composed of the CECMs of relevant County Departments, County Commissioner and relevant National Government Agencies at the county level shall be established to work closely with the existing County Agricultural Sector Steering Committee (CASSCOM) to steer implementation of the Programme activities at the county level. The CPST shall be chaired by the CECM in charge of Agriculture. The CPST will provide policy and strategic

guidance to the Programme at the county level and hence it's responsibilities will mirror that of the NPSC. The CPST will be responsible for the following activities at the county level:

- a) policy and strategic guidance on the INReMP focus and the county level, ensuring that the programme activities are well aligned with the CIDPs;
- b) reviewing Programme progress against targets and assessing effectiveness of the county Programme staff; and
- c) approving county AWPBs and Procurement Plans.

I.5.4: Partnerships

- 52. *Implementing Partners* The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the KALRO, Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.
- 53. On the other hand, INReMP will seek to coordinate and harmonize with the projects/programmes financed by IFAD, the Government of Kenya and various development partners that support thematic areas related to its development objective. Essentially, this aims at taking advantage of synergies and avoid duplications. The list of potential partners for collaboration is presented below.

Potential INReMP's Collaboration Partners

Donor/Agency	Project	Geographical Area	Remarks
IFAD	 Aquaculture Business Development Programme (ABDP) 	Kakamega, Busia, Siaya, Kisumu, Homa Bay, Migori, Kisii	Ongoing Possible areas of synergy: access to water for smallholder aquaculture producers; restoration of riparian and lake shorelines

Donor/Agency	Project	Geographical Area	Remarks
IFAD	Kenya Livestock Commercialization Project	Marsabit, Samburu, Elgeyo Marakwet, Baringo, Trans Nzoia, Bungoma, Kakamega, Busia, Siaya, Nakuru	Ongoing Areas of synergy: production of fodder crops; alternative livelihood support to communities living near the forests and support to development dairy value chain as incentive for community conservation efforts.
IFAD	Rural Kenya Financial Inclusion Facility (RK- FINFA)	Countrywide	Access to Finance for value chain actors; promote green investments
GEF - IFAD	Eldoret Iten Water Fund	Elgeyo Marakwet, Uasin Gishu	 Ongoing Areas of synergy: crowding in private sector into catchment restoration
GEF - GEF	Integrated land and water management for food, water and climate security in the dairy food system	Nandi, Kakamega	• Proposed
GCF - GCF	 Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) 	• TBD	 Proposed Access to Finance for value chain actors; promote green investments
GCF - IFAD	 Pathways to Dairy Net Zero: Promoting Low Carbon and Resilient Livestock in East Africa (PADNET). 	• TBD	 Proposed – under design Areas of synergy: Climate resilient dairy production

Donor/Agency	Project	Geographical Area	Remarks
GCF - FAO	Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya (CRLCSA)	Lake Basin Region (including, South & North Rift and Western Kenya	Proposed – CN submitted, implementation expected to commence Mid 2024 Possible areas of synergy: Climate risk assessment in agriculture production and VC; Selection of suitable technologies and practices; Climate resilient business model and Community level agriculture landscape restoration Proposed – CN submitted, implementation and community level agriculture landscape restoration
FAO	Towards Securing Community Land Tenure in Kenya's Counties	• Countrywide	Ongoing GIS Technical trainings establishment and equipping of GIS laboratories – to support spatial and land use mapping; map landscapes in terms of natural resource use, management and degradation (including forests, soils, water and irrigation and wildlife and; assess suitability of selected value chains.

Donor/Agency	Project	Geographical	Remarks
		Area	
The Word Bank	The National Agricultural and Rural Inclusive Growth Project (NARIGP)	Kirinyaga, Kiambu, Murang'a, Nakuru, Bungoma, Trans Nzoia, Nandi, Vihiga, Kisii, Migori, Nyamira and Homa Bay	Completing Synergy: improve last-mile connectivity and support smallholder farmers water access for established small irrigation schemes, production and access to markets
The World Bank	The Kenya Climate Smart Agriculture Project (KCSAP)	•	CompletingSynergy: Improving water/soil management
African Development Bank	Kimira-Oluch Smallholder Irrigation Development Project	Homa Bay	 Completed Synergy: improve last-mile connectivity and support smallholder farmers water access, production and access to markets

Donor/Agency	Project	Geographical Area	Remarks
European Union - IFAD	Boosting Sustainable Food Production in Kenya	Bungoma, Kakamega, Homa Bay, Migori and Nandi	 Ongoing Synergy: promoting agroecological practices including conservation agriculture, e- extension, soil testing, climate- smart agriculture and community water interventions Supporting farmers with access to bundled of inputs, services and technologies through mobile- based e-voucher platform led by agro-dealers Strengthening both national, council of Governors and County Governments' capacities in food systems, agroecology, biofortification, etc

PART II: DETAILED IMPLEMENTATION MODALITIES

II.1: START-UP

54. The State Department for Agriculture will develop a workplan and the associated budget for preparatory activities and liaise with IFAD to organize a start-up workshop. Such preparatory activities could include:

	Action	Who	Tentative Timing	Indicative Budget US\$
a)	Sign the financing agreement (following IFAD board approval)	GoK/IFAD	September 2024	
b)	Establishment of the national Programme Coordination and Management Unit (PCMU) and the County Programme Implementation Teams (CPITs)	State Department for Agriculture and the County Administrations for the 10 target counties in consultation with IFAD	Interim start-up team to take responsibility immediately (October 2024).	30,000
c)	Open Designated Accounts and identify signatories (ID and signature specimen).	GoK	November 2024	
d)	Sign MoUs/Memoranda of Cooperation between the national Government and the participating counties and between MoALD and the other participating line Ministries, specifying the expected responsibilities and outcomes.	National Treasury /MoALD/participating Counties	October 2024	25,000
e)	Review and finalise the first year AWPB and Procurement Plan	PCMU/CPITs	1 month after EB approval	40,000
f)	Review and finalise draft PIM	PCMU/CPITs	1 month after EB approval	30,000
g)	Establish the National Programme Steering Committee and National Technical Advisory Committee introduce INReMP to them. Agree on how to proceed with the provision of the oversight function (frequency and modality of meetings) – including stakeholder consultations	MoALD	1 month after EB approval	50,000
h)	Establish the multi-sectoral County Programme Steering	County Administration	1 month after EB approval	500,000

	Action	Who	Tentative Timing	Indicative Budget US\$
	Teams (CPSTs) – including stakeholder meetings			
i)	Procurement and installation of an off the shelf accounting software at the PCMU and CPITs and the chart of accounts coded to the detail possible	PCMU/CPITs	1 month after EB approval	100,000
j)	Hold the official INReMP start-up workshop. This would be used to orient the PCMU/CPITs and other stakeholders.	State Department for Agriculture and the County Administrations for the 10 target counties in consultation with IFAD	2 months after EB approval	80,000
k)	Initiate the undertaking of the INReMP baseline survey	PCMU/CPITs	Not more than 3 months after EB approval	150,000
1)	Initiate the process of undertaking a capacity and system's needs assessment to elaborate capacity building plan	PCMU/Consultant	Not more than 5 months after EB approval	45,000
m)	Initiate the process of establishing the INReMP M&E system	PCMU/CPITs	Not more than 5 months after EB approval	10,000
n)	Conduct awareness creation on Programme objectives and implementation arrangements	PCMU/CPITs	Not more than 5 months after EB approval	50,000
0)	Review and finalise the targeting strategy for the selection of Wards, watersheds and specific beneficiary communities. Initiate the process of selecting the Wards, watersheds and specific beneficiary communities.	PCMU/CPITs/respectiv e local governments	Not more than 5 months after EB approval	50,000
p)	Review and finalise the SECAP-related documents	PCMU/CPITs	Not more than 5 months after EB approval	15,000
q)	Hand-over period from the KCEP-CRAL PCU	State Department for Agriculture and the County Administrations for the 10 target counties.	Not more than 6 months after EB approval	

Action	Who	Tentative Timing	Indicative Budget US\$
Total			500,000

II.2: COMPONENT 1: COMMUNITY-LED ENHANCED ENVIRONMENT AND INRM, ECOSYSTEM SERVICES, AND CLIMATE ACTION

55. This component will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and quality; d) improve dietary diversity; and e) capacity building of relevant institutions, such as County Environment Committees (CECs) and community-based organisations, such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs) to strengthen sustainable management of natural resources. Investments will employ a landscape approach to catchment management, payment for ecosystem services, and low carbon focused interventions for resilient crop and livestock production and associated value chains, with particular attention to enhancing climate resilience of the target beneficiaries. The component will contribute to the achievement of Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action. It comprises the following subcomponents.

II.2.1: Subcomponent 1.1: Community Empowerment and Gender Transformative Approaches

- 56. All Counties have County Integrated development plans (CIDPs) that guide community development and each administrative Ward has a committee to lead its development priorities related to NRM, livelihoods needs and other community needs. Community empowerment will include community awareness, sensitization, prioritization of actions and development of Community Action Plans (CAPs). The community organizations to be targeted will include County CFAs, WRUAs, Ward Climate Change Committees (WCCCs), Beach Management Units (BMUs), Farmer organizations (FOs) and Common Interest Groups (CIGs). The groups will be required to meet membership quotas for women, youth, PWDs and vulnerable groups to benefit from the Programme. INReMP will support the establishment and strengthening of already existing community organizations and committees. The capacity strengthening will include technical areas, leadership, management and governance issues. The community structures will be the entry for planning, guiding and mobilizing development activities in the respective wards. This community empowerment will not only increase the level of ownership, it will also enhance the likelihood for sustainability.
- 57. At start-up, INReMP will train all key staff from PCMU, Counties, national institutions and implementing partners on Community empowerment and PRA approaches to equip them with necessary skills for implementation. At community level, community committees will be trained in partnership with the County Gender and Social Development Officers. This will be achieved through the following steps:
- Step 1: To identify, project implementation areas, INReMP will undertake mapping (including GIS co-ordinates) of existing river basins as defined by the WRA to determine participating Focal Development Areas (FDAs) and number of eligible beneficiary households per basin. Once participating FDAs, communities and target beneficiaries are identified and GIS mapped. A needs assessment for integrating digital technologies to support Integrated Natural Resource Management (INRM) and Precision Farming will also be conducted as part of the integration of digital technologies under this component. This assessment will support the PMU in understanding the existing challenges and gaps in the

current farming practices and natural resource management techniques(ii) Determine what specific aspects of INRM and Precision Farming need to be addressed through digital technologies (iii) collect initial data through GIS and mapping key intervention areas.INReMP will undertake community sensitization and awareness creation about the Programme objectives INRM, sustainable rural livelihoods, nutrition, youth participation, targeting the vulnerable, gender equality and women empowerment. This will be undertaken in each river basin or FDA;

- > Step 2: The first step in community engagement is sensitization and awareness rising. This will help communities understand the goal of the project and prepare them for active participation when they clearly understand their roles in project implementation. Community sensitization will be done in all the counties, selected sub-counties up to ward levels and specifically along the river basins. Community meetings will be held at some agreed points along the basins. Sensitization will be the first activity before the PRAs. INReMP will provide the needed mass media equipment and facilitate the County Gender and Social Development Officers to undertake mobilization campaigns;
- > Step 3: Creation and/or strengthening of community organizations Once the project areas are identified, existing groups focusing on NRM and livelihood opportunities in the selected VCs will be mapped to establish their membership and capacity gaps. Most of the project services will be delivered through groups, therefore, any group that is formed under the project or supported by the project should be entered in the Register of community Groups. This applies to all registered groups. The Register of Groups should be kept only by the Focal Person for the Community Empowerment component in the Social Development Office at the county level. The newly established groups will be added as they are registered. The Focal Persons in the Gender and Social Development Office should submit the updated Register of Groups to PCMU through their county coordinators on a regular basis. Based on the data in the Register of Groups, the total number of groups formed/supported will be reported on in the INReMP Physical Progress Table.
- > Step 4: The identified and established groups i.e. WRUAs, FDAs, CFAs etc will be trained to develop their capacity and relevant skills. Training will include group conflict management, leadership, gender equality and empowerment, nutrition education and youth empowerment. Targeted and sessions for women, youth and vulnerable will be organized as needed. Once groups have been formed and their leadership trained, they will develop their NRM and livelihood action plans. Training under this output will mainly be on several topics. INRM and livelihoods approaches will be key, others will include GTA approaches, GALS methodology, nutrition education, youth trainings, leadership courses and general management and administration aspects for members and leaders of groups supported by the project. Any training activity is expected to be entered in the training register by the Focal Person in the County Gender and Social Development Office, and the persons responsible for organizing any training must be made aware of the fact that they should report some basic information to the Focal Person. See Training Register for the data to be recorded for each training activity. In the INReMP Physical Progress Table, the number of beneficiaries (disaggregated) trained will be summarized and reported by type of training - the major types of training that will be reported on should be defined by the Community Empowerment, Gender and Youth specialist.
- > Step 5: Development of Community Action Plans (CAPs) Every Participatory Rural Appraisal conducted in each Focal Development Area will result in a Community Action Plan for that FDA. FDAs will develop Community Action Plans (CAPs), CFAs will develop Forest Management Plans, WRUAs (including irrigation associations) will develop Subcatchment management plans (SCAMPs) and CIGs and CBOs including youth and women only groups will have their action plans focused on INRM and livelihood activities. These will be developed using participatory rural appraisal (PRA) and GTA approaches, such as the GALS methodology. To roll out PRA, staff and community TOTs will be trained per project area. Using PRA and GTA approaches, the plans are then

documented prioritizing community needs and aligned to INReMP objectives. The Community Empowerment Focal Persons in the counties should obtain data on the total number of Community Action Plans produced from the County Project Facilitation Teams and the PRA reports and should keep a list on the total number of plans produced. This data should be regularly submitted to the Community Empowerment Specialist and Physical Progress Table updated.

- > Step 6 All project interventions under the different components will be based on the Community Action Plans. The plans will undergo appraisal by an oversight agent appointed by INReMP. INReMP will develop a Groups funding manual with groups criteria, ceiling allocations for different type of groups and type of intervention to be funded per FDA. Each group will be attached to a technical officer for guidance. The successful plans will form the basis for preparation of the annual workplan and budgets (AWPBs). These will be the community initiatives that will receive direct funding based on specific direct funding proposals e.g. through the matching grants administered by INReMP. The Community Empowerment Component Coordinator will obtain data on the number of cheques issued from the Project Accounts Controller, and this will be the basis for reporting on the number of community proposals received and funded in the UTaNRMP Physical Progress Table.
- > Step 7: Once community plans have been approved by PCMU, the annual plans are presented to the community through a public meeting for validation. Project activities are then implemented by the various groups through their Management Committees. The groups are trained in the necessary technical, management, leadership, and operation and maintenance skills. To receive support, the groups must be registered, have a constitution and by-laws, and a project bank account. The County department responsible monitors and supervises the relevant project activities in the plans.
- Nutrition strategies under Community Empowerment and Gender Transformative Approaches include incorporating the county's nutrition situation and Agri-nut strategies into the Community Action Plans (CAPs) and community mobilization training modules within subcomponent 1.1. This will provide detailed information about the nutrition situation in the area and propose actions. GALS will be used to improve joint decision-making in households and communities regarding food and nutrition, and to balance workloads in order to make women available for cooking, feeding, and childcare (see more details in the Gender Transformative Approaches section).

II.2.2: Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services

58. Baseline studies and Mapping of Key Natural Resources

Under this intervention two activities have been proposed as follows:

- i. Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc
- ii. Mapping and Monitoring of key natural resources

i). Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audit

59. The Integrated Natural Resource Management Project (INReMP) will conduct baseline studies of key natural resources to understand the status and dynamics of key natural resources within the catchment areas. The programme recognizes the need for baseline studies to facilitate effective and targeted interventions for sustainable resource management. The baseline studies will inform targeted intervention for sustainable natural resources management. Specific studies will be on status of deforestation, wetlands, riparian ecosystem, groundwater potential and environmental assessments and audits for compliance. These studies will be carried out in collaboration with national and international research institutions (such as KARLO, CGIAR centers, and ICRAF) to ensure

a comprehensive data collection and analysis, by engaging stakeholders and leveraging local knowledge in a participatory and inclusive approach. Through stakeholder engagement, the baseline studies will assess among other things, groundwater potential in the catchment to develop and implement strategies for sustainable use. This will be conducted via hydrological survey to illustrate the aguifer properties situation and recharge rate and groundwater quality. The Baseline survey on ground water will establish knowledge and capacity needs on groundwater utility patterns in order to promote sustainable extraction practices and recharges. Furthermore, the survey will model sediment flows to identify hotspots for Sustainable Land Management (SLM) interventions and develop measures to reduce soil erosion and sedimentation. The other aspect that the studies will focus on is soil erosion assessment to facilitate planning and conservation works such as slope stabilisation and erosion reduction. To achieve this objective, Geographical information System (GIS) and remote sensing techniques as well as plot experiment methods will be adopted. The project will work with an AgriTech provider and ICT Consultant to deploy GIS and Remote sensing to support with Spatial Analysis, this will involve analysis of various factors such as soil types, topography, land use, climate patterns, and water availability. By overlaying and analysing these spatial datasets, the project can identify areas with specific resource constraints or opportunities(ii) identify hotspots and areas needing interventions and those highly affected by soil erosion or sedimentation. The Project will also use this data as part of a baselining for monitoring the progress of the interventions on water quality, biodiversity, and land cover change.

- 60. In the same line, the baseline will evaluate the impact of weathering on escarpments, rivers, and streams and implement measures to mitigate erosion and siltation. To make this evaluation tangible, a strategic environmental assessment and environmental audits will be done to ensure compliance with National regulatory standards on environment and natural resources management plans to resolve issues of resources and habitats degradations.
- ii) Mapping and Monitoring of key natural resources:
- 61. The project aims to develop comprehensive and accurate maps of five critical natural resources: forests, rangelands, arable land, wetlands, and water resources. These maps will serve as crucial tools for decision-making in resource management and restoration efforts. Also, the mapping will be helpful to monitor the impacts of interventions under the Integrated Natural Resources Management Program (INReMP). The results of the mappings will support decision makers on effective restoration and promotion and sustainable management of Kenya 's natural resources.
- 62. As regards the methodology of mapping, the project will utilize Geographic Information Systems (GIS) and remote sensing technologies to accurately map levels of degradation and monitor restoration progress. The mapping process will be conducted by identifying priority catchment and sub catchments for intervention with reference to the baseline studies carried out previously at earlier stage of project implementation. To enhance mapping capabilities and proper data capturing, the mapping activities will involve key stakeholders and institutions, including the Regional Centre for Mapping of Resources for Development (RCMRD), Directorate of Resource Surveys and Remote Sensing (DRSRS), and the International Center for Research in Agroforestry (ICRAF). During the mapping exercise, consultative process will be done to engage communities and government institutions, to determine indicators for NRM dynamics (land forest and land cover, water availability and biodiversity health).

Implementation Modality

63. INReMP will carry out baseline studies and mapping of natural resources for monitoring through the services of a qualified contractor to be hired in a competitive tendering process where interested bidders will submit proposals for the same. To ensure a comprehensive data collection and analysis, these studies will be carried out in collaboration with national and international research institutions (such as KARLO, CGIAR

centers, and ICRAF). These institutions will be given roles of reviewing the reports and maps produced by contractors prior to final submission of the same to the PMU.

64. The following are the key activities for the digital activities under the component

Activity/task	Y1	Y2	Y3	Y4	Y5	
Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming						
Conduct a Geo- Mapping and geo fencing of Ecosystems (Wetlands, forests, rangelands etc) in 10 counties using digital tech						
Engagement of AgriTech Provider to provide remote sensing, soil management and GIS integrated solution for INRM with integrated Dashboard						
Training of Enumerators to collect Geo related Data and Spatial Data						
Training of PMU on PES and INRM digital System management to support monitoring						
Procurement of Digital Intelligent IoT Soil testing kits in partnership with KARLO						
Procurement of Mobile Devices (Smartphones/Tablets) at County level for GIS Mapping and to use for Data collection and Monitoring						
Maintainance and Support for Digital Solution for INRM						
Recruit an ICT4D Counsultant to provide periodic implementation support to the Project						

Outputs and Targets

- 65. The contractor is expected to deliver the following outputs:
- > Comprehensive status report including maps and datasets of key natural resources, including forests, water bodies, land, and wetlands, in designated areas.
- Documentation of mapping methodologies, data sources, and accuracy assessments.
- Training materials and capacity-building initiatives for stakeholders involved in natural resource management and planning; and
- Regular progress reports outlining achievements, challenges, and recommended actions for optimizing mapping activities.
- 66. The contractor will undertake the following tasks:
- Undertake baseline survey and comprehensive mapping of key natural resources, including forests, water bodies, land, and wetlands, using GIS and remote sensing technologies;
- Developing detailed maps and datasets to support planning interventions for water management, erosion control, and sustainable land management;

- > Integrating data from various sources and stakeholders to ensure accuracy and completeness of the mapped resources;
- > Collaborating with stakeholders to identify priority areas for intervention based on mapped data and stakeholder input;
- > Providing technical expertise and support to stakeholders for the interpretation and utilization of mapped data for decision-making and planning.
- 67. The contractor should possess the following qualifications and expertise:
- Extensive experience in geographic information systems (GIS), remote sensing, and spatial analysis, preferably in the context of natural resource management.
- > Expertise in mapping key natural resources and conducting spatial analysis to support decision-making and planning.
- > Knowledge of relevant software tools and technologies for GIS and remote sensing data processing and analysis.
- > Strong communication and collaboration skills, with the ability to work effectively with diverse stakeholders and institutions involved in NRM.
- 68. In the process of selection of the contractor, the Proposals will be evaluated based on the following criteria:
- > Technical expertise and experience relevant to mapping key natural resources, particularly in using GIS and remote sensing technologies;
- Quality and accuracy of proposed mapping methodologies and data collection techniques;
- > Demonstrated understanding of project objectives and stakeholder needs, with a focus on supporting sustainable NRM interventions.
- Cost-effectiveness and value for money in the implementation of mapping activities.

Improving key INReMP support Infrastructure

- 69. Efficient management of natural resources is crucial for sustainable development and environmental conservation. Key infrastructure supporting Integrated Natural Resource Management (INRM), such as meteorological stations, river gauging systems, and soil and water quality assessment laboratories, play a vital role in collecting data for monitoring, reporting, and verification (MRV) purposes.
- 70. The aim to develop an integrated plan that addresses various aspects of natural resource management including water resources, land use, biodiversity conservation, and climate change adaptation. The infrastructure development may include building or upgrading irrigation systems, water treatment plants, watershed management structures, and conservation facilities.
- 71. However, the state of this infrastructure may require improvements, upgrades, or new installations to ensure accurate data collection, impact monitoring, and informed decision-making. This TOR outlines the requirements for improving key INRM support infrastructure to enhance data collection, monitoring, and dissemination for sustainable resource management.
- 72. Improving integrated natural resource management (INRM) support infrastructure involves a comprehensive approach that addresses various components of the natural resource management system. The primary objective of this intervention is to improve key INRM support infrastructure to facilitate data collection, monitoring, and decision-making processes.
- 73. Specific objectives of the intervention include:
- Making necessary improvements and upgrades to existing infrastructure to enhance data collection capabilities for MRV on land, water, and air

- > Installing new infrastructure, as required, to fill gaps in data collection and monitoring, particularly in areas critical for natural resource management; and
- Providing access to data, forecasts, and information generated through the improved infrastructure to relevant stakeholders/partners.
- 74. *Specific activities* planned under this intervention include the following:
- > Upgrading weather stations and river gauges
- Upgrading and equipping water and soil labs
- In-situ soil test kits for farmers
- 75. The expected outcome after upgrading of weather stations, river gauges and equipping of water and soil labs is efficient data collection, monitoring, and decision-making processes. The target is to have 25 weather stations upgraded in 10 counties, 25 river gauges installed, 25 labs for water equipped and 25 soil labs equipped in all 10 counties. As regards in provision of in situ water and soil kits for farmers, 2,000 farmers will benefit from this activity through acquisition of kits coupled with knowledge on how to undertake soil and water tests at their farms as well interpret results for application.

Implementation modalities

- 76. To implement two related activities (i.e. a) upgrading weather stations and river gauges; and b) upgrading and equipping water and soil labs), the PMU will procure the services of the supplier who will be responsible for the following tasks:
- > Assessing key INRM support infrastructure, including meteorological stations, river gauging systems, soil and water quality assessment laboratories; and
- > Identifying areas for improvements, upgrades, or new installations based on the assessment findings and project requirements.
- 77. Making necessary improvements and upgrades to existing infrastructure, including repairs, calibration, and installation of new sensors or equipment.
- 78. Installing new infrastructure, such as additional meteorological stations or river gauging systems, to fill gaps in data collection and monitoring.
- 79. The supplier is expected to deliver the following outputs:
- > Assessment report detailing the state of existing infrastructure, areas for improvements, and recommendations for upgrades or new installations; and
- Documentation of improvements, upgrades, and new installations made to key INRM support infrastructure.
- 80. The supplier should possess the following qualifications and expertise:
- > Extensive experience in assessing, improving, and installing infrastructure related to natural resource management and environmental monitoring;
- > Expertise in project management, particularly in coordinating infrastructure improvements and installations in remote or challenging environments; and
- Knowledge of meteorology, hydrology, soil science, and environmental monitoring principles.
- 81. Proposals from Suppliers will be evaluated based on the following criteria:
- > Technical expertise and experience relevant to improving key INRM support infrastructure:
- Quality and feasibility of proposed methodologies and strategies for infrastructure assessment, improvement, and installation;
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing data collection, monitoring, and decision-making processes for natural resource management.

- > Cost-effectiveness and value for money in the assessment and improvement of key INRM support infrastructure.
- 82. Implementation modality for the 3rd activity i.e. provision of in-situ soil test kits: In line with our commitment to improving soil health and agricultural productivity, there is a pressing need to establish soil quality at the farm level. This can be achieved through application of in situ soil testing kits. These kits will play a pivotal role in providing quick soil analysis to farmers, thereby facilitating informed decision-making and sustainable agricultural practices. By quick soil testing at the farm levels, these kits will contribute to enhancing soil fertility, optimizing crop yields, and promoting environmental sustainability.
- 83. The PMU will procure the service of the supplier of these kits who will be competitively selected through an open tendering process. The supplier will be required to not only supply the kits but also train farmers on how to undertake in situ testing of soil quality as well as interpreting the results for application in their day-to-day farming practices. There will be 200 farmers who will be selected from each county and who will be provided with soil test kits along with training. Members of farmers association will be the primary beneficiaries of the kits as it is eased to train and monitor them.
- 84. The contractor/supplier will be responsible for the following tasks:
- > Designing of training manuals that will be used to train farmers on how to use soil test kits;
- > Developing protocols and procedures for the systematic collection of soil samples at the farm level;
- > Collaborating with relevant stakeholders, including agricultural extensionists farmer groups, cooperatives, and local authorities, to facilitate continuous monitoring of the performance of te test kits.
- > 4. Providing training and capacity-building to farmers and agricultural extension workers who will be involved in soil testing and analysis activities.
- 85. The contractor will be measures against delivery of the following outputs:
- Supply of soil test kits that are suitable and easy to use commensurate with the prevailing conditions;
- > Relevance of protocols and procedures for systematic soil sample collection and
- > Documentation of training materials and capacity-building initiatives for farmers, agricultural extension workers;
- > Regular progress reports outlining achievements, challenges, and recommended actions for optimizing soil testing services.
- 86. The contractor/supplier should possess the following qualifications and expertise:
- > Extensive experience in testing equipment and support, with a focus on soil testing and analysis;
- > Expertise in soil science, agronomy, or related fields, with a thorough understanding of soil health parameters and testing methodologies.
- > Proven track record in managing similar projects, preferably in the context of agricultural development and soil health enhancement.
- > Knowledge of quality management systems and standards for soil testing operations.
- 87. Proposals from bidders will be evaluated based on the following criteria:
- > Technical expertise and experience relevant to soil testing and training.
- > Quality and feasibility of proposed methodologies and protocols for soil sample collection in situ and analysis.
- > Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing soil health and agricultural productivity.
- > Cost-effectiveness and value for money in the implementation of the activity.

Implementing targeted natural resource specific interventions.

- 88. Under this intervention the following activities have been proposed:
- > Forests Restoration-Promoting agroforestry, afforestation, and reforestation
- Implement Clean energy solutions;
- Sustainable land management practices (training and support to farmers; riverbed protection);
- Rehabilitation of Rangelands;
- Protection of springs, enhancing water storage and desilting of small dams.vi. Wetland Restoration

Forests Restoration-Promoting agroforestry, afforestation, and reforestation

- 89. Reforestation refers to the process of replanting trees in areas where deforestation has occurred. It is undertaken to restore degraded ecosystems, combat climate change, and promote biodiversity. Afforestation is the process of planting trees on land which has not been forested. It involves converting non-forest land into forested areas. Afforestation is often undertaken for various purposes, including environmental conservation, ecosystem restoration, carbon sequestration, soil stabilization, biodiversity enhancement, and mitigating the effects of climate change.
- 90. The dynamics in reforestation activities can lead to more sustainable outcomes by ensuring that local knowledge and practices related to forest management are leveraged effectively. Sometimes communities often possess valuable traditional knowledge about forest ecosystems, which can contribute to the success of reforestation efforts and the preservation of biodiversity. By involving all stakeholders (local communities, Administration at all levels) through capacity building in reforestation activities and climate change, communities and administration can build resilience to environmental challenges such as climate change and natural disasters. Considering communities needs into reforestation can create economic opportunities for women, youth, such as employment in tree planting, agroforestry, and sustainable forest management activities. This not only improves household incomes but also fosters economic empowerment and reduces gender disparities in income and access to resources.
- 91. The primary objective of this assignment is to implement forest interventions, including afforestation, reforestation, and agroforestry to restore forest ecosystems and promote sustainable resource management, build capacity of local administration such as village leaders and the committees on natural resources management. Specific objectives include:
- > Undertaking agroforestry, afforestation, and reforestation activities to increase forest cover and enhance carbon sequestration.
- Prioritizing indigenous/native tree species and Neglected Underutilized Species (NUS) to restore biodiversity and support ecosystem services.
- Advocating for the replacement of invasive tree species with indigenous trees to reduce deforestation and promote sustainable fuelwood sources.
- 92. This activity is aimed at having agroforestry, afforestation, and reforestation of land to increase forest cover, restore biodiversity, and support ecosystem services, while promoting the use of indigenous/native tree species and replacing invasive tree species with indigenous ones. About 33,200 Hectares of land will be under forest at the end of 8
- 93. The program will collaborate with Community Forest Associations available at village levels. Kenya Forest Service will also be involved as partners in implementation of this activity.
- 94. Establishment of Tree Nurseries: This activity shall be undertaken mainly by registered community groups organized within the framework of Community Based Organizations (CBOs) within the Focal Development Areas. The communities will have their capacity built on issues of leadership, Constitution and by-law making, group dynamics; record keeping

and conflict resolution by the subcomponent 1.1. On the other hand, technical trainings on environmental governance such as tree nursery management will be conducted through KFS, KWS and NEMA. Trees raised in the community tree nurseries shall be used in the rehabilitation of hilltops in communal lands and trust lands, rehabilitation of rangelands, wetlands and riverbanks, School greening programme and on-farm forestry. The programme shall be expected to purchase seedlings from communities for rehabilitation of the identified degraded areas Hotspots" at the current government prices.

Rehabilitation of Degraded Forest areas (National Parks and Forest Reserve)

- 95. This activity will be confined within the forest margins accessible to the Community Forest Associations. The rehabilitation of the degraded forest areas will be part of implementing the PFMP for respective CFAs. This would involve the reintroduction of timber tree species of major economic importance such as *Ocotea usambarensis*, *Vitex keniensis*, *Warbugia ugandensis* and *Prunus africana* in degraded areas of the Forest Reserve. Reforestation in the forest reserve shall be undertaken by the KFS in collaboration with CFAs
- 96. Restoration of Hotspots through Community-based natural resources management: This shall focus on rehabilitation of degraded trust lands such as hilltops and other publicly owned lands and communal lands. The hotspots will be identified through the baseline studies and mapping exercise supported by INReMP. The project shall use the established government procedures to purchase seedlings from communities for rehabilitation of the identified degraded areas. at the prevailing government prices. Tree nurseries established at schools will also serve as a source of tree seedlings. The communities on the other hand shall be expected to provide manual labour for planting and protecting the planted sites. In sites that fall within the jurisdiction of the local authorities e.g. hills, the local authorities shall be fully involved in the mobilization, planning, implementation and monitoring of activities therein.
- 97. Rehabilitation of Hilltops: These shall fall into two categories:
 - a) Hilltops without CFAs-The interventions shall be carried out in degraded trust lands, which have no Communities through the coordination of the County Kenya Forest Service (KFS) and NEMA and relevant local authorities shall carry out reforestation of these areas. An actual hectarage would come out during the baseline survey, SOE and PRA process. The project shall provide support through provision of training to communities, the procuring of required seedlings, and facilitation of KFS staff to guide and monitor the activity from PCT through respective Counties.
 - b) *Hilltops with CFAs-* The rehabilitation of these hilltops will be done as per part of implementing the Participatory Forest Management Plans (PFMPs).
- 98. **Implementing Clean energy solutions.** Developing waste-to-energy solutions for organic waste conversion into biogas or bioenergy to reduce deforestation, promoting the use of energy-efficient cookstoves in rural areas, and introducing alternative energy sources for clean cooking and heating in f area that are near forests. On the other hand, promotion of renewable energy and utilisation of improved cooking stoves offers numerous benefits, ranging from environmental sustainability to socio-economic advantages.
- 99. Renewable energy sources are sustainable alternatives to fossil fuels, reducing greenhouse gas emissions and mitigating climate change. Improved cooking stoves reduce indoor air pollution, which is a significant cause of respiratory diseases, particularly affecting women, and children in developing countries. Investment in renewable energy projects creates jobs and stimulates economic growth, especially in rural areas where resources are abundant. Diversifying energy sources through renewables reduces dependence on imported fossil fuels, enhancing energy security for countries.
- 100. To have community members adopt energy cooking stoves at their homes hence reducing the quantity of fuelwood use t consequently reducing the felling of trees for

fuelwood in rural areas. The target is to have a total 20,000 homesteads with efficient cooking stoves in 10 counties in 8 years.

- 101. Energy efficient cooking stoves: Technical skills on how to construct energy efficient cooking stoves will be offered to at least 2 local technicians(youth) in each of the selected villages. Training of technicians will also involve having in place demonstration units of cooking stoves at two homes in each of the selected villages. Both training and establishment of demo stoves will be funded through INReMP.
- 102. Community members especially women will be sensitized through village meetings on the benefits of the cooking stoves. Interested members of the community will be invited to see how such stoves work. Whoever is interested to have the cooking stove installed at their homes will contribute some amount of money sufficient to pay the technicians' labour fee while materials will be supplied through GCF grant. There will be a committee of 5 members headed by the village chief or assistant village chief for this activity. Committee members will be selected from the community. *Biogas production:* Biogas production has a fairly good potential in the project area especially where dairy cattle are a norm in homesteads. The programme shall consider supporting communities who identify the biogas units as a need but only a few will be done as demonstrations.
- 103. Sustainable land management practices (training and support to farmers; riverbed protection). Erosion control measures are crucial for preserving soil integrity and preventing agriculture degradation. This can be realised based on different approaches such planting grasses with strong root systems which can stabilize soil and reduce erosion.
- 104. Tree planting can also help to stabilize soil with their root systems and provide additional erosion protection. Building terraces or contour bunds on slopes can reduce water flow and erosion by creating level steps. Installing silt fences along slopes or construction sites can trap sediment and prevent it from washing away. Constructing check dams using rocks or logs across drainage channels can slow down water flow, reducing erosion. Building retaining walls can prevent soil from sliding downhill and control erosion on steep slopes. Minimizing land disturbance during construction activities and practicing conservation tillage in agriculture can reduce soil erosion. Regular inspection and maintenance of erosion control measures are essential to ensure their effectiveness over time for land management sustainability.
- 105. Climate-smart agriculture (CSA) and climate-smart livestock farming are approaches that aim to address the challenges of climate change while enhancing agricultural productivity, resilience, and sustainability. This aimed at Identifying vulnerabilities, risks, and opportunities associated with climate change impacts on agriculture and livestock farming in the ten counties. Engage with local stakeholders, including farmers, agricultural experts, researchers, and policymakers.
- 106. In the context of the Integrated Natural Resources Management Program (INReMP), the focus is on implementing erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices to enhance soil health, reduce emissions, and optimize land use. Implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices targets 13,900 hectares of land.
- 107. On the one hand, implementation of this activity will be through participatory approach where farmers' associations will be trained on Climate-smart agriculture (CSA) and climate-smart livestock keeping practices.
- 108. On the other hand, the contractor will be sought to undertake the following tasks:
- Designing and implementing erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across designated areas within the INReMP framework;

- > Collaborating with relevant stakeholders, including farmers, agricultural extension workers, and local communities, to identify suitable locations and prioritize interventions.
- Developing detailed plans for the implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices, ensuring alignment with project objectives and sustainability principles.
- Providing technical expertise and support to farmers and livestock keepers for the adoption and implementation of sustainable land management practices.
- Conducting training sessions and capacity-building initiatives to enhance awareness and knowledge of erosion control, conservation agriculture, and climate-smart livestock farming practices among stakeholders.6. Monitoring and evaluating the effectiveness of implemented interventions, identifying challenges, and recommending adjustments as necessary to ensure successful outcomes.
- 109. The contractor is expected to deliver the following outputs:1. Implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across 13,900 hectares of land.2. Documentation of implemented interventions, including maps, reports, and monitoring data.3. Training materials and capacity-building resources for stakeholders involved in sustainable land management practices.4. Regular progress reports outlining achievements, challenges, and recommended actions for optimization.
- 110. Qualifications and Expertise: The contractor should possess the following qualifications and expertise: a) Demonstrated experience in implementing sustainable land management practices, preferably in agricultural and livestock farming contexts; b) Expertise in erosion control, conservation agriculture, and climate-smart livestock farming techniques, with a focus on environmental sustainability and productivity enhancement; c) Strong communication and facilitation skills, with the ability to engage effectively with diverse stakeholders and communities; and d) Knowledge of local agroecological conditions and socio-economic dynamics, with experience working in similar contexts.
- 111. *Evaluation Criteria:* Proposals from contractors will be evaluated based on the following criteria:
 - Technical expertise and experience relevant to erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices;
 - > Quality and feasibility of proposed methodologies and work plans for implementation within the INReMP framework;
 - > Demonstrated understanding of project objectives and stakeholder needs, with a focus on sustainable land management and livelihood improvement;
 - > Cost-effectiveness and value for money in the implementation of interventions across 39,000 hectares of land.
- 112. Rehabilitation of Rangelands, Protection of springs, enhancing water storage and desilting of small dams and Wetland Restoration. Rangeland rehabilitation involves restoring degraded or overgrazed rangelands to a healthier and more productive state. During INReMP implementation, an assessment of rangeland 's current condition will be conducted in the ten counties, these will look at type of soil health, vegetation cover, water availability, and grazing patterns.in addition the assessment will identify the causes of degradation, such as overgrazing, soil erosion, human pressure, invasive species, inappropriate land practices and management. Develop a comprehensive rehabilitation plan tailored to the specific needs of the rangeland, considering factors like soil type, climate, and ecological characteristics.
- 113. The finding will inform and provide methodologies to implement controlled grazing practices to prevent overgrazing and allow vegetation to regenerate. Control invasive plant species through methods such as mechanical removal, herbicide application, or biological control using natural predators or competitors. Introduce native plant species through

seeding or planting to improve biodiversity and restore ecosystem balance. Besides, on soil conservation, measures to conduct erosion control such as terracing, contour plowing, or installing silt fences to prevent soil erosion and retain moisture. Regarding improvement of soil fertility, techniques like organic matter addition, mulching, or applying appropriate fertilizers to promote plant growth and nutrient cycling may be adopted.

- 114. This intervention will raise awareness about the importance of rangeland conservation and the benefits of rehabilitation efforts for ecological, economic, and social well-being. Overall, rangeland rehabilitation is a multifaceted approach that not only restores degraded ecosystems but also provides numerous environmental, economic, and social benefits for present and future generations.
- 115. The intervention is expected to result in the following outcomes: To have in place written Community Action Plans including implementation schedules for restoration of Rangelands, Wetlands and riparian areas. To have established buffer zones around wetlands/riparian areas to prevent encroachment and promote conservation. To have water collection or access points constructed at designated locations to facilitate agricultural use and productive utilization of water resources.
- 116. To have in place documentation of wetland rehabilitation activities, including progress reports, monitoring data, and success stories. To have capacity of local communities built and stakeholders involved on wetland conservation and management.
- 117. **Implementation modalities**: The implementation of this intervention will be in an inclusive manner. There will be stakeholders' involvement, engagement of local communities, landowners in the rehabilitation process through participatory approaches, workshops, and outreach programs. Provision of training and technical assistance to land users on sustainable rangeland management practices, including rotational grazing, fire management, and livestock management techniques will be part of the intervention. Community forest associations, farmers association and community-based organization will be mobilized to take a center stage in the whole process. Community Action Plans will be prepared through involvement and participation of community groups. Facilitators will be hired to lead the process of planning and the community members will propose and implement activities through the support and facilitation of experts.
- 118. Integrated school greening program. School greening program is a set of activities aimed at transforming schools into models of sustainability for communities. Its main objective is to inculcate a greening culture to youth in schools by mentoring and engaging them in hands-on green growth initiatives for sustainability of communities. The schools also act as learning and demonstration sites on tree planting and species selection for the neighbouring communities. This approach also ensures high seedling survival rates.
- 119. It is expected that under this intervention not less than 300 schools across the 10 counties will have the program rolled out and the following infrastructure set up: tree nurseries as the source of supplying tree seedlings to pupils and nearby communities, water harvesting tanks to support the nurseries, biogas plants for school to serve as a demo site.
- 120. **Implementation modalities** The children are encouraged to adopt a tree(s) from the planting to subsequent maintenance. The parents and teachers are also encouraged to participate in the activity as the school act as demonstration areas to the neighbouring community. In order for a school to qualify for selection they will be required to submit a written request to the County Forest Office.
- 121. As regards participation of other stakeholders in the program, the County Forest Office should facilitate the school greening through an Memorandum of Understanding where the roles of the children, Parents and Teachers Association and Kenya Forest Service are clear. The associated draft Terms of Reference (ToRs) are presented in Annex 1 of this document.

- 122. Payment for Ecosystem Services, Carbon Credit, and Tax Credit Promoting carbon marketing, which involves the buying and selling of carbon credits or offsets, can be an effective approach to incentivize emission reductions and support sustainable development. During the project implementation, public awareness about the importance of carbon markets and the role of individuals, businesses, and governments in reducing emissions will help to drive demand for carbon credits and foster broader participation in carbon markets. By promoting community awareness on the subject and leveraging the benefits of carbon marketing, stakeholders can play a significant role in reducing GHG emissions and advancing towards a more sustainable and low-carbon future.
- 123. In the pursuit of sustainable natural resource management (NRM), Payment for Ecosystem Services (PES), Carbon Credit, and Tax Credit schemes play crucial roles in incentivizing conservation efforts and mitigating environmental degradation. Building upon successful models such as the Rewards for Biomass and Soil Carbon Mechanism, this activity aims to establish robust mechanisms for implementing and overseeing PES, Carbon Credit, and Tax Credit schemes within the context of the Integrated Natural Resource Management Project (INReMP). These schemes will not only ensure equitable compensation for conservation activities but also stimulate private sector engagement in NRM initiatives. Overall, the primary objective of this activity is to develop and implement effective PES, Carbon Credit, and Tax Credit schemes to incentivize conservation activities and promote sustainable NRM practices.
- 124. The outcome of this activity will be:
- Established and operationalized digital platform for PES, Carbon Credit, and Tax Credit schemes;
- ➤ Baseline assessments documented including methodologies applied and grading schemes for conservation incentives;
- > Regular progress reports prepared outlining achievements, challenges, and recommended actions for optimizing the schemes
- > The list of stakeholders involved, trained and capacity built in in PES, Carbon Credit, and Tax Credit schemes
- 125. This activity will be implemented through the services of a contractor to be selected in a competitive manner. The contractor will be required to undertake the following:
- Conduct baseline assessments for carbon and biodiversity to measure and incentivize impactful conservation efforts;
- > Design and implementation of a digital platform for PES, Carbon Credit, and Tax Credit schemes, ensuring robust monitoring, reporting, and verification (MRV) processes
- > Development of transparent measures and grading schemes to determine the level and value of rebates/benefits, as well as penalties for defaults or non-conformities;
- Exploration of avenues for the private sector to adopt identified critical natural resource opportunities and offer ecosystem payment services to relevant stakeholders;
- Collaboration with relevant stakeholders, including government agencies, local communities, and private sector entities, to ensure the successful implementation of PES, Carbon Credit, and Tax Credit schemes
- 126. The performance of the contractor will be measured against the following deliverables:
- > Establishment and operationalization of a digital platform for PES, Carbon Credit, and Tax Credit schemes;
- > Documentation of baseline assessments, methodologies, and grading schemes for conservation incentives;
- Training materials and capacity-building initiatives for stakeholders involved in PES, Carbon Credit, and Tax Credit schemes;

- > Regular progress reports outlining achievements, challenges, and recommended actions for optimizing the schemes.
- 127. The suitable contractor should possess the following qualifications and Expertise:
- > Demonstrated experience in implementing PES, Carbon Credit, and Tax Credit schemes, preferably in the context of natural resource management or conservation;
- Expertise in MRV processes, baseline assessments, and incentive mechanisms related to ecosystem services and carbon sequestration;
- > Strong communication and stakeholder engagement skills, with the ability to collaborate effectively with diverse groups and organizations;
- > Knowledge of climate finance mechanisms and experience in integrating conservation incentives with private sector initiatives.
- 128. In the selection process of the contractor, the following evaluation criteria shall be applied to the submitted proposals:
- > Technical expertise and experience relevant to PES, Carbon Credit, and Tax Credit schemes, particularly in the context of natural resource management;
- Quality and feasibility of proposed methodologies and strategies for implementing and overseeing the schemes;
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting sustainable NRM practices;
- Cost-effectiveness and value for money in the establishment and operation of PES, Carbon Credit, and Tax Credit mechanisms.

SECAP and Compliance

- 129. In compliance to SECAP requirement, all activities related implementation of ESCMP, Stakeholder engagements and Grievance Redress Mechanism shall be the responsibility of the PMU. An Environmental and Social Safeguard specialist shall be part of the PMU staff to oversee compliance of SECAP and related matters.
- 130. Establishing a digital platform for Payment for Ecosystem Services (PES), implementing mechanisms for tax credits and carbon credits in water catchment protection, forest cover protection, and water source conservation to incentivize conservation efforts and engage the private sector actively.
- 131. **Nutrition strategies** to improve environmental sustainability, INRM, and ecosystem services will involve mapping associated agrobiodiversity for healthy diets as part of the baseline studies and mapping of key natural resources. The aim is to understand the distribution patterns of species in specific counties. By combining existing GIS layers, satellite imagery, and ground-truthed data, critical information on the availability and status of wild fruit trees, herbal/medicinal plants, non-timber forest products, and neglected underutilized species will be obtained. This mapping will be used to expand alternative livelihoods and income opportunities for smallholders, as well as improve the nutritional quality and environmental sustainability of diets promoted under component 2, through homestead or group production.
- 132. The mapping information will be documented as an inventory of the cultural and natural heritage, aiming to revitalize local county food cultures, traditional food preparations, and the celebration of specific traditional medical identities that have been forgotten and not passed on to younger generations. This revitalization will be accomplished through food and nutrition events/sessions in collaboration with Farmer Organizations (FOs) and Common Interest Groups (CIGs), including those for women, youth, persons with disabilities (PWDs), and vulnerable groups. The strategic stakeholders for this activity include the Alliance of Bioversity International and CIAT, agricultural training colleges, and county nutritionists.

- 133. The planned capacity building sessions for the improved Cookstove Promotion Initiative will include information on nutrition and consumer awareness, to educate households about optimal food preparation techniques and the health impacts of air pollution. This is especially important for women and children who spend a significant amount of time around the fireplace, as they are exposed to higher concentrations of pollutants compared to the outdoor level. The objective is to promote the correct use of the improved green cooking stoves, ensure proper cooking of food, and maintain its nutritional value. Furthermore, promoting healthy practices can help prevent negative pregnancy outcomes caused by air pollution. Additionally, the use of green cookstoves in local schools will serve as a model for students and teachers, encouraging them to adopt the technology and make the necessary behavior changes.
- 134. The integrated school greening program will collaborate with service providers and utilize county environment and hygiene teams to enhance communication regarding the prevention of vector-borne diseases related to water, sanitation, and hygiene. The aim is to empower students on suitable management and utilization of nature-based products.

II.3: COMPONENT 2: IMPROVED, INCLUSIVE AND SUSTAINABLE RURAL LIVELIHOODS

- 135. This component will seek to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live. Component activities will target selected value chains. Cost sharing mechanisms will be used to support farmers and community groups in areas such as access to planting materials/seed for recommended crop/trees species; support for fodder production in livestock, introduction of appropriate small stock and adoption of yield enhancing equipment in beehive production. Support will not be limited to technical and production issues but will include bulking of produce for sale, formation, and support of marketing groups to deal collectively with traders with different farm produce. Local community groups will be supported to undertake value addition of agricultural products and non-agricultural products through facilitating access to appropriate technologies, adherence to product health and safety standards, enterprise management and marketing support for processed products. Techniques and technologies for postharvest management to reduce loss of produce in storage will be promoted.
- 136. **Value Chain Identification and planning** Only enterprises assessed as having neutral or beneficial environmental impacts will be supported. Value chains have been selected based on the following criteria: i) neutral or beneficial environmental impacts ii) the commodity is produced or can be easily produced by most targeted beneficiaries (potential for volume aggregation and scale iii) availability of profitable and structured markets (existence of SMEs, processors, aggregation centres) iii) potential to contribute to household nutrition iv) potential for inclusivity (youth/women participation). For an effective value chain approach, the availability of complementary support to the other actors along the value chain is also an important consideration. On the basis of these criteria and consultations with the Counties the following value chains have been prioritised: i) dairy ii) poultry iii) apiculture iv) fruit trees (avocado) and v) horticulture (tomatoes, leafy vegetable). The programme is however expected during implementation to regularly review these value chains to determine continued relevance and take on board any new ones that best respond to the objectives of the programme. The following approach to the identification of value chains is recommended:
- ➤ Consult farmers, farmer groups, country agricultural authorities to identify commodities that align with the selection criteria set above.
- > Identify key actors at all the levels of each value chain.
- ➤ Identify key factors constraining producers to link with existing markets as well as those faced by agribusiness institutions in dealing with farmers producing the respective commodity. The analysis will clearly outline available opportunities which if exploited will increase the profitability for farmers and/or agribusiness firms.

- > Identify current and recent past programmes with relevant interventions that provide opportunities for complementarity/synergies or scaling up.
- 137. **Matching grants to value chain actors** A matching grant facility with two separate windows one for production support to farmers and the other for value addition and agro-processing for support to market intermediaries (including farmer business organisations) will be used to support actors within target value chains. Matching grant contributions for producers and groups under the Production Window will be lower than those for Agro-processing and Value Addition window(i.e. 10% and 20% cash contributions, respectively). Administration of grants will be by the PCT. An Independent Oversight Agent will be recruited to appraise and assess the applications before awarding by the PCT. Funds will be disbursed in tranches based on the achievement of the milestones specified in the grant agreements. The award of the grants will be done using the guidelines and procedures of grants manual developed by the project for application, evaluation and administration procedures.

II.3.1: Subcomponent 2.1: Improve Production and Productivity of Selected Nutrition- Sensitive Value Chains and Nature-based Enterprises

- 138. Interventions under this subcomponent aim at enhancing productivity and production of the target value chains. Value chains have been selected based on the following criteria: a) neutral or beneficial environmental impacts; b) the commodity is produced or can be easily produced by most targeted beneficiaries (potential for volume aggregation and scale); c) availability of profitable and structured markets (existence of MSMEs, processors, aggregation centres); d) potential to contribute to household nutrition; and e) potential for inclusivity (youth, women, PWDs, PLWHAs and other vulnerable groups participation). For an effective value chain approach, the availability of complementary support to the other actors along the value chain is also an important consideration. Based on this set of criteria and consultations with all ten target counties, the following value chains were prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees (avocado, mangoes); and e) horticulture (tomatoes, leafy vegetables). INReMP is expected to review these value chains regularly to determine continued relevance and take on board any new ones that best respond to INReMP's objective.
- 139. The following nutrition sensitive activities will be integral part of this component: a) introducing nutrient-dense varieties and promotion of viable nutrient-dense commodities from natural resources with aim at conserving agrobiodiversity; b) introduction of good post-harvest practices, techniques, and equipment that preserve nutritional quality and ensure safety of foods; c) facilitating preservation, processing, and marketing of selected nutrition-sensitive value chains; d) facilitating nutrition sensitive market standards and certifications to the private sector for supportive market systems and infrastructure; e) Social Behaviour Change Communication, social marketing and consumer food and nutrition awareness and hygiene education.
- 140. Support activities will cover crop and livestock production by ensuring that the targeted beneficiaries accessed subsidized bundled of inputs, technologies, services and facilities through the established digital voucher platform, market linkage, value addition and consumer nutrition awareness ensuring effective integration of farmers in the target value chains.
- 141. **Delivery of digital bundled services and e-voucher** INReMP will adopt the digital bundled services approach, scaling up the lessons and technologies deployed under the KCEP-CRAL⁹ Project, with the objective of: i) to enable targeted beneficiaries to access bundled inputs through the evoucher , technologies, services and facilities for improved

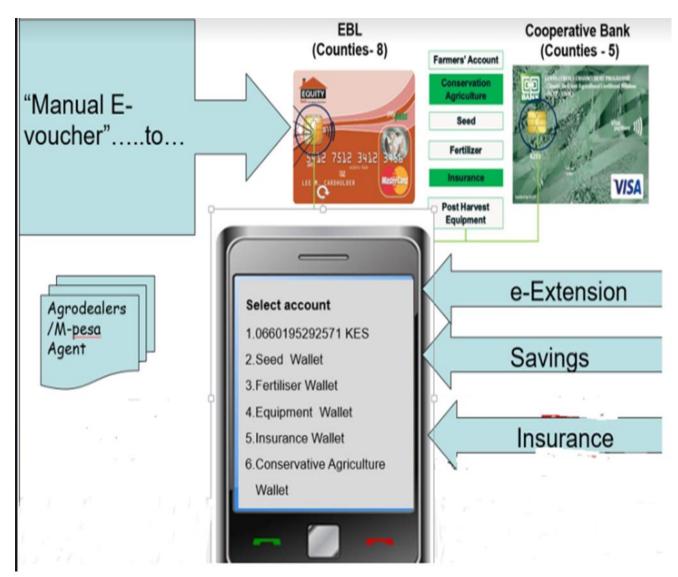
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⁹The KCEP-CRAL e-voucher platform is led by the private sector creating an opportunity to deliver last mile services, inputs, technologies by crowding in the private sector and ensured that segmented e-wallets (conservation agriculture service, crop insurance, certified seeds, agrochemicals including (bio)fertilizers, post-harvest equipment) provided targeted farmers to securely access these assorted supports while also creating opportunity for their financial inclusivity. The platform used both debit-card-point of sale and USSD for all the transactions across 13 KCEP-CRAL Counties.

crop and livestock productivity and production (improved livestock breeds, animal feeds, fodder seeds, improved crop varieties, (bio)-inputs for enhanced productivity and soil health, improved tree seedlings, modern beehives, etc.; ii) deploy digital advisory services to provide information to farmers on best practices to support livestock feed and fodder production, pasture management and feed preservation. This intervention will also seek to integrate AI-enabled advisory services (such as the Digital Green AI Farmer Chat¹⁰) leveraging on KARLO's Farm stack as this has proved to be effective in providing the needed advisory services farmers.

Implementation modalities. INReMP will replicate and scale up KCEP-CRAL's evoucher experiences, lessons, innovations and best practices that IFAD, EU and GoK have been implementing over the last seven years as well as drawing emerging lessons from GoK and WB e-voucher scaling up approach. The KCEP-CRAL e-voucher model is led and driven by the private sector within the framework of Public-Private-Producer Partner (PPPP) where financing is co-shared among these actors both in terms of the systems development, operation and access to the subsidized bundled of inputs, services and technologies based on market prices. The system has also evolved in becoming costeffective transitioning from GoK-led paper based voucher system in earlier 2010s, through customized debit-card solution (e-voucher 1.0) under KCEP-CRAL, to mobile/cardlessbased solution (e-voucher 2.0) under KCEP-CRAL Plus (under EU funding as mitigation measures against COVID-19 risks) and piloting Blockchain (e-voucher 3.0) that IFAD piloted in KCEP-CRAL to enhance the end-to-end encrypted traceability of financial flows. KCEP-CRAL has conducted full scale impact assessment through contracted consultants and main conclusion is that the e-voucher is a game and transformative changer and multiple benefits have been accrued when comparing treatment against control group on productivity increase, income increases, food and nutrition security, job creation and asset accumulation, financial inclusions and resilience. The figure below demonstrate the KCEP-CRAL e-voucher system

¹⁰https://farmerchat.digitalgreen.org/



- **INReMP** would therefore adopt the KCEP-CRAL e-voucher approach to ensure that private sector is crowded in to the digital voucher system involving i) competitive procurement of two to three providers who could also demonstrate capacity to provide financial inclusions (both services and products) to the targeted value chain actors and have demonstrated presence in the INReMP targeted counties by ensuring the value chain actors can access the system in their proximity/localities. The Procurement will involve open call for expression of interests, call for proposal from those who have qualified or shortlisted after EOI, selection of potential providers after meeting minimum eligibility criteria on both technical and financial proposal, negotiations and contracting. As in KCEP-CRAL, INReMP will use the performance-based contracting which are subjected to renewal after satisfactory performance; ii) the providers should commit to co-finance the system development, operation and maintenance and based on negotiations with the INReMP, ensure some level of systems integrations/interoperability of the INReMP M&E/MIS systems. The digital system should be amenable to integrated both frontier technologies e.g. Blockchain, Artificial Intelligence (AI), Chatbot enabled and USSD functionalities but still remain cost-effective both in the medium and long-term.
- 144. The Policy, procedure, process will be adopted from the existing KCEP-CRAL e-voucher manual for the INReMP digital voucher manual which would be drafted during the PY by the interim start-up team and finalise during the INReMP Management Team and contracting of the procured service providers.
 - 145. The following are the key activities that need to be followed

Introduction digital bundled services and e-voucher						
	Y1	Y2	Y3	Y4	Y5	Y6
Engagement of KARLO and Digital Green to support Extension Advisory and Development of AI enabled AgriBot leveraging Farm Stack Data						
Curate Content and Knowledge to promoting green technologies, water saving and on-farm water management water practices for digital advisory leveraging L-FFS curriculum and extension data						
Integrate Feed and Fodder advisory into the Agribot in liaison with ILRI to support diary value chain farmers						
Competitive Procurement of digital voucher platform provider (issuing expression of interest, call for proposals, selection, negotiation and contracting)						
Development, testing and rollout of the digital voucher platform						
Selection, Registration of farmers on the digital Voucher and link to Farmer Registry collaboration with KARLO						
Selection, registration Enrollment and Onboarding of Agrodealers and Agribusiness for digital voucher services						
Finalisation (PY1) and revision of digital e- voucher manual						
Implementation of digital voucher platform based on the phasing of the beneficiaries to access validated subsidized bundled of inputs, services, technologies, equipment/facilities across the 10 counties						
Training of Extension Workers to provide Digital Advisory Services						
Operation and Maintenance of the digital voucher system						
Train LFFS farmers and lead farmers in good and climate smart agronomic practices using digital content						
Procure Mobile Tablets to support delivery of advisory Services by Extension Agents						
Monitoring, evaluation and reporting of the digital voucher platform						

146. The INReMP support through this digital voucher platform will ensure differentiated targeting through a sliding subsidy principle where: a) the most vulnerable beneficiaries (e.g. youth, PWD, PLWHAs, IPs and those impacted by climate risks (floods, droughts) will receive Programme input-package start-up support at 90% subsidy with the vulnerable contributes 10%; b) rural smallholders moderately food insured including only youth CIGs,

FOs, CFAs will receive INReMP support for start-up package at 80% subsidy of the cost of the package and they contribute the remaining 20%. Details of the planned activities are presented hereunder.

I. Production Support to Target Value Chains

A. Dairy Value Chain activities

147. In the programme counties, dairy productivity varies across regions, with farmers reporting an average milk production of 3-8 Litres/cow/day. Main factors affecting productivity include the use of breeds with low milk production potential, poor access to quality feed, poor animal husbandry techniques, inadequate disease control. The table below presents main production challenges and planned interventions.

Dairy Value Chain: Summary of key production challenges and opportunities

S/No.	Activities	Challenges	Interventions/opportunities
1)	Breeding	the dairy herd, contributing to low milk productivity. Access to A.I is a challenge due to few inseminators and limited distribution of the inseminators and at times lack of equipment such as the liquid nitrogen tanks. High costs of AI, poor success rates/conception rates, long calving intervals and low level of adoption of AI. Genetic erosion due to	will increase availability and the success rate of breeding technologies. • Enhance adoption of good animal breeding practices 4
2)	Animal feeds	 Shortage of quality animal feeds and over reliance on natural pastures limiting productivity of animals Low level of knowledge and skills on animal feeding and feeds management, feed conservation and limited awareness of other nonconventional feed sources High cost of concentrates, low quality concentrates, and inadequate protein sources, Inadequate fodder conservation equipment and 	establishment of high-quality fodder and pasture formulation and production facilities by farmers. Capacity building on pasture establishment and conservation Introduction of quality pasture and fodder seed Capacity building initiatives to address the issue of feed conservation and exposure to the alternative feed sources available for use. Access to modern

			 Utilize open fields at county farms for feed
3)	Animal health	 Cattle disease prevalence attributed to domination of 	surveillance and monitoring mechanisms in addition to farm
		borne diseases such as ECF, Anaplasmosis and ther diseases such as Foot and Mouth disease, Lumpy skin disease and anthrax.	 Capacity building of animal health practitioners and agrovets Rehabilitation of cattle dips
		counties in addition to having few/inadequate animal health practitioners at both public and private levels. High cost of veterinary services both curative and preventive Collapse of cattle dips due to high cost of acaricides & poor governance/management Infiltration of animal health service by untrained people and emergence of antimicrobial, and acaricide	revolving fund for procurement of livestock vaccines and revival of tick control infrastructure Support for the purchase of motorcycles to enable animal health service providers reach farmers for vaccination activities. Train and equip youth as Community Sprayers (in noncattle dipping zones i.e. among zero-grazers) Establishment and enforcement of regulations on the provision of animal health services by untrained personnel, as well as the sales and distribution of falsified and
4)	Extension services	livestock extension staff Transport /mobility for livestock extension officers is a challenge. Inadequate technical skills on emerging dairy technology	 Enhance the capacity of staff on emerging technology in dairy/capacity support to the Dairy Training Institute. Equipping extension agents for effective and efficient service delivery Support in the provision of mobility/transport for livestock extension officers. Empowerment of farmers and training of village-based youth to offer basic extension services and identify model farmers to offer advisory services at the village level as community-based vets. Optimization of digital technologies and other media – Radio, TV, and social media platforms- for delivery of extension messages to farmers. Promote the farmer field school approach to empower the dairy farmers.

- 148. The following have been identified as priority intervention activities for INReMP for the dairy value chain.
- 149. **Identification and mapping of farmers and other stakeholders** This activity will seek to identify and map the location of existing individual and groups of producers and their level of production. The mapping will also cover other actors, such as buyers, input suppliers and suppliers of equipment. This activity would lead to the production of a "milk map" showing concentration of producers and, thus, potential supply areas. The information will assist in determining the potential supply areas and ideal locations for aggregation centres. A total of ten mapping exercises will be conducted, one in each of the target counties.
- 150. **Improve access to climate smart feed and fodder and water** The project will strengthen the collaboration between fodder producers with Kenya Seed Company and other private fodder seed companies to deliver quality fodder seeds. The fodder seeds will be distributed through private agrovet and farmers cooperatives. Emphasis will be placed on dissemination of legumes drought resistant and low-input fodder varieties for higher productivity and lower pressure on natural resources. This will rely on supporting the emergence of a feed, fodder, and fodder seeds supply chain. It will include support to KALRO for the identification and selection of varieties and to private seeds producers to deliver quality planting materials and support to private feed and fodder producers and rangeland rehabilitation.
- 151. Capacity building to improve fodder production such as grass and legume intercropping, agroforestry and weed management will be done at the community and cooperative level to enhance uptake of good fodder production practices. Best practices in fodder crop pest management and soil conservation management for feed and fodder production will be identified, and pasture/rangeland rehabilitation and sustainable land management strategies will be developed in participative way and implemented. To mitigate the impact of droughts and improve feed and fodder quality, fodder choppers and conservation equipment, including hay stores, plastic barrels for small-scale silage making, will be provided, including for hay and small-scale silage making. This intervention will also address seasonality by making higher quality feed/ fodder available throughout the year for dairy production thus reducing fluctuation in the volumes of milk supplied to the cooperatives. Feed/ Fodder of higher digestibility will also contribute to reducing enteric methane emission.
- 152. Prior to rolling out the feed/ fodder support activities an assessment of the status of the availability and accessibility of livestock feed/ fodder will be undertaken at the county level to estimate the feed and forage deficit and identify opportunities and challenges. The project will identify opportunities to involve women and youth in fodder production as a business. The project will also leverage on the assessments and analysis conducted by other IFAD project like KeLCoP to identify the best ways to intervene and support the development of a sustainable fodder value chain.
- 153. **Strengthen delivery of public and private animal health services** Sick animals are unproductive and use resources inefficiently. To strengthen the system of disease surveillance and monitoring the project will assess the existing disease surveillance systems in the project counties and intervention for strengthening the systems identified The support could among others include enhancing the capacities of public and private veterinary services to deliver essential Veterinary Public Health (VPH), including for surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians and technicians/para-vets, inspection, and diseases emergency response). At least 2 para-vets per village will be trained.
- 154. The project will also collaborate with the counties to develop disease contingency plans to respond to any sanitary challenges. The contingency plans are required for each disease that is a risk to livestock production. Prior to making investments in the

development of the plans, the project will review existing contingency measures and support the respective counties to develop plans for common and any other known emerging diseases depending on the epidemiological situation in the county and assessed risks. To project will support surveillance by providing smart devices to be issued to disease monitors, community surveillance reporters for regular tracking, monitoring, and reporting diseases. The smart devise will improve the efficiency of disease reporting and response. The lessons learnt from the use of smart devises in monitoring, reporting, and responding in KeLCoP can be used to enhance the efficiency and use of devises in disease monitoring.

- 155. The project will put in place a Behaviour Change Communication Approach (BCCA) with the aim of changing farmers habits and attitudes to prevent introduction and spread of livestock and zoonotic diseases. The training will target dairy farmers and communities on improve animal husbandry practices to prevent and reduce disease occurrence at the farm. BCCA entails designing and implementing interventions in a manner that is interactive and a process of discovery learning and adaptation.
- 156. **Delivery breeds and breeding services by public and private sector** Overall productivity in the dairy sector remains low in the targeted counties and natural resource use efficiency can be improved by selecting more productive animals while keeping the adaptive capacity of local breeds. The project will provide a total of 2000 productive dairy animals to farmers through matching grants. In calf heifers suitable for the different agroecological zones will be selected, procured, and delivered to vulnerable households, with priority being given to poor women headed households. Other poor household will also benefit over time through the Pass-On-the-Gift (POG) system. Support and facilitation of the POG will be implemented collaboratively by the project management and local groups, with a progressive transfer to other group members. This will result in increased production, nutrition, and incomes for these specific households.
- 157. Prior to the delivery of the cows, technical capacities of smallholder farmers in the domains of animal husbandry (including reproductive management, feeding, health management, animal welfare), fodder production and conservation, milk hygiene and quality, manure management will be conducted. Careful selection of the beneficiaries will also be done using a predetermined criteria to ensure the beneficiaries have capacity to manage the animals and reduce mortalities during the project and beyond. The ultimately result of the capacity building is to increase productivity, improved animal welfare, and reduced GHG emission intensity.
- 158. The project will support both public and private players to deliver efficient AI services to the farmers for breeding. The public artificial insemination (AI) mechanism will be strengthened to improve the delivery of quality of locally produced semen, and its availability throughout the country, including through better availability of liquid nitrogen. The network of private AI technicians will be strengthened through training and provision of equipment, to improve the last mile delivery of AI services in the field. A mechanism for registration and accreditation of AI technicians, performance monitoring and continuous capacity building will also be established to ensure quality of services and improve the success rate of AI. Intervention will support delivery of 15000 doses of semen. Attention will also be given to keeping traits that are relevant for climate change resilience, while breeding for more productive animals will also result in lower emission intensities.
- 159. Support delivery of extension services (Enhance capacities, assets, and community organization of producers to adopt good agricultural practices for across the value chains To strengthen farmers' technical skills and enable the dissemination of best practices and technologies in feed/fodder, herd management, breeding, animal health, manure management at farm level, and rangeland management, community-based training and extension mechanisms will be supported with a strong focus on climate change adaptation and mitigation.
- 160. The project will support the development of private extension mechanisms at the cooperative level, as well as employ digital extension. Recognizing that the capacity of

the County Governments to provide extension services using the traditional visit approach is no longer feasible given the shrinking manpower and operational budgets of county governments, the project will therefore implement an digital based approach to extension services using e-extension based models that are appropriate for the needs and literacy levels of its targets. The main aim of the e-extension is to bridge the gap on the dissemination of technical innovations and on the linkages between research and farmers. The project will procure e-extension services on a competitive basis from the range of service providers available in the country. The e-extension can be integrated to deliver other key messages for project beneficiaries like messages on nutrition awareness messages. In addition, the service provider will develop modules which allow farmers to access expert veterinary advice on call for diagnosis and treatment of ailments for which local expertise may not be readily available. To establish a sustainable e-extension model, the farmers willingness to pay for services will be assessed during the implementation and the lessons learnt used to determine the best delivery model. The ESMF and ESMP identify risks such as e-waste disposal, that are associated with the use of digital technologies. The PMCU should ensure that these risks are mitigated during implementation.

- 161. The project will support development of Livestock-Farmer Field Schools (L-FFS) for dairy farmers. The project support will include development of training curricula, training of trainers and facilitators, and facilitation of L-FFS, including provision of inputs for field trials and demonstrations.
- 162. The development and roll out of L-FFS will involve in the first-place development of a specific curriculum on climate smart dairy production, based on existing curricula developed by FAO and building on the dairy L-FFS curriculum developed in Rwanda under RDDP, successfully tested and improved over the 6 years of implementation. The curriculum will be developed by hiring a service provider on practical high-quality training of the complex aspects of climate smart livestock management.
- 163. The second step will be the training of master trainers, who will be selected among existing master trainers already trained by FAO. Master trainers will then train the 300 facilitators. The first generation of facilitators will be the subcounty and ward Livestock extensionists, and the second and following generations will be farmer facilitators selected among the first generation of trainees.
- The primary focus of L-FFS will be to improve farm management practices and increase production, productivity, and resilience of systems. The main technical entry point for L-FFS will be fodder production and conservation to ensure that: (i) fodder and food crops are not in competition but rather complement each other through adequate intercropping and crop association between fodder (especially legumes, fodder trees, etc.) and food crops, and valorisation of crop residues for cattle feeding; (ii) fodder varieties and practices contribute to climate resilience (utilisation of drought-resistant varieties, introduction of fodder conservation techniques, composting, etc.); and (iii) feed quality, digestibility, and feed balancing is improved to ensure satisfaction of production needs and thus enhance productivity, but at the same time reduce emission. In dairy systems, the L-FFS will also put emphasis on milk quality and hygiene at farm level, including milking hygiene and control of mastitis, to improve productivity and food safety. Animal welfare is an important issue because of impact on productivity and health, market implications (need to comply with World Organization for Animal Health guidelines for international trade) and societal concerns. The zero-grazing system has some implications on animal welfare, and the L-FFS curriculum will include guidelines to improve living conditions of animals kept in zero grazing systems, including appropriate cowshed standards and good practices such as daily outdoor walk.

B. Improved Local Poultry Value Chain Activities

165. Local improved poultry production is an economic activity predominantly carried out by women, youth and marginalized segments of the population. Poultry occupy relatively smaller spaces that do not interfere with land for agriculture and can easily be carried out by women and youth. Poultry can recycle household waste and low value

biomass as feed, hence having limited impact on natural resources, and provide high quality protein. The main constraint to local poultry production is the low level of productivity due to diseases (e.g. Newcastle), limited access to hatching/fertilised eggs and chicks of more productive breeds, high cost of feed, poor housing infrastructures, inefficient and costly aggregation methods, and lack of processing facilities.

Poultry Value chain: Summary of key production challenges and opportunities

_	Activities	Challenges	Interventions/opportunities
1.	Poultry Production	improved poultry breeds and genetics.Poor hatching and brooding practices	production technologies Supporting farmers to establish hatcheries through matching grants.
2.	Poultry feeds	 High cost of feeds and limited access to quality feeds Unavailability of raw materials for feeds production Competition for feed with the dairy sector and humans and high aflatoxins levels 	
3.	Poultry health	diseases such as Newcastled Disease (ND) leading to mass loss of birds Insufficient knowledge on farm biosecurity measures Low technical knowhow on poultry disease prevention and management Limited access to poultry vaccines and medicine Poultry drugs missuse by unqualified	 Enhance routine and timely vaccination. Capacity build farmers on disease control and poultry health management Support agro dealers in stocking and maintaining the cold chains towards the vaccines and drugs for poultry. Promote new versions of vaccines that do not require refrigeration such as the thermo stable vaccines. Train and support community-based vets to periodically vaccinate the chicken on behalf of farmers.

- 166. The main constraints include poor access to eggs and chicks, high cost of feed, poor housing infrastructures, inefficient and costly aggregation methods and lack of processing facilities. The following have been identified as priority activities for the improved local chicken in INReMP.
- 167. **Identification and mapping of farmers and other stakeholders** This activity seeks to identify and map the location of existing individual and groups of producers and their level of production, including other actors such as buyers, and suppliers of inputs and equipment. This mapping will include a gendered analysis of the farmers to inform targeting. The obtained information will assist in determining the potential supply areas as well as identify the support needs of other actors along the value chain.
- 168. *Improve poultry breeds to farmers* The Programme will establish linkages with suppliers of improved chicken to deliver poultry to the farmers. For vulnerable groups, youth, and women the Programme will provide a start-up kit for up to 100 birds per farmer. Although farmers will produce individually, they will be encouraged to form production groups that facilitate learning and allow for coordinated production for more economic use of certain inputs as well as enabling them to attract market intermediaries/aggregators. About 80.000 farmers will receive day-old chicks. The project will support both public and private hatcheries to deliver improved day-old chicks to farmers. KeLCoP is currently strengthening the capacity of KALRO centres in Kakamega and Naivasha to produce and deliver improved chicken to farmers in the targeted countries. Private suppliers are already working with other IFAD projects like KeLCoP to supply improve poultry breeds to the project beneficiaries. The linages develop in other projects can be used to accelerate the delivery of improved poultry to beneficiaries.
- 169. Targeted beneficiaries for improved chicken producers will be organized into group and trained on animal husbandry (including feeding, health management, animal welfare and marketing). Careful selection of the beneficiaries will also be done using a predetermined criteria to ensure the beneficiaries have capacity to manage improved chicken. The ultimately result of the capacity building is to increase productivity, improved animal welfare, and offtake of improved chicken and eggs. Given that the distribution of women will mainly target vulnerable women and youth, special effort will be made to include improved infrastructure for poultry.
- 170. A criterion will be developed by the project to identify beneficiaries as well as identify suitable packages to support the identified beneficiaries in the targeted counties.
- 171. Delivery of day-old chick will only be done after groups have been trained and organised into group to enhance collective action. Collective action will ensure that the chicken farmers benefit from the economies of scale during production and marketing. Though the capacity building will be conducted tin groups improved chicken will be given to individual farmers as group management of poultry was identified as a major challenge during the design mission.
- 172. Strengthen delivery of public and private animal health services and essential input to support production: Public and private veterinary service providers used to support the dairy enterprises will also be involved in providing the needed animal health support to poultry producers during project implementation. Veterinary Public Health (VPH) missions such as surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians, inspection, and diseases emergency response) will also be shared.
- 173. Disease contingency plans that will be developed by the counties will also respond to improved chicken disease challenges. Disease surveillance system developed by the project will also cover poultry diseases and other livestock diseases to help in the management of zoonotic diseases in the targeted counties.
- 174. Farmers will be linked to private supplier of key input like feed. The project beneficiaries and farmer groups will be linked to reliable suppliers of inputs to support poultry production. The project will develop a list of agrovet input suppliers in each

targeted counties and work with the identified suppliers to ensure that the quality of input supplied is of good quality. Capacity building on local/home poultry feed formulation will be provided to farmer groups to help them reduce the cost of feed and the use of available feed resources. The project will also identify and evaluate options for supporting youth to engage into the poultry input supply as well as milling. This will be done through matching grants.

- 175. Messages and training will also be put in place for Behaviour Change Communication Approach (BCCA) with the aim of changing farmers habits and attitudes to prevent introduction and spread of livestock and zoonotic diseases. The training will target farmers and communities on improve animal husbandry practices to prevent and reduce disease occurrence at the farm. The packages developed using the BCCA will b delivered at the group level by group mentors. The group mentors will also inform members about other channels through which information may be available.
- 176. Support delivery of extension services and poultry infrastructure (Enhance capacities, assets, and community organization of producers to adopt good agricultural practices for livestock production) The project will support extension to farmers to enhance dissemination of best practices and technologies in feed, poultry management, and animal health. This will be conducted by both public and private extension service providers. The project will support implementation of an ICT based approach to extension services using e-extension based models that are appropriate for the needs and literacy levels of its targeted beneficiaries. The main aim of the e-extension is to bridge the gap on the dissemination of technical innovations and on the linkages between research and farmers. The e-extension package will include all domains that need to be communicated during the project to enhance productivity as well as NRM components of the project.

C. Apiculture Value Chain Activities

- 177. Due to their intrinsic interaction with the surrounding environment, bees play a significant role by pollinating crops and wild plants, including forest trees, thus offering a vital ecological role in biodiversity conservation and maintenance of landscapes. Furthermore, apiculture represents a valuable adaptation strategy. During droughts in fact, bees can forage in the wild vegetation and still be productive while crops productivity decreases. However, beekeeping and consequently the honey production, is challenged by environmental harmful practices such as deforestation and unregulated pesticide use. This results in loss of greenery and forage for bees, causing higher absconding rates.
- 178. **Identification and mapping of farmers and other stakeholders:** This activity will seek to identify and map the location of existing individual and groups of producers and their level of production including other actors such as buyers, and suppliers of equipment. This information will assist in determining the potential supply areas.
- 179. **Improved honey production**: This activity will invest in training of farmers in good beehive management including effective control of pests and diseases. Farmers will also be made aware of the advantages of adopting and using modern beehives that allow for better management of the queen bee as well as honeycomb management. Activity to be supported include acquisition and distribution of honey quality equipment that comprises of the following items: Langstrothe hives, bee suits, honeycomb, smoker, swarm catcher, queen excluder, and honey extractor.
- 180. **Initiate GAP training and demonstration in apiculture**: The Programme will: i) Provide CSA/GAP trainings for extension service and smallholder apiculture farmers/apiculture associations with a particular focus on good environmental practices (i.e. correct use of pesticides). This will include sensitising them on the importance of preserving/maintaining the ecosystem (i.e. tree cover maintenance), thus promoting the protection and planting of trees; ii) Encourage honey production combined with the growing of bee-friendly crops like sunflower and alfalfa which may increase the honey production season beyond the current 3 months per-year (October December) and also

create linkages with other commodities; and iii) where land degradation will be recognised as an impeding factor for the sustainable development of the COMMODITY, the Programme will explore the best environmental practices for land restoration (i.e. promoting the protection and planting of specific tree species). This will contribute to improve the resilience of beekeepers while aligning the Programme's intervention to the GoM's strategic objectives to reduce GHG emissions and preserve its ecosystem.

D. Fruit Tree Value Chains (Avocados)

- Fruit tree production contributes positively to natural resource conservation through providing ground cover that should lead to reduced incidences of soil erosion. Fruits, for home consumption and marketing, provide an economic incentive for households to invest in such fruit tree production. This activity prioritizes avocado tree production although other tree types, like mangoes and banana, could equally be promoted depending on available local market opportunities in target counties. The Hass avocado variety has more market opportunities and is the most widely cultivated, with many farmers reporting its production. The number of farmers engaged in avocado production varies across the counties, ranging from a few hundred to tens of thousands. The average area of land put under avocado production by farmers varies slightly across the counties but is on average 0.25 acres and the number of trees per farmer ranges from around 15 to 25. The objective of this intervention is to increase the number of farmers producing the crop as well as the number of trees per unit area. This will, in turn, increase the volume of avocados available for the market. Some 92.000 households are targeted. The main constraints faced by farmers include poor access (availability and cost) to quality planting materials/seedlings, limited knowledge of good ag
- 182. Agricultural practices, inadequate access to mother blocks for rootstock and scions, low skills on nursery management and absence of specialized inputs in the local agrodealers' shops. Planned interventions include:
- 183. **Production and distribution of quality seedlings** The aim is to facilitate farmers to access good seedlings from certified nurseries. First, the project will support existing nurseries to access quality planting materials for multiplication and facilitate their certification. This requires a close working relationship with specialized research stations that could serve as a source of such materials. A second element is to support farmers to acquire seedlings at reasonable cost; 92.000 households are targeted.
- 184. **Training in Good Husbandry Practices** To enhance survival rate of planted seedlings, training will be provided to beneficiaries on good tree management, importance of using grafted seedlings for planting, recommended plant spacing, pruning and soil testing. The main challenges that exist in managing avocado health include inadequate knowledge and skills on pest and disease identification and management, as well as the availability of counterfeit pest control products in some areas. Farmers will be trained in integrated pest management and disease control. Linkages will also be established with reputable input suppliers. In addition to individual and group training, the Programme will also promote field days, demonstrations, exchange tours, field visits, etc.;
- 185. **Strengthen delivery of public and private extension services in avocado production** There is need for increased training facilitation and widespread adoption of new technologies throughout the avocado value chain. Training will be provided to public extension staff to improve their technical knowledge on avocado production. Training will also be extended to farmers' groups and their lead farmers to contribute to farmer training. Planned activities include support for organization of field days, demonstrations, agricultural shows and exhibitions, exchange tours, field visits, and group visits as part of their extension activities; and
- 186. **Strengthening Delivery of Inputs**. An assessment will be done at the start of the programme to determine limitations that agro dealers face to meet inputs requirements for fruit tree production. Training for input suppliers will include exposure to specific input needs for fruit trees, appropriate packaging of inputs, correct and safe use

of agricultural chemicals, improving communications with individuals and farmer groups. Proper linkage to VSLAs is further important, as this will provide smallholder producers with the required capital to invest in improved inputs.

Fruit Tree Value Chain: Summary of key production challenges and opportunities

S/No.	Activities			challenges and opportunities Interventions/Opportunities
1.	Access seedlings inputs	to and	 Unavailability of quality. grafted seedlings 	• Supporting the
	inputs		within the reach of farmers	 Subsidize inputs to the farmer through E-Voucher subsidy program.
			seedlings & inputs (fertilizers and pesticides).	 Capacity building of Co- operatives, CIGs and individual nurseries on nursery
			technical know-how on Avocado production.	management. Enhance quality control by mandated institutions e.g. KEPHIS, HCD, Department of
			to mother blocks for rootstock and scions.	
			(roadside) nursery operators.Diseases and	inputs like pheromone traps. Register mother blocks for scions and establish mother
			seedlings	engage in Seedling production.
2.	Adoption GAPS			
			 Low transition to 	 Development of simple and affordable technology, provision of inputs subsidy,
				Establishment of commercial Fruit tree nursery in the county. Train more youth on clean & Certified seedling production by linking to AFA
3.	Fruit	tree	• Unaffordable soi	Capacity building on soil
	health		testing, inadequate skills on IPM, importation of diseased seedlings.	sampling and analysis, IPM and support to the provision of affordable soil testing kits
			 High cost of agrochemicals. Inadequate 	nurseries, sensitize on IPM. Establishment of agro
			nutrient application and pest and disease control.	chemicals subsidy using E- Voucher programme • Strengthen extension services by deployment of
			 Counterfeit pest and disease control products. 	services by deployment of agronomists to provide advisory services.

• In:	adequate	 Revita 	lize and adequately
knowledg	e and skills or	fund plant clii	nics.
avocado	pests and	l• Suppo	rt provision of
diseases o	control	water harve	sting and water
• La	ck of adequate	conservation	technologies
water for	the avocado fruit	• Capac	ity build farmers on
trees		integrated p	oest management
• In	adequate	and disease of	control and relevant
knowledg	e on post-harvest	technologies	of post-harvest
handling		management	of avocadoes

E. Horticulture (tomatoes, green leafy vegetable)

The horticulture value chain presents an alternative livelihoods opportunity for sites 187. benefitted from water harvesting and irrigation development. This intervention has the potential for women empowerment. The major challenge with horticulture products is their highly perishable nature and, thus, this requires the availability of organized and profitable markets, especially where large volumes are produced. On the other hand, organized markets require a consistent supply of good quality produce. The following constraints have been identified and will be the focus of project interventions: i) uncoordinated production leading to surplus that does not match level of demand; ii) limited knowledge of good agricultural practices; iii) poor access to the requisite inputs; and iv) inadequate disease and pest control. Successful small-scale horticultural production requires high levels of organisation among farmers to coordinate production and access to water.

Horticulture Value Chains: Summary of key production challenges and opportunities

S/No.	Activities	Challenges Interventions/opportunities
4.	Production	 Low adoption of Capacity building and training improved poultry breeds of farmers on modern poultry and genetics. Poor hatching and Supporting farmers to brooding practices establish hatcheries through Low adoption of matching grants. modern poultry production technologies such as improved housing and ventilation, feeding and watering systems and climate control systems
5.	Poultry feeds	 High cost of feeds and limited access to quality feeds Unavailability of raw supporting farmers and groups to materials for feeds production Competition for feed with the dairy sector and humans and high aflatoxins levels High cost of concentrates, low quality of concentrates High cost of feeds with the dairy sector and feed such as homemade rations or climate smart production of feed such as using the Black soldier fly.

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	6.	Plant health	 High incidence of Enhance disease surveillance
			diseases such as Newcastle and monitoring.
			Disease (ND) leading to Enhance routine and timely
			mass loss of birds vaccination.
			• Insufficient • Capacity build farmers on
			knowledge on farm disease control and poultry health
			biosecurity measures management
			 Low technical Support agro dealers in
			knowhow on poultry disease stocking and maintaining the cold
			prevention and chains towards the vaccines and
			management drugs for poultry. Promote new
			 Limited access tolversions of vaccines that do not
			poultry vaccines and require refrigeration such as the
			medicine thermo stable vaccines.
			round, arage miss
			use by unqualified community-based vets to
			veterinary service providers periodically vaccinate the chicken on
			especially in the agrovets behalf of farmers.
			leading to Antimicrobial
			resistance.

- 188. Activities to be implemented targeting some 107.000 households include:
 - Market opportunity assessments This is to identify commodities with market opportunities. Such assessments will be done every production season. The assessments will focus on identifying crops with local and national markets to be supported. The assessments will also identify contract production and aggregation opportunities.
 - **Support for increased Production and Productivity** INReMP will provide training to farmers on good agricultural practices for target commodities. Approaches will include setting up demonstration plots, organising field days. Key training themes will include nursery establishment, planting density, fertilization, pest and disease control;
 - Facilitating Access to Inputs To produce quality vegetables and tomatoes, it is necessary to use appropriate seed varieties and chemicals to control pest and diseases. The project will support farmers, using the matching grant mechanism, with start-up inputs necessary to enter into identified and prioritized horticulture value chains. The Programme will help the organised producers to aggregate their demand for the different requisite inputs. INReMP will facilitate linkages with local input dealers for mutually beneficial dealings. Any organisational support needed will be provided to ensure that inputs are locally and timely available to farmers.
- 189. **Nutrition strategies** within the Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises component will include:
 - Supporting inclusive, climate-smart, and nutrition-sensitive production and productivity enhancement. This will involve capacity building for registered farmers' groups, cooperatives, and community organizations to enhance their understanding of the nutritional values of selected products. The chosen value chains include dairy, indigenous (improved) chicken, honey production, avocados, mangoes, and bananas. Additionally, the project aims to promote the cultivation of herbal/medicinal plants, non-timber forest products, and neglected underutilized species (NUS) to diversify nutrients and protect the environment. Intercropping and crop diversification with climate-smart, nutrient-rich crops, such as indigenous vegetables, will also be encouraged.
 - In terms of delivering Digital Bundled Services, the digital advisory services will feature nutrition content on nutrient-dense pasture management and feed

preservation. The lead farmers' model and community engagement digital advisory will complement traditional capacity building activities to provide content on the nutritional values of selected value chain products, including food quality and safety across the value chain. This includes identifying impurities, monitoring storage conditions, and forecasting shelf-life quality control systems, which may reduce food wastage and ensure safe, high-quality goods. AI-enabled advisory services, such as Digital Green's Artificial Intelligence-powered Farmer Chat4, will provide targeted nutrition and consumer advice for households with malnourished children.

- Strengthening input supply services and systems: The provision of e-vouchers to support farmers in accessing vouchers for feed, fertilizers, and seeds will also include agro-diversity inputs, including Non-Timber Forest Products and Nutritious and Underutilized Species inputs, from onboarded agro-dealers. Consumer awareness and nutrition education content will be adapted to their needs, with voice messaging and SMS messages. Printed materials will also be developed for farmers to access during technical skills training and nutrition education sessions, promoting better nutrition practices within the communities.
- Promoting nature-based enterprises and non-timber forest products: Non-timber forest products and neglected underutilized species (NUS) are important for restoring soil fertility and providing food and health benefits. They contain antioxidants and micronutrients, contributing to sustainable and healthy diets. The biodiversity mapping done in component 1 will help identify potential Non-Timber Forest Products (NTFPs) and Nutritious and Underutilized Species (NUS) that have market demand. This will improve production and processing techniques, ensure product quality and certification, and connect producers with buyers, retailers, and consumers. The project will empower local communities, especially small-scale producers and indigenous groups, to engage effectively in nature-based and non-timber forest product enterprises. Access to capacity building and training programs tailored to nature-based enterprises will be facilitated through existing partnerships between IFAD and organizations like ICRAF (World Agroforestry), Bioversity International, the private sector, and agricultural institutions at the county level, as well as the SUN Business Networks. The technical training could cover sustainable harvesting and cultivation practices, post-harvest handling, value addition, marketing skills, and business management. This not only enhances income-generating opportunities but also contributes to biodiversity conservation and ecosystem resilience. Through collaboration, coordinated efforts, knowledge sharing, and resource leveraging, successful nature-based enterprise initiatives will expand. The project will also support legislation and guidance to incentivize sustainable resource use, protect indigenous knowledge and intellectual property rights, facilitate access to finance and markets for NUS and NTFPs, and promote fair trade practices.

II. Climate-Proof Production Infrastructure

- 191. INReMP will support development and implementation of climate-proof infrastructure to support production and improve productivity of identified value chains. The project will support: (i) smallholder irrigation infrastructure development (ii) investments in green and water-efficient irrigation technologies and other farm-based agricultural water productivity interventions and (iii) multi-purpose community water supply schemes for both productive (irrigation, animal watering etc) and domestic use. Farmers groups will be encouraged to use simple weather tools to predicate weather behavior and be better guided to take informed farm management decisions (linked to component 1.2).
- 192. The **expected results** of the production infrastructure component will be: (i) prioritized sub-catchment-level community infrastructure investments identified through participatory stakeholder consultations involving men, women and youth; (ii) approximately 4,500 ha irrigated farm and climate resilient irrigation infrastructure benefitting 6,000 smallholder farmers iii) 300 multi-purpose water supply schemes developed to support household-level production (dairy, fruit trees, vegetable farming) to

benefit around 30,000 households and put around 9,000 ha under irrigation; and (iv) 2,700 ha put under green and water-efficient irrigation technologies.

193. Participatory sub-catchment Level Infrastructure Investment Planning – The INReMP-supported infrastructure investments will be identified through participatory planning process involving women, men and youth beneficiaries. The planning process will identify priority smallholder irrigation scheme that need some infrastructure improvements, multiple-purpose water supply systems that need to be developed and feeder roads in micro catchments, supportive to the identified value chains (dairy, fruit crops, vegetable farming). The participatory community consultation and planning process will consist of (a) initial visits to communities in target micro-catchments, to inform communities about the project and to establish a long list of possible locations for INReMP-supported community infrastructure, (b) first dialogue meetings, to agree on a shortlist of priorities for interventions for the community, and (c) follow-up dialogues, particularly to establish links of the infrastructure to the value chains and to finalize intervention selection. These will be followed by call for proposal for infrastructure development, development of implementation partnership agreements and the actual implementation and handover of the projects.

Small-scale irrigation schemes

194. The objective of this intervention is to increase agricultural production through the rehabilitation and improvement of small-scale irrigation infrastructures for selected value chains. In doing this, INReMP will contribute to the Kenya Vision 2030 national strategy that identifies irrigation and agricultural water management as priority investment areas to drive agricultural transformation in the country. INReMP will also support the National Irrigation Services Strategy (2022–2026) that aims for a massive increase in total irrigated area, from 248,000 ha to 600,000 ha between 2020 and 2030. In addition to expansion, the government also wants to see increased water productivity and better irrigation scheme operations, where farmers pay for operations, management and maintenance (OMM).

700,000 Legend 600,000 ha, and the 600,000 Achieved area Projected area 500,000 Area in hectares 400,000 300,000 216,000 ha 200,000 100.000 1985 1990 1995 2000 2005 2010 2015 2020 2035 Year

National equipped area and target irrigation growth to 2030

Source: Irrigation development and experiences in Kenya: best practices emerging from a review of selected implementation programs (NIA, MoWS&I, WBG and KFW)

195. This component will be implemented with support from the National Irrigation Authority, the Irrigation Directorate in the Ministry of Water and Irrigation, and the County Irrigation Development Units (CIDUs) in the counties (see institutional arrangements and strengthening in Component 3). INReMP will target critical improvement of key irrigation infrastructure (abstraction, main distribution networks – getting irrigation water to farmgates), improve water use efficiency and enhancing of adoption of soil and water

conservation measures in the schemes (also linked with component 1.2). In addition, INReMP will enhance operations in the irrigation scheme. Considering the selected value chains, the irrigation schemes to be developed (rehabilitated and/or modernized) will be selected through a prioritization process explained above.

- 196. The project emphasizes farmer participation and ownership in irrigation improvement. It starts by identifying beneficiaries and land tenure through local agricultural cooperatives, followed by a demand analysis to understand socio-economic, land tenure, and water-related challenges. Awareness sessions will inform farmers about improvement measures and modern irrigation technologies to get their consent. Before executing physical improvements, irrigation water users' associations (IWUAs) will be formed (linked to component 1.1).
- 197. The national government, in consultation with the county governments, has identified priority of more than 40 irrigation schemes covering over 40,000 ha in the 10 counties; this will form a basis for further selection. The selection will be guided by feasibility assessments. The irrigation schemes to be developed will selected using the following criteria: (i) reliable water source, (ii) a demonstrated link to a market for the intended produce, with a possible link with lead enterprises and SMEs supported under this component; (iii) the investment encourages youth participation; (iv) the investment benefits women farmers and the irrigation technologies do not increase the workload of women; (v) demonstrated potential for increasing household income sustainably; (vi) commitment to contribute at least 15 per cent of investment costs in cash/kind. The shortlisted schemes will be assisted at undertaking feasibility studies to be submitted for final selection. The feasibility studies and full proposals need to confirm how each of the criteria indicated above will be met. The feasibility studies will include the environmental impact analysis (EIA), required for irrigation schemes, and development of Environmental Management Plans (EMP).
- 198. The actual locations of the irrigation schemes will be demand-driven, considering the linkages that will be established between the producer groups and value chain lead enterprises. Priority schemes identified by the Ministry of Water and Irrigation (attached in Annex) will provide further guidance. The irrigation types will be determined by the crops and topography of the areas. The project will follow the SECAP procedures in the planning and implementation of the schemes. The land ownership will be on communal lands or farmers with offer letters or leases from the government. The focus is on households rather than head of households to prevent women being excluded due to their lack of access to land and other productive assets. INReMP will include women (50 per cent) in the management committees of the irrigation schemes.
- 199. Irrigation schemes will typically have less than 300 participating households, with an average 0.5 ha per household. The typical average size of irrigation schemes will be less than 200 ha. A total area of 4,500 ha will be developed under this intervention. The expected number of direct beneficiaries is around 9,000 households.
- 200. The associated draft Terms of Reference (ToRs) are presented in Annex 1.III. of this document.

Water-saving technologies and on-farm water management practices

- 201. **Rationale** Increasing water productivity is a critical pillar in the National Irrigation Services Strategy (2022–2026). Regardless on the irrigation typology, the continued use of some surface irrigation methods such as flood irrigation, lack of information by farmers on when and what amount of water to apply, poor integration with other farm-based water conservation practices, the use of fossil-fuel based small motorized pumps etc, need to be urgently addressed, to get more "crop per drop".
- 202. **INReMP Intervention** The project will test, demonstrate and offer farmers a menu of options of green, water saving technologies and farm-based water management practices, to improve water productivity. This will be done in the FFS. The project will

create a platform to link farmers with green technology suppliers, who will also participate in FFS. These technologies/practices will include solar-powered irrigation pumps, low-cost drip irrigation systems, sub-surface irrigation, sprinkler irrigation, conservation agriculture etc. The project will implement smart water management technologies, including soil moisture sensors and drip irrigation systems. Efficient water use minimises energy-intensive pumping and contributes to sustainable land management.

203. **Target** – INReMP aims to put 20% of the total area irrigated under the irrigation schemes and that irrigated from the multiple-purpose schemes under this technologies and practices by INReMP. This will be about 2,700 ha.

Multi-purpose community water supply schemes

204. The primary objective of this intervention is to increase the community's access to safe water throughout the year for multi-purpose use – both productive (crop farming, backyard gardening, livestock etc) and domestic use. Bringing safe water closer to households will improve nutrition and health outcomes while freeing productive time for farming, especially women and youths. These water schemes will serve households, tree nurseries (link to component 1.2) and institutions (particularly schools).

205. Data on access to domestic water services at households from DHS, 2022, indicate that proportion of people with no access to water in the INReMP counties range from a high of 73% in Kakamega to a low of 28% in Uasin Gishu (see Table x below). Hence, there is a huge gap in access to water in households, which could be bridged by INReMP. In rural settings, data on access to water in institutions is near similar to households as design of water schemes is done to supply water to communities, including community-based institutions.

Access of water in households in INReMP Counties

100000 01 110101 111 1100001010100 111 111110111 0001111100			
County	% population without drinking water on premises		
Kakamega	72.6		
West Pokot	68.6		
Nandi	68.2		
Homa Bay	64.1		
Migori	61.7		
Kericho	61.2		
Trans Nzoia	60.5		
Kisumu	55.4		
Elgeyo Marakwet	41.7		
Uasin Gishu	28.2		

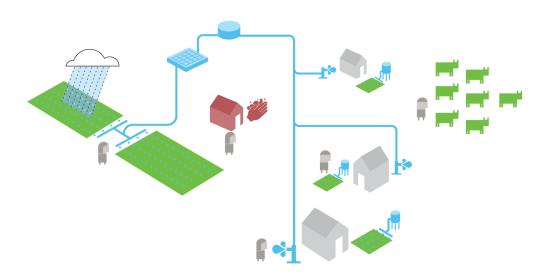
Source: Adapted from Demographic Health Survey, Kenya, 2022.

INReMP Intervention

206. The figure below shows a schematic illustration of a multiple-use system or a multipurpose water supply scheme. Depending on the locality, the water source could be groundwater (e.g. borehole), or abstraction from surface water sources like a perennial stream. INReMP will adopt green technologies for pumping (e.g. use of solar pumping systems). As the anticipation is to serve a community, water will be lifted to reservoir(s), with adequate capacity to serve a community of up to 100 households (less than 100 m3). From the reservoir, water will be distributed by gravity to households, who can also have small water storage systems, complemented by rainwater harvesting systems, to enhance water supply. Water for drinking purposes may need some treatment, and this can be done by Point of Use water treatment. The design will consider the national guidelines for

minimum water requirements for various water uses, but a general guideline given from studies shows it should be between 400-600 litres per household per day[1]

Illustration of a multi-purpose community water supply scheme



- 207. Community participation and feasibility studies done in sub-catchments will guide the water abstraction sources, which could include high-yielding boreholes, water pans, dams (already constructed which will be desilted), rivers/streams, rainwater harvesting reservoirs, and the lake. INReMP will invest in efficient green technologies such as solar powered pumping systems to enhance abstraction, conveyance and the use of water. Priority will be given to rehabilitation of existing water sources and water supply systems.
- 208. For the downstream (lake counties), an innovative approach for water abstraction and reticulation will be explored. INReMP will explore the use of green energy technologies for upstreaming water from Lake Victoria to uphill reservoirs/collection points and releasing for irrigation and other purposes. Also, the downhill flow of water can be used for micro-turbine energy generation. This is with the integration of water collection points such as wears, ponds and other natural/artificial collections. Introducing solar-powered or other renewable energy sources for irrigation systems will reduce dependence on fossil fuels, mitigate greenhouse gas emissions, and provide a sustainable energy solution for agriculture.
- 209. Selection of communities for multi-purpose community water supply schemes will be competitive, following an expression of interest and a call of proposals by the project. An initial call for proposals will shortlist potential communities to be assisted using the following criteria: (i) reliable water source, (ii) a demonstrated multiple use a high concentration of users must already be doing farming in one of the selected value chain; (iii) the investment encourages youth participation; (iv) the investment benefits women farmers and the water supply technologies do not increase the workload of women; (v) demonstrated potential for increasing household income sustainably; (vi) commitment to contribute at least 15 per cent of investment costs in cash/kind. The shortlisted schemes will be assisted at undertaking feasibility studies to be submitted for final selection. INReMP will support communities with screening of the potential investments for environmental and social risks and the development of the EMP as required.
- 210. The management arrangements for the water schemes will follow the standard practice for rural water supply systems and managed by the community WUAs. For efficiency, the use of prepaid water payment systems will be explored.

- 211. Beneficiary institutions (schools) will be within the community benefiting from the multiple-use water system and will be required to submit an expression of interest with a string commitment towards the school greening program (school gardening, tree planting, use of bio-energy, rainwater harvesting etc.) in component 1.
- 212. The selection of households for rooftop and/or open catchment water harvesting should meet the following criteria: (i) adequate average annual rainfall for the intended purpose of water harvesting, (ii) households meets the poverty criteria for the project, with special focus to the vulnerable groups: women, elderly headed households, and people living with disabilities, and (iii) households invest in roofing suitable for water harvesting and in digging the pond/tank, with consideration given to vulnerable households who may not afford roofing sheets.
- 213. INReMP will develop 300 multi-purpose water supply schemes, with each scheme serving up to 100 households, and among other uses, which could irrigate 9,000 ha.
- 214. The associated draft Terms of Reference (ToRs) are presented in Annex 1 of this document.

II.3.2: Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises

- 215. Access to profitable markets is considered a key element of sustainable natural resources management interventions (Subcomponent 1.2); target beneficiaries must be provided with an avenue to market their surplus produce. Value chain studies conducted as part of this design have confirmed existence of market opportunities. Follow-up assessments during implementation will identify additional market opportunities. These opportunities will drive the production support activities under 2.1. Against that background, this subcomponent focuses on the following activities.
- 216. **Market Opportunity Assessments** These market opportunity assessments for the target value chains will be undertaken during the first year of implementation and at the start of each marketing period to update information on the main actors and their location, availability of produce, volume of produce required by market intermediaries and potential suppliers of raw materials. These assessments will guide market linkage interventions to be supported by INReMP. Further selection of value chains and defining relevant intervention activities should take a systematic approach. For of the selected value chains, the following approach is recommended:
- Assessing the size of the market, volumes of sale, market integration and/or segmentation.
- Identifying the weakest linkages and bottlenecks in the supply line and of opportunities to make it more productive (e.g. through improving the flow of knowledge and market intelligence).
- Understanding the local market structure and key risks and barriers in the enabling environment (e.g. information asymmetry, security issues or policies affecting market access).
- Procurement mechanisms, market requirements (quality and other standards, conditions for delivery) and prices; Identifying existing service delivery actors active in these value chains, and other potential actors if relevant.
- Identifying specific opportunities for women and youth to be involved in the value chains.
- Identifying local businesses (processors, manufacturers) relevant for producers to connect with and what they can offer to the producers.
- Identifying possible new links that can be created and supporting existing links that can be improved upon.
- Analyzing supporting functions that are required to make the value chain work, including both existing and missing support functions (e.g. infrastructure, information, and related services).
- Developing simple gross-margin analysis for the identified value chains.

- Identifying financing opportunities along the selected value chains as well as well as associated risks.
- Identifying groups/production areas. Run a light assessment of the identified producer groups by collecting data on: type of organization, level of organizational maturity, number of farmers, financial health and if any services are provided to farmers.
- 217. Prepare a "Market Assessment and Value Chain Analysis Report" as with practical recommendations that can be used to inform the development of sound, sustainable, and locally appropriate strategies aimed at creating viable agricultural value chains that support targeted communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. The set of recommendations include actions, partnerships, and investments that are necessary to ensure the sustainable production and off-take of the produce from the selected value chains.
- 218. **Market Information Support** The Programme will initiate or leverage existing market information support initiatives to address information needs of actors within the target value chain. Support activities will include both information collection and dissemination. The recommended approach comprises the following:
- Assess the information needs of the various actors in the target value chains
- Undertake a review of market information systems both at county levels and those managed elsewhere that have a coverage of the respective county
- Determine gaps in information services with respect to the objectives of the programme
- Assess feasibility of partnerships with existing information services to address identified gaps
- Define an intervention strategy for the programme complete complete, clearly defining the role of the programme with respect to that of other partners. Leveraging other initiatives and existing institutions is recommended for sustainability.
- Support for Commodity Aggregation, Value Addition and Market linkages - The information collected through market opportunity assessments will be used as the basis to facilitate forward linkages between the various actors in target value chains. The Programme will support contract business models between organised groups of producers and market intermediaries. Priority will be given to identifying entities that can serve as off-takers (private sector, cooperatives) and work with them to address identified market linkage constraints with farmers. The type of activities to be supported will be determined by initial assessments. It is envisaged that interventions would revolve around facilitating coordinated production and deliveries, establishment of aggregation centres, addressing emerging quality issues, sorting and grading, as required. Training will be provided to farmer groups on contract management, quality, grading and nutrition labelling and certification requirements for identified market opportunities. The Programme will identify processors - cooperative, county, or private sector owned that have potential for growth to be integrated into the programme. The entry point to such support will be an assessment of their business development status and capacity building requirements. It is envisaged that the project will provide such processors/cooperatives with business development support including business plan development, business/specific enterprise development training and advisory services and development of business growth strategies. This activity will also support through a PPP model private sector investments in value addition. This will include facilitating partnerships between farmer business organisation and the private sector in the management of processing facilities. Project support to such PPP investments will be for investments material to improved linkages with smallholder farmers and will be limited to 30% of the cost of the additional investment.

a) Dairy Value Chain

The main channel for marketing milk are cooperatives that are involved in aggregation and sometimes processing. Main challenges faced include low levels of milk collection due to inability to mobilize enough farmers to deliver milk and therefore coolers operate below capacity, governance issues that affect smooth operations of milk collection and aggregation, Inadequate equipment at aggregation centers such as milk coolers, milk testers and high costs of operating the milk chilling equipment. The project will support the development and upscaling of existing sustainable business models for dairy aggregation and access to markets which include cooperatives, Milk Collection Centers (MMCs), dairy hubs and cluster producers through capacity building to improve the quality of services. The Project will promote energy use efficiency and renewable energy options, like solar, for adoption by MCCs for milk chilling as well as processing. Improved cowshed and milking hygiene will be encouraged through capacity building at the cooperative. At the farm level the renewable energy technologies that will be promoted include biogas for manure management as well as provision of energy for household use. Through a matching grant, cooperatives will be supported to acquire or upgrade existing milk storage and processing equipment, including cooling tanks and stainless-steel and aluminum milk pots and biogas units.

		y aggregation and market challenges and opportunities		
S/No.	Activities	Challenges Interventions/Opportunities		
1)		Low levels of milk collection due to inability to cooperatives on governance, mobilize enough farmers to marketing, and entrepreneurship deliver milk and therefore kills coolers operate below supporting farmer cooperatives with market linkages of milk of acquire milk collection and aggregation. The cooperative such as milk of the cooperation such a		
2)		Lack of milk quality capacity building of farmers assurance due to use of milk hygiene and milk handling boor milk handling esides enforcement of regulations equipment (plastic) milk handling and hygiene. containers) and lack of Partnership with county edequate milk testing overnments for prioritization of equipment mprovement of road network in Prevalence of lairy production areas.		

		and marketing combined vith lack of organized trengthen dairy cooperatives for market arrangements, nilk aggregation and to increase he rices combined with or better prices and payment delayed payments to terms. Supporting farmer farmers. Supporting farmer footeness to establish value didition and transport wilding and use of matching challenges due to poor road grants.
3	Milk processing	 Low level of Capacity building programs knowledge and skills by targeting farmer cooperatives on farmers on milk processing milk processing and value addition. Low milk volumes Strengthening the farmer to sustain milk processing cooperatives and building value throughout the year. proposition to farmers to increase High cost of milk volumes. High cost of milk volumes. Equipment for milk Support the establishment processing combined with of medium processing plants based limited access to low-cost on Public-Private-Partnership credit to start processing (PPP) models. Explore alternative power electrical power processing plants such as solar (electricity) needed to runsystems. Establish farmer-inputresearch-market (FIRM) transaction platform to resolve production and marketing issues around dairy operations.
4	Milk distribution	Limited number of specialized milk on milk hygiene and milk handling transportation trucks besides enforcement of regulations Long distance on milk handling and hygiene. between farmers and Supporting farmer collection centres cooperatives to acquire specialized combined with poor road milk transportation trucks through infrastructure. financial linkages with financial Poor milk handling institutions. resulting to spoilage of milk of the properties

221. The following intervention activities have been prioritised:

Strengthen efficient value chains for milk aggregation and access to market: Milk
production and marketing in some of the targeted counties is poorly organised which
hinders their bargaining power, market access opportunities and access to services
including credit. In communities where farmers are not organised at all, the project
will follow a gradual approach by first initiating self-help groups and community-based
organisations that will progressively graduate into Community Business Networks, and

then cooperatives. For organised cooperatives and aggregators, the project will support capacity development to provide a sustainable market to the producers through capacity building to improve the quality of services, including provision of extension services to members. Capacity building will focus on governance, business management, market access, and technical aspects such as milk handling and processing. This will ensure that the project supports the development and upscaling of existing sustainable business models for dairy aggregation and access to markets which include cooperatives, Milk Collection Centres (MMCs), dairy hubs and cluster producers.

• Improved Access to Sustainable Energy Sources – The project will promote energy use efficiency and renewable energy options, like solar, for adoption by MCCs for milk chilling as well as processing. Through cooperatives and aggregators, the project will enhance production of safe milk for household consumption and for the markets. This includes reducing milk losses and waste on farm and throughout the value chains, as well as reducing the occurrence of mastitis and Antimicrobial Resistance (AMR). This will be achieved through awareness raising, support for testing quality and training campaigns at cooperative/ farmer group level and at household levels. At the farm level, improved cowshed and milking hygiene will be encouraged through capacity building at the cooperative while renewable energy technologies that will be promoted include biogas for manure management as well as provision of energy for household use. Through the matching grant facility cooperatives and farmers will be supported to acquire or upgrade existing milk storage and processing equipment, including cooling tanks and stainless-steel, aluminium milk pots and biogas units.

Emphasising the multiple benefits of biogas underlines the long-term sustainability of related interventions. The multiple benefits of biogas contribute to long-term positive impacts that include improved health, economic well-being and environmental protection. Clean energy production facilitated by improved cookstoves not only meets immediate energy needs, but also supports sustainable environmental conservation while reducing household workloads. The use of bio-slurry as organic fertiliser increases agricultural productivity, ensuring sustainable soil fertility and consistent crop yields. In addition, the reuse of bio-slurry as non-cattle feed creates a circular system that promotes diverse agricultural practices and reduces dependence on external inputs. Environmental protection remains an integral part of the sustainable impact of biogas interventions, as they reduce deforestation by reducing dependence on traditional fuel sources. The economic sustainability dimension is evident in the income generated from the sale of bio-slurry, which provides a reliable source of funding for the target beneficiaries. At the same time, the creation of employment opportunities strengthens the socio-economic resilience of communities, ensuring lasting benefits beyond the immediate project timeframe.

Gender sensitization for producer groups/cooperatives – The training will also include sessions on gender awareness and relevance for youth inclusion. As such the project will promote active participation and representation of women (including in leadership positions) to ensure women have equal access to project services and decision-making offered to producer groups/cooperatives. The training will also consider livelihood activities women are mostly involved in and technologies developed to respond to women's needs.

b. Improved Local Chicken/Poultry Value Chain

222. Farmers primarily use informal methods and channels to market their poultry produce. While markets exist for processed products most of the poultry trade involves unprocessed whole eggs and live birds. Key challenges faced by farmers in marketing include lack of organized market systems, lack of bargaining power, lack of cold storage and proper transportation facilities, inadequate volumes/supply for commercial

processing operations, lack of necessary equipment and skills for processing, and limited awareness on food safety concerns related to processed poultry products. Planned interventions aim to address these challenges and will include supporting mobilisation and organisation of farmers, strengthening of cooperative societies, support to processing facilities, capacity building on marketing and developing structured markets. The project will also support establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements and matching grants. The project will seek to explore PPP arrangements to improve management of processing facilities.

Table ...: Summary of poultry aggregation and market challenges and opportunities

S/No.			Interventions/Opportunities
1.		aggregation centres and lack of col chain facilities Marketing of poultry products by farmers is disjointed and dominated by middlemen since	strengthening of poultry cooperative societies. Support to the establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements or matching grants.
2.	the	 Poultry cooperatives lack adequate facilities or outlets for sale of poultry and poultry products. Lack of facilities for processing and value addition of poultry products 	partnership with county governments for establishment of marketing outlets Support to the establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements or matching grants.
S/No/	Activities	Challenges I	nterventions/Opportunities
1	Poultry processing	equipment and absence of poultry abattoirs. s Limited technicaling skills and lack of the trequired skills in	Capacity building of armers on poultry processing and

223. The following activities have been prioritised:

• Improve poultry breeds to farmers – The project will support both public and private hatcheries to deliver improved day-old chicks to farmers. KeLCoP is currently strengthening the capacity of KALRO centres in Kakamega and Naivasha to produce and deliver improved chicken to farmers in the targeted countries. Private suppliers are already working with other IFAD projects like KeLCoP to supply improve poultry breeds to the project beneficiaries. The linages develop in other projects can be used to accelerate the delivery of improved poultry to beneficiaries in this project. 80.000 farmers will receive day-old chicks.

Targeted beneficiaries for improved chicken producers will be organized into group and trained on animal husbandry (including feeding, health management, animal welfare and marketing). Careful selection of the beneficiaries will also be done using a predetermined criteria to ensure the beneficiaries have capacity to manage improved chicken. The ultimately result of the capacity building is to increase productivity, improved animal welfare, and offtake of improved chicken and eggs. Given that the distribution of women will mainly target vulnerable women and youth, special effort will be made to include improved infrastructure for poultry.

A criterion will be developed by the project to identify beneficiaries as well as identify suitable packages to support the identified beneficiaries in the targeted counties.

Delivery of day-old chick will only be done after groups have been trained and organised into group to enhance collective action. Collective action will ensure that the chicken farmers benefit from the economies of scale during production and marketing. Though the capacity building will be conducted tin groups improved chicken will be given to individual farmers as group management of poultry was identified as a major challenge during the design mission.

• Strengthen delivery of public and private animal health services and essential input to support production – Public and private veterinary service providers used to support the dairy enterprises will also be involved in providing the needed animal health support to poultry producers during project implementation. Veterinary Public Health (VPH) missions such as surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians, inspection, and diseases emergency response) will also be shared.

Disease contingency plans that will be developed by the counties will also respond to improved chicken disease challenges. Disease surveillance system developed by the project will also cover poultry diseases and other livestock diseases to help in the management of zoonotic diseases in the targeted counties.

Farmers will be linked to private supplier of key input like feed. The project beneficiaries and farmer groups will be linked to reliable suppliers of inputs to support poultry production. The project will develop a list of agrovet input suppliers in each targeted counties and work with the identified suppliers to ensure that the quality of input supplied is of good quality. Capacity building on local/home poultry feed formulation will be provided to farmer groups to help them reduce the cost of feed and the use of available feed resources. The project will also identify and evaluate options for supporting youth to engage into the poultry input supply as well as milling. This will be done through matching grants.

Messages and training will also be put in place for Behaviour Change Communication Approach (BCCA) with the aim of changing farmers habits and attitudes to prevent introduction and spread of livestock and zoonotic diseases. The training will target farmers and communities on improve animal husbandry practices to prevent and reduce disease occurrence at the farm. The packages developed using the BCCA will b

delivered at the group level by group mentors. The group mentors will also inform members about other channels through which information may be available.

• Support delivery of extension services and poultry infrastructure (Enhance capacities, assets, and community organization of producers to adopt good agricultural practices for livestock production) – The project will support extension to farmers to enhance dissemination of best practices and technologies in feed, poultry management, and animal health. This will be conducted by both public and private extension service providers. The project will support implementation of an ICT based approach to extension services using e-extension based models that are appropriate for the needs and literacy levels of its targeted beneficiaries. The main aim of the e-extension is to bridge the gap on the dissemination of technical innovations and on the linkages between research and farmers. The e-extension package will include all domains that need to be communicated during the project to enhance productivity as well as NRM components of the project.

c. Apiculture Value Chain

224. The project aims at supporting farmers to set up honey collection centres through which they collectively market their honey. Such groups will be linked to processors through formal contract arrangements. Small scale processing activities will also be supported through acquisition of appropriate equipment, training on quality, packaging, requirements for certification and basic business management. Training will also seek to improve awareness on food safety concerns related to processed honey and requirements for certification. Training will also cover techniques on production of profitable by products such as wax polish and candles.

d. Avocado Value Chain

The table below summarises key constraints faced in the marketing of avocados

S/No/	Activities	Challenges Interventions/Opportunities
1)	Marketing avocado	of Lack of market and Provision of market rice information, poonformation, formation of farmer
	avocado	ackaging, no refrigerated IGs and cooperatives, establish
		torage facilities, poorack house, farmer trainings.
		arvest, poor transport, Improve quality, new
		norganized mkt. harkets, strengthen market
		Low quality, Lowhannels.
		rices, unstructured Capacity building of farmer
		harkets. ooperative to export fruits and
		Middlemen takealue addition (processing into
		dvantage of farmers, vocado oil).
		ence low prices. Provision of cold storage
		Compromising acilities.
		arvesting maturity by Stabilization funds (GMRs),
		hiddlemen resulting information of county aggregation
		enters, capacity building of
		Unstructured local rmers, and enforcement of
		harkets. ontracts.
		Poor transport and Capacity building on
		torage, high post-harvest overnance and group dynamics.
		sses, low market prices. Enforcement of contracts.
		Fluctuating market Training of farmers and
		rice locally andonstruction of aggregation
		iternationally, quality Formation of avocado size, shape, texture, roducer association,
		pize, shape, texture, i oducer association,

		homical residues	Enhance canacity on nest
			, Enhance capacity on post-
		unburns, pests, and	
		iseases), breach of	1
		ontracts (side selling),	
		nadequate volumes to	
		ervice customer orders.	
		Group governance	
		nd dynamics.	
		There is no	
		rganized marketing]
		hannel as every farmer	1
		ells his/her own produce.	
		Exploitation by	/
		liddlemen on poor pricing,	,
		ack of cold storage facility	
		oor infrastructure, lack of	
		redit facility.	
		High post-harvest	-
		psses	
S/No/	Activities	hallenges	nterventions/Opportunities
1)	Processing	Lack of equipment	• Capacity building, provide
	roccssing		information on equipment.
		 Availability of raw 	· ·
		material.	production.
		 Lack of processing 	l'
		facilities.	processing facilities.
		 Lack of community 	r - I
		awareness.	oil processing facilities.
			• Adequate funding.
			· · · · · · · · · · · · · · · · · · ·
		to support processing	
		infrastructure.	adoption of new technologies.
		• Inadequate	Develop legal/regulatory
		capacity to operationalize	`` '
		processing plants.	• Stabilization funds
		 Low volumes for 	
		processing.	 Formation of county
			aggregation centers.
		produce.	 Enforcement of contracts.
		 Lack of processing 	
		knowledge.	for startups.
		 Limited products 	
		marketing.	addition, capacity building and
		 Low value addition 	provision of avocado processing
		technology	equipment.
		 Lack of agro- 	To enhance Acreage &
		processing plants	production to build volumes
		Ţ .	enough for processing.
	I	I .	

- 225. Across the INReMP programme counties, farmers utilize brokers and local traders to sell their avocado produce. The limited presence of operational aggregation centres has been identified as a common problem across all counties. Maintaining quality is a challenge where premature harvesting by middlemen can lead to fruit rejection in the export market. Project intervention activities aim at:
- promoting increased farmer organisation for collective marketing, provide support to aggregation centre,

- providing training to increase awareness on requirements of export, sorting and grading and use of proper harvesting methods. T
- Collecting and disseminating relevant market information to assist producers in the identification of profitable market opportunities.

226. Processing of avocados into oil and cosmetic products has been identified as an opportunity for absorbing produce that does not qualify for the export market. The project shall collaborate with County governments to explore PPP opportunities for such investments.

e. Horticulture Value Chain

- 227. Target horticulture crops are tomatoes and leafy vegetables. However, it is expected that other commodities will be identified during market opportunities and introduced into the program. Farmers sell individually and they lack negotiation power when dealing with market intermediaries. Local market centres lack cold chain facilities limiting shelf life for commodities farmers bring to the market. Planned interventions include:
- organisation of farmers for collective production and marketing to ensure that products reach the market in the right quantities and quality.
- supporting organized groups to establish aggregation centres.
- establish cold chain facilities at such aggregation centres; and
- provision of training on governance and group dynamics as well as contracts and contracting. The project will also collect and disseminate relevant market information to assist producers in identification of profitable market opportunities.

Market Access and Marketing Infrastructure

a) Climate proofed feeder road rehabilitation

- 228. **Rationale** Good access to roads in rural areas is critical to raising agricultural productivity. Lack of rural road connectivity seriously constrains agricultural production: in the absence of rural feeder roads, the cost of moving produce can be as high as \$2.00 per ton-kilometer. But the roads should be climate resilient. Climate proofing is critical in sustainability of rural access roads. Climate-proofing will be done on these roads by integrating climate-resilience features in the design of the road to ensure it remains usable throughout the year, which will include both engineering/structural measures and bio-engineering measures. The Green roads for water (GR4W)^[1] innovation which incorporates water harvesting into road drainage structures (for livestock drinking water and small gardens) will be explored. The most effective method of making roads climate-resilient is to anticipate and fully consider climate change impacts during the planning stage and integrate resilience measures in the design using local climate information in combination with geophysical information.
- 229. **INReMP Intervention** The objective of this activity is to provide improved and reliable access to markets and services. An integrated approach to support rehabilitation of selected last mile feeder roads will combine the following options: (i) the road should be linked to an area producing for a VC, selected for INReMP support under Component 2, (ii) the investment includes climate resilient design and construction, and (iii) the potential of utilizing road surface as catchment areas to collect surface runoff for livestock drinking water and irrigation. As a nutrition benefit, rehabilitation of feeder roads will improve efficiency of transportation of produce to markets (thereby reducing food loss and increasing household income) and travel by household members to markets to source food or to healthcare facilities.

- 230. The priority feeder roads will be selected by the communities and participating micro-catchment level infrastructure planning and value chain lead enterprises. Feeder roads do not require a mandatory EIA. However, infrastructure development will be screened for any environmental and social risks before the investment's approval.
- 231. INReMP targets to develop 250 km of feeder roads under this intervention. The feeder roads will have an average length of less than 5 km.
- 232. The Associated ToRs are included in Annex 1 of this document.

b) Produce Storage Facilities, Aggregation Centres, Warehousing

- 233. Establish storage facilities, aggregation centers, and warehouses to optimize storage and distribution of agricultural produce.
- 234. **Background** Efficient storage and distribution infrastructure is crucial for optimizing agricultural produce management and enhancing market accessibility. Establishing produce storage facilities, aggregation centers, and warehouses is essential to minimize post-harvest losses, facilitate aggregation, and improve market linkages within the agricultural sector. This initiative aims to enhance supply chain efficiency, promote value addition, and support economic growth in rural areas.
- 235. **Objectives** The primary objective of this assignment is to establish produce storage facilities, aggregation centers, and warehouses to optimize storage and distribution of agricultural produce. Specific objectives include:
- Establishing storage facilities and aggregation centers at strategic locations to minimize post-harvest losses and improve market accessibility.
- Implementing temperature-controlled storage infrastructure to preserve product quality and extend shelf life.
- Constructing warehouses equipped with modern handling and packaging facilities to facilitate efficient distribution and marketing of agricultural produce.
- 236. The Associated ToRs are included in Annex 1 of this document.

c) Smart Kiosks and Smart Markets

- 237. **Background** This activity will implement technologically advanced hubs (smart kiosks and smart markets) for aggregation and value addition of agricultural products. Efficient post-harvest management and market accessibility are critical for sustainable development in the NRM sector. Introducing Smart Kiosks and Smart Markets integrated with renewable energy and sustainable infrastructure aims to revolutionize market access, quality preservation, and marketing accessibility, particularly in rural areas. This initiative will not only reduce post-harvest losses but also strengthen linkages for accessing inputs and market information, thereby enhancing economic opportunities for stakeholders in the NRM sector.
- 238. **Objectives** The primary objective of this assignment is to integrate Smart Kiosks and Smart Markets equipped with renewable energy and sustainable infrastructure to enhance post-harvest efficiency and profitability in the NRM sector. Specific objectives include:
- Introducing Smart Kiosks and Smart Markets in designated areas to provide intelligent outlets for sales, processing, and marketing.
- Implementing temperature-controlled storage infrastructures powered by solar energy to minimize perishability and ensure product quality.
- Constructing Smart Markets, fully equipped with energy-efficient cold chain and processing facilities to serve as hubs for distribution and processing.
- 239. The Associated ToRs are included in Annex 1 of this document.

d) Micro-Mobility Solutions

- 240. **Background** Enhancing accessibility within NRM/agricultural areas is crucial for improving productivity and efficiency in the nature-based enterprises and agricultural sector. Integrating electric and non-electric micro-mobility solutions can significantly contribute to addressing transportation challenges, facilitating the movement of goods and people, and promoting sustainable NRM/agricultural practices. This TOR aims to outline the requirements for the successful implementation of micro-mobility solutions to enhance accessibility within agricultural areas.
- 241. **Objectives** The primary objective of this assignment is to integrate electric and non-electric micro-mobility solutions to enhance accessibility within agricultural areas. Specific objectives include:
- Introducing micro-mobility solutions tailored to the needs of agricultural communities to improve transportation efficiency and accessibility.
- Implementing infrastructure and support systems to facilitate the adoption and usage of micro-mobility solutions.
- Promoting sustainable transportation practices and reducing carbon emissions through the deployment of electric micro-mobility solutions.
- 242. The Associated ToRs are included in Annex 1 of this document.

e) Commodity Platforms

243. **Background** – Establishing platforms for actors within target value chains to collaborate on resolving issues affecting the smooth functioning of the value chain, facilitating business linkages, sharing knowledge, and influencing policy to scale the success of implementation and foster collaboration among stakeholders. The effective functioning of value chains in the agricultural sector is essential for ensuring food security, promoting economic growth, and reducing poverty. Establishing commodity platforms provides a structured mechanism for stakeholders within target value chains to collaborate, address challenges, share knowledge, and influence policy decisions. These platforms facilitate business linkages, promote innovation, and contribute to the scaling of successful interventions, thereby fostering collaboration among actors across the value chain.

Objectives – Actors within target value chains will be organised into platforms that would allow for coordinated resolution of issues affecting the smooth functioning of the value chain. Such platforms are established to meet the following objectives:

- To collaborate on resolving challenges related to production, processing, marketing, and distribution within target value chains.
- Facilitating business linkages between different actors in the value chain, including producers, processors, traders, and service providers, to enhance market access and improve efficiency.
- Sharing knowledge and best practices among stakeholders to promote innovation, improve productivity, and enhance competitiveness within target value chains.
- Influencing policy decisions at the local, regional, and national levels to create an enabling environment for the sustainable development of target value chains and address systemic issues affecting stakeholders.
- Operationally, it is a multi-stakeholders transaction forum that meets periodically to facilitate business linkages among members, provide services to farmers and ensure steady flow of raw products to the market (processors). These platforms facilitate business linkages, promote innovation, and contribute to the scaling of successful interventions, thereby fostering collaboration among actors across the value chain.
- 244. The Associated ToRs are included in Annex 1 of this document.

f) Implementation of Waste Management Solutions

- 245. **Background** Efficient waste management is imperative for sustainable development and environmental protection, particularly in industries such as agric market/retail sector. Implementing waste management solutions is essential for creating circular economies within the value chain, reducing environmental pollution, and maximizing resource utilization. This TOR aims to outline the requirements for the successful implementation of waste management solutions in the agric market/retail sector.
- 246. **Objectives** The primary objective of this assignment is to introduce effective waste management solutions in the smart markets and other linked retailing points to promote environmental sustainability and resource efficiency. Specific objectives include:
- Introduction of waste management solutions at smart markets and processing facilities to create circular economies within the value chains.
- Integration of green, blue, and grey bin waste management techniques for the collection of organic and non-biodegradable waste.
- Utilization of collected organic waste for fish feed manufacturing, organic fertlisers and biogas generation to minimize waste and promote resource utilization.
- 247. The Associated ToRs are included in Annex 1 of this document.

248. *Implementation Arrangements and Workflow by Activity of all Infrastructure Activities in Component 2* – The infrastructure activities under the Component 2 will be carried out in coordination with other activities of Component 2 and will follow the sequence described in the table below.

Implementation Plan for Infrastructure Activities

Activity	Location	Participants		Purpose		ollow up task for	When
					рі		
Exploratory Visit	Sub- catchment level	Political and administration leaders of the wards in the sub-catchments (MCAs, ACCs, village elders), farmers, including meetings with leaders of women and youth groups. MoWI, County Government, agriculture SMEs and lead	•	Inform them about the project and get long list of possible locations for community infrastructure needs in following areas: • Agricultural production infrastructure: Irrigation schemes; Multi-purpose water supply schemes; irrigation technologies • Market access and marketing infrastructure: Feeder roads;		roject staff	Q2,Q3. Year 1
		enterprises		Feeder roads; Produce Storage Facilities, Aggregation Centres, Warehousing; Smart Kiosks and Smart Markets; Micro-Mobility Solutions; Commodity Platforms and waste management solutions			

			•	Communicate selection criteria and targets for inclusion of women and youth. Formation of project subcatchment level		
Infrastructure Investment Planning	Sub- Catchmen t Level	Political and administration leaders of the wards in the sub-catchments (MCAs, ACCs, village elders), farmers, including meetings with leaders of women and youth groups. MoWI, County Government, agriculture SMEs and lead enterprises	•	infrastructure committee Agree on a shortlist of community interventions Establish links of the infrastructure to the value chains and finalize infrastructure selection Communicate the modalities for expression of interest/ call for proposal for infrastructure development, development of implementation partnership agreements and the actual implementation and handover of the projects. Endorsement of community level infrastructure by the community infrastructure committee	Project staff to prepare endorsement forms to be signed by subcatchment level infrastructure committee Prepare and share templates for expression of interest/proposals from communities for endorsement at sub-catchment level	Q3,Q4, Year 1
Introductory meetings	Communit y level	Community level leaders, farmers, including meetings with		 Introduce project to communities Indicate interventions targeted for those communities 		Q1, Year 2

		leaders of women and youth groups. MoWI, County Government, agriculture SMEs and lead enterprises	 Communicate the modalities for expression of interest/call for proposal for infrastructure development, development of implementation partnership agreements and the actual implementation and handover of the projects. Formation of project community level infrastructure committees Endorsement of community level infrastructure by the community infrastructure committee 		
Feasibility studies and EIAs	Infrastruct ure sites	 Community infrastructure committees Contractors Ministry and County Government staff NEMA staff 	 Conduct feasibility assessments and EIAs, to determine final sites for implementation of infrastructure Communicate and endorse final feasible sites for infrastructure Call for proposals and expression of interests from communities 	 Support communities finalize their proposals Communicate outcome of selection of communities to benefit from infrastructure and next processes 	Q2-Q4, Year 2

Contracting for infrastructure services and implementati on	Infrastruct ure sites	Community infrastructure committees Implementation Contractors Ministry and County Government staff IFAD staff	 Communicate community contribution – 15% contribution Introducing contractors to communities Signing of the partnership agreements Participatory development of implementation plans Actual implementation of both agricultural production and market infrastructure Periodic reviews (half yearly) on progress on implementation Periodic impact assessments 	Community engagements and supervision Use feedback from reviews to improve project delivery Devise project exit strategies	Years 3- 6
Project completion	Communit y level	 Community infrastructure committees Implementation Contractors Ministry and County Government staff IFAD staff 	 To assess project performance and obtain beneficiary feedback Handover of infrastructure Project exit 	 Document lessons learnt Project closure 	Year 7

- 249. **Nutrition interventions** The following interventions will be undertaken for nutrition mainstreaming:
- Supporting farmers and CBOs in accessing up-to-date training opportunities, including site demonstrations on value addition technologies for dairy, poultry, fruits, vegetables, honey, and NUS. This will involve providing access to evidence-based value addition technologies and processes for products such as yogurt, probiotic drinks, sour/fermented milk, poultry meat, eggs, feathers, honey by-products, horticultural products, and NUS products. The project will also ensure compliance with product health and safety standards, nutrition labelling, and certification. Additionally, the PCMU will provide enterprise management and marketing support for processed products to target county nutrition objectives. This activity will be conducted in collaboration with county agricultural technical institutions. Training support will be provided to all households and CBOs on safe post-harvest handling to preserve the nutritional value of food and extend its shelf life, with the aim of encouraging the adoption of green labour-saving technologies, such as biogas, and food processing equipment, such as grinders, mills, and dehydrators.
- The project will utilize technical support from the SUN Business Network to organize capacity building trainings for SMEs on food safety (HACCP) and other standards (ISO), product development (desirability, palatability, nutrient content), labeling, branding, and packaging. It will also raise awareness among businesses about the Kenya Mark of Identity (Brand K) to promote the use of local produce, nature-based enterprises, and non-timber forest products.
- Promote consumption of products and nutrition awareness both at household and national level to improve nutrition outcomes as well as increase demand.
- 250. Social and Behaviour Change Communication (SBCC) actions will be implemented across components 1 and 2. To facilitate this integration, the PCMU will design an actionable blueprint for INReMP SBCC activities. To determine nutrition SBCC actions, the INReMP integrated Knowledge, Attitudes, and Practices (KAPs) study will include diet diversity questionnaires that adhere to the Kenya Nutrition sector-specific guidelines on assessments for maternal, infant, and young child feeding. The Nutrition KAP baseline study section will cover various topics, including nutrition-related knowledge, attitudes toward healthy diets, promotion of positive caregiving practices, enhancement of food production and consumption, and improvement of access to health and nutrition services. It will also examine the characteristics, preferences, challenges, and information needs necessary to support the nutrition and consumer behavior change objectives related to the components.
- The Programme will carry out public nutrition education and consumer awareness campaigns using traditional and digital tools in communities, schools (including early childhood development centres [ECDs]), markets, and through local and faith-based community leaders and influencers. Nutrition education and SBCC messages will be tailored to reflect the local context and the needs of smallholder farmers and nutritionvulnerable communities. The aim of these activities will be to positively influence the knowledge, attitudes, and practices related to nutrition and health. SBCC materials will be developed in the local language and will incorporate culturally and linguistically appropriate images and visuals. These campaigns will promote the consumption of nutritious foods, facilitate behavioral change, enhance willingness to pay, transfer knowledge, and establish connections between producers, buyers, retailers, and consumers. Examples of SBCC activities include village and market nutrition days (where the entire community gathers to learn and apply nutrition knowledge through interactive games and activities), cooking demonstrations, and the dissemination of key messages via road shows, nutrition fairs, and AI Farmer Chatbot. The project will provide an integrated package that includes nutrition, food safety, quality and hygiene, environmental sustainability, climate change, and improved agriculture production and husbandry to communities and various groups receiving services from the project.

- 252. School nutrition education will raise awareness among schoolchildren about the importance of healthy eating, environment, and natural resource management. These activities will be jointly planned by the Nutrition and Social Inclusion Specialist and KM Specialist. To garner support from various partners, the PCMU team will reach out to explore contributions and linkages to existing/ongoing county SBCC initiatives.
- 253. County health promoters, Agrinut extension teams, and gender focal persons will provide targeted support. The PCMU will use county, sub-county, ward, and community health, hygiene, and nutrition media shows to ensure that the targeted population receives nutrition education messages. The Agrinut, health, and nutrition promoters will carry out mobile culinary demonstrations to engage community groups in preparing nutritious food for their families using the selected value chains. They will also promote improved food preservation techniques to avoid seasonal food waste. Cooking competitions among target community groups will promote the exploration of new recipes from NUS and non-toner products that are often neglected dishes. Additionally, within the nutrition SBCC strategy, key community influencers and nutrition champions (depending on each county) will be trained and empowered to convey messages and conduct dialogues on barriers to positive nutrition behaviours.

II.4: COMPONENT 3: INSTITUTIONAL STRENGTHENING, POLICY SUPPORT AND PROGRAMME MANAGEMENT

254. This is a cross-cutting component servicing the two technical components and facilitating pathways for the effective and inclusive implementation of all Programme interventions. The objective of the component is twofold to: a) provide targeted support to selected policy areas and augment the capacity of selected institutions to facilitate participatory planning and development processes and oversee INReMP implementation; and b) manage the Programme in an efficient and effective manner by providing overall coordination, including planning and implementation, financial management and control, procurement support, Monitoring and Evaluation, knowledge management, and progress reporting. It will also ensure liaison and linkage with all other relevant projects/programmes being implemented in the country that seek to address similar or related constraints. This would be aimed at taking advantage of existent synergies and avoiding duplications. Accordingly, the component has two subcomponents: a) Subcomponent 3.1: Institutional Strengthening and Policy Support; and b) Subcomponent 3.2: Programme Coordination and Implementation Support Services.

II.4.1: Subcomponent 3.1: Institutional Strengthening and Policy Support

- 255. Interventions under this subcomponent will contribute to the achievement of Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods. Interventions will help to develop or improve existing institutional systems and processes. They will also facilitate the process of ensuring a supportive policy environment during and after Programme implementation. The success of INReMP and its eventual sustainability will largely be influenced by the implementation capabilities of the institutions to execute the Programme as per the design and their ability to ensure sustainability of the resultant achievements. The subcomponent will have a dual focus: institutional strengthening and policy support.
- 256. **Institutional Strengthening** the institutions that will be supported under this subcomponent include government institutions that will implement the Programme directly and those supporting the smooth implementation of the Programme indirectly (national, county and research institutions). Community-based organisations will be key implementing partners for the Programme and, hence, they will be supported to address capacity gaps. Private sector institutions are also crucial stakeholders in the successful implementation of INReMP, including technology suppliers, input dealers, off-takers, after sale service providers, contractors, and consultants. The Programme will seek to ensure that they are enabled to appropriately provide the needed services in all INReMP's domains of focus.

- 257. INReMP will prioritize supporting the Programme coordination units to enhance their coordination abilities, financial management, procurement, planning, monitoring and evaluation, and knowledge management.
- 258. INReMP is a gender transformative Programme and, therefore, guidelines will be prepared and training will be provided on Gender Transformative Approaches (GTA) to institutionalize the approaches in all implementing agencies. The PCMU skills in GTA will be improved following a rigorous capacity assessment that will inform the delivery of tailored training package.
- In addition to the above-mentioned activities, INReMP will support the following activities: a) strengthening the capacity of national and county governments' relevant institutions to coordinate environmental conservation and integrate extension, and advisory services to support agriculture, livestock and natural resources and climate risk management; b) renovation of Agriculture Training Centres and Dairy Multiplication Centres;c) support the establishment of County Irrigation Development Units (CIDUs); and d) support the Programme staff to enhance their coordination abilities, financial management, procurement, planning, monitoring and evaluation, knowledge management and main streaming themes (gender/social inclusion, nutrition, environment and climate change); e) enhance capacity of CFAs in propagation of quality agroforestry seedlings for improved incomes, food and nutrition security as well as contributing seedlings availability to the Presidential directive for 15 billion tree growing programme by 2032; etc.
- 260. Also, an institutional capacity gap assessment will be undertaken during the first year of INReMP implementation to formulate an institutional capacity development plan.
- 261. The project will enhance the nutrition capacity of the PCMU by involving county-level nutritionists and stakeholders from the County's nutrition sector. They will assist in training, drafting, and validating the project's nutrition action plan. In collaboration with government agencies, NGOs, research institutions, private sector entities, and local communities the project will provide financial support for implementing county policies that safeguard target households from harmful marketing practices and misleading labelling of ultra-processed foods. The project will also support legislations and guidance that incentivize sustainable resource use, protect indigenous knowledge and intellectual property rights, facilitate access to finance and markets for NUS and NTFPs, and promote fair trade practices.
- 262. In order to effectively coordinate these interventions, the INReMP PCMU will hire a dedicated Nutrition and Social Inclusion Specialist cost to be responsible for tracking and assessing the implementation performance of nutrition-sensitive actions for the project. The Project will also be backstopped by a specific nutrition specialist/consultant on part time for three years s over six years of the project duration.
- 263. **Policy Support** INReMP seeks to ensure that there is a supportive policy environment during and after implementation. Accordingly, the Programme will support the analysis that will strengthen the national and/or county policy framework covering INReMP's areas of focus, including agriculture, environment, climate change, cooperatives, gender equality, youth and natural resources management. This will involve the development, review and update of policies, strategies of selected subsectors for their effective and structured development. For a start, consultation undertaken during the design process prioritised the following possible interventions:
- a) policy/strategies to help address land fragmentation issues at the county level;
- b) facilitate the rolling out, dissemination and awareness creation of some Acts and Regulations of selected State Departments¹¹; there are currently at different stages of review;

 11 Details of the Acts and regulations of the different State Departments will be provided in the Programme Design Report.

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- c) support Counties to mainstream resilience into their plans, strategies, policies, regulations through the use of the evidence-based resilience scorecard/index¹²;
- d) support the finalisation of the Draft Land Reclamation Policy and Bill;
- e) support completion of National Agroforestry Strategy; and
- f) finalization of the pending gender and youth policies, policy reviews and development of addendums to address gaps identified to achieve gender transformation and youth empowerment in the participating counties.
- 264. The PCMU will liaise directly with the responsible government institutions and agree on the implementation plan for the provision of the requisite policy support. In addition, once the prioritised policy areas get addressed during the course of INReMP implementation, the PCMU will seek advice and guidance from the National Programme Steering Committee on which other policy areas to focus on during the remainder of Programme implementation.
- 265. With regard to **nutrition**, policy engagements will focus on building capacity and institutionalizing nutrition-sensitive outputs and strategies to improve ownership.
- 266. PCMU will ensure national-level support for the Kenya Food System Transformation agenda by actively engaging and aligning with ministerial actions. The PCMU will ensure that learnings from the INReMP project efforts in counties are incorporated into the agenda and vice versa. Additionally, the PCMU will actively participate in county nutrition multisectoral coordination forums, including County Nutrition Coordination meetings and county food systems forums. This is to ensure that the Programme's nutrition-sensitive outputs and outcomes align with the county's nutrition/Agri-nutrition action plans and strategies, and that they are accurately reported on the integrated county monitoring systems.

II.5: ANNUAL SUPERVISION

- 267. INReMP will be jointly supervised by IFAD and GoK to assess achievements and lessons learned and, when required, provide implementation support with the objective of ensuring effective Programme implementation and increase the likelihood of achieving the target objective. Missions would be fielded at least once every twelve months. However, and depending on the extent and quality of implementation progress, implementation support Missions would be fielded as frequently as warranted by conditions on the ground so as to address any emergent issues that may have the potential to negatively impact Programme implementation.
- 268. The composition of the implementation support mission would be influenced by the issues identified as needing redress. As part of the annual missions' objectives, a review of the effectiveness of implementation arrangements will be undertaken to ascertain whether any adjustment/restructuring is needed to ensure optimum performance. ToRs for the supervision missions will be prepared by the IFAD Country Director except those for the: a) Financial Management consultant; IFAD's Financial Management Division (FMD) would be responsible for preparing the ToRs and recruitment of the Financial Management consultant for the mission; and b) Procurement the Head of the regional Procurement team in Nairobi will be responsible for preparing the ToRs and for allocating the Specialist to the Mission. The timing of the supervision missions will be influenced by factors, such as the status of AWPB implementation coordinated with the production of interim financial statements in accordance with IFAD interim financial reporting guidelines. This will enable Supervision Missions to measure the progress at the specific cut-off dates.

II.6: MTR

269. An INReMP Mid-Term Review (MTR) will be undertaken during year four of Programme implementation; it will evaluate whether the Programme is on course to

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 $^{^{12}}$ KCEP-CRAL is successfully using the tool to plan and target critical interventions to support most climate vulnerable locations or socio-economic groups.

achieve the objectives. It will identify any prevailing constraints and recommend such reorientation as may be required to help the Programme get back on course to achieve its objectives.

- 270. There will be four outputs of the MTR: a) an Aide Memoire summarizing the findings; b) MTR report detailing the findings and recommendations on the way forward; c) a revised PDR (if the MTR has necessitated a restructuring of the Programme) to reflect the mission's recommendations; and d) a detailed Programme closure plan. This will be accompanied with: a) a revised budget to guide utilization of the remaining funds; and b) an updated PIM.
- 271. Undertaking of the MTR is the responsibility of government/PCMU. The government/PCMU may consult IFAD to facilitate the process, including identification of consultants, etc.

II.7: PROJECT COMPLETION

- 272. The Project Completion Review (PCR) exercise at the end of Programme implementation will be led by IFAD with key contributions from the borrower, covering the elements described in the general conditions of the Financing Agreement, as described in the 2023 PCR Preparation Guidelines.
- 273. The main purposes of the completion review process are to promote accountability, reflect on performance and elicit lessons learned to inform future programme/project design and to define an appropriate post-project strategy. The learning dimension of the completion process will be used by both IFAD and GoK as the foundation for improvements in future programme/project design and implementation. The completion review process will also be critical for identifying opportunities for scaling-up best practices. The PCR would need to be undertaken after INReMP completion but before the Project closure period. The PCR will be undertaken in two distinct steps: a) a Beneficiary Impact Assessment (BIA)/End-line Survey; and b) Project Completion Report preparation. If a detailed project closure plan does not get developed at MTR, it should get developed subsequently but, certainly, earlier than the last year of implementation.
- 274. Recruiting the Completion Review Team About six months before the planned start of the completion review mission, it is recommended that IFAD takes the necessary actions to identify and recruit the members of the Completion Review Team. By that time, IFAD, in liaison with GoA, would have agreed on the composition of the Completion Review Team (number of persons and types of expertise required) during the last supervision mission. Given INReMP specific domains of intervention, the expertise will be selected to ensure coverage of all Programme domains.

PART III: PROJECT PROCEDURES

III.1: PLANNING AND AWPB DEVELOPMENT

- 275. The planning cycle will follow the Government of Kenya (GoK) planning and budgeting cycle. The cycle will commence with preparation of the AWPB, as a key instrument for implementation and operational control. The Programme will follow a bottom-up participatory planning process for the AWPB.
- 276. The first stage of planning and preparation of the AWPB will be carried out at ward level, following the devolved local government administration framework. At this level, communities within selected micro-catchments will identify and prioritise the interventions for support by INReMP. These priorities will be summarised into Community Action Plans (CAPs). The CAPs will then be consolidated into ward level plans. The Ward Plans will then be consolidated at the sub-county level to make the subcounty plans. The subcounty plans will then be consolidated at county level by the County Programme Implementation Team to prepare the county level plans and budgets. The respective County M&E Officers will check the quality of the plans and alignment to available budgetary resources as per established guidelines for budgeting, before consolidation. The ten County Plans and Budgets will then be submitted to the national PCMU for compilation and consolidation of the overall Programme Annual Workplan and Budget.
- 277. The M&E Officers within the respective ten CPITs will in consultation with the PCMU M & E Specialist and Technical Component Heads, disseminate Planning and budgeting guidelines to guide the lower-level units' preparation of the annual plans.
- 278. At each of the levels, the programme steering, and technical committees will review the plans before they are transmitted to the next level, to ensure alignment with the relevant devolved government policies and priorities. The steering committees will also approve the plans at their respective levels. The programme wide annual work plan and budget will be reviewed and approved by the National Programme Steering Committee before submission to IFAD for expression of a no objection. The approved AWPB will be the only mechanism through which Programme resources would be spent and the basis for progress monitoring. Preparation of the AWPB will be led by the PCMU in liaison with the CPITs and will follow the approved Government of Kenya Planning Cycle.
- 279. The Programme will review the AWPB every six months to assess progress in reaching annual targets including factors affecting attainment of the targets, and will adjust it accordingly

III.2: MONITORING AND EVALUATION

- 280. **M&E System** Monitoring and Evaluation (M&E) System The Monitoring and evaluation system for INReMP will be based on the logical framework, in which a series of key performance indicators (Core indicators and project specific indicators) have been defined, the project design report and the project implementation manual.
- 281. The M&E system will help to streamline monitoring, evaluation and reporting procedures, responsibilities and processes essential to track performance and progress of the various components and activities of the project in comparison with the set targets in the Annual Work Plans and Budgets. The system will work as a useful tool to guide management during implementation of the Programme.
- 282. An M&E framework will be developed to guide M&E processes within the project. The framework developed at the beginning of implementation will detail the scope, organisation and contents of the M&E system; roles and responsibilities; a plan for data (sex- and age-disaggregated where appropriate) collection, analysis, reporting, use and management; timeline for M&E-related activities; staffing and capacity building plan; budget; etc.; The Framework will also include an M & E plan that will set out guidelines for progress monitoring of implementation as well as evaluation of the performance of the Programme in relation to the performance indicators in the Programme Logframe.

- 283. The M&E framework will thus focus on:
 - a) Data collection and reporting formats for the diverse reporting requirements;
 - b) Design and implementation of beneficiary assessment of program performance on specific investments;
 - c) Definitions of specific responsibilities and roles of different stakeholders at Federal, Regional, Woreda and Kebele levels in monitoring, evaluation and reporting of the project implementation progress;
 - d) Integration of the project activities into the AWP&Bs at Federal, Regional and Woreda levels;
 - e) Recommendation of a web-based open source DHIS2 Management Information System for data storage, analysis and reporting for all levels;
 - f) Plans for capacity building for the PCMU and CPITs, Sub- County and Ward Staff to ensure that the M&E system is operational.
- 284. The conceptual thrust of the M&E Framework will be based on the following assumptions:
 - a) Timely project management at National and County levels, participating sub counties as well selected Wards.
 - b) Subcounty and Ward Administrations' commitment to the INReMP activities.
 - c) Staff of relevant calibre are available, recruited, and motivated.
 - d) Adherence to transparent procurement and fiduciary practices.
 - e) Timely provision of project operational resources to the participating Counties, Sub- counties and Wards.
- 285. The INReMP M&E system will be participatory, gender sensitive, inclusive, climate and environmentally sensitive, and results-oriented while enabling the integration of physical and financial progress reporting. In addition, the system will enable the analysis of climate change vulnerability and resilience among the beneficiaries using the combined resilience score card. The system will incorporate in-depth COI surveys at baseline, midline and completion, a mid-term review, and other specific thematic studies as relevant.
- 286. The general principles for participatory monitoring of programme activities will include:
 - a) Community Level Organisations (e.g., Water Resources Users' Associations-WRUAS, Community Forestry Associations, CFAS, Wetland Management Committees, Cooperatives and Cooperative Unions e.t.c.) will monitor respective community level activities.
 - b) County Technical Implementation Teams will monitor activities, input, and output achievements in their respective areas. The M&E officers based within the CPITs will monitor progress, compile county level project reports on a quarterly, biannual, and annual basis for consolidation by the PCMU;
 - c) Technical assistance will be provided to (i) communities to ensure they are able to monitor the implementation of the CAPs, (ii) Support the PCMU's and CPITs performance management systems and processes to produce relevant and welltimed data and (iii) strengthen staff capabilities to analyze data on gender outcomes and outcomes of restoration of ecosystem services and integrate insights into programming in a timely manner.
 - d) The M&E unit based at the PCMU, will monitor and evaluate the impact of the project, compile and consolidate the project's quarterly, bi-annual and annual reports for dissemination to external stakeholders, State Department for Agriculture, other line ministries and the participating counties, sub counties and wards;
 - e) The State Department for Agriculture will monitor overall operations for planning and facilitation purposes in line with its development objectives and those of the Government of Kenya.
- 287. The M&E system will be a simple but comprehensive tool that will facilitate:

- a) A web-based Management Information System, built on a DHIS2 interface to provide information satisfactory to the needs of management.
- b) Effective coordination and management of information during the main phase of Programme implementation.
- c) Information gathering and effective communication amongst all Levels of implementation of the programme.
- d) Preparation of quarterly, bi-annual and Annual reports for presentation to various stakeholders.
- e) Preparation of mandatory evaluations reports: Midterm evaluation and Project Completion Review.
- 288. **Structure and Processes** Under INReMP, sub-county level project specific work-plans will be extracted from the broad Community Action Plans and ward level consolidated workplans and submitted to the County CPITs and then later to the National level PCMU for consolidation into a project wide AWPB, prior to the start of the GoK Financial Year. The CPITs will assess existing resource commitments and other ongoing/planned development partner interventions when requesting for resources and this will be strictly aligned to work plans and indicators and as guided by the programme Implementation Manual.
- 289. Programme performance will be measured annually with targets set out in the AWPB which will be prepared and consolidated by CPITs and National Level PCMU.
 - a) The INReMP M & E system will be centred on:
 - b) Beneficiary assessment of project performance on completion of a specific investment.
 - c) Annual reviews of the functioning of completed investments.
 - d) Monitoring progress of activity implementation.
 - e) Quarterly and six months reports from various implementing state departments, and partner institutions
- 290. **Monitoring Responsibilities for Different Stakeholders** The programme monitoring, and evaluation function will involve key personnel at different levels. Evaluations will be undertaken by independent experts hired by the programme. Staff at all levels will work together with the experts to learn lessons from the evaluations and apply them to improve project management and implementation. The different levels are highlighted hereunder.
- 291. National Programme Steering Committee (NPSC) The NPSC will be responsible for providing policy guidance, review and approval of the consolidated Annual Workplan and Budget, Annual Progress Reports as well as Audit Reports. Other steering committees at the county level, also known as the County Project Steering Team (CPST) and County Agricultural Sector Steering Committee (CASSCOM), will review and approval respective levels of annual workplans and budgets and annual reports.
- 292. The State Department of Agriculture The State Department of Agriculture will monitor the overall operations for planning and facilitation purposes of the interventions for attainment of project objectives
- 293. The Programme Coordination and Management Unit The Programme Coordination and Management Unit will be responsible for ensuring that respective state departments, agencies, and all participating counties and their respective lower units adopt and follow appropriate monitoring mechanisms, processes and procedures. The PCMU will support the CPITs and the lower units to establish meaningful and measurable indicators during the start-up phase so that suitable means of data collection can be built into Programme activities. The PCMU will also monitor and evaluate the overall performance of the Programme and compile the Programme's quarterly and annual reports for dissemination to the stakeholders.

- 294. County Programme Implementation Teams The CPITs will ensure that activities within their respective counties are monitored well in accordance with established programme level M&E mechanisms, procedures and processes.
- 295. The sub-county technical teams The Sub-County staff, will be responsible for ensuring that implementation is efficiently and effectively carried out according to the approved work plans and budgets. The sub-county focal point persons will be responsible for the day-to-day monitoring of activities at sub-counties and ward levels including monitoring inputs, activities and achievements, and overall coordination of monitoring at that level. The focal persons will also be responsible for ensuring harmonisation with other sub-county level monitoring processes to improve efficiency of information collection while avoiding duplication of monitoring tasks.
- 296. Ward Level Monitoring One of the responsibilities of the Ward Administration is to integrate INReMP activities into their respective AWPs. The Ward administrations will be responsible for monitoring the Programme against stated targets and will provide backstopping of planning efforts by the beneficiaries and will be instrumental in ensuring that monitoring tools and procedures are incorporated into activity plans of proposed subprojects identified in the Community Action Plans.
- 297. Activity Level Monitoring Implementation of INReMP interventions will involve various service providers/stakeholders, government agencies, and state departments. These will be given clear monitoring procedures and reporting formats for the activities under their authority for on-ward transmission to the wards, sub-counties, counties and national monitoring levels.
- 298. Monitoring by Implementing partners The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies. Each of these partners will monitor and report on activities under their implementation and as guided by the programme monitoring and reporting framework.
 - Kenya Agricultural and Livestock Research Organization (KALRO) will monitor outputs and activities related to agricultural and livestock research within the programme and as defined.
 - Lake Basin Development Authority (LBDA) Will monitor outputs and activities related to sustainable development within the Lake Victoria basin
 - National Environmental Management Authority (NEMA)- will monitor outputs and activities related to wetlands and environmental monitoring, in line with the ESCMP as defined using its relevant structures at national and devolved levels
 - Directorate of Environment and Climate Change in the State Department for Environment and climate change as the NDA for Kenya, will monitor any activities and outputs related to climate change
 - Kenya Forest Service (KFS) will monitor outputs and activities related to forestry development and conservation
 - Kenya Wildlife Service (KWS) will monitor activities and outputs related to protection of wildlife
 - Kenya Forest Research Institute (KEFRI)- Will monitor activities and outputs related to forestry research
 - Kenya Water Towers Agency (KWTA) Will monitor activities and outputs related to sustainable management and development of water towers
 - National Environment Trust Fund (NETFUND) will monitor activities and outputs related to mobilization of resources for environmental management
 - Water Sector Trust Fund Will monitor activities and outputs related to provision of grants for capacity building of counties on water management

- Water Resources Authority Will monitor activities and outputs related to access to and availability of clean water
- National Irrigation Authority will monitor activities and outputs related to development of irrigation infrastructure
- Kenya Meteorological Department will monitor activities and outputs related to provision of timely early warning weather and climate information
- Kenya Marine & Fisheries Research Institute (KMFRI) will monitor activities and outputs related to fisheries research
- The Nature Conservancy will monitor activities and outputs related to the GEF funding.
- 299. The respective technical officers at PCMU will coordinate activities related to environmental and Climate Change monitoring and the use of the Resilience Design Monitoring Tool (RDMT).
- 300. Beneficiary/Community level Monitoring Upon preparation of Community Action Plans, the beneficiaries will coordinate with activity implementers, and or Community Facilitators on the channels to be used to collect information and transmit it to higher levels.
- 301. **Information Needs Flow of INReMP** In order for different levels of programme stakeholders to guide the project's planning, implementation, monitoring and evaluation, they will require different types of information from various sources.
- 302. Beneficiary/Community Level Beneficiaries will be the centre of the decision-making process, planning, monitoring and evaluation of activities of the programme. In order for them to own the interventions and ensure ease of monitoring by the various stakeholders and for the future and sustainability of the project, each Community Facilitator will prepare detailed planning matrices clearly indicating the community goal, purpose, outputs, and the action plan showing the activities to be undertaken, responsible persons and timing of the activities. The work plans will be prepared using simplified formats to accommodate the changing information/data needs that conform to and feed into formats for higher reporting levels.
- 303. In addition, the Community Facilitators will consolidate the information from the different beneficiary/Community groups into Community reports. After the consolidation, the Community reports will be forwarded to the Ward level.
- 304. Ward Level At the Ward level, all the received community/group level reports will be compiled and consolidated into one Ward report by the Ward community development assistant. Besides consolidating the report, the assistant will ensure that the important aspects in the work plans are well articulated in the Community reports. The Community Development Assistant will also incorporate information generated during project implementation monitoring to constitute a comprehensive Ward report. The Ward report will be forwarded to the Sub-County level.
- 305. Sub-county Level The received Ward reports will be consolidated into Sub- County reports by the Sub- County focal person with support of the Technical Implementation Team. Sources of information at the Sub- County level include but not limited to the project monitoring reports, meetings and consultations among the Sub- County staff involved in the INREMP implementation.
- 306. County Level At County Level, all the Sub- County level reports will be consolidated into one County Report by the M&E Staff based within the County CPIT. The County Reports will then be transmitted to the National PCMU for consolidation into a project wide report to be shared with project stakeholders.
- 307. National Level At National Level, all the County level Reports will be compiled and consolidated into one project wide report by the staff at the PCMU. The consolidated report will then be circulated to IFAD, GEF, GoK and other stakeholders.

- 308. Feedback information will follow the reverse order from IFAD through the National PCMU to the County CPITs, Sub- County Focal persons, Ward Community Development to beneficiaries. Through planning and review meetings, feedback will be channeled to the project implementers and beneficiaries.
- 309. **Logical Framework** The Programme logframe with pre-defined Core and Programme specific indicators has been developed. And to the extent possible these indicators have been quantified. The monitoring indicators, disaggregated by gender where applicable, will compare programme performance each year with the targets set in the Annual Work plan and Budget for that year. Outcome level indicators will be assessed through COI surveys to be carried out at baseline, midline and endline. The resilience indicator will be assessed through the RDMT while the carbon sequestration indicator will be assessed using the EXACT tool. The Programme will finance a baseline survey to benchmark performance indicators and facilitate future monitoring and evaluation of outcomes and impact.
- 310. Indicators Relevant indicators have been specified in the INREMP Logframe and, to the extent possible, quantified. The indicators relate to the different levels (output, outcome and impact), and include IFAD Core Indicators (CIs) as well as project specific indicators. This is based on the theory of change and demonstrates the logical links between the results at their different levels and thereby enabling the meaningful analysis of whether the project is on-track towards its planned results even in the first few years of implementation when higher-level results are not yet expected. The monitoring indicators will compare project performance each year with the targets set in the AWPB for that year.
- 311. Data Collection Data collection for updating the operational M&E framework will be supported by a web-based Management Information System which will depend on the use of cloud servers for easy administration, electronic tablets for data collection and online transmission to the cloud-based servers and collection of GPS coordinates for easy location of project beneficiaries and interventions. The serves will be administered at both County and National levels, for storage and processing.
- 312. Data collection for Physical progress monitoring will be based on two principles: a) AWPB-based progress monitoring this will involve checking and reporting on implementation progress of each activity in the AWPB; and b) registers of physical progress by recording key information on selected activities in specific registers, which will provide a cumulative historical record of practically all activities undertaken by the project. The purpose of the registers of physical progress will be to systematically record information on certain types of activities and results of Programme implementation, in order to create a historical, cumulative overview. They will be integrated with the webbased MIS just like the AWPB monitoring. Initially, the following physical progress registers are envisaged:
 - a) Register of contracts For each contract signed under the project, with suppliers, consultants and other service providers, the register of contracts will contain one line of information, which will include: description of the contract; name of the supplier/service provider; procurement method; contract sum; when the contract was signed, when the work started, when it was expected to be completed and when it was actually completed; number of invoices received and payments made;
 - b) Register of training activities The register for training activities is a very broad register that will be used to capture formal training courses, workshops, seminars, conferences, study tours, exchange visits, field demonstrations, key meetings, even studies and surveys. The same register can be used because the key information that is important to be recorded is basically the same for all these types of activities, and includes: a description of the activity; whether it was for beneficiaries or staff; where it took place (venue, destination); when it started and ended; who was responsible for organizing the activity (person/institution); who

- the participants were; how many participants (men/women/youth/PWDs/IPs); the cost; and the duration;
- c) Register of infrastructure In the register of infrastructure, one line of information will summarize key facts about any piece of infrastructure that is constructed, rehabilitated, expanded, or equipped under the programme. The information in this register will include: the type of infrastructure; a description of the infrastructure; where it is located; when the contract for the work (if applicable) was signed, when the work started, when work was expected to end and when it actually ended; who the main contractor or supplier is (if applicable); who supervised the works; the total cost and the community contribution; and the estimated number of people(disaggregated by gender, age and vulnerability) who benefit from the infrastructure;
- d) Register of groups and or farmers' organisations In the register of groups, one line of information will summarize key facts about any group that has been established or is being supported under the project, for example farmers producer organisations, cooperatives, and infrastructure management Organizations such as the Catchment Management Association, Water Resources User Organisations, Community Forestry Association, Wetland Management Committees e.t.c. The information in this register will include: the type of group; the name of the group; where it is located; when it was formed; a brief description of the group purpose and main activities; a description of the project's involvement with the group; the number of group members (disaggregated as men/women and youth).
- 313. These registers shall be kept and updated regularly at the PCMU, and CPITs. The county level, agencies, state departments and other partner implementation level registers will be submitted at least on a quarterly basis to the CPITs for review and consolidation and transmission to the PCMU. To assist officers at County and lower levels, formats will be developed by the PCMU consistent with the register structures maintained within the web- based MIS and distributed to the subject matter specialists in charge of monitoring at that level.
- 314. The AWP&B-based progress monitoring in principle will use detailed activities exactly as they are presented in tables in the AWPB. The basic task will be to regularly note down, activity by activity, how much progress has been made, what has been achieved, comments and whether any special action is required. To do this, the files used during AWP&B preparation will be accessible to the County CPITs for respective monitoring.
- 315. To the extent possible, special emphasis will be placed on the need to integrate planning and monitoring as standard responsibilities in the work of project implementers and ensuring that recording progress information is done regularly and consistently. In principle, the M & E Officers from the county CPITs as well as focal persons from each of the implementation partner institutions will be responsible to collect and submit data for input into the MIS.
- 316. The progress information will be carefully analysed by staff of M&E Units at the CPITs and PCMU. The analysis will seek to identify any implementation constraints to be addressed by the project management. The same information will be used to prepare quarterly, half yearly and annual reports, which will contain the full tables with detailed, activity by activity progress information. These reports will be produced by the respective CPITs and will be consolidated initially at County level and later at PCMU into a project-wide report for submission to relevant Government offices, IFAD and other INREMP funding partners. Reports will provide information such as: a) overview of intervention activities undertaken in the last quarter and cumulatively over the fiscal year; and b) progress and outputs in terms of the agreed M&E indicators, provide lessons learnt, and knowledge gaps identified. The reports will also seek to identify any constraints encountered so as to seek guidance (where needed) from Project management for addressing the constraints.

- 317. It should be noted that progress information will be from the beginning of the year to-date to reflect cumulative progress. This means that for the third quarter, for example, the tables will contain the progress made and achievements from the beginning of the financial year until the end of the third quarter, in addition to the separate results for the third quarter. Further, information will be provided on the cumulative progress since the beginning of the programme. This is meant to assess the progress towards achieving programme targets in line with the IFAD's Operational Results Management System (ORMS). Standard reporting formats will be developed during the development of the M&E Framework and M&E plan to provide guidance on the various monitoring focal persons/offices as defined above.
- 318. Regular project Implementation Reviews will be undertaken every quarter as a platform for assessment of project implementation and performance as well as share experiences in implementation. Participation in the reviews will be by all those involved with activity implementation as well as selected sector actors and stakeholders, the hosting of which will follow internal rotational arrangements among the CPITs.

Progress Reporting – The main source of information for Programme Management will be progress reports produced by the Programme's M&E team. Standardized formats will be developed and used consistently. The M&E officers at different levels will validate the information before sending it to the next level. The information will be consolidated in the process of producing progress reports; the consolidation will be based not only on figures but on detailed analysis, linking the physical with the financial progress and estimating the overall achievements towards set targets.

- 319. Quarterly Progress Reports All INREMP activities integrated into plans of County government departments/sections will be reported upon every 3 months by respective units implementing them. Where the private sector implementers are involved in INREMP activities, the County CPITs will be responsible for ensuring compliance of the service providers with regard to the monitoring and reporting requirements included in the service providers' contract.
- 320. Bi-annual Progress Reports Consolidation of quarterly reports will be done by the respective units. The PCMU will prepare a consolidated 6-months progress report for sharing with GoK, IFAD and other stakeholders/co-financers, as may be required. The progress reports will include an overall assessment of INREMP's achievements against the targets in the AWPBs. Reports will be submitted within six weeks from the end of each reporting period.
- 321. Annual Progress Reports The annual progress reports will be a consolidation of the progress of achievements attained during a financial year and assess the overall performance of the project against set objectives and indicators in the project logframe. This will be done by the respective CPITs and the PCMU.
- 322. Back to Office Reports These will be produced on demand and following field visits to the project area. The reports will be submitted within one week of undertaking the field activities. The reports will contain feedback on the purpose of the field visits, the people met during the visits, the salient findings, the lessons learnt and recommendations for improvement.
- 323. The table below provides a summary of reports to be generated/produced by the INREMP Programme M&E System.

Type of Report	of			Frequen cy	Deadline	
				Ward Level		

Quarterly	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	Once every 3 Months	1 st Week of proceeding month of the following quarter
Bi-annual Progress Reports	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	Once every 6 Months	2 nd Week of proceeding month of the following quarter
Annual Reports	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	Once every 12 months	3 rd Week of proceeding month of the following quarter
Back to Office field reports	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	On demand	Within 1 week of completing the field visit

- 324. **Baseline and Impact Evaluation** Baseline and Impact Evaluation A baseline study will be undertaken during the first year of project implementation to benchmark the project indicators and provide a basis for future assessment of outcomes and programme impact. NReMP will adopt and adapt the standard COI survey guidelines and methodology to undertake the project baseline survey. The PCMU together with the CPITs will work together to adapt the ToR and the COI questionnaire as well as the Request for Proposals (RFP). The survey will be undertaken with external consultant support recruited through a competitive bidding and selection process as per established procurement guidelines.
- 325. IFAD will undertake periodic monitoring, evaluation and supervision Missions to assess the status of Programme implementation and evaluate its direction with respect to its objectives, outputs and outcomes.
- 326. The Programme will also carry out outcome and impact assessments with a focus on the Programme's overall goal and specific objectives, as defined in the Programme logframe.
- 327. During implementation, the following evaluations will be undertaken by independent consultants with the help of the PCMU and CPITs to establish the relevance, effectiveness, efficiency, and sustainability of the project:
 - a) The mid-term review which will be undertaken in the 4th quarter of year 4 of the programme; and
 - b) The project completion review, which will be undertaken in year 8.
- 328. The project evaluations will be based on:
 - a) Accumulated and interpreted data from the periodic monitoring
 - b) Analysis of completion reports of the community investments from the selected beneficiaries
 - c) Bi-annual and annual progress reports at all levels
 - d) Specific impact exercises at mid-term and completion
 - e) Responses of beneficiaries, Sub-counties, and Wards to INReMP procedures.
- 329. The PCMU will engage external consultants to carry out the assessments in line with standard impact assessment methodology and following the approved COI survey framework for the case of core outcome indicators. Consultants will also be engaged to assess the resilience indicators using the resilience score card RDMT as well as in determining the carbon sequestration using the Ex- Ante Carbon Balance Tool. Secondary sources of data will be used particularly to provide information on the overall sector goal indicators.
- 330. The table below provides a summary of the basis, responsibility and frequency for the planned Programme evaluations:

Basis for Evaluation	Responsible Persons	Frequency
Accumulated and Interpreted data from periodic monitoring	PCMU and CPITs	Continuous
Analysis of investment completion reports from various beneficiaries' /communities	PCMU and CPITs, subcounty focal persons and Ward Assistant CDOs	Continuous
The PCMU and CPITs consolidated bi-monthly and annual progress reports	Programme Coordinators (National and County Levels)	Bi-Annual and Annual
Sub-County project reports	Sub-county focal persons	Quarterly, Bi-annual and annual
Specific Impact Exercises at Mid Term and Completion	Programme Coordinator	On Demand
Responses of beneficiaries to INReMP procedures	Community Facilitators	Once every 18 Months

331. **Management Information System (MIS)** – A web-based management information system (MIS) will be developed in the first year of implementation and will be used to support day-to -day monitoring of the programme activities and outputs. Data collection at field level will be carried out by field staff using electronic tablets and uploaded into the MIS from where it will be accessed by the M & E Officers at the PCMU for administration and management. The CPIT Coordinators will only have user rights while the M&E Specialists will have editing rights to ensure data quality and consistency. The Specialists will also be responsible for technical performance of the system. The field staff will ensure that any errors in data entry are promptly communicated to the M & E Specialists at PCMU to enable temporary permission to the affected staff for reloading of the data. The MIS based on the DHIS2 interface will be designed using external consultancy support who will also build capacity of the field staff to use the system well. In addition, a technical manual will also be developed, and relevant training provided to all field staff, to enhance the use of the MIS.

III.3: KNOWLEDGE MANAGEMENT, LEARNING AND COMMUNICATION

The core relevance of the M&E system is in the use of the information it elicits for planning and decision-making as well as accountability. Knowledge Management (KM) will be an integral part of INReMP to ensure that Programme implementation is a continuous learning process in which quantitative and qualitative data will be compiled, analysed and disseminated as lessons learned, together with thematic studies and stories from the field that document successful approaches, explain challenges encountered and results achieved. The Project M&E system will form the foundation of KM and learning system and will thus be a primary instrument of information capture and storage, based on the indicators detailed in the results framework. Tools, such as case studies, stakeholder interviews and surveys, will be used to deepen understanding of factors contributing to successes and failures, and to enable full documentation of impact. The Knowledge management and Learning Officer within the PCMU will be responsible for all KM activities in liaison with the M & E Specialist and other technical component heads. Collaboration with relevant research and learning institutions to design and undertake studies and analyses as well as communicate lessons learnt will be encouraged.

332. A Knowledge Management strategy will be developed built on three core pillars of KM: people, processes and technology. In addition, a knowledge Management and Communication Action Plan that outlines specific activities on how information is to be obtained, analysed, and disseminated, will be developed in line with the KM strategy. The Plan will be developed to translate the strategies into action. Plans to support the implementation of the KM Action Plan will be integrated in the Project's AWPB. In this regard, the KM & Communication Action Plan shall include an outline how knowledge will be disseminated using, but not limited to, the communication channels. Effective

communication at all levels will be critical to promotion and awareness raising, learning and adoption of innovative techniques and practices promoted by the programme. Issues related to mainstreaming of gender, indigenous persons, and nutrition in the programme activities and encouragement of youth participation in natural resources conservation and management will be emphasised. Quarterly review meetings with implementing counties, GoK agencies and state departments, and private sector partners will be organised by project management to discuss progress towards results in relation to each quarterly progress report, the format of which will explicitly include a focus on lessons learnt in terms of challenges, good practices, etc. Study tours, exchange visits and learning routes will be organized for lateral knowledge transfer. In order to facilitate the online dissemination of generated knowledge products to government and other stake holders, INReMP will ensure adequate sharing of information through a Knowledge Management Portal to be developed and set up and linked to the State Department for Agriculture as well as encourage use of other online knowledge sharing mechanisms such as the use of social media, short messaging services and other digital communication services. The programme will also encourage the access to climate and weather information as well as market information by the various value chain actors.

- 333. Concurrently, a downward and upward flow of information about project progress to beneficiaries and implementing partners in the field is of utmost relevance in fostering ownership and participation. Systems for these information exchanges will be developed and used on a regular basis, including stakeholder review meetings, planning workshops, and a newsletter to be shared with all Catchment Management Organisations, WRUAs, CFAs, FOs and cooperatives involved in programme implementation. The project will ensure the full participation of all partner departments and agencies to produce relevant knowledge products and communication materials, such as press releases, e-extension materials, IVR and radio spots.
- 334. **Knowledge Management Plan** In order to facilitate an effective provision of the KM function during INReMP implementation, a KM plan is provided herewith. The plan outlines specific activities on how information will be obtained, analysed, and disseminated within INReMP. It outlines the main objectives of KM, the broad approaches that will be used, the activities that will be undertaken, the knowledge products expected to be generated and disseminated, the resources required and an evaluation plan to inform the project management on the performance of KM within the project. This plan will be updated from time to time to align with emerging knowledge needs of the project during implementation.

1.Current situation / background

Knowledge Management in INReMP will have a major focus on innovations and capturing of lessons learnt and using these to enhance programme perfomance and impact. The KM and Communication system will be intergrated and aligned with the result based M & E system to ensure evidence based knowledge generation. KM will be implemented through out the programme period but with a phased focus and targeted approach commensurate with the stages of implementation. That is to say, the early phases of its implementation will focus primarily on promoting the programme and creating awareness and later phases will be focused on creating visibility of project results, supporting policy engagement and scaling up of successful and innovative approaches. INReMP KM will also draw a lot of lessons from the now closed Upper Tana Natural Resources Management Project (UTaNRMP) whose successful implementation, the INReMP seeks to upscale in the Cherangany Hills and Mau West Water Towers.

2.Overall programme / project objectives

INReMP will be implemented over a period of seven (8) years, with a goal 'to contribute to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem'. The Programme Development Objective (PDO) is to 'Enhance integrated'

natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, putting particular emphasis on women, youth and other vulnerable groups'. The Programme will, be implemented in 10 Counties located in Cherangay Hills and Mau West two water towers. INReMP will reach 407,176 households and an estimated 2,035,880 household members in all the ten counties. The project will have an environment and ecosystem services restoration, climate adaptation, gender transformative, youth and nutrition sensitive focus, and will also target among others vulerable members of the community such as people with disabilities and indegenous persons.

The programme objectives will be achieved through the implementation of two field technical components and an instutional strengthening and project management component. The expected outcomes from INReMP implementation will be:

- a) Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action;
- b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and
- c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

3. Purpose, objectives and expected results

KM within INReMP will particularly be important in creating awareness among stakeholders about the programme, creating visibility of programme results and Impact, supporting policy engagement and scaling up of successful and innovative approaches. The objectives of the KM plan thus will be to:

- Develop a Knowledge Management and Communication Strategy to guide the systematized documentation, packaging and dissemination of knowledge generated from programme implementation
- ii. Develop key messages, appropriate multimedia platforms, tools and channels for effective knowledge sharing and communication with various target audiences.
- iii. Build Knowledge Management and Communications capacity for Programme Implementation.

4. Activities, approaches and tools

The following activities, approaches and tools are envisaged within Implementation of INReMP KM

Main Intervention/activity	Means of verification	Due date
Carry out a Stakeholder analysis and KM needs assessment for supporting the development of the KM strategy	Review report	PY1
Undertake an assessment of the ICT infrastruture in the target counties for enabling KM and communication in INReMP	Review report	PY1

Develop the KM and Communication Strategy building on findings of the preliminarly assessments and the lessons learnt from ongoing and closed IFAD supported projects such as the UTaNRMP	KMC strategy developed	PY1
Validate the KMC strategy with key project stakeholders	KMC strategy validated	PY1
Develop annual KM action plan and budget for the strategy.	AWPBs	PY1, PY2up to PY8
Develop and operationalise communication channels including a Knowledge Managemnet Portal for the programme but with links to all respective ten counties web-portals, leverage social media platforms and other multimedia platforms	 Knowledge Management Portal Social media handles TV and Radio Talk show agreements e.t.c 	PY2
Develop and implement IEC materials and knowledge products	 Tools developed, Materials developed- Brochures, Newsletters, Documentaries, posters, fliers, leaflets, manuals, e.t.c 	PY1, PY2up to PY8
Systematically conduct case studies to understand in detail emerging results and impact of programme implementation, document lessons learnt and success stories	 Case study reports , lessons learnt, Success stories 	PY3, PY4upto PY8
Carry out detailed policy review of INReMP results to generate evidence for policy engagement and advocacy	Policy BriefsPolicy engagement meetings/minutes	PY3, PY4, PY5, PY6,PY7 and PY8
Engage the mass media at National and County levels to communicate and share knowledge on INReMP focus areas	Contracts signed and implemented with media houses	PY1up to PY8
Promote brand visibility of the Programme and its	Promotional items such as Sign boards, Branded materials e.t.c	PY1up to PY8

	funding partners (IFAD, GEF, GoK e.t.c)		
	Build capacity of the programme staff and partners to ensure systematic learning and knowledge sharing are fully embedded in Programme management and implementation	KM Monitoring Reports	PY1up to PY8
	Design and implement a training programme for PCMU and CPIT staff as well as staff of county Information and media teams and other relevant government agenciies and departments as required on KM and Communication approaches, methods and tools.	Staff trained	PY1up to PY8
	Develop annual plans and budgets that ensure the Programme KM and Communication strategy is continuously monitored and	AWPBs	PY1up to PY8
	improved.		
5.Knowledge sharing &		Dissemination Channels	Target Audience
	improved.		
sharing & knowledge	improved. Knowledge Products	Channels Workshops, mass media, social media platforms, project	Audience Project implementers (staff and Implementing partners), Government departments and external
sharing & knowledge	improved. Knowledge Products Case stuy reports	Channels Workshops, mass media, social media platforms, project website, print media Distribution during workshops, Fairs and field visits and any	Audience Project implementers (staff and Implementing partners), Government departments and external stakeholders Primary project beneficiairies and potential projects
sharing & knowledge	Knowledge Products Case stuy reports Brochures, Fliers	Channels Workshops, mass media, social media platforms, project website, print media Distribution during workshops, Fairs and field visits and any other gatherings	Audience Project implementers (staff and Implementing partners), Government departments and external stakeholders Primary project beneficiairies and potential projects enthusiasts External

		Government departments and ministries
Branded Items	Public events/exhibitions/fairs/ Value chain platforms and public places	Project beneficiairies, External stakeholders and project financiers

6.KM in project management

Knowledge Management (KM) will be an integral part of INReMP to ensure that Project implementation is a continuous learning process in which quantitative and qualitative data will be compiled, analysed and disseminated as lessons learned, together with thematic studies and stories from the field that document successful approaches, explain challenges encountered and results achieved. The Project M&E system will form the foundation of KM and learning system and will thus be a primary instrument of information capture and storage, based on the indicators detailed in the results framework. This means that knowledge management activities will build on the M & E findings and results of project implementation.

The Knowledge management and Communication Officer at PCMU and M & E Officers within the CPITs, will be responsible for all KM activities in liaison with the respective counties information and media teams amd other relevant line ministries and departments. The KM Officer at the PCMU level will be directly responsible for developing the KMC strategy, drawing annual plans and budgets in line with the strategy and ensuring that identified activities are implemented as planned. The staff will also be responsible for reporting on the perfomance of the KM function within the project. The KMC Officer will coordinate KMC activities, ensuring that all required inputs are solicited and knowledge products developed and disseminated accordingly. He/She will liasie with respective technical component heads to carry out the KM assignments.

A web-based knowdge portal will be developed and linked to respective county web-based portals. The KM portal will have dashboards through which updates on the perfomance of the programme, events, reports, and any other relevant materials will be provided for easy sharing across the range of INReMP stakeholders.

Through the Project M & E system, outcome and thematic surveys will be undertaken to generate results on the perfomance of the project. The results from such surveys will inform the conduct of detailed case studies on particular themes as may be identified from time to time.

The KMC Officer will also be respossible for developing other knowledge products in consultation with technical component teams and county governors' media teams.

III.4: FINANCIAL MANAGEMENT

Attached as a standalone module.

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1 APPLICABLE PROCUREMENT RULES

IFAD General Conditions (Section 7.05. Procurement) lay emphasis on use of Borrower/ Recipient's procurement regulations, provided they are found to be consistent with IFAD's procurement quidelines. Procurement under INReMP will be carried out in accordance with GoK's Public Procurement and Asset Disposal Act (PPADA 2015) which sets out the rules and procedures of public procurement by Ministries, Departments and Agencies (MDAs) and County Governments, and provides mechanisms for enforcement of the law. The national framework will apply for procurements to the extent that they are consistent with IFAD Project Procurement Guidelines. National Standard Bidding Documents (SBDs) will be used and will be amended for consistency with IFAD Guidelines. International procurements and consulting services will use IFAD SBDs. All project procurement activities will be made in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) will apply to INReMP to ensure compliance with the highest ethical standards. Other provisions stipulated in the Procurement Arrangement Letter (PAL) will be applied for all procurement activities.

Under the PPADA, the Public Procurement Regulatory Authority (PPRA) has been established. The PPRA has oversight and regulatory functions, including undertaking procurement reviews and audits.

2 Procurement Methods, Thresholds and Prior Review

2.1 PROCUREMENT PLANS (PP)

The PP should reflect the analysis presented in the PPS. It is the responsibility of the Project to prepare a consolidated Procurement Plan covering all the activities funded by the project. The Procurement Plan should include all procurement packages expected to be implemented within a period of at least 12 months. The PP should be updated at least annually to reflect actual needs and changing circumstances.

The initial Procurement Plan prepared for the project should be for a period of 18 months, with successive 12-month plans to be prepared for the following period of implementation. The plan should be realistic and shall be consistent with the Project Annual Work Plan and Budget (AWPB) and shall form part of it. NPCU and County level PPs will be developed as soon as the AWPB are ready.

Any updates to the Procurement Plan should be submitted to IFAD for its review and no objection. Any changes to the Procurement Pan should be justified through a revised PPS. The Plan shall include description of the procurement packages to be implemented, funding source, methods of Procurement, type of review (prior or post), quantities, estimated costs, time schedule for the different steps involved in the procurement process and the responsible procuring entity. The Procurement Plan is a "live" document that should be updated regularly. It is recommended to review the plan at least once quarterly. Any major adjustments or amendments to the plan would require IFAD no-objection. The plan should be ready and updated for review by supervision missions.

2.2 OPEN

IFAD OPEN (Online Project Procurement End-to-End System) supports borrowers maximize value for money and increases transparency and efficiency over the procurement processes in IFAD-financed operations. The system provides support to borrowers with built in guidance from procurement planning stages to contract completion, tracking key stages of the procurement process. The system also generates analytics that supports evidence-based management.

Project procurement will be carried out as per the approved Procurement Plan (PP) processed in IFAD's OPEN. No activity will be implemented prior to receipt of a no objection through OPEN.

2.3 CONTRACT REGISTER (CR) AND CONTRACT MONITORING TOOL (CMT)

All contracts, Memorandums of Agreements, purchase orders and related payments must be recorded in the Contract Monitoring Tool (CMT) of the IFAD Client Portal. The contract register in use by the project will be in form of entries to the CMT. All contracts by the project will be captured in the CMT in a timely manner. The project procurement officer will ensure regular updates to the CMT to reflect accurate physical and financial progress of contract entries.

2.4 TABULAR SUMMARY OF APPLICABLE METHODS AND THRESHOLDS

Method Selection Currency: US\$	Prior Review Thresholds					
	GOODS/NCS					
Shopping	NCB	ICB				
≤ 100,000	< 200,000	≥ 200,000	≥ 70,000			
	WORKS	/NCS				
Shopping	NCB	ICB				
≤ 250,000	< 1,000,000	≥ 1,000,000	≥ 150,000			
CONSULTING SERVICES/NCS						
cqs	LCS and FBS	QCBS and QBS				
≤ 70,000	< 150,000	≥ 150,000	≥ 60,000			
ICS Prior Review	≥ 30,000					

2.5 SPECIAL PROCUREMENT ARRANGEMENTS

a) The table below represents procurement arrangements for low value items:

Contract	Category	Estimated Cost	Procurement Approach and Method
Off-the shelf Goods, Minor Works, and small assignments.	Works /Goods /Consulting services	Not more than USD500, up to an annual cumulative cost of USD5,000 (as defined in the PAL)	Contracts to be procured through local administrative procedures and a file of all such purchases be maintained.

- b) Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, salaries, and allowances for project staff. These expenditures will not be subject to procurement clearance, hence, will not be reflected in the approved procurement plan. Items under this category would be procured using local administrative procedures acceptable to IFAD. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB, and will be subject to external audit.
- c) Training / Capacity Development initiatives through the project are not Procurement Transactions unless a service provider is exclusively hired from Market through agreed Selection Methods of Consultant / Non-consulting services as appropriate to render training or capacity development. The expenditure plan under

this category will be submitted annually to IFAD for review and no objection through the AWPB and will be subject to external audit.

2.6 STANDARD PROCUREMENT DOCUMENTS (SPD) TO BE USED

National SBDs will be used and will be amended for consistency with IFAD Guidelines. The SBDs will include porvisions on IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), and IFAD right to audit. International procurements will use IFAD SBDs and provisions. A complete list of SPD templates is available for download and can be accessed on https://www.ifad.org/en/project-procurement/quidelines-and-documents

2.7 GUIDANCE OFFERED IN THE IFAD PROCUREMENT HANDBOOK

The IFAD procurement handbook will be referenced for consistency to any procurement activity undertaken by the project when procuring goods, works or services under INReMP, and consistent with the Financing Agreement and PAL. Consistent application of the handbook's provisions and procedures is essential for ensuring greater efficiency, transparency, uniformity of documents and decisions and lower procurement costs.

2.8 PRIOR REVIEW DOCUMENTATION

In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

2.7.1 Procurement Plan (PP)

Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans shall be subject to prior review.

2.7.2 The General Procurement Notice(s) (GPN)

General Procurement Notices that are drafted prior to their publication shall be subject to IFAD prior review.

2.7.3 Goods, Works, Consulting and Non-Consulting Services

The procurement process for Goods/Works/Services shall require IFAD's No Objection (NO) for contracts designated for "**prior review**" in the project's procurement plan. No downstream procurement action by the project 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	IFAD "NO" is required
1	Call/Request for Prequalification document and related advertisement	Yes
2	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes
3	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)
4	Technical Specifications for Goods/Works/NCS	Yes, usually as part of NO request for issue of the bid docs (step 9 below)
5	Composition of evaluation committees	Yes, usually as part of 9, 13 or 15
6	Prequalification report for Goods/Works/NCS	Yes
7	Shortlisting report for consultants' selection	Yes

8	The use of "prior lists" for shortlisting consultants	Yes
9	Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable	Yes
10	Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee	Yes
11	Amendments to the Bidding Documents and RFPs, CfPs	Yes
12	Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS)	Yes
13	Technical evaluation report (in two envelope procedures)	Yes
14	The combined evaluation report (in two envelope procedures)	Yes
15	The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS)	Yes
16	Decisions concerning abnormally low bids	Yes
17	Draft contract	Yes
18	Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS	Yes
19	Rejection of all bids/proposals and cancellation of the procurement procedure	Yes
20	Failure of negotiations and proceeding to next ranked consultant	Yes
21	Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS	Yes
22	Determination to reject a bid/proposal because of cross- debarment	Yes, usually as part of steps 13, 14 or 15
23	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
24	Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	Yes
25	Termination of a contract in Goods/Works/NC Services/Consulting Services	Yes
26	The use of Force Account	Yes

2.7.4 Other specific Prior Review requirementsIn accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

1	Procurement Plans submitted as part of Annual Work Plans and Budget and any		
	subsequent amendment of these plans;		
2	General Procurement Notices (GPNs);		
3	The first 5 procurement activities using ICB and NCB;		
4	Any use of Force Account;		
5	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;		
6	Award of any Memorandum of Agreement irrespective of its value;		
7	Award of any contract for goods and goods-related non-consulting services estimated to cost US\$ 70,000 or more;		

8	Award of any contract for works and works-related non-consulting services estimated to cost US\$ 150,000 or more;
9	Award of any contract for consulting services provided by firms estimated to cost US\$ 60,000 or more;
10	Award of any contract for individual consulting services estimated to cost US\$ 30,000 or more;
11	Award of any contract via Direct Contracting for Goods and related Non-Consulting Services above the low-value threshold specified in PAL paragraph 6 b) iv). Any contract below this low-value threshold does not need NO if the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in PAL paragraph 6 b) iv) in the current fiscal year;
12	Award of any contract via Direct Contracting for Works above the low-value threshold specified in paragraph PAL 6 a) iv). Any contract below this threshold does not need NO if the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph;
13	
14	Award of any contract via Single/Sole Source Selection to individuals above the threshold specified in PAL paragraph 6 c) vii). Any contract below this threshold does not need NO if the cumulative threshold stated in the same paragraph is not exceeded and the contract duration is three months or less.

2.8 OTHER PROCUREMENT-RELATED COORDINATION WITH IFAD

It is not intended that the procurement manual will foresee all possible situations that could arise in processing of procurement activities and decisions. Where in doubt, the project will seek guidance from IFAD from time to time during INReMP's implementation. A proactive approach will be required to ensure procurement best practices are retained throughout project implementation.

3 Critical Procurement Issues

3.1 AREAS OF INCONSISTENCY BETWEEN NATIONAL LAW AND IFAD PROJECT PROCUREMENT GUIDELINES

3.1.1 Comparison between National and IFAD Procurement

The National Procurement framework has been assessed and compared to IFAD procurement framework. The areas of possible non-compliance to IFAD project procurement framework:

- a) PPADA Provision 118 provides for request for proposal through advertisement without RFOI.
- b) Provision 131 sets a condition for BAFO procedures where the lowest evaluated price is in excess of available budget, but without a probity Auditor for BAFO procedures.
- c) Minimum period for International tender advertising provided as seven days in Regulation 83.
- d) PPADA provision 157 provides for participation of candidates in preference and reservation. It requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents a mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating in international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender.
- e) PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted

that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.

- f) There are no ICB documents for Works/Goods, though documents can be customized for international competition.
- g) There is no procurement manual.
- h) No Social/Labour or Environmental considerations of SPP. The same is not a requirement in the prequalification and bidding processes.
- i) Regional agreements are not specifically reflected in procurement policy.

3.1.2 Extent of Application of the National Procurement rules under the Project

The National Procurement rules will apply for procurement processes subject to IFAD project procurement framework and consistency with IFAD procurement guidelines and PAL.

3.2 COST AND SCHEDULE ESTIMATE

The Programme's costs and procurement estimates of the first 18 months are tabulated below.

N	Component and Outputs	Cost (US\$)	Perc e nt	Key procurement activities (First 18 months)
1	Component 1. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action: 1) Output 1.1 Community Empowerment, Youth and Gender Transformative Approaches 2) Output 1.2 Improve Environmental Sustainability, INRM, and Ecosystem Services	85,700 8,449 77,251	34%	Supply of weather stations, river gauges, other equipment, Supply of Equipment for water and soil labs, Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc., Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming, Consulting service for mapping, registration of community groups.
2.	Component 2. Improved, Inclusive and Sustainable Rural Livelihoods: 3) Output 2.1 Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises 4) Output 2.2 Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises	74,132 49,515	49%	Procurement of 12No motor vehicles (for Extension), Procurement of 105No Motor Cycles for Extension services, Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems, Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems, Nutrition Specialist/Consultant, Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture), Provision of Business development support to MCC, Consulting services in support of Processing Equipment, Feasibility assessments, ESIA and Design of Climate-Proofed Access Roads, Development of Applications and

				Web based commodity trading platform.
3.	Component 3. Institutional Strengthening, Policy Support and Programme Coordination: 5) Output 3.1 Institutional Strengthening and Policy Support 6) Output 3.2 Programme Coordination and Implementation Support Services	43,654 5,229 38,425	17%	Procurement of 3No Utility Vehicles 4WD, Procurement of 2No Double Cabin Vehicles, Supply of IT Equipment (18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office Rehabilitation - National PMCU and Regional PMCU, Development of the programme MIS including related infrastructure, accessories and training of staff, Development of a Programme Knowledge Management Portal, Consulting service for Development of a Knowledge Management and Communication Strategy, Consulting service for Institutional capacity gap assessment and production of a capacity development plan, PMU staff (consultants).
	Total	253,000	100 %	

3.3 Publication of Notices

3.3.1 GENERAL PROCUREMENT NOTICE (GPN)

The GPN is a publication that will be made at the beginning of each planning period to achieve the following:

- Notify bidders of the existence of the INReMP
- Notify bidders of upcoming procurement opportunities
- Enable the INReMP to create or improve its supplier database

IFAD's NO is required prior to publication of the GPN.

3.3.2 PRE-QUALIFICATION (GOODS, WORKS AND NON-CONSULTING SERVICES)

In this process, information on the qualifications of potential bidders will be obtained and evaluated in order to compile a list of qualified bidders who will receive solicitations for closed procedures. This will be done through publication of a pre-qualification notice, the receipt of submissions and the evaluation of submissions against predetermined criteria.

3.3.3 NOTICES FOR OPEN BIDDING PROCESSES

For open bidding processes, publication of the advertisement will be made for open competitive bidding. This shall be done – at a minimum – via publication on the IFAD website and in national newspapers. International Competitive approaches shall require additional publication on the United Nations Development Business portal - UNDB online.

3.3.4 Request for Expressions of Interest (REOI)

For openly competitive procurement activities through Request for Proposals, Publication/issuance of an REOI containing a briefing on the assignment and the shortlist assessment criteria will be made. The evaluation criteria in the RFP stage will be more robust and not be used in the shortlist.

3.3.5 Publication of Contract Awards

The publication of contract awards will follow the same advertisement method used for the announcement of the procurement activity.

3.4 AWARD OF GRANTS/LOANS

Grant schemes awards will be subject to IFAD review and No Objection.

3.5 PROCUREMENT PRINCIPLES AND ETHICS

3.5.1 Procurement Principles

In accordance with the IFAD Project Procurement Guidelines, the IFAD Anticorruption Policy and the IFAD Code of Conduct, project procurement staff are expected to:

- a) maintain and enhance the reputation of the Government of Kenya by:
 - (i) maintaining the highest standards of honesty and integrity in all professional relationships;
 - (ii) developing the highest standards of professional ethics;
 - (iii) maximizing use of IFAD funds and other resources for which they are responsible for the purposes for which they were provided to the borrower/recipient country;
 - (iv) providing information in the course of their duties that is true, fair and not designed to mislead;
 - (v) complying with both the letter and the spirit of:
 - the financing agreement;
 - · the laws and regulations of the Republic of Kenya;
 - professional ethics;
 - contractual obligations.
- b) declare any actual, perceived, or potential personal interest that might affect, or reasonably be perceived by others to affect, impartiality in any matter relevant to their duties (conflict of interest). In such a situation, the respective official should not participate in the procurement process in any way to avoid adverse measures, including the declaration of misprocurement;
- c) respect the confidentiality of information obtained in the course of duty and not use such information for personal gain or for the unfair benefit of any bidder, supplier, or contractor
- d) Two of the most common sources of concern are conflicts of interest and the acceptance of gifts and hospitality by officials. The complete guidelines can be found in IFAD's Anticorruption Policy.

3.5.2 Gifts and hospitality

Any public official of the borrower/recipient involved in an IFAD-funded procurement activity:

(i) is not permitted to accept any gifts from current or potential suppliers, contractors, or consultants, unless such gifts are of very low intrinsic value, such as a calendar or business agenda;

- (ii) must refrain from accepting any business hospitality that might be viewed by others as influencing a business decision;
- (iii) has a duty to promptly report any case of prohibited practices, including but are not limited to fraud and corruption, as defined in IFAD's Anticorruption Policy, by a colleague, bidder, supplier, contractor or consultant, to IFAD and the national authorities, as required.

3.5.3 Conflicts of interest

- (i) The IFAD Project Procurement Guidelines require that any public official of the borrower/ recipient involved in an IFAD-funded procurement activity shall declare any personal interest that may affect, or might reasonably be deemed by others to affect, impartiality in any matter relevant to their duties (conflict of interest).
- (ii) On becoming aware of a situation of this nature or the potential for such a situation, the official(s) concerned should immediately recuse themselves from any aspect of the procurement process to avoid being placed in the position of having a conflict of interest.
- (iii) When IFAD becomes aware of a situation in which a conflict of interest may have existed but was not declared, it is sufficient grounds to declare misprocurement, in keeping with the IFAD Project Procurement Guidelines.
- (iv) Where there is a question about the existence of a conflict of interest, or potential conflict of interest, IFAD may be consulted for advice or guidance. However, IFAD operates under the general principle that if there is any uncertainty, it is safer to recuse oneself from the process rather than risk a negative perception of the process and a (potential) declaration of misprocurement.

3.6 COMBATTING CORRUPTION AND SEXUAL HARASSMENT

All contracts signed by vendors (suppliers, consultants/consulting firms or contractors) shall contain material demonstrating that the vendor is compliant with the regulations of IFAD's Revised Policy on Preventing Fraud and Corruption in its Activities and Operations and the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (SH/SEA) by the use of self-certification forms. To this end, all vendors shall sign a self-certifying declaration annexed to the contract, certifying that they have not and – for the duration of the contract – will not engage in fraud and corruption and SH/SEA, as defined in the respective policies indicated above. This self-declaration is part of the contract forms of the standard procurement documents provided by IFAD.

The SH/SEA Policy is available at: https://www.ifad.org/en/document-detail/asset/40738506

The Anticorruption Policy at: https://www.ifad.org/en/document-detail/asset/40189695

3.7 RECORD KEEPING

Each procurement activity will have its own separate file, folder, or dossier where records related only to the procurement in question are kept in properly coded chronological order. Documents related to other procurement projects must not be included in the procurement record. It should be possible to review the entire historical record of the procurement in a logical and sequential manner at any time. The list of complete records to be retained in a file is referenced in the IFAD procurement handbook and as contained in Annex 2.

4 Procurement Transactions – Institutional Setup and RACI

4.1 Delegated Procurement Responsibilities to local entities

Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-

to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer.

The PCMU will be directly responsible for project procurement. In addition, the Head of procurement at each of the partner organizations will be responsible to support procurement of the low value limited to activities within the RFQ/shopping threshold, and consistent with project's PAL.

KALRO and County Governments, will be implement National Competitive procedures for their respective procurement activities and within the defined thresholds. All other procurement activities are to be undertaken by the PCMU.

4.2 IMPLEMENTING PARTNERS

The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the Kenya Agricultural and Livestock Research Organization (KALRO), Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.

4.3 ACCOUNTING FOR PROCUREMENT BY IMPLEMENTING PARTNERS

Any small value procurements and procurements of operational expenditures undertaken by implementing entities will be subject to periodic reporting before replenishment of funding by the PCMU and in and line with the Financing covenants.

4.4 Institutional Setup, Roles and Responsibilities

4.4.1 Evaluation Committees

Each competitive procurement package will have an *ad hoc* Evaluation Committee comprising of members skilled in the subject matter at hand. Evaluation committee members should not be restricted to only PCMU members, to ensure sufficient skill mix; independent external members may also be used.

For all items above the prior review threshold, IFAD's No Objection on the solicitation documents will be required.

4.4.2 Roles & Responsibilities, including TOR

A. Procurement Specialist

1. **Procurement Specialist** – Reporting directly to the Programme Coordinator, the Procurement Specialist will be responsible for all procurement-related aspects under the Programme and for maintaining all procurement documentation in good order. The Procurement Specialist will be part of the Project Team working on the implementation of the project's activities. The specialist will be responsible for the specific procurement activities needed for project implementation and will provide leadership and guidance to all PCMU. The Procurement Specialist will oversee the overarching role of PCMU for programme-wide procurement of consolidated Goods and be responsible for all procurements that approach the international market.

- 2. **Duties and Responsibilities** Under the direct supervision of the Programme Coordinator, the Procurement Specialist will have the following duties and responsibilities:
 - Coordination of procurement of project requirements at national level and guidance to decentralized procurement at county, and partner institutions level as appropriate.
 - Review and update the procurement section of the project PIM and initial 18-month procurement plan. The reviewed PIM should adequately provide for all internal procedures and milestones.
 - Installation of appropriate procurement systems and procedures for effective planning and monitoring of procurements under the Programme.
 - Communicate to all implementing entities and service providers their responsibilities and requirements with respect to procurement in keeping with prevailing Government practices which are acceptable to IFAD.
 - Oversee preparation and consolidation of inputs to the Annual Procurement Plan.
 - 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.
 - Maintain all procurement records in a form appropriate for regular auditing.
 - Coordinate preparation of TORs for consultancy services and technical specifications for goods procurement, in conjunction with the relevant user Departments/Divisions.
 - Undertake local shopping for goods and services where this falls within the procurement guidelines.
 - Prepare request for bids in the required format and advertising or inviting bids from qualified (or pre-qualified) suppliers.
 - Advise selection of Evaluation Committees to have people with appropriate expertise, and support bid evaluation committees to undertake technical evaluation of bids or proposals for supply of goods and services.
 - Monitor implementation of contracts: report status and problems to the Programme Coordinator and intervene to address any problems upon request by the Programme Coordinator.
 - Initiate approval processes for progressive payments to contractors against the agreed milestones or outputs.
 - Maintain a register of approved suppliers for smaller items procured locally.
 - Prepare quarterly and annual reports of progress with implementation of the Procurement Plan, and regularly inform the Programme Coordinator of problems and make proposals to overcome bottlenecks; and
 - Carry out any other activities that are assigned by the Programme Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a Masters degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and Projects in Kenya;
 - He/she would have at least 10 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

- 4. **Competencies** The following are desirable competencies:
 - Ability to work well in teams and to interact with a wide range of partners, including private sector and government representatives.
 - · Knowledge of work planning and reporting.
 - Excellent analytical skills.
 - Honest and Integrity.
 - Strong written and oral communication skills in English; and
 - Ability to work independently, with limited supervision.

B. Procurement Officer

- 1. **Procurement Officer** Reporting directly to the Programme Coordinator, the Procurement Officer will ensure achievement of results-oriented outcomes in the procurement function.
- 2. **Duties and Responsibilities** Under the direct supervision of the Programme Coordinator, the Procurement Officer will have the following duties and responsibilities:
 - Support the Procurement Specialist in execution of procurement related tasks.
 - Put in place a system that would allow for appropriate planning with regard to the
 consolidation of a list of all needed procurement items for the effective
 implementation of the a given Programme Year's work plan. The list should be
 exhaustive including the appropriate specifications, quantity, the preferred delivery
 time period, etc.
 - Support in guidance and capacity building of participating counties, and partner institutions on procurement policies and procedures of the project.
 - Work closely with the Procurement Specialist and PCMU to ensure that an informative and detailed project work plan and budget is timely prepared.
 - During the course of AWPB implementation, monitor implementation of the different contracts, report status and problems to the Programme Coordinator and intervene to address any problems upon request by the Programme Coordinator.
 - Keep an appropriate contract register for all contract entered during INReMP implementation. The register must be continuously updated to reflect the physical and financial progress.
 - Preparation of regular procurement progress reports.
 - Maintain all procurement records in a form appropriate for regular auditing.
 - Prepare quarterly and annual reports of progress with implementation of the Procurement Plan, and regularly inform the Programme Coordinator of problems and make proposals to overcome bottlenecks; and
 - Carry out any other activities that are assigned by the Programme Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Kenya;
 - He/she would have at least 5 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

C. County Procurement Officer

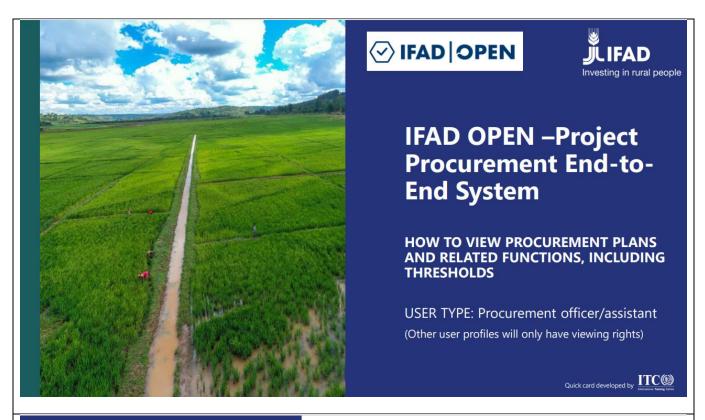
- 1. **County Procurement Officer** Reporting directly to the PIU Coordinator and functionally to the Head of Procurement at the County, the County Procurement Officer will ensure achievement of results-oriented outcomes in the procurement function.
- 2. **Duties and Responsibilities** Under the direct supervision of the County Programme Coordinator, the Procurement Officer will have the following duties and responsibilities:
 - Support the PIU in execution of procurement related tasks.
 - Put in place a system that would allow for appropriate planning with regard to the
 consolidation of a list of all needed procurement items for the effective
 implementation of the a given Programme Year's work plan. The list should be
 exhaustive including the appropriate specifications, quantity, the preferred delivery
 time period, etc.
 - Preparation of annual county project procurement plans in collaboration with other members of the PIU, in accordance with the Project Procurement Manual.
 - Support in guidance and capacity building of participating communities, SPs and partner institutions within the county on procurement policies and procedures of the project.
 - Procurement of project works, goods and services at county level.
 - Preparation and advertisement of TORs, tender and contract documents for county specific procurements according to GOK and IFAD guidelines.
 - Participation in relevant county tender and quotation evaluation committee meetings and assisting with the preparation of reports.
 - Maintenance of high-quality county procurement files and contract registers for review by supervision missions and auditors.
 - Preparation of regular county procurement progress and contracts management reports.
 - Undertake any other duties assigned by the County Project Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Kenya;
 - He/she would have at least 5 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

ANNEX 1: PROCUREMENT RECORDS AND FILES

Docu	ment ement	Preferred Format
(i)	a copy of the published REOI advertisement or shortlist (if applicable) *	Hard copy
(ii)	a copy of the published pre-qualification and bidding documents and any amendments, extensions or clarifications requested and issued *	Hard copy
(iii)	a record of the tender opening, signed by all TEC members and the bidders present	Hard copy
(iv)	a full copy of each bid received and evaluated, plus clarifications requested and responses received	Hard copy
(v)	a copy of the evaluation report*	Hard copy
(vi)	signed minutes of all meetings related to the procurement, including pre-bid and negotiation meetings, when held	Hard or soft copy
(vii)	a contract award notice*	Hard copy
(viii)	any letter of tender acceptance to the supplier, contractor or consultant*	Hard copy
(ix)	the signed contract document and contract acceptance*	Hard copy
(x)	any contract amendments*	Hard copy
(xi)	all contractual correspondence between the procuring entity and a supplier, contractor or consultant	Hard or soft copy
(xii)	post-contract documents related to the fulfilment of contract obligations, especially photocopies of bank guarantees or payment guarantees	Hard copy
(xiii)	signed minutes of any meetings related to contract management, including contract progress or review meetings	Hard copy
(xiv)	signed delivery documents evidencing delivery of supplies, or signed completion certificates related to a contract for services or works under the contract, including any contract delivery records	Hard copy
(xv)	a copy of all invoices for works, services or supplies, including working papers verifying the accuracy of payments claimed and details of the actual payment authorized	Hard copy
(xvi)	a copy of cumulative payment worksheets/records evidencing management of all payments made	Soft copy
(xvii)	all decisions of the concerned borrower's approval authority related to the procurement, including the approval of the bidding documents, the approval of the evaluation report(s), the contract award, the approval of contract documents and contract amendments and any decision to suspend or cancel procurement proceedings	Hard copy
(xviii)	a copy of any claims made by the procuring entity with respect to any warranty, non- warranty, short supply, damage and other claims against the contracted vendor or the procuring entity	Hard or soft copy
(xix)	in the case of IFAD prior review, all submissions and correspondence related to the seeking of IFAD's no objection (NO) and a copy of the respective IFAD NO letter	Hard or soft copy
(xx)	any other communications related to the procurement in question, including internal entity correspondence	Hard or soft copy

^{*} Ideally, drafts of these published documents and reports should also be retained for completeness and to provide a full picture of how the published document evolved. It is accepted, however, that in the case of space limitations, this is not always feasible in practice.

ANNEX 2: GUIDANCE ON USING THE PROCUREMENT PLAN



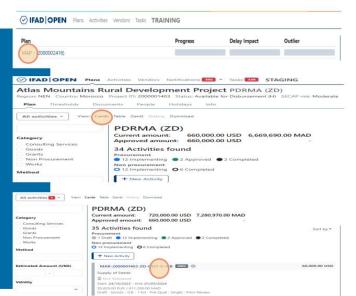


WHAT DOES THIS QUICK CARD COVER?

- Card view of the PP
- · Table view of the PP
- · Gantt chart view of the PP
- Download a Procurement Plan
- Thresholds views
- People
- Holidays
- · Info

DISPLAY OF THE PROCUREMENT PLAN IN CARDS VIEW

- 1. Click the title of the procurement plan. For example "MAP (2000002416)"
- The system will display by default the Cards view
- 3. In the Cards view, you can click on activities to see their details and edit/delete them if necessary.



3

EDIT AND DELETE AN ACTIVITY FROM CARDS VIEW



When clicking on an activity from the Procurement Plan, the system will display all the activity details. From this view, you can access both the "Edit" and the "Other actions" buttons.

 Click on the title of the Plan to go back to the ___ cards view. MAR-2000001403-ZD-0037-G-ICB

Plan: EDRMA (ZDL/20000403) Status: © Draft

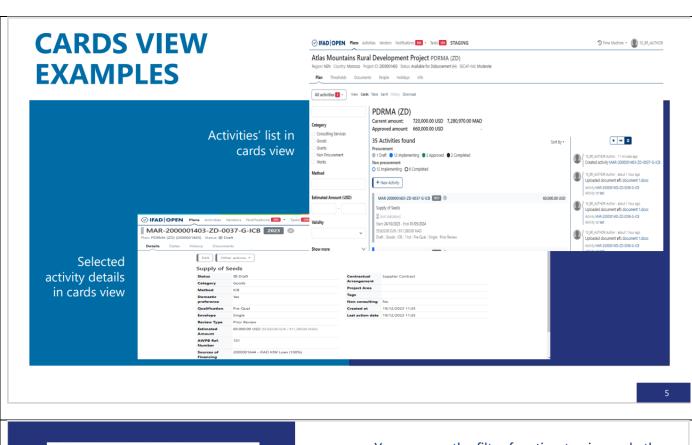
Details Dates History Documents

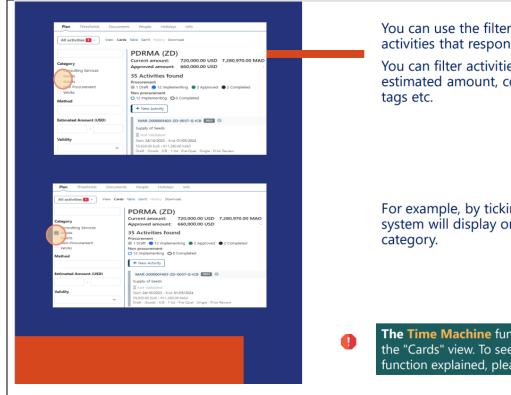
Edit Other actions =

Supply of Seeds

Status © Draft

Category Goods



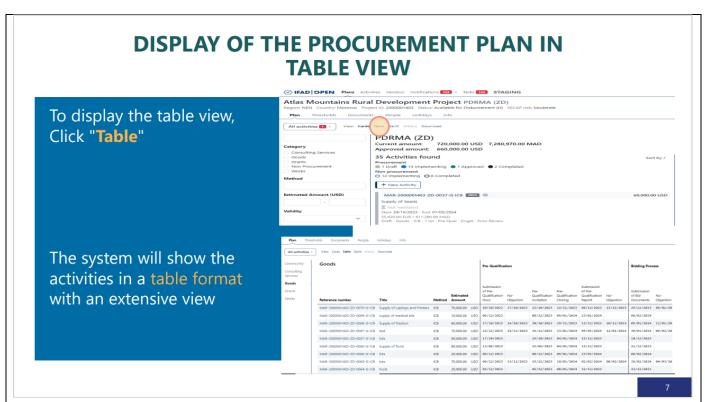


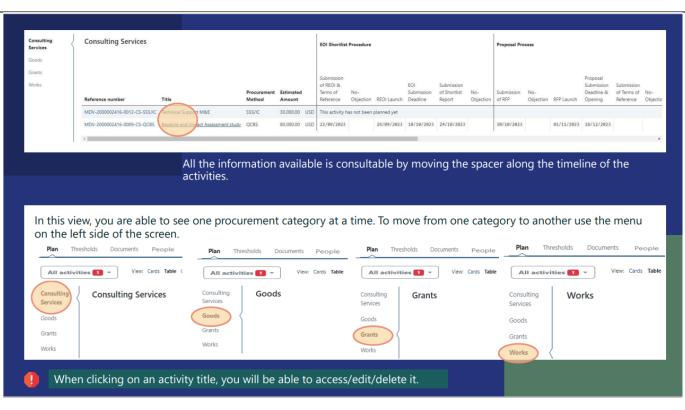
You can use the filter function to view only the activities that respond to specific criteria.

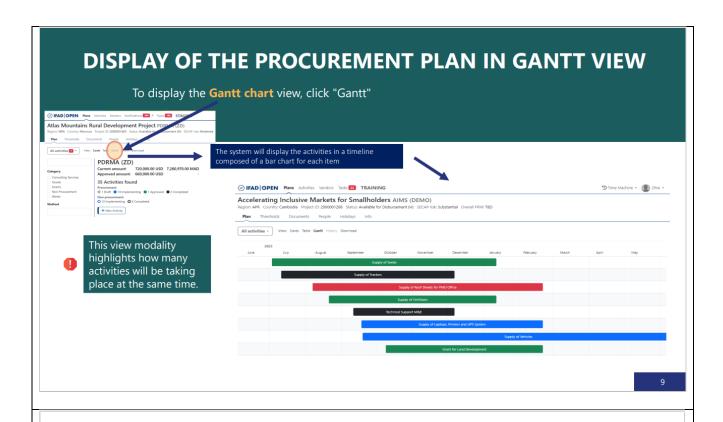
You can filter activities by category, method, estimated amount, contractual arrangements, tags etc.

For example, by ticking the filter "**Goods**", the system will display only activities in the goods category.

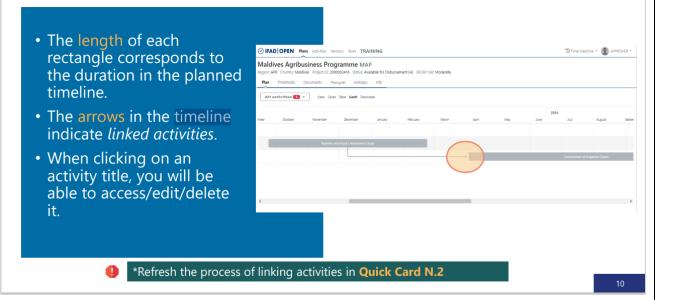
The Time Machine function is also available in the "Cards" view. To see the "Time Machine" function explained, please refer to Quick Card 1.

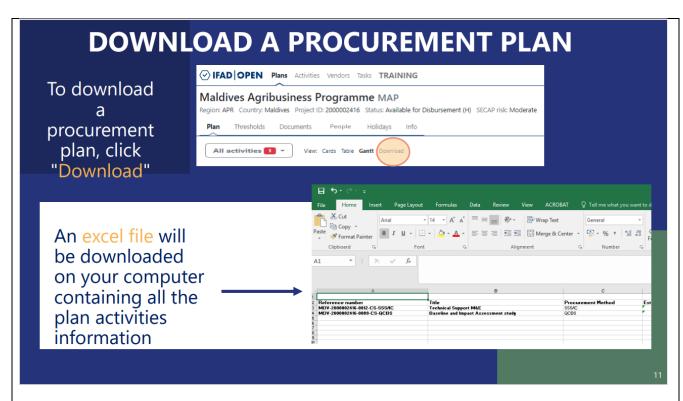


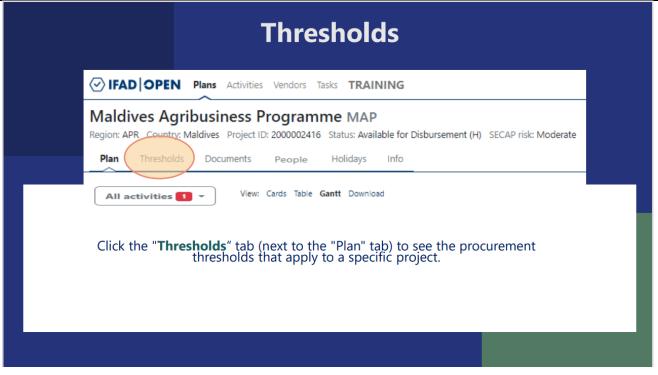


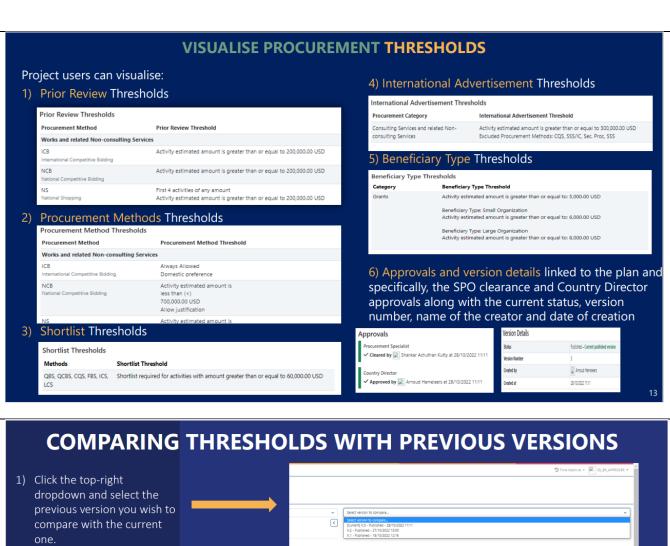


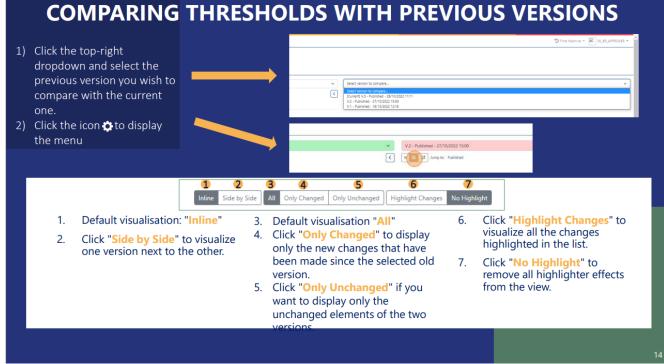
FEATURES OF THE GANTT VIEW

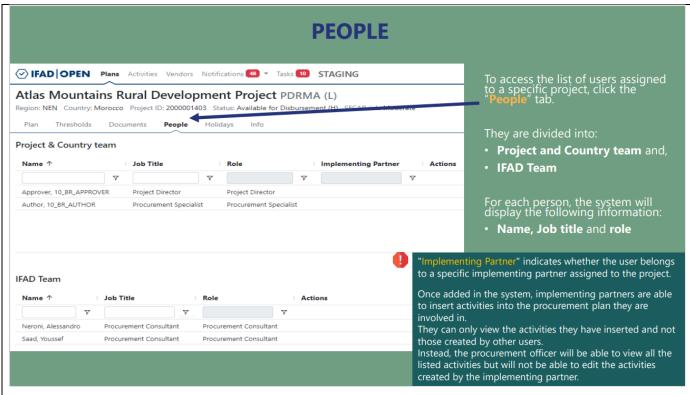


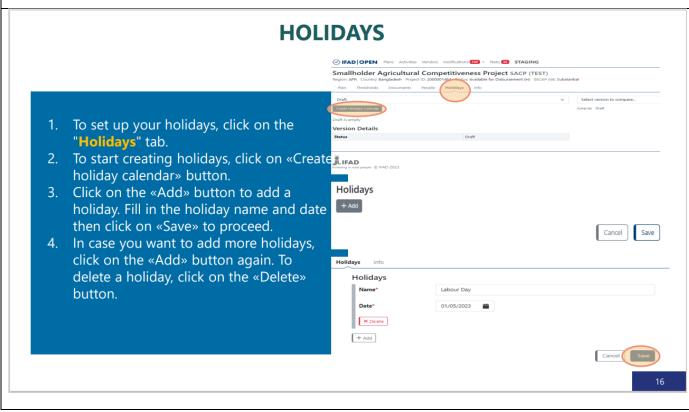


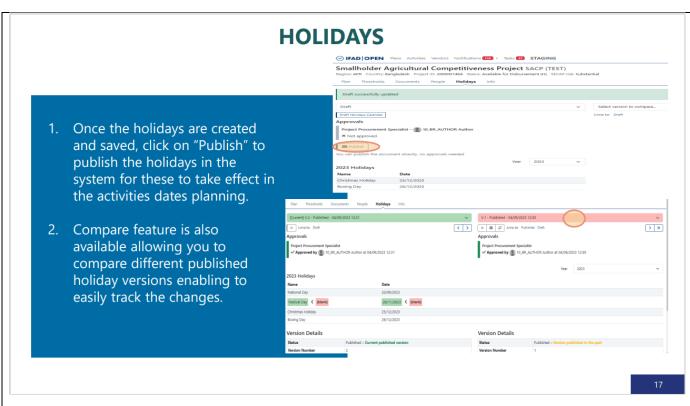














ANNEX 3: GUIDANCE ON USING THE CONTRACT MONITORING TOOL

IFAD Client Portal Project Procurement Contract Monitoring Tool

Overview

The contract monitoring area is where you can enter contract data, update and amend it. You can also access the Report section to have an overview of the overall implementation of contracts and to identify any issues with project implementation.

Enter a contract and then, as it progresses through implementation, update the key information of the contract:

- Status of the contract;
- Percentage of physical implementation
- How much has been paid against the contract
- How much has been claimed on WAs for the contract
- An evaluation of the quality of the performance of the contractor.

The data inserted in the contracts have to be confirmed at the end of each quarter, then quarter is closed off and it enables comparison progress reports to be generated.





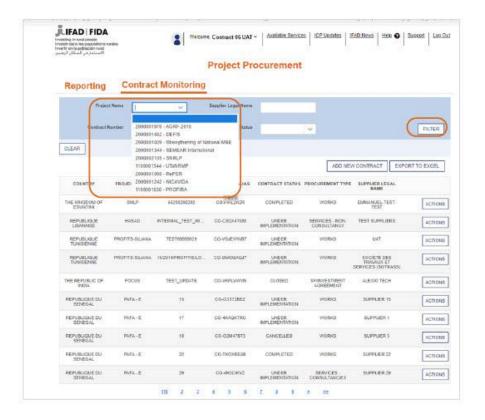
Accessing Contract Monitoring

Access the ICP Home Page, expand the sidebar menu and click on "Operations", then on Project Procurement Contract Monitoring Tool. By default the page will open on Reporting, click on Contract Monitoring in order to enter a new contract or view an existing contract.



If you only have access to one project this will be defaulted in the different parameters. If you have access to more than one project you can select it directly in the **Project name** field. Alternatively, you can look for a contract number, supplier name or contract status.

The clear button is used to remove all the filters and the list produced can be exported to excel to review the information on contracts.





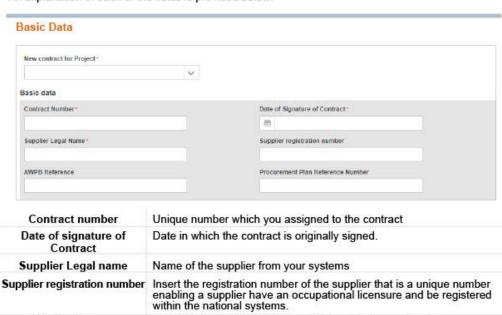
1. Enter New Contract

If you want to create a New Contract click on Add New Contract, and the page below will open up. Select the Project that you are working on and enter the data. All of the mandatory data fields (marked with an asterisk) have to be updated. To complete your action cilck on Save.

Any contract or Purchase Order (POs) that is a product of a procurement process should be entered in the CMT independent of its value.

All contracts with a new start date, signature and end date, should be entered in the system as new contracts.

An explanation of each of the fields is provided below:



Procurement Information

AWPB Reference

Procurement Plan

Reference Number



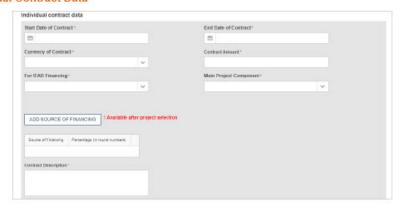
Insert the procurement plan reference number

Insert the Annual Work Plan and Budget Reference Number



Procurement Type	A drop down list of the main procurement categories used by IFAD project. Not all contracts are procured or sourced using standard procurement methods, as such several broad categories based on common practices have been established. For more information, refer to the glossary of terms.
Method of Procurement	This is dependent on the Procurement Type and thus can only be completed once
Country of origin	Country in which the supplier is registered
Defined at Design	Select yes if the method of procurement was defined at design and No if not.
Prior/Post review	Select "Prior Review" if the activity was subject to IFAD's No Objection. Select "Post Review" if the activity was not subject of IFAD's No Objection. To be indicated for all contracts even if not financed by IFAD
No objection number	If a no-objection has been issued through NOTUS for the contract you are inserting, a number will have been allocated to the NO from NOTUS.

Individual Contract Data



Start date of the Contract	The first time you enter contract data, insert the date that the contract is expected to start. Once it has commenced, you can update this field with the correct date.
End date of Contract	This is when a contract is expected to be concluded. The contract may include a date beyond which implementation should be completed. Alternately the contract may have a duration. Make sure that the end date of the contract is in line with the start date. Please note: In case the end date of contract is officially revised (e.g. in case of an extension to the contract), please use the amendment section to register this information.
Currency of Contract	Select the currency of the contract
Contract Amount	Include the full amount of the contract
For IFAD financing	Select Yes or No
Add Source of financing	Select the source of financing from a drop down list and indicate the percentage that the contract is funded by the financing. You can select more than one source and you do not need to only include IFAD financings. Please note the percentage of different sources of financing must add up to 100%. Please note that you cannot enter percentages with decimals: kindly round up the total amounts so that decimals are not included in the split and ensure that the total adds up to 100%.
Contract Description	Provide a description of the contract you are inserting

Contract Performance ige of Physical Completi al Security For Advance Payment Provi Advance Payment Percentag Risk Flag **Contract Status** When you generate a new contract, the Contract Status is automatically populated with the contract status Not Started. You are able to select a contract status immediately by choosing one from the dropdown menu. For more information on the status refer to section below 'Contract Status' Contract performance This area can be used to evaluate the performance of the contract and/or evaluation supplier and can be changed during the life of the contract. The available options are: 5 - Exceeded expectations; 4 - Meets expectations; 3 - Below expectations; 2 - Failure to perform; 1 - Do not re-engage. Percentage of Financial This is automatically calculated as the Amount Paid on contract divided by the total amount of the contract (considering also any amendments). completion It is the amount paid on a contract. Amount Paid on Contract This is an estimate, in percentage terms, of the progress in the implementation Percentage of physical of the contract. completion It represents how much of the contract has been implemented. Amount already claimed In this field you insert the amount of money already presented in Withdrawal on contract under WA Applications for this contract. Amount planned to be In this field you insert the amount planned to be claimed under Withdrawal Applications (WA) in the current calendar year for this contract. This should claimed under WA in the include all amounts to be claimed from IFAD whether or not the financing current calendar year comes directly from IFAD or not (i.e.to include OFID funded financings). This field displays the amount remaining to be claimed in Withdrawal Total amount remaining to Applications (WA) against the contract and is calculated automatically by be claimed on contract This is where you indicate if the contract has an advance payment or not. Advance Payment Y/N Select Yes or No **Advance Payment** This is where you indicate the percentage amount of the advance Percentage payment (if any) and is only available if you select Yes in the field above. **Financial Security For** This where you indicate if the supplier/contractor provided a financial **Advance Payment** security for the advance payment (if any). Select Yes or No. Provided Amount of Financial This where you indicate the amount the supplier/contractor provided as a financial security for the advance payment (if any) and is only available if Security provided you select Yes in the field above IFAD FIDA 5

Contract Status

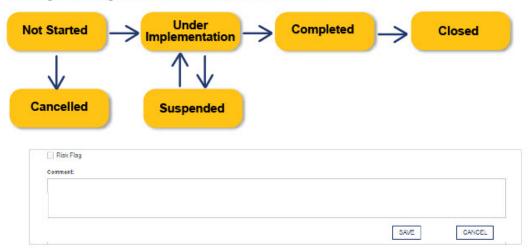


If contract implementation has not begun, you will need to select **Not Started**. Once the contract implementation commences or has already started, you will need to select the contract status **Under Implementation**. If there is a problem with the contract and it is cancelled, you select the contract status **Cancelled**. Please note that this status should only be used where there has been no implementation and no payments made under the contract.

Whilst a contract is **Under implementation** it may be necessary to suspend the implementation of the contract, for example due to force majeure. Where this happens, the status can be changed to **Suspended** and back to **Under Implementation** once the suspension has been lifted.

Once the contract has been implemented and all goods have been delivered or services rendered, the contract status can be moved to Completed. Change the status to Closed once all the final payments have been made, any performance bonds or guarantees have been paid and when all amounts have been claimed on WAs

The diagram below gives an overview of the contract statuses:



Risk Flag

Tick the **Risk Flag** box in case you identify high risk in the contract project. The aspects that define a high risk contract can be the following:

- A complex contract, with many deliverables.
- The contract implementation is to be developed in a low-security geographical area.
- In the past the project didn't succeed, there was a negative experience, the implementation didn't go as previously planned.

Remember: After ticking the box, you must enter a comment in the comments field. Please note, every time you change the contract you have to justify the Risk Flag, by writing in the comment box.

Once the above data has been entered you can save the contract.

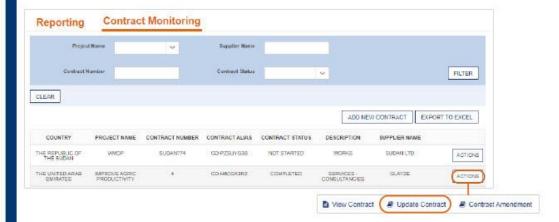
All information entered can be updated at any point if you notice the presence of inaccuracies.

Click on Save to save your new contract, or click on Cancel to exit without changes.

IFAD | FIDA
Inserting in rural people
Insert in the les populations rurales
Insert in en la poblaction rurales
Insert in la poblaction rurales
If de la company
Inserting la comp

2. Update a Contract

You can update the data of your contract at any point. In the Contract Monitoring page insert the details of the contract you are looking for (you can also leave them blank) then click on Filter. Click on the Actions button of the contract you intend to update, then click on Update Contract.



The contract is open, you can modify all the fields in the following sections: Basic Data, Procurement Information, Individual contract data and also Contract Performance, whose fields are explained above.

3. Delete a contract

Whenever a contract is erroneously entered and saved in the list of your contracts, it is possible to delete it. By clicking on the **Update Contract** function seen above and scrolling to the bottom of the page, it will be possible to click on **delete**.

The contract will be permanently deleted and will no longer appear in the contract list.





4. Confirm Quarter End Data

As your contract progresses through its life-cycle and at least once per quarter, you should review the contract and make sure the contract performance information is up to date.

You will need to change the status of the contract, insert the percentage of physical completion, the amount paid on the contract and the amount on the contract claimed in Withdrawal Applications. You can also rate the overall performance of the supplier on the contract.

You can see an explanation of each field above, in the Contract Performance paragraph above.

There is no approval required of the data.

One week before the end of the quarter, the user will receive a notification inviting them to confirm that the data is up to date:

"There is one week to the end of the quarter. Please review the contract data and make sure it is up to date for the quarterly close. Once you have made all changes, you can confirm the validity of the data".

The user will have the option to update or amend the data or confirm that it is correct. Once the user confirms, the information is date-stamped as being data valid for the end of the quarter. It will also be possible to confirm the information until one week after the end of the quarter.

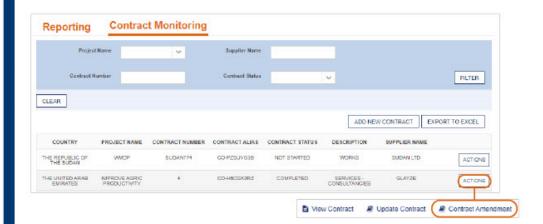
If the data is not confirmed for the quarterly close, the user will receive reminder notifications every week:
"Please note that the contract data for the quarter ending {month-year} has not been confirmed.

Please review the contract data and confirm the validity for the quarter close"

It is not necessary to go through every contract, but make sure to review the most significant ones.

5. Contract Amendment

A Contract Amendment is a formal record of changes into the contract. You can make as many amendments as you want, and the system will keep track of the date the amendment was made, the original data and the new data.

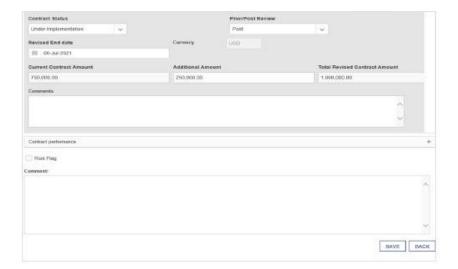


From the contract list, click on Actions then click on Contract Amendment.



The amendment page is now open. The fields which can be amended are: End date of contract and Amount, Pre/Post Review and Currency. Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.

The current contract amount will already be pre-populated with the original contract amount. In the additional amount you will need to insert the additional contract amount and the system will automatically calculate the Total Revised Contract Amount. You will also need to select a Revised End Date



Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.



ANNEX 4: GUIDANCE ON USING OPEN

IFAD has developed a new online system that would automate and manage procurement reporting throughout the procurement cycle ("from end to end") – that is, from procurement planning to contract management. The new Online Procurement End-to-End System - or IFAD OPEN - has been launched.

IFAD 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 the transparency and efficiency over the procurement processes of IFAD-financed projects.

IFAD will provide periodic training and hands-on engagements to enhance the use of the IFAD OPEN during implementation stage.

IFAD OPEN guidelines consist of the following documents that are available in the IFAD Client Portal (ICP):

- Online Procurement End-to-End QC1 System Overview
- Online Procurement End-to-End QC2 Managing activities
- Online Procurement End-to-End QC3 Procurement Plan Views
- Online Procurement End-to-End QC4 Managing Documents
- Online Procurement End-to-End QC6 Managing Activities and Submission of PP for NO
- Online Procurement End-to-End QC8 Consulting Services Implementation
- Online Procurement End-to-End QC10 Goods Implementation
- Online Procurement End-to-End QC12 Works Implementation
- Online Procurement End-to-End QC14 Grants Implementation

ANNEX 5: VENDOR ASSESSMENT FORM

SUPPLIER EVALUATION FORM

Use this form to evaluate the overall performance of vendors you are currently working with or plan to work with. Include all information associated with the vendor. Then, apply a strength factor, 5 being the strongest, to each item you evaluate. Total each column once you conclude the evaluation. Add up the columns to arrive at a total. Compare that total against the totals of similar vendors to gauge the vendor's performance.

A. SUPPLIER INFORMATION:

NAME:	SUPPLIER ID:	
BUSINESS CATEGORY:	CONTACT PERSON:	
REVIEW DATE:	ADDRESS:	

B. SUPPLY CONTRACT DESCRIPTION:

TITLE AND REF. No:	CONTRACT DATE:	
CATEGORY:	DURATION:	
USER DEPARTMENT:	ACTUAL DELIVERY DATE:	

C. EVALUATION

Vendor Evaluation	1	2	3	4	5
Timeliness of Deliveries					
Quality of Parts/Products/Material Upon Delivery					
Overall Quality of Parts/Products/Material					
Competitiveness of Price					
Quality of Service Provided					
Competitiveness of Terms and Conditions					
Credit Rating					
Overall Financial Condition					
Reputation of Company					
Quality of Design Compared to Specifications					
Level of Assistance in Research & Development					
Expertise of Sales Staff					
Technical Support Staff's Level of Expertise					
Column Totals					
			Gr	and Total	

D. EVALUATION REPORT:

FINAL COMMENT:			
REVIEWER SIGNATURE:	DAT	TE:	

ANNEX 6: DEBRIEF, PROTEST AND APPEAL TIMELINE

1) Debrief timelines:

- a) Any bidder that wishes to learn why its bid or proposal was not selected may request an explanation from MoALD/INReMP. This explanation is known as the debrief. INReMP will first have sent a notice that the evaluation is completed. After receiving this information, the unsuccessful bidder may request a debrief.
- b) INReMP shall promptly provide an explanation in writing of why the bid was not selected. The bidder may then request a meeting. If INReMP agrees to a meeting after providing the debrief, the bidder shall bear all the costs of attending the meeting. INReMP shall provide the written debrief within periods required in procurement framework.

2) Protest timelines:

- a) The protest is the first level (Level 1), while the appeal is the same complaint filed at the second level (Level 2). The entity that receives, assesses, and decides on the protest (i.e. the Level 1 authority) is the MoALD/INReMP. The entity that receives, assesses, and decides on the appeal (i.e. the Level 2 authority) is defined in the national procurement framework.
- b) All protests must be filed by the protest deadline, which is the **close of the tenth business day** after the notice of intent to award has been received or could reasonably expected to be received by the bidder. Procurement actions using shopping cannot be protested.
- c) Once a protest is filed, the procurement process will automatically be suspended until a final decision about the protest is issued. The automatic suspension will be lifted as defined in the national procurement framework.
- d) MoALD/INReMP will issue its decision no later than periods prescribed in national framework, and in absence of such period within 10 working days after receipt of the protest. MoALD/INReMP will extend this period an additional five business days if sufficient reasons are provided.

ANNEX 8: THE PROJECT PROCUREMENT STRATEGY (PPS)

MINISTRY OF AGRICULTURE AND LIVESTOCK DEVELOPMENT (MoALD) REPUBLIC OF KENYA

Project Procurement Strategy (PPS)

For

Integrated Natural Resources Management Programme (INReMP)

KENYA

Dated: 15 March 2024

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Abbreviations and Acronyms

_			
AfDB	African Development Bank		
AWPB	Annual Work Plan and Budget		
BoQ	Bills of Quantity		
DaIMA	Dairy Interventions for Mitigation and Adaptation		
DLP Defects Liability Period			
EOI	Expression of Interest		
ESHS	Environmental, Safety and Health Safeguards		
ESS	Environmental and Social Safeguards		
ESCMP	Environmental Social and Climate Management Plan		
FAO	Food and Agriculture Organization of the United Nations		
FfP	Fit for Purpose		
GCF	Green Climate Fund		
GEF	Global Environment Facility		
GRM	Grievance Redress Mechanism		
IA	Implementing Agency		
ICB	International Competitive Bidding		
ICT	Information and Communication Technology		
IFAD	International Fund for Agriculture Development		
ILRI	International Livestock Research Institute		
INReMP	Integrated Natural Resources Management Programme		
KALRO Kenya Agricultural and Livestock Research Organization			
MOALD	Ministry of Agriculture and Livestock Development		
OPEN	Online Procurement End-to-end system		
PADNET Pathways to Dairy Net Zero			
PAL	Procurement Arrangement Letter		
PCMU	Programme Coordination and Management Unit		
PCT	Project Coordination Team		
PDO	Project Development Objective		
PIM	Programme Implementation Manual		
PP	Procurement Plan		
PPS	Project Procurement Strategy		
QCBS	Quality and Cost-Based Selection		
RFB	Request for Bids		
RFP	Request for Proposal		
RFQ	Request for Quotations		
SECAP	Social, Environmental and Climate Assessment Procedures		
SBD	Standard Bidding Document		
SDG	Sustainable Development Goals		
SPD	Standard Procurement Document		
SWOT	Strengths, Weaknesses, Opportunities, and Threats		
UTaNRMP	Upper Tana Natural Resources Management Project		
USD	United States Dollars		
VfM	Value for Money		
V 11 1	value to thomey		

1. Project Overview

Table 1: Project components and allocations

Country:	Kenya		
Full Project Name and Number:	Integrated Natural Resources Management		
	Programme (INReMP)		
Programme Cost (US\$):	253,000,000		
Loan/Grant Number:			
Name of Procurement contract or	Goods, Works, Consulting and Non-consulting		
group of similar contracts	Services		
Estimated Contract Cost (US\$)	13,673,000		

a) PROJECT DESCRIPTION

The Integrated Natural Resources Management Programme (INReMP) will scale-up UTaNRMP's results to the Cherangany Hills and Mau West water towers to further enhance the sustainable use and management of natural resources. This will be done by supporting integrated natural resources management (NRM), access to payment for environmental services and improved nutrition-sensitive production and sustainable rural livelihoods. The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture and livestock Development.

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support the implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem.

INReMP's direct beneficiaries are estimated at 845,487 vulnerable rural households, equivalent to 4.2 million people.

INReMP will be aligned with DaIMA, the Dairy Interventions for Mitigation and Adaptation project funded by the GCF. The implementation of the two projects will be coordinated by the same team.

b) **SUMMARY OF PROGRAMME OBJECTIVE**

Programme Development Objective (PDO) - The PDO is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'.

INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes:

- Outcome 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action;
- Outcome 2: Improved, Inclusive and Sustainable Rural Livelihoods; and Outcome 3: Institutional Strengthening, Policy Support and Programme Coordination.

c) **PROJECT COMPONENTS AND COSTS**

The total cost for INReMP is estimated at US\$ 250 million over an 8-year implementation period. This is to be financed as follows: IFAD 12 loan of US\$126.8 million. The Programme is being designed with a financing gap of US\$44 million to be covered from the IFAD-13 cycle. That brings the total IFAD contribution to US\$171 million; representing about 68% of the total cost. Co-financing from GCF and GEF is estimated at US\$40 million and US\$8 million respectively; equivalent to 16% and 3% of the total cost. Domestic co-financing from Government of Kenya is estimated at US\$12.8 million in form of in-kind contribution, including duties and taxes; representing 5% of the total cost. Contribution from beneficiaries is estimated at US\$8 million (3%). Co-financing from the private sector is estimated at US\$10 million (4 % of the total costs).

Table 2: Project components and allocations

- NI	Component and Outputs			
N	Component and Outputs	Cost		Key procurement activities
9		(US\$)	e	(First 18 months)
			nt	
1	Component 1. Community-led	85,700	34%	Supply of weather stations, river
	Enhanced Environment and			gauges, other equipment, Supply of
	INRM, Ecosystem Services, and			Equipment for water and soil labs,
	Climate Action:			Baseline studies on the status of
		8,449		deforestation, wetlands, riparian
	7) Output 1.1 Community	0,		ecosystem, groundwater potential,
	Empowerment, Youth and Gender	77,251		environmental audits etc.,
	Transformative Approaches	//,231		Consultancy to Conduct needs
	8) Output 1.2 Improve			assessment for integration of Digital
	Environmental Sustainability, INRM,			technologies to support INRM and
	and Ecosystem Services			Precision Farming, Consulting
				service for mapping, registration of
				community groups.
2.	Component 2. Improved,	123,646	49%	Procurement of 12No motor vehicles
	Inclusive and Sustainable Rural			(for Extension), Procurement of
	Livelihoods:			105No Motor Cycles for Extension
		74,132		services, Consulting Service for
	9) Output 2.1 Improve			Feasibility assessments, ESIA, and
	Production and Productivity of			Design for Multi-Purpose
	Selected Nutrition-Sensitive Value	49,515		Community-Based Water Supply
	Chains and Nature-based	.5,515		Systems, Consulting Service for
	Enterprises			Feasibility assessments, ESIA, and
	10) Output 2.2 Improve Value			Design for Small Scale Irrigation
	Addition and Market Linkages of			Systems, Nutrition
	Selected Value Chains and Nature-			Specialist/Consultant, Consulting
	based Enterprises			service for Market opportunity
	based Enterprises			
				assessments (dairy, poultry,
				avocado, horticulture), Provision of
				Business development support to
				MCC, Consulting services in support
				of Processing Equipment, Feasibility
				assessments, ESIA and Design of
				Climate-Proofed Access Roads,
				Development of Applications and
				Web based commodity trading
				platform.
3.	Component 3. Institutional	43,654	17%	Procurement of 3No Utility Vehicles
	Strengthening, Policy Support	,		4WD, Procurement of 2No Double
	and Programme Coordination:			Cabin Vehicles, Supply of IT
	and Programme Coordination:			Cabin venicies, Supply of H

11) Output 3.1 Institutional Strengthening and Policy Support 12) Output 3.2 Programme Coordination and Implementation Support Services	5,229 38,425		Equipment (18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office Rehabilitation - National PMCU and
Coordination and Implementation	253,000	100 %	Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office

d) Project Procurement Profile

The procurement profile is mix of high value / risk as well as small value procurement activities to be undertaken by the PCMU. The project procurement will involve Goods, Works and Consulting and Non-consulting Services.

e) Spend per category

Procurement activity commitments for the first 18 months amount to US\$ 13,673,000 (~5.4% of the project envelope).

Table 3: Project Spend Profile per category

Procurement Category	Amount in US\$
Goods	6,258,000
Works	250,000
Consultancy services – Firms and Individuals	7,165,000
TOTAL	13,673,000

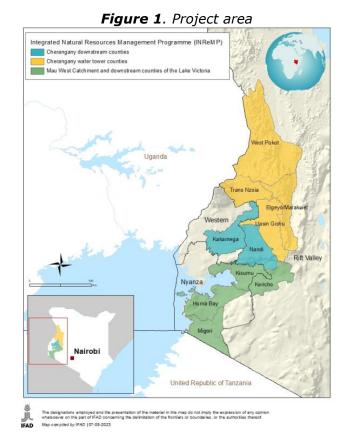
2. Overview of Country, Recipient and Marketplace

a) **OPERATIONAL CONTEXT**

1. Governance aspects¹³

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 $^{^{13}}$ SOURCE: AfDB-REPUBLIC OF KENYA COUNTRY STRATEGY PAPER 2024-2028 $\underline{https://www.afdb.org/en/documents/kenya-country-strategy-paper-2024-2028}$



Kenya is an important anchor for regional stability in East Africa. However, its borders remain exposed to spillover risks of extremism, piracy, human trafficking, and refugee flows. Kenya has held two successive peaceful elections since 2017, which have contributed to a stable and predictable political environment. The general elections of August 9th, 2022 were relatively peaceful and resulted in the election of Dr. William Ruto as the 5th President of the country. The political stability and improvement in social and governance indicators have contributed to Kenya becoming a top investment destination in the region. Kenya was ranked 13/54 on governance by the Mo Ibrahim index in the 2022 edition from 14/54 in 2021. The improved ranking was supported by upward movements in the scores of 'participation, rights and inclusion' and human development'.

Similarly, according to various editions of Transparency International's Corruption Perception Index (CPI), Kenya slightly improved its score to 32/100 (with global ranking 123/180) in 2022 from score of 30/100 (128/180) in 20216. The score is at par with Sub-Saharan average of 32 for 2022 and remains far below best performers in the region i.e., Seychelles (70/100) and Botswana (60/100)7. Kenya has put in place policies to combat corruption. However, challenges remain. Kenya improved its ranking by two places to 6 in 2021 against 8 in 2020 out of 54. This improved ranking can be attributed to its high standing on the continent in the following dimensions: Infrastructure and Regional Integration (3rd on the continent), Policies for Social Inclusion/Equity (4th), and Structural Policies (6th). However, the 2022 edition of the CRFA shows that Kenya has high pressures in corruption and bribery; presence of armed conflict; access to justice; insecurity in neighboring countries (e.g., civil war in the Sudan); poverty and inequality; and vulnerability to natural disasters.

Agriculture is a devolved function in Kenya, and devolution has progressively shaped the way resources are allocated to meet priorities of communities within the jurisdiction of the 47 county governments. Similarly, administrative processes at the county level have progressively improved since promulgation of the 2010 constitution, enabling the

April 2024

establishment of systems and processes that seek to govern in the long-term the realization of the objectives of devolution at the national as well as the county levels and below.

2. Economic Aspects¹⁴

Recent macroeconomic and financial developments: Kenya attained a lower middleincome status in 2015. Since then, GDP growth averaged 4.5%, lower than Vision 2030 and the MTP-III growth targets of 10.0% and 7.0%, respectively. Growth has not yet been appreciably inclusive especially in job creation except in other dimensions such as health and education. This is attributable to the minimal contribution of structural transformation to growth. Labor is moving out of agriculture to a less labor-intensive services sector than industry. The status quo implies that growth remains vulnerable to shocks and a more than 7% a year growth in GDP is required to absorb new entrants into the labor market. In general, structural transformation, infrastructure, human capital, and improved governance are key for a rapid, sustainable and inclusive growth and to avoid the middleincome trap. Structural transformation is constrained, among other things, by: (i) macroeconomic instability; (ii) weak private sector participation (e.g., in industry 15); (iii) low agricultural productivity; (iv) shortage of skilled labor and skills mismatch; (v) weak governance; (vi) inadequate access to finance; and (vii) deficiency in enablers of structural transformation (e.g., infrastructure - energy, transport, water, etc.).

Economic and Financial Governance: Since the publication of the Public Finance Management (PFM) Act of 2012, changes which, among others, promote transparency and accountability have been introduced. Positive developments include harmonization of accounting standards across all Ministries, Department and Agencies (MDAs); linking IFMIS to the CBK to allow online processing of payments to suppliers; over 90% of the Government bank accounts are now opened and operated at the CBK; connecting the National Government and the Counties with the e-procurement; introduction of the Treasury Single Account (TSA) and availability of consolidated GoK financial statements due to up-to-date financial reporting with the MDAs and county governments. The PFM Reform Strategy (PFMR) 2019-2023 is anchored on the findings and recommendations of 2017 Public Expenditure and Financial Accountability (PEFA) report. The 2022 PEFA report has highlighted some areas in which there has been improvement with other indicators remaining unchanged. As noted earlier, Bank's updated 2023 Country Fiduciary Risk Assessment (CFRA) identified improvements on the transparency of public finances, but still indicated areas on accountability and external audit which require improvements especially the 100% coverage of audit of all public funds. Governance and corruption still remain a challenge, hindering performance in the public sector. A review of the country procurement system through the Methodology for Assessment of Procurement Systems is being undertaken and is expected to improve governance performance.

3. Sustainability Aspects

Kenya's long-term development blueprint Vision 2030 is implemented through five-year Medium Term Plans (MTPs). The current and third MTP 2018 -2022 that aim to achieve accelerated, high, inclusive, broad based, sustainable economic growth, social economic transformation and development mainstreamed the SDGs and Africa Union Agenda 2063. Further, mainstreaming of SDGs in performance contracting, actions plans and subnational County Integrated Development Plans, 2018 -2022, position Kenya to better implement the SDGs and Agenda 2063.15

The Programme has been screened in line with IFAD's Social, Environmental and Climate

¹⁴ SOURCE – AfDB-REPUBLIC OF KENYA COUNTRY STRATEGY PAPER 2024 – 2028

https://www.afdb.org/en/documents/kenya-country-strategy-paper-2024-2028

¹⁵ https://sustainabledevelopment.un.org/memberstates/kenya

Assessment Procedures (SECAP) and deemed to fall under the Moderate category for both Environmental & Social as well as Climate Risk categorization. There are sustainability, environmental and social aspects that have a procurement impact during project implementation. During implementation the impacts and risks could be vegetation clearance at construction sites, temporary visual intrusion (marred landscape), impairment on Soil quality and solid waste nuisance at Construction Sites.

4. Technological Aspects

One of the objectives of the National Treasury is to ensure Ministries, Departments, Agencies and Counties (MDACs) are using an end to end e-procurement system that is in compliance with the PPADA 2015 and attendant Regulations for a full fiscal year and that procurement data generated by the system is disclosed in the Public Procurement Information Portal (PPIP) following Open Contracting Data Standards (OCDS). The National Treasury with technical support of the World Bank, reviewed the current Procure-to-Pay module in (IFMIS) in order to identify its functionalities and deficiencies with a view to developing an end-to-end e-procurement system, and further develop an e-Government Procurement (eGP) Implementation Strategy. It is expected that the system will be in use at the early stages of project implementation.

5. Legal Aspects

The Procurement framework in use is the Public Procurement and Asset Disposal Act, 2015; Public Procurement and Asset Disposal Regulations 2020. Some of the shortcomings of the framework include (1) PPADA Provision 118 provides for request for proposal through advertisement without REOI; (2) Provision 131 sets a condition for BAFO procedures to include the lowest evaluated price is in excess of available budget. (3) Minimum period for International tender advertising provided as seven days in Regulation 83. (4) PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.

6. Conclusions on Operational context to be addressed through the procurement approach.

The national framework will apply for procurements undertaken by INReMP, to the extent that they are consistent with IFAD Project Procurement Guidelines. Procurement will follow the Kenya procurement framework rules where these are aligned to and consistent with the IFAD Procurement Guidelines. All procurements will be implemented through the implementing agency procurement units. INReMP will take into consideration that agriculture is a deveolved funtion and there are structures to undertake procurement within county governments.

National SBDs will be used and will be amended for consistency with IFAD Guidelines. All project procurement activities will be made in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) will apply to the project to ensure compliance with the highest ethical standards.

b) IA CAPABILITY ASSESSMENT

Implementation of the programme will be mainstreamed into the GoK system, both at

national and county levels. Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture.

Programme Coordination and Management Unit (PCMU) will be established comprising a team of officers recruited through a competitive process and responsible for the procurement function. For faster start-up, INReMP will be coordinated by the KCEP-CRAL PMU on an interim basis until the PCMU is fully set up.

A County Programme Implementation Team (CPIT), headed by a dedicated County Programme Coordinator, will be established and will be responsible for the day-to-day implementation of Programme activities. The CPIT will comprise staff seconded from the County Government on a fulltime basis and mirroring the PCMU for technical positions; this will enable the staff to fully focus on implementing INReMP activities

1. Experience

The PCMU of INReMP will be directly responsible for project procurement activities as LIA, and will require to hire experienced Procurement Specialist, with a Procurement Officer being seconded from MoALD to assist and augment the capacities. In addition, the procurement capacity assessment found that KALRO and the Counties have well established procurement units experienced in implementing projects under multilateral financing. These will be required to second dedicated procurement staff to their respective implementation units. The procurement staff of PCMU, KALRO and the Counties will require training on IFAD's BUILDPROC, OPEN system, and periodic capacity building activities on IFAD project procurement.

2. Need for hands-on support

MoALD is a government ministry with departments that operates based on set regulations and procedures under the procurement framework. The Project may seek IFAD's guidance on complex procurement processes, but hands-on support is not required. IFAD will also undertake Implementation Support missions to assess and guide implementation progress. IFAD's prior review processes will also provide support to the project to incorporate the required standards.

3. Contract management capability and capacity

The PCMU will be responsible for overall implementation and management of awarded contracts in accordance with the agreed contractual obligations. The practice is that contracts are managed by User departments. Implementing Counties and KALRO will also be charged with overseeing their contracts implementation. Past IFAD reviews during supervision missions have found gaps in contract management especially deliveries that exceed their contracted completion periods. It is also expected that there could be a challenge in timely updates to the IFAD online CMT due to multiple procurement entities for the project. This will be mitigated by close coordination of the PCMU. A simplified Contract management Plan (in Annex to the PPS) is prepared to enhance the efficacy of contract administration and management, and will be reviewed from time-to-time.

4. Complaints management and dispute resolution systems

Any complaints or dispute between procuring entities and tenderers which arise in respect of procurement proceedings shall be reviewed and decided upon in accordance with the provisions of the national framework. Only the borrower/recipient can review and decide about a protest. IFAD may provide an opinion about the protest and decision. For priorreview procurements, all protests must be communicated to IFAD before a decision is

issued. IFAD reserves the right to provide inputs or comments to the borrower/ recipient to help it reach the decision. A copy of the decision must also be provided to IFAD.

Table 4: SWOT Analysis

STRENGTHS:

- a) The Lead Executing Entity, MoALF, and other implementing partners (KALRO, Counties) have Procurement and Technical specialists experienced in the local procurement framework.
- b) Procurement framework that is consistent with IFAD procurement guidelines.

WEAKNESSES:

- Limited experience in development of technical specifications and Terms of Reference for key requirements in the procurement profile.
- d) Limited capability, knowledge, and skills in contract management.
- e) There is no established programme to train internal and external auditors to ensure that they are qualified to conduct high-quality procurement audits.

OPPPORTUNITIES:

- f) IFAD' new Online end-to-end procurement system OPEN will be applied for the new operation and provide a platform for actionable analytical data on performance of the procurement system and future improvements.
- g) Leveraging on the capacities of the KCEP during start-up.
- h) Dynamic and competitive local supplier market.

THREATS:

- i) Instability of input prices driven by global supply dynamics and unpredictability of currencies.
- j) Lengthy period before start-up of INReMP could delay implementation and result in rushed procurement programme.
- k) Increased procurement workload to the PCMU from the large procurement profile could result in processing delays.
- Insufficient contract administration data on physical and financial progress due to multiple procuring entities.

Results of the SWOT Analysis. The project will require to have timely INReMP start-up requirements and hiring of procurement and technical staff to ensure effective implementation of the procurement programme. All key and strategic activities should be backed by a detailed market research before their commencement.

5. Conclusions on Client Capability and PIU Assessment to be addressed

INReMP will require hiring competent procurement and technical staff at PCMU. A suitably qualified procurement specialist will be hired competitively from the market. Wherever necessary, the project will also hire technical consultants to augment existing capacities and assist with defining and specifying project requirements. Project procurement will be carried out as per the approved Procurement Plans processed in OPEN and contract management be steered by User departments using simplified contract management plans. Results from self-assessments of KALRO and sampled participating Counties found them to have procurement units that are experienced under the local framework and IFI funded activities. The PCMU will undertake procurement whenever the project and its implementing partners are approaching the international market, and facilitate procurement of consolidated common Goods across the programme.

c) MARKET ANALYSIS

a) Market sector dynamics

The envisaged procurement transactions comprise of various consultancies to support the project implementation and supply of various equipment / goods. As per the National

Construction Authority (NCA), adequate number of contractors are available in the Kenya market. For equipment, motorcycles, and ICT hardware & software, bidders import the equipment / goods and provide the after sales support. The country has a large market of qualified and experienced local and foreign consultancy firms and individual consultants in all sectors, and association between local and foreign firms is a common feature in situations where firms come together to enhance their capacity through consortia.

b) Procurement trends

Experiences from recent IFAD funded projects in Kenya show that most of procurement packages attracted both local and foreign participation. The tabulations below represent self-assessment procurement trends and lead-times of KALRO and sampled INReMP participating Counties.

N	Assessment attribute			Procurin	g Entity		
0		KALRO	Elgeyo Marakwet County	Kakameg a County	Kisumu County	Migori County	Trans Nzoia County
1	% of the total annual IA contracts that are awarded in open and restricted bidding	70%	90%	Open tender – 60% Restricted - 0.1%	Since the beginning of this FY, we've only done One open tender	96%	<5%
2	Percentage and value of IA's annual contracts that are awarded under direct contracting (single source)	Euro 32, 124, 20 USD 41,117.66	10%	Percentage 1.7% Value Ksh17 million Safaricom Ksh 2 million Total Kenya - Ksh 10 million Conference facilities - Ksh 3 million Garages - Ksh 2 million	Only two tenders done under Direct Procureme nt	4%	<5%
3	IA's Efficiency in completing the bidding process (open and restricted) for Goods (measured in time from advertisement to contract award and signature)	100%	majority of the contracts are completed on time challenge comes when IFMIS network fails	119 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the	14 days

				rules and regulations and how fast the requisition s and Bill of Quantities are generated from the user.	PPADA, 2015	
4	IA's Efficiency in completing the bidding process (open and restricted) for Works (measured in time from advertisement to contract award and signature)	100%	119 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are generated from the user.	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the PPADA, 2015	45 days
5	IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature)	100%	90 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the PPADA, 2015	45 days

					generated		
					from the user.		
6	% of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued	None	10%	1%	None	0	<5%
7	% of RFPs for consulting services where more than one amendment to the RFP was issued	None	0%	0.01 %	None	0	<2%
8	% of procurement competitions in Goods /Non-Consulting Services, Works and Consulting Services that failed or were cancelled	10%	10%	2%	None	1%	<2%
9	Average number of responsive bids in Goods/Non-consulting Services, Works and Consulting Services competitions	NCB 9 Bids, Shopping 5- 7 Bids	Not provided	4	Three bids per competitio n under RFQs	5	7 responses per bid
1 0	% of procurement competitions for Goods/ Non-Consulting Services, Works and Consulting Services conducted electronically	None	98%	90%	100%	98%	95%
1	% of contracts awarded to SMEs in the previous year	44%	70%	2%	47%	65%	Not provided
1 2	% of procurement competitions and contracts that integrate sustainable procurement considerations (at least 1 social/labour plus 1 environmental criteria)	None	50%	Not provided	Not provided	35%	70%
1 3	Percentage of IA's contracts for Works with cost over-runs above 10% of initial contract price.	4%	8%	+15 %	None	0	<5%
1 4	Percentage of IA's contracts for Works with time over-runs above 10% of initial contractual duration	10%	40%	80%	None	0	<2%
1 5	Average number of complaints received	None	10%	0	None	1%	0.001%

	from bidders as to the fairness of biding documents or contract award						
6	% of bidders' appeal decisions that were accepted and enforced (with ruling against the IA)	None	2%	0	None	0	0.1%
7	% of Vendors Invoices paid on time in Goods/Non-Consulting Services, works and Consulting Services contracts.	88%	70%	10%	Not provided	0	20%
1 8	Is the general quality of documents produced by the IA's Procurement Department in line with IFAD's expected quality levels: i. Quality of Bidding Documents for Goods/NCS and Works ii. Quality of RFP for Consulting Services iii. Quality of Bid Evaluation Reports iv. Quality and adequacy of responses to bidders' qualifications	Moderately satisfactory	Moderately unsatisfact ory	Moderately unsatisfact ory	Moderately unsatisfact ory	Moderately unsatisfact ory	Moderately unsatisfact ory
1 9	Management / Procurement Audit: i. % of IA contracts subjected to specialized procurement audit i. the IA timely implements recommendations	None	40% The county always implement s all recommen dation from audit report	i.None ii. 50%	None	0 N/A	90% 65%

c) Indicative list of major procurement activities

Project procurement of INReMP and DaIMA will be by the same PCMU, and a procurement profile combining both projects is tabulated hereunder to provide an indication of the procurement workload in the first 18 months. Over that period, the PCMU will be responsible for an estimated 17No Goods activities, 1No Works activities, and 45No Consulting activities.

Table 5: Goods

Ref.	Description	Estimated	Project
No.		Cost	
		(US\$)	

G1	Supply of ECF and Heartwater disease vaccines	486,724	DaIMA
G2	Procurement of kits for demo farms for farmer training in 6No Lots	600,000	DaIMA
G3	Procurement of agro-weather equipment	400,000	DaIMA
G4	Procurement of equipment for demonstrations on highly digestible forage and fodder	100,000	DaIMA
G5	Procurement of equipment for demonstrations on highly digestible forage and fodder (Counties)	140,000	DaIMA
G6	Procurement of Motor Vehicles in 2No lots (3No. 4x4 passenger vehicle and 3No. 4x4 double cabin pickup)	450,000	DaIMA
G7	Procurement of 140No. Motorbikes	600,600	DaIMA
G8	Procurement of Accounting Software	150,000	DaIMA
G9	Procurement of computers, laptops, server, photocopier/printer machines	199,000	DaIMA
G10	Supply of weather stations, river gauges, other equipment	2,700,000	INReMP
G11	Supply of Equipment for water and soil labs	1,000,000	INReMP
G12	Procurement of 14No Double Cabin Vehicles and 3No Utility Vehicles 4WD	1,200,000	INReMP
G13	Procurement of 105No Motor Cycles for Extenstion services	560,000	INReMP
G14	Supply of IT Equipment – 18No laptops, 3No printers, 1No	135,000	INReMP
	printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets		
G15	Supply of 25No smart phones	18,000	INReMP
G16	Supply of 4No safe boxes	6,000	INReMP
G17	Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents	600,000	INReMP

Table 6: Works

П	Ref.	Description	Estimated	Project
	No.		Cost (US\$)	
Η,	A/1	Office Debabilitation National DMCII and Degional DMCII		TNDAMD
1	W1	Office Rehabilitation - National PMCU and Regional PMCU	250,000	INReMP

Table 7: Consulting Services

Re f. No	Contract Description	Estimat ed Cost (US\$)	Project
C1	Consultancy to Review of the Kenya Agricultural Section Extension	54,000	DaIMA
C2	Consultancy to support development of compost and bio-slurry standards	54,000	DaIMA
C3	Consultancy on solar technology standards to improve quality and technical support for sector greening	91,500	DaIMA
C4	Consultancy to mainstream incremental strategies for securing land tenure for fodder production, and participatory land use planning tools	57,000	DaIMA
C5	Consultancy to Develop and operationalise an adaptation tracking tool for the Livestock sub-sector NDC	161,250	DaIMA
C6	Consultancy to Develop guidelines for dairy industry energy audits and reporting and provide training to implement	40,750	DaIMA
C7	Consultancy to Conduct a national baseline on productive use of energy (PUE) in the dairy industry	34,500	DaIMA
C8	ILRI Technical Assistance	1,400,00 0	DaIMA
C9	FAO Technical Assistance	1,700,00 0	DaIMA
C1 0	Development of KM Products	48,000	DaIMA

C1 1	HR recruitment consultancy	30,000	DaIMA
C1 2	Project baseline survey	180,000	DaIMA
C1 3	Project Coordiantor	479,995	DaIMA
C1 5	Environmental and social safeguards specialist	344,997	DaIMA
C1 6	Monitoring and evaluation specialist	344,997	DaIMA
C1 8	Consulting service to Review of the Dairy Master Plan	54,000	DaIMA
C1 9	Consultancy to Support the finalisation of the draft National Strategy and legal framework for animal Feed and Fodder	54,000	DaIMA
C2 0	Consultancy to Develop National Strategies for breeding incorporating climate change adaptation and mitigation	54,000	DaIMA
C2 1	Consultancy to Review of Dairy Industry Act (1958) and regulations to mainstream climate change adaptation and mitigation	90,000	DaIMA
C2 2	Consultancy to Develop a national system/framework for environmental, social and climate impact assessment that feeds into evidence-based policy making mechanisms	134,000	DaIMA
C2 3	Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc	1,300,00 0	INReMP
C2 4	Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming	85,000	INReMP
C2 5	Consulting service for mapping, registration of community groups	108,000	INReMP
C2 6	Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems	600,000	INReMP
C2 7	Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems	300,000	INReMP
C2 8	Nutrition Specialist/Consultant	33,000	INReMP
C2 9	Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture)	107,000	INReMP
C3 0	Provision of Business development support to MCC	800,000	INReMP
C3 1	Consulting services in support of Processing Equipment	500,000	INReMP
C3 2	Feasibility assessments, ESIA and Design of Climate-Proofed Access Roads	700,000	INReMP
C3 3	Development of Applications and Web based commodity trading platform	500,000	INReMP
C3 4	Development of the programme MIS including related infrastructure, accessories and training of staff	100,000	INReMP
C3 5	Development of a Programme Knowledge Management Portal	70,000	INReMP
C3	Consulting service for Development of a Knowledge Management and	40,000	INReMP
6 C3	Communication Strategy Consulting service for Institutional capacity gap assessment and	40,000 50,000	INReMP INReMP
6	Communication Strategy		

C4 0	Monitoring and Evaluation and KM Specialist (36 months)	180,000	INReMP
C4 1	Procurement Specialist (36 months)	180,000	INReMP
C4 2	NRM Specialist (36 months)	180,000	INReMP
C4 3	Infrastructure Specialist (36 months)	180,000	INReMP
C4 4	Agricultural Livelihood Specialist (36 months)	180,000	INReMP
C4 5	Community Development, Gender, and Youth Specialist (36 months)	180,000	INReMP
C4 6	Nutrition and Social Inclusion Specialist (36 months)	180,000	INReMP
C4 7	Agribusiness Development Specialist (36 months)	180,000	INReMP

d) Supply Position Matrix

Based on the indicative list of major procurement activities envisaged in the project, a supply position matrix has been prepared.

High							Hig h
	Strate	egic Critical		Strate	egic Security		
<u> </u>	Ref No.	Description	Estima ted Cost	Ref No.	Description	Estimat ed Cost (US\$)	
2			(US\$)	C8	ILRI Technical	1,400,0	
Kisk or Vuinerability	C1	Consultancy to Review of the Kenya Agricultural Section Extension	54,000	C9	Assistance FAO Technical Assistance	00 1,700,0 00	
> 0 4 8	C2	Consultancy to support development of compost and bio-slurry standards	54,000	C2 3	Baseline studies on the status of deforestation, wetlands, riparian	1,300,0 00	
2	C3	Consultancy on solar technology standards to improve quality and technical support for sector	91,500		ecosystem, groundwater potential, environmental audits etc		
	C4	greening Consultancy to mainstream incremental strategies for	57,000	C3 0	Provision of Business development support to MCC	800,000	
		securing land tenure for fodder production, and participatory land use planning tools		C2 6	Consulting Service for Feasibility assessments, ESIA, and Design for Multi-	600,000	
	C5	Consultancy to Develop and operationalise an adaptation tracking tool for the	161,250	62	Purpose Community- Based Water Supply Systems	200.000	
	C6	Livestock sub-sector NDC Consultancy to Develop guidelines for dairy industry energy audits and reporting and provide training to implement	40,750	7 7	Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems	300,000	

C7	Consultancy to Conduct a national baseline on	34,500	G3	Procurement of agro- weather equipment	400,000
	productive use of energy (PUE) in the dairy industry		G1 0	Supply of weather stations, river gauges,	2,700,0 00
C1 8	Consulting service to Review of the Dairy Master Plan	54,000		other equipment	
C1 9	Consultancy to Support the finalisation of the draft National Strategy and legal framework for animal Feed and Fodder	54,000			
C2 0	Consultancy to Develop National Strategies for breeding incorporating climate change adaptation and mitigation	54,000			
C2 1	Consultancy to Review of Dairy Industry Act (1958) and regulations to mainstream climate change adaptation and mitigation	90,000			
C2 2	Consultancy to Develop a national system/framework for environmental, social and climate impact assessment that feeds into evidence-based policy making mechanisms	134,000			
C2 4	Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming	85,000			
C2 5	Consulting service for mapping, registration of community groups	108,000			
C2 9	Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture)	107,000			
C3 1	Consulting services in support of Processing Equipment	500,000			
C3 2	Feasibility assessments, ESIA and Design of Climate- Proofed Access Roads	700,000			
C3 3	Development of Applications and Web based commodity trading platform	500,000			
C3 4	Development of the programme MIS including related infrastructure, accessories and training of staff	100,000			

C3 5	Development of a Programme Knowledge Management Portal	70,000
C3 6	Consulting service for Development of a Knowledge Management and Communication Strategy	40,000
C3 7	Consulting service for Institutional capacity gap assessment and production of a capacity development plan	50,000
C1 0 to C1 7, and C3 8 to C4 7	Individual Consultants	Various

	1	a	<u>cti</u>	cal	Ac	qui	siti	on
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Ref. No.	Description	Estimat ed Cost (US\$)
G4	Procurement of equipment for demonstrations on highly digestible forage and fodder	100,000
G5	Procurement of equipment for demonstrations on highly digestible forage and fodder (Counties)	140,000
G8	Procurement of Accounting Software	150,000
G9	Procurement of computers, laptops, server, photocopier/printer machines	199,000
G14	Supply of IT Equipment – 18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets	135,000
G15	Supply of 25No smart phones	18,000

Tactical Advantage

Po Doggintian Estima							
Re f. No	Description	Estimat ed Cost (US\$)					
G1	Supply of ECF and Heartwater disease vaccines	486,724					
G2	Procurement of kits for demo farms for farmer training in 6No Lots	600,000					
G6	Procurement of Motor Vehicles in 2No lots (3No. 4x4 passenger vehicle and 3No. 4x4 double cabin pickup)	450,000					
G7	Procurement of 140No. Motorbikes	600,600					
G1 1	Supply of Equipment for water and soil labs	1,000,0 00					
G1 2	Procurement of 14No Double Cabin Vehicles and 3No Utility Vehicles 4WD	1,200,0 00					
G1 3	Procurement of 105No Motor Cycles for Extenstion services	560,000					
G1 7	Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents	600,000					

	G16	Supply of 4No safe boxes	6,000			
Low		Es	timated to	Co	ost / Value	Hig h

e) Supplier Preferencing Matrix

The project will undertake procurement for Goods, Consulting and Non-consultancy services under various project components. It is expected that majority of bidders and suppliers will perceive procurement opportunities as 'Development' business opportunities. The PPS proposes to have warranties and defects liability periods as part of the main contracts to ensure that investments are functional, by time of handover. This minimizes the OEMs utilizing procurement opportunities as exploitable. Similarly for consulting services, a contracting strategy to closely monitor deliverables based on prescribed deliverables will be incorporated as part of the TOR.

Table 8: Supplier preferencing matrix

Supp	Supplier preferencing matrix						
High							
less of Account	Development a) Pool of local and international consultants are available and may likely associate with national consulting firm as their associate to enhance their capacity to win business opportunities	Core b) Pool of National contractors/ suppliers/ consultants are available to carry out the Works and supply of goods and bring on board local experience and the potential to win business opportunities	High				
Attractiveness	Nuisance c) Many suppliers in the domestic market.	Exploitable d) There are many suppliers in the domestic market to participate. Opportunities will be highly competed and relationship adversarial.					
Low	Relative valu	e of account					

f) Conclusions on the Market Analysis to be addressed through the procurement approach

Alignment of the Supply position and Supply Preferencing Matrix. The analysis below will be considered in developing fit-for-purpose procurement approaches and inform the PCMU on instances to make plans to ensure suppliers are the best match for the requirement.

- a) There are 6No Consulting service activities (Firms selection) that are strategic security, and development in nature. They are a good match.
- b) G3 and G10 strategic security and will be sourced through ICB. Suppliers prioritize them as Development. This presents strong potential.
- c) There are 6No Tactical Advantage activities, all of which are Goods. These are of values that will require international market approaches, but are likely to be packaged into lots, and competed by local suppliers. The supplier's priority is assessed as exploitable and is likely to create an adversarial situation.

3. Procurement Risk Analysis for abovementioned contracts/group of similar contracts

The risks identified in the preceding analysis on operational context, borrower capacity and PCMU assessment, and market analysis that could be mitigated through the procurement approaches summarized in Risk Assessment Table below.

Table 9: Risk Assessment Table

	Taui	<u>le 9: Risk A</u>	1556551116	iii iabie	
Risk Description at the	Α	В	Overal	Proposed Mitigation	Net Risk
respective stage of the	Likeliho	Impact	l Risk	Measure/s throughout the	(taking
procurement process	od of	upon	Score	Procurement Process	only fully
per each contract	Occurre	Occurre			implemen
,	nce	nce	$A \times B$		ted and
	7.55		Assess		effective
			ed		mitigation
			Inhere		measures
			nt		into
			Risk		account)
	Goo	ds and Go		ated NCS	account
Implementation	M	S	S	Retention of dedicated	М
arrangement –	1.1	3		procurement and technical	111
Inexperience in				staff.	
•				Stair.	
processing					
procurements under					
IFAD operations.	N 4			Hea of ITAD and the	,
PP stage - Poor	М	S	S	• Use of IFAD online end-to-	L
packaging of				end procurement system	
procurement				OPEN, and detailed	
requirements at				consultations with the	
planning and bidding				Executing Entities at time of	
stages.				Work planning.	
PP stage – Poor cost	M	S	S	Undertaking market	М
estimation resulting in				research and procurement's	
failed procurement				participation in work	
processes.				planning.	
Requisitioning - Limited	М	S	S	Use of technical experts/	М
experience in				consultants as necessary.	
development of				•Use of local and	
specifications and poorly				internationally acceptable	
defined specifications.				standards when specifying	
				Goods.	
Solicitation stage -	М	М	М	BUILDPROC training and	М
Poorly customized				capacity building of PMU	
procurement				and use of technical	
documents.				experts/ consultants as	
				necessary.	
				• Project procurement	
				refresher trainings by IFAD.	
Evaluation stage -	М	М	М	•Use of qualification	М
Unresponsive	1.1	"1	1'1	requirements that match	1*1
competent market				the procurement activities.	
•				·	
players resulting in				Adequate publishing of	
failed procurement				procurement opportunities.	
processes.				• Use of ICB to broaden pool	
				of potential suppliers and	
			_	maximize Value for Money.	
Contract	S	S	S	 Contract monitoring and 	М
implementation stage -				contract management	
Delays in meeting				plans, to include factory	
contractual milestones				inspection, acceptance, and	

Risk Description at the respective stage of the procurement process per each contract	A Likeliho od of Occurre nce	B Impact upon Occurre nce	Overal I Risk Score A x B Assess ed Inhere nt	Proposed Mitigation Measure/s throughout the Procurement Process	Net Risk (taking only fully implemen ted and effective mitigation measures into
and low-quality deliveries.			Risk	training during manufacture process by OEM. • Administering contracts as set out in executed agreements. • Use of technical experts to manage complex contracts.	account)
	Woi	rks and W	orks rela		
Requisitioning stage - Limited experience in development of BoQs for Works and TORs for design and supervision consultants.	L	S	М	•Use of technical experts/ consultants as necessary.	М
Bidding and Evaluation stage – Low participation due to contractor Limited access to domestic financing, Skilled labor shortages, High cost of construction materials.	М	М	М	 Application of domestic preference as prescribed in the national law 	M
Discussions and contracting stage - SECAP related risks in construction and refurbishment.	М	H	М	 Use of IFAD standard contract terms, development of ESMPs, inclusion of ESS experts in construction supervision, and use of PPEs during construction. 	М
Contract implementation stage - Delays in meeting contractual milestones Extension of Time for completion.	S	S	S	 Contract monitoring and contract management plans, and use of supervision engineers for complex works. 	М
		Consulti			
Requisitioning stage - Limited experience in development of TORs	S	S	S	 Use of technical experts/ consultants as necessary. 	М
Solicitation stage - Limited experience in use of IFAD project procurement framework and poorly customized procurement documents.	S	S	S	 BUILDPROC training and capacity building of PMU and use of technical experts/ consultants as necessary. To include project procurement refresher 	S

Risk Description at the	Α	В	Overal	Proposed Mitigation	Net Risk
respective stage of the	Likeliho	Impact	l Risk	Measure/s throughout the	(taking
procurement process	od of	upon	Score	Procurement Process	only fully
per each contract	Occurre	Occurre			implemen
	nce	nce	$A \times B$		ted and
			Assess		effective
			ed		mitigation
			Inhere		measures
			nt		into
			Risk		account)
Delays in processing				trainings by IFAD during	
consulting activities.				ISMs.	
Contract	M	S	S	Contract monitoring and	М
implementation stage -				contract management	
Delays in meeting				plans, and use of design	
contractual milestones				and supervision consultants	
and contract				for complex works.	
completion.					

From the foregoing analysis, there are likely risk events identified at various stage of the procurement process and weighed against their likelihood and impact. Procurement of Consulting services retains a high net risk and there should be emphasis to ensure mitigation measures are in place, especially considering the high number of consulting services in the project.

4. Stakeholder Analysis

The main stakeholders who have an interest or impact on the project or impacted by the project and whether their interest is one of responsibility (R), accountability (A), to be consulted (C), or informed (I) are presented in the tabulation below. The objectives of the various stakeholders are also listed.

The following stakeholders have an interest or will be impacted by the project:

Table 10: Stakeholder Management Plan

Stakeholder (Name and Role)	Interest in the Project (Responsibl e, Accountable , Consult, Inform)	Stakeholder Objectives from the Procurement	Stakeholder management Approach
Government of Republic of Kenya – Borrower/Recipient	C and I	a) Align with development objectives.b) Achieve value for money.c) Compliance with the terms of legal/financing agreement.	Keep informed and comply.
The National Treasury – Borrower/Recipient's representative in charge of public funds	R, A, C and I	 d) Align with development objectives. e) Achieve value for money. f) Compliance with terms of the legal agreement and policies. 	Keep informed and comply.

Stakeholder (Name and	Interest in	Stakeholder Objectives	Stakeholder
Role)	the Project	from the Procurement	management
	(Responsibl		Approach
	e,		
	Accountable , Consult,		
	Inform)		
		g) Proper budget	
		implementation and	
		ensure the funds are	
		available for processing payments within the	
		agreed project	
		milestones.	
Ministry of Agriculture, and		h) Achieve value for	Keep
Livestock Development (MoALD)	R, A, C and	i) Compliance with terms	informed, consult often,
(MOALD)		of the FA and policies	and comply.
		j) Proper budget	aa cop., .
		implementation and	
		ensure the funds are	
		available for processing the payments within	
		the agreed period in the	
		contract (minimize the	
		claim of interest due to	
		delayed payment period)	
Partner Institutions –	R, A, C and	k) Deliveries within	Keep
KALRO, KDB, Participating	I	workplan schedules and	informed,
Counties		proper budget	consult often.
		implementation I) Achieve value for	
		money	
		m) Account for	
		procurements	
		undertaken through project budgets	
PCMU	А	n) Achieve value for	Accomplish
		money	the mandate
		o) Compliance with the	and comply.
		Legal agreement p) Fit-for-purpose	
		procurement	
IFAD - Supervision,	C and I	q) Achieve value for	Communicate
Implementation support,		money	and seek
Financier		r) Compliance with the Legal agreement and	timely advice.
		procurement principles	
Project beneficiaries -	C and I	s) Quality and timely	Keep
stakeholders along the		inputs to meet project	informed.
dairy value chains, with a focus on dairy		objectives.	
smallholders.			
Suppliers/Contractors/Servi	I and A	t) Transparency and	Keep
ce Providers/Consultants		fairness of the process.	communicate
			d.

Stakeholder (Name and	Interest in	Stakeholder Objectives	Stakeholder
Role)	the Project	from the Procurement	management
	(Responsibl		Approach
	e,		
	Accountable		
	, Consult,		
	Inform)		
		u) Efficiency in decision	
		making.	
		v) Timely payments.	
People of Kenya	I	w)Upholding public	Keep
		interest	informed.
		(transparency/disclosur	
		e, fairness, value for	
		money, enhanced	
		ESHS, and so on)	

5. Procurement Objective for abovementioned contract/group of similar contracts (related to the 5 Rs)

a) PROCUREMENT OBJECTIVES

The main objective of procurement under project is to ensure timely and efficient delivery of the required Goods, Works, Consulting and Non-consulting services in line with the approved Procurement Plan and in compliance with IFAD's Project Procurement Framework, while building the project's capacity for procurement and contract management.

The main objective is expressed through the following project procurement objectives:

- a) To achieve the PDO through appropriate fit-for-purpose procurement approaches and deliver the best value for money (VfM).
- b) To develop and implement appropriate specification, requirements, and evaluation criteria to consistently deliver targeted procurement solutions that are sustainable and build local maintenance capabilities.
- c) To attract suitable suppliers for timely and quality deliverables of project procurement requirements.
- d) To select in a timely and cost-effective manner qualified, experienced, and competitive suppliers, contractors, service providers and consulting firms capable of executing the contracts within stated quality, cost, and time.
- e) To develop and implement contract management monitoring and tracking arrangements that ensure applicable standards are fulfilled in the performance of the contracts.
- f) To select the most appropriate procurement approaches to deliver cost targets and manage resulting contracts to ensure that tasks are completed as per agreed contractual conditions and obligations without unnecessary cost overruns.
- g) To conduct need based /refresher procurement trainings on IFAD Project Procurement arrangements.

b) Key Performance Indicators

SMART Key Performance Indicators (KPIs) that will be used to monitor achievement of the procurement objectives are detailed below. The KPIs may be monitored via periodic progress reports and use of analytical data available in the IFAD OPEN and CMT. The project will be required to report on the procurement result indicators during supervision missions of the INReMP.

Key Performance	Areas	KPI Description	- KPI Measurement
1) Publishing	Publishing of	REOIs or RFBs would be	-Shortlisting and Evaluation
	REOI and RFB	published on UN	Reports confirm that all
(Transparency,		Development Business,	SPNs are published and Soft
Competition,		and official websites, as	copies of REOIs & RFBs are
Fairness)		necessary.	accessible by market.
2) Process	Requisition, PPP	Commenced procurement	-95% of commenced
Efficacy	packaging,	proceedings resulting into	procurement proceedings
()/fM 2Fa	Procurement	signed contracts in the	resulting into signed
(VfM, 3Es,	document customization,	first instance, and within the PP planned times and	contracts in the first instance.
Competition, Fairness,	clarification	budget.	-90% of the planned
Accountability, fit-	requests,	budget.	procurements being
for-purpose)	evaluation of		executed without variation
Tor purpose)	bids/proposals,		of the overall planned
	and contract		timeline.
	awards		-All contract award within
			budget.
3) Competition	Open opportunity	Equal opportunity and fair	-Numbers of Consultants who
	and fair	competitions among	expressed their interest,
(fairness and	competitions.	eligible Contractors/	submitted proposals, &
economy)		Suppliers/ Consultants in	Bidders submitted their
		providing works, goods,	bids.
		and consulting services.	-Percentage of
			proposals/bids that pass
4) Delivery	a. On-Time	Provide contractually	preliminary evaluationOn time delivery of
(4) Delivery	Delivery.	obligated deliverables and	contractually obligated
(efficiency and	Delivery.	outcomes on agreed	deliverables as per mutually
VfM)		dates.	agreed plans.
,			-80% of the Contracts being
			completed within original
			stipulated time, 20% of the
			Contracts completed within
			6 months EoT.
		Information is managed	-Supporting/ working
	b. Efficiency,	(shared, stored and	documents submitted and
	records, and	communicated) in line	archived (Templates, weekly
	accountability	with expectations defined in contract or as agreed	status reports, minutes of meetings, training manual,
		between the parties.	project progress etc.)
		between the parties.	-Complete updates to IFAD
			OPEN and CMT systems.
5) Quality	a. Delivery	Product/service meets	-Number of deliveries that
, ,	Quality	quality acceptance	have met acceptance
(effectiveness,		criteria.	criteria (e.g. Number of
VfM)			defects, functionality of
			application, User Interface)
	b. Supplier	Teams are made up of	-Number of experts
	(Consultant)	members with expertise	proposed, rejected, or
	Personnel	as per Terms of Reference	replaced due to performance
			issues or not meeting the expectations.
	c. End User	Level of satisfaction	-Rating received.
	Satisfaction	received from project	
		beneficiaries/ end users.	
			1

6) Financial (transparency, 3Es, and fairness)	a. Invoicing	Contractually compliant with the time and quality for submission of invoices	-On time submission of invoices with supporting documents as agreed -Payments within contracted period
	b. Cost Transparency	Supplier provides transparency into its cost breakdowns	-Cost (invoices, financial proposals) is provided with a detailed breakdown of activities, services, products, quantities, etc.
	c. Change Requests/ Contract Amendments	Number and value of CRs/ Contract Amendments initiated since the previous scorecard or over the reporting period	-Total number of CRs raised/ Contract Amendments, value & scope of each CR / Contract Amendments

6. Recommended Procurement Approach for the Project Procurement Approach:

a) Procurement arrangements for Goods and Non-consulting services

Table 11: Procurement arrangements for Goods and Non-consulting services

Attribute	Selected arrangement	Justification Summary/Logic	
Specifications (SECAP compliance)	Conformance	Conformance for the requirements that are standard and well-established technical specifications.	
Additional Sustainability Requirements	No	Sustainable procurement is not envisaged. Warranty and trainings provided as specified in the bidding documents.	
Contract Type	Traditional		
Pricing and costing mechanism	Lump Sum	Based on schedule of requirements	
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.	
	Adversarial	For easily available, off-the-shelf items and highly competed activities, relationship will be adversarial.	
Price Adjustments	None, fixed price		
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable	
Selection Method	a) Requests for Bids (RFB)b) Requests for Quotations (RFQ)c) Direct Contracting	Dependent on market approach, and thresholds for selection method of Goods being procured.	

Selection Arrangement	None	
Market Approach	Competitive	
Pre / Post Qualification	Post-Qualification	
Evaluation Selection Method	Most Advantageous pricing	
Evaluation of Costs	Life-Cycle Costs	Most advantageous pricing
Domestic Preference	Yes	Based on guidance in PAL
Rated Criteria	No	

b) **PROCUREMENT ARRANGEMENTS FOR WORKS**

Table 12: Procurement arrangements for Works

Table 12: Procurement arrangements for Works				
Attribute	Selected arrangement	Justification Summary/Logic		
Specifications (SECAP compliance)	Conformance	Conformance with provisions of BoQs that will contain ESCMP interventions by the contractor.		
Additional Sustainability Requirements	No	Sustainable procurement is not envisaged.		
Contract Type	Traditional based on Employer's/IA design			
Pricing and costing mechanism	Schedule of Rates/Admeasurement	Based on BoQs		
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.		
Price Adjustments	Percentage	Due to input price volatilities, price adjustment formulae can be considered for Works contracts with less than 18-months completion period.		
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable		
Selection Method	Competitive	There are many capable contractors		
Evaluation of Costs	Adjusted bid price			
Domestic Preference	Yes	Based on guidance in PAL		
Rated Criteria	No			

c) Procurement arrangements for Consulting Services

Table 13: Procurement arrangements for Consulting services

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Performance	Definitive Terms of Reference guided by the objectives.
Sustainability Requirements	No	Sustainable procurement is not envisaged.
Contract Type	Traditional based on TOR	

Pricing and costing mechanism	Lumpsum and time based.	
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.
Price Adjustments	None, fixed price.	
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable
Consultant's Selection and Evaluation Method	a) Quality Cost Based Selection (QCBS) b) Consultant's Qualification based Selection (CQS) c) Least Cost Based Selection (LCS) d) Direct Selection e) Single Source Selection	 Direct approaches require prior justification. Onboarding of ILRI and FAO will be through Direct contracting. One TOR will be consolidated for all interventions and budget lines.
Pre / Post Qualification	Pre-Qualification and Post-Qualification	
Evaluation of Costs	N/A	
Domestic Preference	No	
Rated Criteria	Yes	

The project's Procurement Plan should reflect the analysis presented in the PPS and should be updated periodically to reflect actual needs and changing circumstances. Any updates to the Procurement Plan should be submitted to IFAD for its review and no objection. Any changes to the Procurement Plan should be justified by the project through a revised PPS.

7. Preferred arrangement for low value, low risk activities (as applicable)

Table 14: Procurement arrangements for low value, low risk activities

Contract	Category	Estimated Cost	Procurement Approach and Method
Off-the shelf Goods, Minor Works, and small assignments.	Works /Goods /Consulting services	Not more than USD500, up to an annual cumulative cost of USD5,000 (as defined in the PAL)	Contracts to be procured through local administrative procedures and a file of all such purchases be maintained.

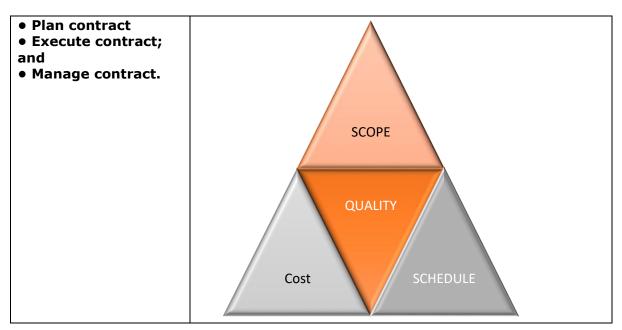
Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, General salaries and allowances for project staff. These expenditures will not be subject to procurement clearance, hence, will not be reflected in the approved procurement plan. Items under this category would be procured using local administrative procedures acceptable to IFAD. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB, and will be subject to external audit.

Training / Capacity Development initiatives through the project are not Procurement Transactions unless a service provider is exclusively hired from Market through agreed Selection Methods of Consultant / Non-consulting services as appropriate to render training or capacity development. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB and will be subject to external audit.

ANNEX 1 OF PPS: SIMPLIFIED CONTRACT MANAGEMENT PLAN and RESPONSIBILITY AND ACCOUNTABILITY MATRIX (RAM)

f) Introduction:

Effective contract management is essential to the delivery of intended outcomes. The contract Management primarily focuses on creating, executing, and managing contracts across three (3) key implementation phases:



The PCMU is responsible for the contract management in coordination with Beneficiary organizations participating in the project. The responsibilities of the Contract Management Team (CMT) include but not limited to: Contract risk management, control changes and variations, contract administration, review and accept reports, acceptance of deliverables and contractual milestones, management and control payments, and monitoring and measuring outputs/outcomes, and record-keeping, monitor compliance with agreed contractual obligations for the successful delivery of the contract.

g) Responsibility and Accountability Matrix - Contract Management

Table 15: Responsibility and Accountability Matrix

	MoALD	Procureme nt Specialist	Technical Dept. or Beneficiar Y	PCMU
1	2	3	4	5
Preparation of procurement-related documents including contract conditions, drawings, and specifications	I, F	R	R	F
Contract management, coordination, and supervision.	F	S	R	М
Review the construction management program submitted by the bidders	I	C, I	R	М
Conduct the site visits periodically and review the physical and financial progress		S	R	F
Accord time extensions, change in quantities, variations, etc.,	А	S	R	R

Description

Ref

	MoALD	Procureme nt Specialist	Technical Dept. or Beneficiar y	PCMU
Monitor the stipulated quality assurance tests are conducted as prescribed in the technical specifications	I	S	R	F, M
Facilitate the recording of work before commencement and after completion as per the specifications	I	M, S	A, R	S
Ensure that the prescribed training is provided as per the contract	I	S	A, R	F
Facilitate handing over the constructed/repaired facilities and/or supplied goods to the concerned officer in charge	I, A	S	R	F
Receive goods, facilitate the process of clearing and forwarding, storage, carry out stock taking, manage the distribution supply chain.	I	R	С	S

R: Responsible; A: Approval; M: Monitor; S: Support; F: Facilitate; I: Inform; C: Consulted

h) **Monitoring Instruments:** The following mechanisms and instruments will be used to implement project management following the above principles and levels of management.

1 Monthly Progress Report			
A monthly report following pre-defined format and designed to highlight key indicators			
and issues:			
a) Bifocal Emphasis – Physical and Financial progress with updates on the IFAD online			
CMT.			
b) Evaluation Techniques like PERT with clearly defined milestones through OPEN.			
c) Monitoring of cost escalations due to:			
(i) Change in scope,			
(ii) Variation of quantities,			
(iii)Change in quantities,			
(iv) Price adjustment			
d) Monitoring of admeasurements/payment schedule			
e) Conduct monthly progress meetings			
f) Principled evaluation of Instructions – Quality Reports			
2 Monthly site meeting			
A meeting held monthly on-site to physically inspect operations.			
3 Quarterly progress report			
A quarterly report which focuses on progress towards overall project objectives and any			
issues encountered.			
4 Half-yearly project appraisal			
A review that seeks to identify any major risks and propose mitigation measures. To			
inform any need for changes in the PPS.			
5 Ad hoc inspection			
An inspection carried out by PCMU and/or Authorised persons.			

ANNEX 2 OF PPS: IN-COUNTRY PROCUREMENT TRAINING PROGRAMME

Procurement Training Workshop for Members of Programme Coordination and Management Unit (PCMU), MoALD, participating Counties, and All key User Departments implementing INReMP

Venue: TBD - Nairobi

Date: TBD - Within first year of project implementation

The Ministry of Livestock and Fisheries will host a procurement workshop for members of the National Project Coordination Unit and all implementing agencies.

The objective of this workshop is to "enhance skills of participants on procurement processes to ensure procurements and implemented efficiently and contracts are completed in time and within budget."

The following training themes were identified during project design stage:

- 1. Overview of procurement processes
- 2. Use of IFAD Procurement Guidelines and Handbook
- 3. Effective procurement planning and packaging
- 4. Customization of solicitation documents
- 5. Evaluation of bids for Goods and Non-Consulting Services
- 6. Contract management and administration

This workshop is to be held for three (3) days within the first year of Project implementation.

The participants of the workshop will include the members of the PCMU, MoALD, Participating Counties, key beneficiaries under the project, Key User departments.

Training Programme – Procurement Management:

SESSION TOPIC		TOPIC	DELIVERY
DAY 1	MORNING	IFAD procurement principles, ethical standards, and prohibited practice issues	POWER POINT SLIDES
	MID MORNING	 Effective project implementation and the role of procurement: Integrated project and procurement planning and budgeting (AWPB/PP) Key considerations for effective procurement planning. 	 POWER POINT SLIDES PRACTICAL SESSION: Actual project documents AWPB and PP
	AFTERNOO N	Roles and responsibilities in the procurement cycle	POWER POINT SLIDES
DAY 2	MORNING MID MORNING	Writing precise specifications, terms of reference and bidding documents (including SECAP consideration)	POWER POINT SLIDESCASE STUDY
	AFTERNOO N	Customization of Solicitation documents	• PRACTICAL SESSION: √ SBDs/SPDs
DAY 3	MORNING	Evaluating bids and proposals (including SECAP consideration)	POWER POINT SLIDES
	MID MORNING AFTERNOO N	 Effective contract administration, management, and performance monitoring (including SECAP compliance) CMT 	POWER POINT SLIDES CASE STUDY

ANNEX 9: SECAP GUIDANCE FOR PROCUREMENT



Kenya

Integrated Natural Resources Management Programme
Integration of SECAP risks into Procurement plans

Document Date: 03/02/2024 Project No. 2000003938

East and Southern Africa Division Programme Management Department

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				
Biodiversity conservation	Risk Rating	Consequence	Guidances for SPOs	
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Moderate	Minor Poject may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Technical specifications to be included in tender documents for purchase of natural resource materials which include ethically sourced materials	
Resource Efficiency and Pollution Prevention	Risk Rating	Consequence	Guidances for SPOs	
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.	Technical specifications and bid criteria to include a list/reference to list of approved chemical/waste handling facilities and allowable pollutants at discharge points	

Environmental and Social Safeguards			
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?	Low	Negligible The project will not involve engagement of forestry in any form	Contract documents to include ethical procedures on harvesting of natural forest resources
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 materias, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Procurement of raw materials should follow ethical standards and ensure all contractors have the required approvals and permits for operation on the sites
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Substantial	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Bidding and contract documents should include lists of approved and certified fertifizers and modifying agents
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	Minor The project only requires minimal amounts of pesticide.	Bidding and contract documents should include lists of approved and certified pesticides
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	Moderate	Minor The project involves livestock or fisheries, but not in extensive or intensive systems.	Bidding and contract documents should ensure procurement of animals follows national regulations
indigenous peoples	Risk Rating	Consequence	Guidances for SPOs

Environmental and Social Safeguards				
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	Moderate	Minor The project is not sited in an area where indigenous people are present, but associated facilities may impact on indigenous people.	Procurement should consider suppliers within the project areas	
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs	
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?	Moderate	Minor The project does not operate in sectors or value chains where the employment of children has ever been reported.	Procurement contract documents to include clauses that prohibit child labour as per national laws, regulations and Zero tolerance to child labour (as per ILO guidelines)	
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.)	Moderate	Moderate 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 weak or non- existent.	The bidding and contract documents to include clauses that ensure adherence to occupational safety and health	
Community Health, Safety and Security	Risk Rating	Consequence	Guidances for SPOs	
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 waterborne or other vectorborne diseases, or communicable/noncommunicable diseases, but where regulation or containment of these impacts has been shown to be effective.	The bidding and contract documents to include guidelines on the design of waste management facilities	

Environmental and Social Safeguards			
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Moderate	Moderate The project involves the construction/ rehabilitation/upgrade of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - between 5metres and 9 metres high wall, and/or with a reservoir below 100,000 m3.	The bidding and contract documents to follow prudent construction standards at design and during construction process

PART IV: ANNEXES

ANNEX 1. TERMS OF REFERENCE (TORS) OF PCMU STAFF AND COUNTY PROGRAMME IMPLEMENTATION TEAMS (CPITS)

I. **PCMU Staff ToRs**

A. Programme Coordinator

The Project Coordinator (PC) will head the PCMU and will provide the overall leadership in the Programme implementation. He/she will: coordinate the day-to-day planning and execution of the project activities and ensure timely achievement of intended results; oversee and ensure timely procurement of works, goods and services (including training), preparation of AWB&P, procurement plans, project supervision and reviews and day to day monitoring of the project implementation; ensure timely project data capture and reporting; provide sound administration of project staff and project finances; promote harmonious and close working relationship between the project, the National and the County Governments; coordinate and ensure timely execution of activities assigned to partners and service providers; and promote good governance and participatory planning. He/she will be Secretary to National Programme Steering Committee (NPSC) and the Programme Technical Advisory Committee (PTAC). The PC will be answerable to the Principal Secretary (PS), State Department for Agriculture. Detailed responsibilities include:

- i. Overall coordination of the project management in accordance with the policies, procedures, and guidelines set forth in the Financing Agreement, Project design documents and Project Implementation Manual (PIM);
- ii. Coordinate the establishment of the County Programme Steering Teams (CPSTs) and County Programme Technical Teams (CPTTs).
- Oversee work performance of the PCMU staff, undertake their performance iii. appraisals and performance evaluation and submit to PSC for decision making.
- Oversee work performance of the CPTTs and guide the evaluation of county iv. Programme staff performance by the CPSTs.
- Coordinate and work with relevant Government ministries and departments, County authorities, implementation partners, service providers, private sector, financing institutions including SACCOs, beneficiaries, Community Based Organizations (CBOs) and local communities to ensure smooth execution of the programme activities.
- vi. Lead the Counties and National Government local administration in developing a robust and objective criterion for selection of the sub-catchments and target programme beneficiaries.
- vii. Ensure the timely preparation, clearance, and approval of consolidated AWP&Bs and Procurement Plans (PPs), and their execution in accordance with the overall Programme objectives, PIM, and IFAD and GoK regulations and guidelines, including fiduciary requirements.
- viii. Facilitate procurement process of all works, goods and services adhering to IFAD and GoK rules, procedures, and regulations.
 - ix. Oversee and facilitate supervision of works contractors, goods suppliers, and service providers for timely and quality execution of their responsibilities.
 - Develop parameters to ensure social inclusion of women, youth and х. vulnerable groups are identified in accordance with the design document and Programme Implementation manual.

- xi. Sensitize implementation teams and partners on the project poverty targeting, youth and gender mainstreaming strategies and their rationale and implementation arrangements.
- xii. Create and promote conducive work environment that promotes knowledge sharing and learning from experiences among members of the Programme staff, County teams and those of the implementing partners and service providers, and participating Government institutions at the National and County levels.
- xiii. Develop synergy between the Programme with other IFAD financed projects as well as other relevant programmes to maximize INReMP's development impact.
- xiv. Develop guidelines to ensure information is disseminated timely and appropriately to the County Coordination Bodies and authorities, the NPSC, and IFAD regarding Project-related activities.
- xv. Control and monitor implementation of all project activities and on quarterly basis prepare and submit progress and performance reports to the GoK, IFAD and the National Project Steering Committee as per the design document.
- xvi. Manage with integrity and transparency the Programme funds, monitor expenditures, submit to IFAD, the GoK, PSC and responsible line agencies quarterly financial reports.
- xvii. Oversee timely preparation of the Programme accounts, and audit in line with the Programme Financing Agreement (PFA).
- xviii. Facilitate and support joint IFAD/GoK supervision and implementation support, follow-up, midterm, and completion missions, and ensure that their recommendations are implemented fully and in a timely manner.
- xix. Build and maintain strong collaborative relationships with all Programme stakeholders (including beneficiaries), local networks and contacts and partner organizations, engaging them on a regular basis to integrate their feedback into the implementation and progress of the Programme.
- xx. Coordinate the scaling up of the technological packages promoted by the Programme in coordination with IFAD, NPSC, the CPSTs, and implementing Programme partners.
- xxi. Ensure that the Programme activities at the county level are fully harmonized with the different Counties Integrated Development Plans (CIDPs).
- xxii. Secretary to the Project Steering Committee (NPSC) and NPTAC
- xxiii. Any other duty and responsibilities that may be assigned by the PSC and PS.

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- i. A master's degree in agriculture, Agricultural Economics, Environment, Development, Project Management, Social Sciences, or any other relevant discipline.
- ii. Relevant professional work experience of at least fifteen (15) five (5) of which should be in a similar position as Programme Manager of Development Partner funded Donor funded project.

Other Requirements:

iii. Post Graduate qualification in project management will be an added advantage.

- iv. Excellent analytical skills, sound judgment, resourcefulness, ability to take initiatives, capacity to self-manage and ability to create a team-based, participatory work environment.
- v. Sound understanding of the Kenya's multi-level government systems (National and County Governments), their governance and administration modalities, their differences, and linkages.
- vi. Skills in process facilitation, strategic planning, and partnership building.
- vii. Excellent understanding of the social, economic, political, and historical trends underpinning poverty alleviation strategies and policy reform processes in Kenya.
- viii. Adequate understanding of Kenya's diverse agro-ecological zones including the gazetted forests, Water Towers, wetlands, river basins, different agricultural systems, and development needs.
 - ix. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
 - x. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
 - xi. Good interpersonal and Communication skills.
- xii. Knowledge of computer packages.

B. Monitoring, Evaluation and Knowledge Management Specialist

Reporting to the Programme Coordinator, the Monitoring, Evaluation and Knowledge Management Specialist will have the overall responsibility for the coordination of the timely establishment, operation, and maintenance of the project M&E and learning system; for the monitoring and evaluation of progress; generation of knowledge and evidence; and for the communication of programme activities, achievements and lessons learned. He/she will be responsible for the following:

- a) Coordinate the baseline, midterm, end-term surveys, and project completion reports.
- b) Set up the M&E system for the Programme:
 - i. Revise the project logframe matrix and include gender sensitive indicators.
 - ii. Assist in developing the results oriented-AWPB.
 - iii. Develop the overall framework for the project M&E.
 - iv. Guide the process of reporting against the project key indicators.
 - v. Prepare M&E matrix.
- c) Set up an MIS system that entails:
 - i.Development of formats (for data collection, analysis, and interpretation) to track project inputs and its results.
 - ii. Coordinate with other programme staff, (especially planning and M&E staff), to ensure MIS system is appropriately designed and implemented such that they enable data-rich knowledge management, captures and analyses disaggregated data on gender and social inclusion parameters.
 - iii. Define requirements for use of software for a web-based online MIS and off-line tablet-based devices.
- d) Provide technical assistance to recruit, guide and supervise organisations or individuals contracted to implement surveys and studies required for evaluating project effects and impacts.
- e) Develop a capacity-building plan on M&E for the project staff and implementing partners, including:
 - i. Development of training modules for different stakeholders and partners.
 - ii. Development of operation manuals/guidelines on M&E processes.
 - iii. Use of software for MIS and GIS required for the functioning of the MIS system.
 - iv. Train M&E staff of partner institutions at national and local levels (Training of Trainers); and
- f) Design, at the start-up, Programme communication strategy, geared towards the target group and stakeholders, programme implementers, and to a wider public, both within Kenya and outside.
- g) Develop a functional approach for prioritising and implementing Knowledge Management activities and for developing and disseminating knowledge tools and products.
- h) Assist the Programme Coordinator in consolidating gender sensitive project progress reports.
- i) Advise the Senior Management by identifying areas of concerns that might justify a review of the programme M&E and KM systems and/or implementation arrangements, including adverse effects on target groups as a result of project implementation, and suggest remedial measures if necessary.
- j) Undertake regular field visits to follow-up recommendations made from previous supervision missions and support the project implementation in other ways as requested by the Project Coordinator.
- k) Take lead in the preparation of periodic M&E reports and the project completion report.
- 1) Take lead in the preparation of the Project Annual Work Plan and Budget
- m) Carry out any other relevant duties as may be assigned by the Project Coordinator.

Minimum Requirements

- a) Holder of a Postgraduate Degree in any of the following fields: Monitoring and Evaluation, Demography, Population Studies, Statistics, Economics, rural development or any other related subjects from a reputable University.
- b) The Specialist must have demonstrated experience in designing and implementing M&E systems in a multi- faceted rural development Project.
- c) Demonstrated experience in data processing and management of large-scale surveys.
- d) Demonstrated experience of at least 3 years of application of Computer statistical packages and/ or data analysis software (e.g. SAS, SPSS, and Advanced Excel) and basic computer skills (word-processing, power point, and databases) are a must.
- e) At least (Eight) 8 years direct experience in a position of monitoring and evaluation of rural development and national Projects
- f) Possession of additional training in impact evaluation, familiarity with the operations and use of IT in monitoring and evaluation are added advantages.
- g) Strong experience in conducting research studies including the entire evaluation cycle, from design and formulation to implementation, analysis and presentation of results and recommendations.
- h) Good oral and written communication skills. Should be fluent in English.
- i) Proven high level of integrity in handling public resources and in executing duties.
- j) A high level of interpersonal and management skills and ability to work with teams.
- k) Must be result focused and be able to work under pressure and tight deadlines.
- I) High level of integrity

Other Requirements

- a) Strong knowledge in the development of performance-based indicators.
- b) Demonstrated experience in the techniques of data collection, data entry, data analysis and design of management information systems to facilitate the planning and decision- making processes within the institution/s.
- c) Working knowledge of written and spoken English and Kiswahili
- d) Excellent analytical and report writing skills.
- e) Excellent spoken and written English.
- f) Strong knowledge of computer applications, particularly MS Excel, Word, Access and PowerPoint, STATA and other software packages for data analysis and technical reports.
- g) Data management and analysis and reporting in Rural Finance Projects
- h) Capacity building and training in M&E development and implementation,
- i) Use of Geographic Information Systems technologies, and
- j) Knowledge management strategy development.

Performance indicators

- a) Monitoring & Evaluation system/Strategy for INReMP developed and implemented.
- b) Project Implementation Teams trained in monitoring & evaluation.
- c) Data collection, reporting and learning among all components coordinated.
- d) Quarterly, bi-annual, annual and thematic Reports prepared.
- e) Monitoring the progress of ongoing project activities.
- f) Design the implementation of studies, MTR and end of project evaluation.

C. Financial Controller

The Financial Controller is responsible for financial management of the project and for maintaining all project accounts in good order. As head of the finance unit for the project, the financial controller will take charge of all matters in the project accounting cycle. The project accounting cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Financial controller will be responsible for expediting all loan management and disbursement activities. He/she will be answerable to the Programme Coordinator for the following duties and responsibilities:

- i. Installation of appropriate accounting software systems to manage the accounting and financial reporting of project and ensure that the PMCU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- ii. Ensure timely capture of project in the GoK budget as required by the GoK budgeting processes and calendars including access to counterpart funding.
- iii. Communicate to all implementing partner institutions, service providers and counties their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing Government practices which are acceptable to IFAD.
- iv. Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- v. Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- vi. Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- vii. Contribute to the preparation of the Project Implementation and Financial Manuals.
- viii. Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the National and Local levels.
 - ix. Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Kenya.
 - x. Coordinate auditing of the project accounts by external auditors and ensure submission dates by both GoK and IFAD are met.
 - xi. Manage the project's liquidity by ensuring timely disbursements and in particular support the Designated County Accountants from the Project counties and the lead Project agency in ensuring that SOEs are prepared in timely manner and forwarded to IFAD.
- xii. Process documentation and follow up on disbursements from the Government and IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time:
- xiii. Any other duty as may be assigned by the Project Coordinator

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- i. Bachelor's Degree in Commerce or Business Administration (Accounting option), or any other relevant degree from a recognized University.
- ii. Master's degree in Commerce or Business Administration (Accounting option), or any other relevant degree from a recognized University.
- iii. CPA Kenya qualification and must be a member of relevant professional body in accounting.
- iv. Minimum of 10 years' experience working in accounting and financial management and 5 years of which must have been in Donor/Government funded project at the level of full Accountant and above.

Other Requirements:

- v. Demonstratable experience with financial management/accounting in a government ministry/department and donor-funded Project.
- vi. Strong computer skills; electronic spreadsheets and other accounting packages.
- vii. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
- viii. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
- ix. Good interpersonal and Communication skills, excellent planning, organizing and recordkeeping skills.
- x. Ability to work as a team player, self-motivated and creative thinker, good analytical skills and report writing and excellent coordination and negotiation skills.

D. Procurement Specialist

The Procurement Specialist will be responsible for the specific procurement activities needed for Programme. He/she will provide leadership and guidance to all PMCU and County level project staff on procurement issues for goods, services and works contracts. He/she will be answerable to the Project Coordinator for the following duties and responsibilities:

- i. Review and provide more detail, where required, on the procurement section of the draft PIM.
- ii. In collaboration with other members of the PCU, Counties and implementing partners, and based on the AWPB update the first 18-month procurement plan and lead the preparation of subsequent procurement plans for works, goods and services required by the project in accordance with IFAD PP Template and submit same for approval by the GOK and IFAD.
- iii. 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.
- iv. 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.
- v. Prepare bidding documents and coordinate the preparation of relevant inputs such as TORs, technical specifications, and bills of quantities by technical staff or consultants.
- vi. Coordinate relevant tender committee meetings and prepare the committee reports.
- vii. Review and provide professional opinion on tender evaluation reports and make necessary follow-up in accordance with IFAD and GoK procurement procedures, and as per other related project documents.
- viii. Ensure timely and prompt implementation of procurement activities considering the approvals required including No Objection request to IFAD.
 - ix. Any other duty as may be assigned by the Project Coordinator

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- i. Bachelor's degree in Procurement or Supply chain management or Engineering or Business Administration or Law or any other relevant field.
- ii. Master's degree in Procurement or Supply chain management or any other relevant field.
- iii. Must be a member of professional body in procurement and supplies and must have practice license from Kenya Institute of Supplies and Management (KISM)
- iv. Minimum Ten (10) years relevant working experience, of which Seven (5) years' experience is in procurement management in Donor /Government funded projects in similar position;

Other Requirements:

- v. Comprehensive knowledge of IFAD Procurement Guidelines and the Public Procurement Regulations.
- vi. Familiarity with the World Bank Procurement Guidelines and Templates as well as experience in working within the public sector procurement processes will be an added advantage.
- vii. Experience in training, capacity building and setting up procurement systems in a new organisation will be an added advantage.
- viii. Computer literacy and competence, Microsoft Word, Excel, Access, Power Point.

- ix. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
- x. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
- xi. Good interpersonal and Communication skills, excellent planning, organizing and recordkeeping skills.
- xii. Ability to work as a team player, self-motivated and creative thinker, good analytical skills, and report writing and excellent coordination and negotiation skills.

E. Community Empowerment, Gender & Youth Specialist

Reporting to the Programme Coordinator, and working very closely with the other technical Specialists, the Community Empowerment Coordinator (CEC) will be responsible for coordinating the implementation of sub-component 1.1. Community Empowerment, Youth and Gender Transformative Approaches. Detailed responsibilities are as follows:

- Facilitate the planning, management, and implementation of the community-based mobilization activities of the Programme.
- In collaboration with other relevant technical officers at the National and County levels, coordinate the awareness creation to stakeholders and beneficiaries on Programme objectives and implementation arrangements.
- In collaboration with the counties teams and National Administration Officer at the counties, identify community-based institutions such as the Focal Development Areas (FDAs) along the river basins, and assist in the formation of the Focal Development Area Committees (FDACs).
- Organize training for the county implementing teams on PRA/PLA and other participatory community mobilization techniques and backstop the training of the community-based institutions by the county teams.
- Facilitate the Community Action Plan (CAP) development process by the county and sub-county teams and the conversion of the plans into interventions and work plans.
- Coordinate training in group management, organization, and governance in collaboration with the county Gender and Social Development Officers.
- Develop a strategy for awareness creation and capacity building on gender equality, participation of women, youth and vulnerable groups in project-supported activities, HIV/AIDS prevention and mitigation, environmental management, and other cross-cutting issues.
- In collaboration with other technical Officer, coordinate implementation of nutrition related interventions.
- Coordinate the preparation of the work plans and budgets, and progress reports for the component.
- Undertake any other duty assigned by the PC.

- Master's Degree in in Sociology, Social Work, Community Development, or Public Administration from a recognized university.
- Have at least 10 years' experience in Community Development, five (5) of which must be in a senior management position in a donor funded project.
- Have experience in participatory methodologies such as Participatory Rural Appraisal (PRA),
- Participatory Planning, Participatory Learning and Action etc.
- Have experience in project planning, implementation, management, monitoring and evaluation.
- Excellent proposal and report writing skills.
- Excellent communication and facilitation skills.
- (j) Have strong leadership skills.

F. Infrastructure Specialist

Reporting to the Programme Coordinator, the Infrastructure Specialist will be responsible for coordinating the implementation of all infrastructure related activities under subcomponents 1.2 and 2.2. Specific responsibilities include:

- Coordinate with the Water Resource Management Authority (WRMA) and Water Services Trust Fund (WSTF) the preparation and implementation of sub-catchment management plans (SCMPs) by the WRUAs.
- Monitor the implementation of SCMPs and facilitate joint action by the relevant implementing parties when such plans cut across sub-counties and counties.
- Coordinate with relevant parties such as KFS and KWS the preparation and implementation of remedial actions for environmental hotspots that impact on point sources of water.
- Coordinate the assessment of water resources in the sub-basins, and the development of the water resources management plan for each sub-basin.
- Coordinate the implementation of water and irrigation related interventions.
- In collaboration with the Agronomist, Livestock Specialist and Agribusiness Development Specialist, coordinate the implementation of market and road infrastructure and related interventions.
- Ensure compliance with high professional and technical standards by implementers in the design and implementation of water and market infrastructure development activities.
- Coordinate the preparation of the work plans and budgets, and progress reports for the relevant sub-component/ activities.
- Facilitate sensitization and training of communities with respect to their roles and responsibilities as regards operations and management of the developed infrastructures under the present and planned legislative framework
- Support implementing County Departmental Heads and other technical personnel, to determine practical interventions for protection and optimal use of the developed infrastructure.
- Undertake any other duties assigned by the PC.

- Have a Master's degree in Natural Sciences, Water Engineering, Agricultural Engineering, Civil Engineering, or a related field from a recognized university
- Have 10 years continuous experience, five (5) of which must be in senior position related to rural infrastructure especially water resource planning, development and management.
- Have experience in planning, design and implementation of infrastructure schemes especially related to water, energy, and markets.

G. Natural Resources Management and Social Safeguard Specialist

Reporting to the Project Coordinator, the NRM Specialist will be responsible for coordinating the implementation of the NRM related activities under sub-component 1.2 Improve Environmental Sustainability, INRM, and Ecosystem Services. The following are specific responsibilities:

- In collaboration with other project implementers, undertake or update inventories of natural and environmental resources in the Programme area.
- In collaboration with other implementing partners, raise awareness and level of education on environment issues among the communities, including through the school Programme.
- Coordinate the conduct of environmental impact assessments of project activities and ensure the integration of environmental aspects in all project activities.
- Coordinate the project-assisted environmental, off-farm soil and water conservation interventions undertaken by communities with support from Programme partners such as KFS, KWS and other national agencies, NGOs and donor partners, including:
 - establishment of tree nurseries for rehabilitation of gazetted forests, community
 - hilltops and roadside planting including hotspots,
 - o rehabilitation of other degraded areas, and
 - promotion of energy saving technologies.
- Initiate participatory forest management of gazetted forest and community hilltops, and preparation of management plans for natural forests and hilltops.
- In collaboration with the M&E Specialist, develop a system of monitoring and evaluation of project supported and environmental related activities.
- Coordinate the preparation of the work plans and budgets, and progress reports for the NRM sub-component.
- Continuously review and update the developed project SECAP risk management instruments in line with current SECAP developments.
- Support the INReMP in the co-ordination, management and implementation of the project SECAP risk management instruments in compliance with the SECAP Policies and the Government of Kenya' Environmental standards.
- Support the INReMP in the development and rolling out of a SECAP risk management monitoring and reporting system against the Environmental and Social Management Framework (ESCMF) provisions.
- Support the line ministries to achieve the maximum SECAP risk management efficiency in their assigned tasks.
- Support the project to ensure that safety and health concerns of the workers and the general public are addressed during design, setting up/construction and implementation phases of the project.
- Provide assistance to INReMP and applicant communities in screening of proposed sub-projects and assigning environmental categories.
- Visit proposed sub-project sites to assess baseline conditions and potential sitespecific impacts.
- Advise on anticipated environmental impacts and possible mitigation measures, and on the relevant type of environmental review to be undertaken and documentation to be prepared (e.g., sub-project specific Environmental Assessment and/or Environmental Management Plan).
- review sub-project specific environmental documentation and give recommendations as needed, to applicant communities and designers, for finalizing the documents.
- Participate in evaluation of sub-project proposals and advise on environmental eligibility and acceptability of proposals, based on guidance provided in the ESCMF and on personal experience.
- Working with INReMP Procurement staff, ensure that environmental compliance is incorporated as appropriate in contracts for goods and services (mainly civil works

- contracts) and ensure that contractors are fully aware of their responsibilities in this regard.
- During implementation of the approved sub-projects, undertake regular environmental monitoring and supervision in order to verify whether and how provisions of the project ESCMF and sub-project specific ESMPs are followed by all relevant stakeholders (designers, contractors, beneficiaries).
- Report regularly to the INReMP Coordinator in writing on the results of monitoring visits, promptly identify any environmental issues or cases of non-compliance, and make recommendations for dealing with those issues. In conjunction with the INReMP Coordinator, discuss compliance status and measures to re-establish compliance with contractors and/or beneficiaries as appropriate, including agreeing on specific steps and timing for any remediation/corrective actions.
- Closely collaborate with technical staff and engineers to ensure that environmental measures are incorporated at all stages of sub-project preparation and implementation, including site selection, sub-project design, preparation and evaluation of bidding documents and bids, preparation and supervision of contracts.
- Provide contribution to the INReMP's regular progress reports on the project implementation.
- Undertake any other duties assigned by the PC.

- Have a Master's degree in Environment, Natural Resources Management, Forestry or a related field.
- Have a minimum of 10 years technical and managerial experience in natural resources management and rural community development, five (5) of which must be in a senior management position in a donor funded project.
- Have experience in community forestry and environmental conservation strategies, and practices of natural forest management.
- Be able to work closely with other stakeholders including communities, KFS, NEMA, KWS and other government agencies.
- Have proposal and report writing skills.
- Have strong leadership and communication skills.
- At least seven years of experience related to social and environmental standards and impact assessment in an international development context.
- Technical background and experience in developing safeguards for agriculture, livestock production, land use and management projects.
- Knowledge of Human rights (including human rights-based approaches and human rights impact assessment); gender equality and women's empowerment (including gender mainstreaming and gender analysis).
- Demonstrated knowledge of cultural heritage (including chance find procedures, physical and intangible cultural resources).

H. Agribusiness Development Specialist

Reporting to the Programme Coordinator (PC), and working closely with the Community Development Specialist, Agronomist, NRM Specialist and Livestock Specialist, the Agribusiness Development Coordinator (ABDC) will be responsible for promotion and coordination of Agribusiness activities in the Programme. Specific responsibilities include:

- Capacity building project beneficiaries on agribusiness issues and other businessrelated aspects.
- Guiding service providers in provision of value chain support activities to target beneficiaries including the promotion of entrepreneurial skills in farmer organizations and other stakeholders.
- Facilitating in identification of capacity needs of the target beneficiaries and relevant value chain actors and designing training modules to address the gaps.
- Coordinating the development of marketing strategies for commodities promoted by the Programme and monitoring the implementation of these strategies.
- Facilitating linkages and contracts between farmers/ groups and business development service providers (stakeholders) including distributors, local promoters etc.,
- Ensuring adequate synergies and linkages between providers of post-harvest management services, market support services and financial services of the Programme, in collaboration with the Programme Specialists.
- Championing the formation of apex organizations including cooperatives, user groups etc. among the project beneficiaries for the various enterprises promoted by the Programme.
- Facilitating the linkage of income generating activity (IGA) groups with financial service providers, in liaison with the other Programme Specialists.
- In liaison with Knowledge Management and Learning Officer, identifying and supporting innovative business models to ensure systematic documentation of the same for learning, adaptation and sharing through the project knowledge management system.
- In liaison with other Specialists, review business plans of the common interest groups, Community Forest Association/Water Resource User Associations and other project groups and advising them on how to develop bankable business proposals for their enterprises.
- In liaison with M&E Officer, develop appropriate monitoring and evaluation tools and initiate appropriate impact surveys/studies.
- Support and train beneficiaries in effective enterprise organization and management with emphasis on farming as a business and good governance.
- Guiding the preparation and implementation of the various value chain related activities /studies.
- Participating in preparation of the Annual Work Plan &Budgets and periodic progress reports; and
- Undertake any other relevant duties assigned by the Project Coordinator.

- A Master's degree in Agriculture, Agribusiness, Agricultural Economics, Finance, Business Administration or any other related /equivalent qualification from a recognized institution.
- Ten (10) years of working experience in a similar field, five (5) of which must have been at a senior Management position in donor funded projects,
- Demonstrated experience in facilitating agribusiness development, value chain analysis and building capacities of value chain actors.
- Demonstrated experience in working with communities in similar engagement.
- Team player and can work with minimum supervision.

- Knowledge of technologies and issues in value chain development, inclusive finance, business development and rural livelihoods.
- Strong computer skills; and
- Strong leadership and communication skills (oral and written).

Agronomist

Reporting to the Programme Coordinator, and working very closely with the other Technical Specialists, the Agronomist will be responsible for coordinating the implementation of crops value chain related interventions in the Programme. Specifically, the Agronomist will be responsible for:

- Coordinating the implementation of crops value chain (fruits trees and horticulture) related interventions in the Programme.
- In collaboration with the counties, sub-counties and service providers, coordinate all on-farm, soil and water management activities supported by the Programme.
- Work closely with the implementing partners such as KARLO in the implementation of productivity and production enhancement interventions for the fruit trees and horticulture value chains.
- Regularly review and refine the guidelines and procedures for the implementation of the matching grants for sustainable soil and water conservation and income generating activities, drawing on emerging experience;
- Develop and maintain the partnerships with public, private sector and civil society organizations required for effective implementation of production and productivity enhancement activities for the crops value chains for sustainability.
- Coordinate all agricultural extension activities related to production, sustainable soil and water conservation, irrigation development, and processing.
- Coordinate all activities related to input subsidies for the supported crops value chain.
- In collaboration with the Agribusiness Development Specialist, coordinate the development of marketing strategies for crops commodities produced under the Programme and monitor the implementation of these strategies.
- In collaboration with the Agribusiness Development Specialist, promote a market orientation among project beneficiaries under the crops value chains.
- Coordinate the preparation of the work plans and budgets, and progress reports for the relevant activities
- Undertake any other duties assigned by the PC.

- Have a first Masters in Agriculture, Agri-business, or a related discipline
- from a recognized university.
- Have at least 10 years working experience in a similar field, five (5) of which should be in senior management position in a donor funded project.
- Be familiar with technologies and issues in agricultural development, rural livelihoods, soil and water conservation, irrigation and extension services.
- Have strong leadership and communication skills;
- Be able to communicate in Kiswahili and English.

I. Livestock Specialist

Under the supervision of Programme Coordinator, the Livestock Specialist will be in charge of the technical coordination and oversight of Programme's activities with related to the livestock value chains (Dairy, Poultry and Apiculture). The specific tasks of Livestock are:

- Provide expertise and support the implementation of the Programme activities in livestock production and productivity enhancement (dairy, poultry, and honey).
- Contribute to the production of technical training manuals and related capacity building materials, coaching and mentoring on livestock production.
- Coordinate with relevant project partners, service providers, NGOs and other stakeholders on the plan and implementation of livestock support activities.
- Evaluate the technical soundness of activities on livestock designed to improve production and productivity.
- Establish strategic partnership with pertinent public institutions, implementing partners, private sector, national and regional civil society organizations for enhancing effectiveness, and efficiency in delivery of livestock related extension and support services such as veterinary service delivery and disease control.
- Ensure that the livestock production activities are aligned with the activities in different Counties Integrated Development Plans (CIDPs).
- Coordinate all activities related to input subsidies for the supported livestock value chain.
- In collaboration with the Agribusiness Development Specialist, coordinate the development of marketing strategies for livestock commodities produced under the Programme and monitor the implementation of these strategies.
- In collaboration with the Agribusiness Development Specialist, promote a market orientation among project beneficiaries under the livestock value chains.
- Coordinate the preparation of the work plans and budgets, and progress reports for the relevant activities.
- Undertake any other duties assigned by the PC.

- Master's Degree in Animal Sciences, Animal Production and Veterinary sciences or related field with complementary knowledge in rural development.
- At least ten (10) years practical experiences in animal resource management and good livestock sector in Kenya, five (5) of which should be in donor funded project at a technical Specialist level.
- Excellent communication skills and proven writing ability.

II. CPIT Staff ToRs

To be developed.

III. Other Terms of Reference (ToRs)

a) Terms of Reference (TOR) for Mapping of Key Natural Resources:

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Conducting comprehensive mapping of key natural resources, including forests, water bodies, land, and wetlands, using GIS and remote sensing technologies.
- 2. Developing detailed maps and datasets to support planning interventions for water management, erosion control, and sustainable land management.
- 3. Integrating data from various sources and stakeholders to ensure accuracy and completeness of the mapped resources.
- 4. Collaborating with stakeholders to identify priority areas for intervention based on mapped data and stakeholder input.
- 5. Providing technical expertise and support to stakeholders for the interpretation and utilization of mapped data for decision-making and planning.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Comprehensive maps and datasets of key natural resources, including forests, water bodies, land, and wetlands, in designated areas.
- 2. Documentation of mapping methodologies, data sources, and accuracy assessments.
- 3. Training materials and capacity-building initiatives for stakeholders involved in natural resource management and planning.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimizing mapping activities.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in geographic information systems (GIS), remote sensing, and spatial analysis, preferably in the context of natural resource management.
- 2. Expertise in mapping key natural resources and conducting spatial analysis to support decision-making and planning.
- 3. Knowledge of relevant software tools and technologies for GIS and remote sensing data processing and analysis.
- 4. Strong communication and collaboration skills, with the ability to work effectively with diverse stakeholders and institutions involved in NRM.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

1. Technical expertise and experience relevant to mapping key natural resources, particularly in using GIS and remote sensing technologies.

- 2. Quality and accuracy of proposed mapping methodologies and data collection techniques.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on supporting sustainable NRM interventions.
- 4. Cost-effectiveness and value for money in the implementation of mapping activities.

b) Terms of Reference (TOR) for Improving key INRM support infrastructure: Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Assessing key INRM support infrastructure, including meteorological stations, river gauging systems, soil and water quality assessment laboratories, and NRM stations.
- 2. Identifying areas for improvements, upgrades, or new installations based on the assessment findings and project requirements.
- 3. Making necessary improvements and upgrades to existing infrastructure, including repairs, calibration, and installation of new sensors or equipment.
- 4. Installing new infrastructure, such as additional meteorological stations or river gauging systems, to fill gaps in data collection and monitoring.
- 5. Establishing linkages with MNOs to enhance the dissemination of data, forecasts, and information generated through the improved infrastructure.
- 6. Developing API access, metadata, and integration capabilities for sharing data with relevant stakeholders/partners.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Assessment report detailing the state of existing infrastructure, areas for improvements, and recommendations for upgrades or new installations.
- 2. Documentation of improvements, upgrades, and new installations made to key INRM support infrastructure.
- 3. Establishment of linkages with MNOs for knowledge dissemination and resilience/sustainability enhancement.
- 4. Development of API access, metadata, and integration capabilities for sharing data with stakeholders/partners.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in assessing, improving, and installing infrastructure related to natural resource management and environmental monitoring.
- 2. Expertise in project management, particularly in coordinating infrastructure improvements and installations in remote or challenging environments.
- 3. Knowledge of meteorology, hydrology, soil science, and environmental monitoring principles.

4. Experience in collaborating with MNOs and implementing data dissemination strategies through mobile platforms.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to improving key INRM support infrastructure.
- 2. Quality and feasibility of proposed methodologies and strategies for infrastructure assessment, improvement, and installation.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing data collection, monitoring, and decision-making processes for natural resource management.
- 4. Cost-effectiveness and value for money in the assessment and improvement of key INRM support infrastructure.

c) Terms of Reference for rehabilitation of smallholder irrigation schemes

Scope of Work:

The selected contractor/service provider will undertake the following tasks:

- 1. Rehabilitation of smallholder irrigation schemes
- 2. Collaboration with relevant stakeholders, including government bodies and local communities, to identify suitable locations and ensure community participation in the project.
- 3. Development of detailed plans for the construction and management of smallholder irrigation schemes, adhering to industry standards and environmental regulations.
- 4. Provision of technical assistance and capacity building activities to empower farmers in the sustainable management of the smallholder irrigation schemes
- 6. Implementation of monitoring and evaluation mechanisms to assess the performance and impact of the rehabilitated smallholder irrigation schemes.

Deliverables:

The contractor/service provider is expected to deliver the following outputs:

- 1. Rehabilitated smallholder irrigation schemes
- 2. Regular progress reports documenting achievements, challenges, and recommended actions.
- 3. Detailed plans outlining the design, construction, and management of smallholder irrigation schemes

Qualifications and Expertise:

The contractor/service provider should possess the following qualifications and expertise:

- 1. Demonstrated experience in civil engineering and infrastructure development, particularly in agricultural water management projects.
- 2. Proven track record in managing similar projects, with an emphasis on community engagement and sustainability.
- 3. Expertise in aquaculture water management practices and environmental sustainability principles.
- 4. Knowledge of relevant regulations and standards governing irrigation infrastructure projects.

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Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience in agricultural water management and infrastructure development.
- 2. Feasibility and effectiveness of proposed methodologies for constructing and managing smallholder irrigation schemes
- 3. Understanding of project objectives and commitment to promoting sustainability and community involvement.
- 4. Cost-effectiveness and value for money in implementing the project.

d) Terms of Reference for multi-purpose water supply community systems

Scope of Work:

The selected contractor/service provider will undertake the following tasks:

- 1. Design and construction of multi-purpose water supply community systems
- 2. Collaboration with relevant stakeholders, including government bodies and local communities, to identify suitable locations and ensure community participation in the project.
- 3. Development of detailed plans for the construction and management of multi-purpose water supply community systems, adhering to industry standards and environmental
- 4. Integration of water quality management measures into the design and operation of multi-purpose water supply community systems, particularly for the domestic use element.
- 5. Provision of technical assistance and capacity building activities to empower community groups in the sustainable management of the multi-purpose water supply community systems.
- 6. Implementation of monitoring and evaluation mechanisms to assess the performance and impact of the constructed multi-purpose water supply community systems.

Deliverables:

The contractor/service provider is expected to deliver the following outputs:

- 1. Construction and establishment of multi-purpose water supply community systems
- 2. Regular progress reports documenting achievements, challenges, and recommended actions.
- 3. Detailed plans outlining the design, construction, and management of multi-purpose water supply community systems

Qualifications and Expertise:

The contractor/service provider should possess the following qualifications and expertise:

- 1. Demonstrated experience in civil engineering and infrastructure development, particularly in water management projects.
- 2. Proven track record in managing similar projects, with an emphasis on community engagement and sustainability.
- 3. Expertise in aquaculture water management practices and environmental sustainability principles.
- 4. Knowledge of relevant regulations and standards governing water supply infrastructure projects.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience in water management and infrastructure development.
- 2. Feasibility and effectiveness of proposed methodologies for constructing and managing multi-purpose water supply community systems

- 3. Understanding of project objectives and commitment to promoting sustainability and community involvement.
- 4. Cost-effectiveness and value for money in implementing the project.

Terms of Reference (TOR) for Climate proofed feeder road rehabilitation

Objectives:

The primary objective of this assignment is to oversee the rehabilitation of feeder roads to link agricultural production sites of selected value chains to markets. Rehabilitation will need integration of climate resilience measures to enhance road durability and use during all weather conditions.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- Implement the rehabilitation, upgrading, and maintenance of all-weather feeder roads, in collaboration with the county governments, and following the government standards
- Develop detailed plans for road rehabilitation, ensuring alignment with project objectives and budgetary constraints.
- Conduct regular site visits to monitor progress, identify challenges, and provide necessary guidance for successful implementation.
- Coordinate with relevant stakeholders, including farmers and market representatives, to ensure the effective connectivity of roads.
- Provide technical expertise on climate resilience measures and ensure their incorporation into road rehabilitation activities.
- Prepare comprehensive reports documenting project progress, challenges encountered, and recommendations for improvement.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Implementation and rehabilitation of all-weather access roads
- Detailed plans for the construction and upgrading of the roads
- Regular progress reports outlining achievements, challenges, and recommended actions.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Extensive experience in civil engineering, with a focus on road construction and infrastructure development.
- Proven track record in managing similar projects, preferably in the context of rural development and market access enhancement.
- Strong understanding of climate resilience measures and their integration into road infrastructure projects.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to the assignment.
- Quality and feasibility of proposed methodologies and work plans.
- Demonstrated understanding of project objectives and stakeholder needs.

- Cost-effectiveness and value for money.

Terms of Reference (TOR) for Produce Storage Facilities, Aggregation Centres, Warehousing:

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- Designing and constructing produce storage facilities, aggregation centers, and warehouses according to industry standards and regulatory requirements.
- Identifying suitable locations for the establishment of storage facilities and aggregation centers in consultation with relevant stakeholders.
- Developing detailed plans for the construction and equipping of storage facilities, aggregation centers, and warehouses, ensuring adherence to quality and safety standards.
- Implementing temperature-controlled storage solutions to maintain optimal storage conditions and preserve product quality.
- Installing modern handling and packaging equipment in warehouses to facilitate efficient distribution and marketing of agricultural produce.
- Providing technical expertise and support to ensure the effective operation and management of storage facilities, aggregation centers, and warehouses.
- Conducting capacity-building activities to enhance the skills and knowledge of stakeholders involved in produce management and distribution.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Establishment of produce storage facilities, aggregation centers, and warehouses at designated locations.
- Documentation of construction activities, including detailed plans, progress reports, and quality assurance measures.
- Installation of temperature-controlled storage infrastructure and modern handling equipment in warehouses.
- Training materials and capacity-building initiatives for stakeholders engaged in produce management and distribution.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Extensive experience in infrastructure development, with a focus on storage facilities and warehousing.
- Proven track record in managing similar projects, preferably in NRM and rural agricultural settings.
- Expertise in designing and implementing temperature-controlled storage solutions and modern handling equipment.
- Knowledge of regulatory requirements and industry standards related to produce storage and distribution.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

• Technical expertise and experience relevant to infrastructure development and agricultural produce management.

- Quality and feasibility of proposed methodologies and work plans for establishing storage facilities, aggregation centers, and warehouses.
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on optimizing storage and distribution of agricultural produce.
- Cost-effectiveness and value for money in the construction and equipping of storage facilities, aggregation centers, and warehouses.

Terms of Reference for Smart Kiosks and Smart Markets Integration Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Designing and implementing Smart Kiosks and Smart Markets integrated with renewable energy and sustainable infrastructure.
- 2. Establishing temperature-controlled storage facilities using solar energy to preserve quality and reduce post-harvest losses.
- 3. Collaborating with stakeholders to identify suitable locations for the construction of Smart Kiosks and Smart Markets.
- 4. Developing detailed plans for the construction and equipping of the Smart Markets, ensuring compliance with quality standards and sustainability principles.
- 5. Integrating water and renewable energy sources into the design and operation of Smart Kiosks and Smart Markets to enhance sustainability and minimize environmental impact.
- 6. Providing technical expertise and support to facilitate the efficient management of Smart Kiosks and Smart Markets.
- 7. Conducting regular monitoring visits to assess progress, address challenges, and ensure the successful implementation of the project.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation and construction of Smart Kiosks and Smart Markets infrastructure.
- 2. Regular progress reports documenting achievements, challenges, and recommended actions.
- 3. Detailed plans for the construction

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in smart infrastructure and engineering, with a focus on infrastructure development and renewable energy integration.
- 2. Proven track record in managing similar projects, preferably in rural development and market access enhancement.
- 3. Expertise in project management, stakeholder engagement, and infrastructure development within the NRM sector.
- 4. Knowledge of environmental sustainability principles and experience in integrating renewable energy sources into infrastructure design and operations.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to the assignment, particularly in infrastructure development and renewable energy integration.
- 2. Quality and feasibility of proposed methodologies and work plans for the establishment of Smart Kiosks and Smart Markets.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing post-harvest efficiency and profitability in the NRM sector.
- 4. Cost-effectiveness and value for money in the construction and equipping of Smart Kiosks and Smart Markets.

Terms of Reference (TOR) for Micro-Mobility Solutions

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Conducting a needs assessment to identify transportation challenges and requirements within agricultural areas.
- 2. Designing and implementing electric and non-electric micro-mobility solutions, including bicycles, tricycles, electric scooters, and other appropriate vehicles.
- 3. Collaborating with local communities, agricultural cooperatives, and relevant stakeholders to ensure the effective implementation and utilization of micro-mobility solutions.
- 4. Providing training and capacity-building initiatives for users and operators of micromobility vehicles to promote safe and efficient/maintenance transportation practices.
- 5. Conducting monitoring and evaluation activities to assess the impact of micro-mobility solutions on accessibility, transportation efficiency, and environmental sustainability.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation of electric and non-electric micro-mobility solutions within agricultural areas.
- 2. Establishment of infrastructure and support systems to facilitate the adoption and usage of micro-mobility solutions.
- 3. Documentation of training materials and capacity-building initiatives for users and operators of micro-mobility vehicles.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimizing micro-mobility solutions.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

1. Demonstrated experience in implementing transportation solutions, preferably in rural or agricultural settings.

- 2. Expertise in electric and non-electric micro-mobility technologies and infrastructure development.
- 3. Knowledge of sustainable transportation practices and experience in promoting environmentally friendly mobility solutions.
- 4. Strong communication and stakeholder engagement skills, with the ability to collaborate effectively with diverse groups and organizations.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to micro-mobility solutions, particularly in rural or NRM/agricultural contexts.
- 2. Quality and feasibility of proposed methodologies and strategies for implementing micro-mobility solutions.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing accessibility and transportation efficiency within NRM/agricultural areas.
- 4. Cost-effectiveness and value for money in the implementation of micro-mobility solutions.

Terms of Reference (TOR) for Commodity Platforms

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Establishing commodity platforms within target value chains, including agriculture, livestock, forestry and other identified value chain, based on identified priority areas and stakeholder needs.
- 2. Organizing regular meetings, workshops, and events to facilitate dialogue, networking, and collaboration among stakeholders within commodity platforms.
- 3. Providing technical assistance and capacity-building support to strengthen the organizational capacity and effectiveness of commodity platforms in addressing value chain challenges.
- 4. Developing advocacy strategies and engaging with policymakers, government agencies, and other relevant stakeholders to advocate for policy reforms and investments that support the sustainable development of target value chains.
- 5. Monitoring and evaluating the performance and impact of commodity platforms, including their contribution to resolving value chain challenges, promoting business linkages, and influencing policy decisions.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Establishment of commodity platforms within target value chains, including documented terms of reference, governance structures, and membership profiles.
- 2. Regular reports on the activities, achievements, and challenges of commodity platforms, including recommendations for improvement and sustainability.

- 3. Documentation of best practices, lessons learned, and successful interventions within target value chains, shared through knowledge-sharing platforms and communication channels.
- 4. Advocacy materials, policy briefs, and recommendations for policy reforms and investments to support the sustainable development of target value chains.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in facilitating multi-stakeholder platforms, partnerships, and networks within the agricultural sector or related fields.
- 2. Expertise in value chain analysis, market development, and policy advocacy, with a focus on sustainable agriculture and rural development.
- 3. Strong communication, facilitation, and networking skills, with the ability to engage effectively with diverse stakeholders, including government agencies, private sector actors, civil society organizations, and research institutions.
- 4. Knowledge of local contexts, institutions, and dynamics within target value chains, including experience working in rural or marginalized communities.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to establishing commodity platforms and facilitating multi-stakeholder collaboration within target value chains.
- 2. Quality and feasibility of proposed methodologies and work plans for establishing commodity platforms, including clear objectives, activities, and expected outputs.
- 3. Demonstrated understanding of value chain dynamics, stakeholder needs, and systemic challenges affecting the target sectors.
- 4. Cost-effectiveness and value for money in the implementation of activities related to establishing and operationalizing commodity platforms within target value chains.

Terms of Reference (TOR) for Implementation of Waste Management Solutions: Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- Design and implementation of waste management solutions at smart markets, processing facilities, and other relevant sites within the agric sector.
- Incorporation of green, blue, and grey bin waste collection techniques for organic and non-biodegradable waste.
- Establishment of mechanisms for the collection, segregation, and utilization of organic waste for fish feed manufacturing and biogas generation.
- Collaboration with relevant stakeholders, including government agencies, cooperatives, and local communities, to ensure the successful implementation of waste management solutions and sourcing wastes from the smart kiosks and other sources.

- Provision of technical expertise and support to facilitate the adoption and maintenance of waste management practices by stakeholders.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Implementation of waste management solutions at smart markets, processing facilities, and other identified sites within the agric sector.
- Documentation of waste management processes, including collection techniques, segregation methods, and utilization strategies.
- Training materials and capacity-building initiatives for stakeholders involved in waste management activities.
- Regular progress reports detailing achievements, challenges, and recommended actions for optimizing waste management practices.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Demonstrated experience in implementing waste management solutions, preferably in the context of the agric sector or similar industries.
 - Expertise in waste collection, segregation, and utilization techniques, with a focus on environmental sustainability and resource efficiency.
 - Knowledge of circular economy principles and experience in integrating waste management practices into value chains.
 - Strong communication and stakeholder engagement, with the ability to collaborate effectively with diverse groups and organizations.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to waste management solutions, particularly in the Agric sector.
- Quality and feasibility of proposed methodologies and strategies for waste collection, segregation, and utilization.
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting environmental sustainability and resource efficiency.
- Cost-effectiveness and value for money in the implementation of waste management solutions within the agric sector.

Terms of Reference (TOR) for Afforestation and Reforestation:

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Implementing afforestation, reforestation, and bio-energy projects to restore forest ecosystems and promote sustainable resource management.
- 2. Prioritizing the planting of indigenous/native tree species and neglected underutilized species to enhance biodiversity and ecosystem services.

- 3. Advocating for the replacement of invasive tree species with indigenous alternatives to mitigate deforestation and promote sustainable fuelwood sources.
- 4. Developing waste-to-energy solutions for converting organic waste into biogas or bioenergy as an alternative to deforestation and indigenous tree cutting.
- 5. Promoting the production and distribution of briquettes and energy-efficient cookstoves to reduce reliance on traditional cooking methods and minimize deforestation.
- 6. Collaborating with relevant stakeholders, including local communities, government agencies, and environmental organizations, to ensure the successful implementation of forest interventions.
- 7. Conducting regular monitoring and evaluation to assess the impact of forest interventions on biodiversity conservation, carbon sequestration, and community livelihoods.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation of afforestation, reforestation, and bio-energy projects in targeted forest areas.
- 2. Documentation of tree planting activities, including species selection, planting techniques, and monitoring protocols.
- 3. Development of waste-to-energy solutions for organic waste management and alternative energy production.
- 4. Distribution of briquettes and energy-efficient cookstoves to targeted communities to reduce reliance on fuelwood and minimize deforestation.
- 5. Regular progress reports documenting achievements, challenges, and recommended actions for optimizing forest interventions.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in forest management, afforestation, and reforestation projects.
- 2. Expertise in agroforestry, biodiversity conservation, and ecosystem services restoration.
- 3. Knowledge of waste-to-energy technologies and alternative energy solutions for sustainable forest management.
- 4. Strong communication and stakeholder engagement skills, with experience working with local communities and government agencies.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to forest management and sustainable resource management.
- 2. Quality and feasibility of proposed methodologies and work plans for forest interventions.

- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on biodiversity conservation and community livelihoods.
- 4. Cost-effectiveness and value for money in the implementation of forest interventions under the INReMP.

Terms of Reference (TOR) for Improved Cookstove Promotion Initiative: Scope of Work:

The contractor/supplier will undertake the following tasks:

- Designing and manufacturing 100,000 high-efficiency cookstoves meeting quality and sustainability standards.
- Establishing distribution networks and dissemination strategies to ensure equitable access to cookstoves across every county, with a focus on women-led households.
- Conducting awareness campaigns to educate communities about the benefits of highefficiency cookstoves and promote behavior change.
- Collaborating with local communities, government agencies, and NGOs to identify suitable placement locations for cookstoves.
- Providing training and capacity-building initiatives for women and youth engaged in cookstove manufacturing and trading.
- Monitoring and evaluating the impact of the initiative, including environmental, social, and economic outcomes.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Production and dissemination of 100,000 high-efficiency cookstoves across every county.
- Distribution networks and dissemination strategies established to ensure equitable access to cookstoves.
- Awareness campaigns conducted to educate communities about the benefits of highefficiency cookstoves.
- Placement locations identified and cookstoves installed in landscapes to combat deforestation and promote sustainable resource use.
- Training and capacity-building initiatives provided for women and youth engaged in cookstove manufacturing and trading.
- Monitoring and evaluation reports documenting the impact of the initiative on environmental, social, and economic outcomes.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Experience in designing and manufacturing high-efficiency cookstoves meeting quality and sustainability standards.
- Demonstrated ability to establish distribution networks and conduct awareness campaigns targeting diverse communities.

- Expertise in working with local communities, government agencies, and NGOs to implement sustainable development initiatives.
- Knowledge of environmental sustainability principles and experience in promoting behavior change for sustainable resource use.
- Strong monitoring and evaluation skills to assess the impact of the initiative on environmental, social, and economic outcomes.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to the assignment, particularly in cookstove design, manufacturing, and dissemination.
- Quality and feasibility of proposed strategies for distributing cookstoves and conducting awareness campaigns.
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting environmental sustainability, gender equality, and economic empowerment.
- Cost-effectiveness and value for money in the production and dissemination of high-efficiency cookstoves across every county.

Terms of Reference (TOR) for Erosion Control Measures, Conservation Agriculture Techniques & Climate-Smart Livestock Farming Practices

Objectives:

The primary objective of this assignment is to implement erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across 39,000 hectares of land within the framework of INReMP. Specific objectives include:

- 1. Introducing erosion control measures, including vegetative cover and physical structures, to prevent soil erosion and sedimentation in water bodies.
- 2. Implementing conservation agriculture techniques such as minimal tillage, cover cropping, and crop rotation to reduce soil disturbance, improve water retention, and enhance carbon sequestration in the soil.
- 3. Promoting climate-smart livestock farming practices, including rotational grazing and improved feeding practices, to optimize land use, reduce emissions, and enhance soil health.
- 4. Encouraging organic farming methods that avoid synthetic fertilizers and pesticides to enhance soil health, promote biodiversity, and contribute to carbon sequestration in the soil.

Scope of Work:

The contractor/supplier will undertake the following tasks:

1. Designing and implementing erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across designated areas within the INReMP framework.

- 2. Collaborating with relevant stakeholders, including farmers, agricultural extension workers, and local communities, to identify suitable locations and prioritize interventions.
- 3. Developing detailed plans for the implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices, ensuring alignment with project objectives and sustainability principles.
- 4. Providing technical expertise and support to farmers and livestock keepers for the adoption and implementation of sustainable land management practices.
- 5. Conducting training sessions and capacity-building initiatives to enhance awareness and knowledge of erosion control, conservation agriculture, and climate-smart livestock farming practices among stakeholders.
- 6. Monitoring and evaluating the effectiveness of implemented interventions, identifying challenges, and recommending adjustments as necessary to ensure successful outcomes.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across 39,000 hectares of land.
- 2. Documentation of implemented interventions, including maps, reports, and monitoring data.
- 3. Training materials and capacity-building resources for stakeholders involved in sustainable land management practices.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimization.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in implementing sustainable land management practices, preferably in agricultural and livestock farming contexts.
- 2. Expertise in erosion control, conservation agriculture, and climate-smart livestock farming techniques, with a focus on environmental sustainability and productivity enhancement.
- 3. Strong communication and facilitation skills, with the ability to engage effectively with diverse stakeholders and communities.
- 4. Knowledge of local agroecological conditions and socio-economic dynamics, with experience working in similar contexts.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices.
- 2. Quality and feasibility of proposed methodologies and work plans for implementation within the INReMP framework.

- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on sustainable land management and livelihood improvement.
- 4. Cost-effectiveness and value for money in the implementation of interventions across 39,000 hectares of land.

Terms of Reference (TOR) for Wetlands:

Background:

Wetlands play a crucial role in maintaining ecological balance, biodiversity, and water resource management. However, many wetlands face degradation due to various anthropogenic activities. Implementing wetland rehabilitation and conservation measures aligned with national strategies is essential for sustainable ecosystem management. This TOR aims to outline the requirements for the successful rehabilitation and development of wetlands, including riparian areas, to promote conservation and productive use of water resources.

Objectives:

The primary objective of this assignment is to support the rehabilitation and development of identified wetlands/riparian areas to enhance water resource management and promote agricultural productivity. Specific objectives include:

- 1. Rehabilitating a minimum of 10 meters buffer zone around fenced wetlands/riparian areas to prevent encroachment and promote conservation.
- 2. Establishing water collection or access points at designated locations to facilitate agricultural use and productive utilization of water resources.
- 3. Implementing measures aligned with the national Wetlands Restoration Strategy, including planting bamboo and appropriate trees to protect riparian areas and enhance biodiversity.
- 4. Rehabilitating 14,900 hectares of wetlands within the program area to restore ecosystem functions and services.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Conducting site assessments to identify degraded wetlands/riparian areas requiring rehabilitation and conservation measures.
- 2. Developing rehabilitation plans for identified wetlands/riparian areas, incorporating measures such as buffer zone establishment and water access point construction.
- 3. Collaborating with relevant stakeholders, including local communities, government agencies, and environmental organizations, to implement wetland rehabilitation activities.
- 4. Procuring necessary materials and resources for the implementation of wetland rehabilitation projects, including bamboo and tree seedlings.
- 5. Monitoring and evaluating the progress of wetland rehabilitation activities, assessing ecological impacts, and adjusting strategies as necessary.
- 6. Providing technical expertise and support to local communities and stakeholders involved in wetland rehabilitation and conservation efforts.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Rehabilitation plans for identified wetlands/riparian areas, including maps, design drawings, and implementation schedules.
- 2. Establishment of buffer zones around fenced wetlands/riparian areas to prevent encroachment and promote conservation.
- 3. Construction of water collection or access points at designated locations to facilitate agricultural use and productive utilization of water resources.
- 4. Documentation of wetland rehabilitation activities, including progress reports, monitoring data, and success stories.
- 5. Capacity-building initiatives for local communities and stakeholders on wetland conservation and management.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Experience in wetland rehabilitation and conservation projects, with a focus on ecological restoration and biodiversity conservation.
- 2. Knowledge of national Wetlands Restoration Strategy and experience in implementing measures aligned with conservation goals.
- 3. Expertise in community engagement and stakeholder coordination, with the ability to work collaboratively with diverse groups and organizations.
- 4. Strong project management skills, including planning, implementation, monitoring, and evaluation of wetland rehabilitation activities.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to wetland rehabilitation and conservation, particularly in the context of ecological restoration and biodiversity conservation.
- 2. Quality and feasibility of proposed methodologies and strategies for implementing wetland rehabilitation activities.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting sustainable ecosystem management and water resource utilization.
- 4. Cost-effectiveness and value for money in the implementation of wetland rehabilitation projects.

Terms of Reference (TOR) for Payment for Ecosystem Services (PES), Carbon Credit and Tax Credit Schemes:

Background: In the pursuit of sustainable natural resource management (NRM), Payment for Ecosystem Services (PES), Carbon Credit, and Tax Credit schemes play crucial roles in incentivizing conservation efforts and mitigating environmental degradation. Building upon successful models such as the Rewards for Biomass and Soil Carbon (REDD) Mechanism, this TOR aims to establish robust mechanisms for implementing and overseeing PES, Carbon Credit, and Tax Credit schemes within the context of the Integrated Natural Resource Management Project (INReMP). These schemes will not only ensure equitable compensation for conservation activities but also stimulate private sector engagement in NRM initiatives.

Objectives: The primary objective of this assignment is to develop and implement effective PES, Carbon Credit, and Tax Credit schemes to incentivize conservation activities and promote sustainable NRM practices. Specific objectives include:

- 1. Establishment of a digital platform for implementing and overseeing PES, Carbon Credit, and Tax Credit schemes, ensuring transparency and accountability in compensation mechanisms.
- 2. Development of strategies for PES, Carbon Credit, and Tax Credit mechanisms focusing on water catchment protection, forest cover protection, and preservation of water sources, rivers, and wetlands.
- 3. Integration of conservation incentives with climate finance to provide opportunities for tax credits and carbon credit rebates, thereby actively engaging the private sector in NRM activities.
- 4. Facilitation of sustained private sector involvement in NRM activities by linking conservation incentives to critical natural resource opportunities.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Design and implementation of a digital platform for PES, Carbon Credit, and Tax Credit schemes, ensuring robust monitoring, reporting, and verification (MRV) processes.
- 2. Conduct baseline assessments for carbon and biodiversity to measure and incentivize impactful conservation efforts.
- 3. Development of transparent measures and grading schemes to determine the level and value of rebates/benefits, as well as penalties for defaults or non-conformities.
- 4. Exploration of avenues for the private sector to adopt identified critical natural resource opportunities and offer ecosystem payment services to relevant stakeholders.
- 5. Collaboration with relevant stakeholders, including government agencies, local communities, and private sector entities, to ensure the successful implementation of PES, Carbon Credit, and Tax Credit schemes.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

1. Establishment and operationalization of a digital platform for PES, Carbon Credit, and Tax Credit schemes.

- 2. Documentation of baseline assessments, methodologies, and grading schemes for conservation incentives.
- 3. Training materials and capacity-building initiatives for stakeholders involved in PES, Carbon Credit, and Tax Credit schemes.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimizing the schemes.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in implementing PES, Carbon Credit, and Tax Credit schemes, preferably in the context of natural resource management or conservation.
- 2. Expertise in MRV processes, baseline assessments, and incentive mechanisms related to ecosystem services and carbon sequestration.
- 3. Strong communication and stakeholder engagement skills, with the ability to collaborate effectively with diverse groups and organizations.
- 4. Knowledge of climate finance mechanisms and experience in integrating conservation incentives with private sector initiatives.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to PES, Carbon Credit, and Tax Credit schemes, particularly in the context of natural resource management.
- 2. Quality and feasibility of proposed methodologies and strategies for implementing and overseeing the schemes.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting sustainable NRM practices.
- 4. Cost-effectiveness and value for money in the establishment and operation of PES, Carbon Credit, and Tax Credit mechanisms.

Terms of Reference for the Baseline Survey

Consulting services for conducting baseline survey for the INReMP

Prior to issuing the ToRs, the Project Team should submit the ToRs to IFAD's review and clearance.

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BACKGROUND AND CONTEXT

General presentation of the project

The Integrated Natural Resource Management Project (INREMP) was designed in 2023. INREMP is implemented by the State Department for Agriculture INReMP's goal is to 'contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem'. Its Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'. INREMP was ratified in ...2024 and the financing agreement was signed in

1.2 Institutional framework:

The INREMP) Project is a collaboration following an agreement between the International Fund for Agriculture Development (IFAD) and the Government of the Republic of Kenya (GOK). The implementation is led by the State Department for Agriculture in the Ministry of Agriculture and Livestock.

2.0 DESCRIPTION OF THE PROJECT

The Integrated Natural Resource Management Project (INREMP) is an 8-year project whose implementation commenced in xxx, 2025. The goal of INREMP is 'contribute to

improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem'. Its Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'.

- **2.1 Programme Outcomes** INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes: a) Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action; b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.
- **2.2 Implementation Arrangements** Programme implementation will be mainstreamed into the GoK system, both at national and county levels. The State Department for Agriculture of the Ministry of Agriculture and Livestock Development will be the lead implementing agency. The Department will delegate the day-to-day operation of the Programme to a Programme Coordination and Management Unit (PCMU) reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer. A National Programme Steering Committee (NPSC) will be set up to provide overall policy and strategic guidance to the Programme.
- **2.3 Project Area** INReMP implementation will follow a programmatic approach done in phases across different water towers in Kenya. In the first phase, INReMP will be implemented in the Cherangany Hills and Mau West water towers focusing on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. The second phase focal areas will be decided, with guidance from the Government, as and when additional funding is accessed.
- **2.4 Target Group** INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people). These will be selected from the following target groups: a) food insecure and vulnerable rural farmer households (20% of project target); b) Moderately food insecure rural farmer households (40% of project target); c) Food secure, semi-structured and structured medium farmer households (30% of project target); and d) Micro, small and medium scale enterprises (10% of project target).

2.5 Theory of change:

Rural households living within Cherangany Hills and Mau West Water towers face several challenges that make them highly vulnerable to the ever-increasing adverse impacts of climate change. This is amplified by: a)high levels of pollution, degradation, and depletion of natural resources (land, water, forests); b) over reliance on unsustainable economic and livelihood options that are destructive to the environment; c) cross boundary conflicts that limit their sustainable exploration of the natural resources; d) limited crop and livestock diversification; e) limited access to water for production and irrigation infrastructure; and f) inefficient water management and production systems. In addition, these communities are faced with: a) limited and poor market systems; b) limited access to markets and weak private sector involvement in conservation activities as well as some value chains; c) weak institutional capacity and regulatory framework for policy development, harmonization, coordination, and enforcement; and d) weak capacities of community institutions to support community level INRM and livelihood improvement. To compound their challenges, the households experience high levels of malnutrition due to

low access, availability to and consumption of nutritious foods. Also, the communities, especially youth, women, and indigenous people (where they exist), have limited access to incentives for participation in conservation activities and their livelihoods are equally threatened by high prevalence of gender-based violence, HIV/AIDS, early marriages.

Lessons learnt from implementation of of similar interventions have shown that empowering communities through: a) promotion of energy saving and renewable energy technologies; b) adaptation and promotion of inclusive community-based climate-smart and INRM technologies and practices; c) development of climate resilient water and irrigation infrastructure; d) promotion and use of digital technologies and improving production and productivity of diverse value chains and nature-based enterprises based on different agroecological zones can lead to enhanced environment and INRM, ecosystem services, and climate action.

In addition, developing climate proofed and nutrition sensitive market and post-harvest infrastructure and developing diverse value chain options can lead to improved inclusive and sustainable rural livelihoods. Also, enforcing relevant climate action, environment and INRM policies and regulations can lead to stronger policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

Against the above background, and within the framework of gender transformative programming, and community led planning and development, INReMP will thus: a) combat climate change, promote environment, natural resources and ecosystem restoration; b) manage climate and agricultural risks; c) facilitate social behaviour change and community-led INRM planning and development; d) enhance inclusive efficient climate-smart production and productivity of selected value chains; e) enhance inclusive agribusiness, climate and nutrition sensitive Market access and development; f) promote social inclusion and cohesion; and g) build institutional, organizational and policy capacity.

The successful implementation of these interventions will lead to: a) better integrated NRM, and enhanced resilience of poor rural people; b) sustainable food and nutrition security for rural households; and c) equitable social, economic empowerment, reduced empowerment, reduced poverty and enhanced social cohesion among the rural communities.

The accomplishment of these interventions presupposes hinges on: a) inclusive activities to ensure full participation of the youth, women and indigenous people, including affording them access to incentives for economic and livelihood diversification; b) acceptance of alternative livelihood interventions by the potential beneficiaries; c) private sector willingness to partner with communities and smallholder farmers on ecosystem restoration; d) households' willingness to change their nutrition behaviours; and e) efficient and effective devolved government structures whose leaders are willing to embrace gender transformative programming approaches and leveraging data to support tracking progress of interventions of natural resources and ecosystem restoration and lead conservation efforts. Such efforts are already being made in Elgeyo-Marakwet County and Bomet County where county governments are championing conservation efforts to protect the water tower and the ecosystems within it

2.6 Components and main activities

The Project has 3 inter-linked Components namely;

i. Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action – This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams and lakes);

- ii. Component 2: Improved, Inclusive and Sustainable Rural Livelihoods This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live;
- iii. Component 3: Institutional Strengthening, Policy Support and Programme Coordination This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

3. PURPOSE AND OBJECTIVES OF THE CONSULTANCY

3.1. Purpose

The consultancy aims at carrying out a baseline survey which will identify household characteristics before project interventions and generate benchmark information for logframe indicators. The baseline study will provide qualitative and quantitative information on the current socio-economic situation of households and will produce information that will be used to direct and guide project implementation processes.

3.2. Objectives

The main objective of the survey is to develop the sample design, conduct the data collection and analysis and report writing of the baseline survey to be used for the INReMP evaluation process. The survey will use a quasi-experimental approach where data will be collected on both a control group and treatment group (potential project beneficiaries). The survey will measure the baseline values of project outcome and impact indicators and individual/household characteristics at project start. The objective of this study is to conduct a baseline survey that will benchmark the targets and indicators for the Project including but not limited to those which are explicit in the log frame, a comprehensive survey that can be used by the Project and its implementation partners. In order to be useful for targeting and evaluation, the socio-economic baseline survey will rank households according to wealth, sex and age of the household-head. Moreover, the survey will cover the position of women and of youth in INRM and agricultural activities, and also mapping existing stakeholders, and socio-economic status of sub-catchments in the ten counties. The baseline survey will be conducted on a sample of the targeted beneficiaries. Baseline data provide information on beneficiaries and comparison groups before the programme is implemented and are important for measuring pre-intervention outcomes and establish benchmark information for selected indicators. The analysis of baseline data will also be used to assess targeting effectiveness, that is, whether or not the INREMP Project is going to reach its intended beneficiaries. The survey will combine the use of secondary and primary data collection methods and use both quantitative and qualitative methods. The tools to be used therefore in collecting and analysing the data will be a mixture of quantitative and qualitative tools. The process should be as participatory as possible involving rural communities, farmers and all the relevant stakeholders The survey will capture the GIS coordinates of the respondent households to facilitate assessments on the same households for the subsequent surveys.

4. METHODOLOGICAL REQUIREMENTS

The Programme intends to conduct the baseline survey to obtain quantitative data that will enable monitoring and evaluation of the Project's results. The scope of the services required under this Terms of Reference include the collection of data at the appropriate levels of implementation for analysis of: Individual Households, sub-catchments, and Rural Enterprises performance. In selected value chains. The research methods will be a systematic analysis of data and information from surveys, analytical reports, policies,

standards, desk review, principles, and other literature on the state of integrated natural resource management in Kenya and specifically in the target areas. The set of indicators to be collected will be based on the Project's log-frame indicators. Qualitative in-depth interviews will be conducted with open-ended questions meant to stimulate discussion, focus group discussions with a wide range of stakeholders who have first-hand knowledge about community development, natural resource management, value chain development, access to finance and markets among others. Expert Panels, implementing partners, key Ministries, relevant state departments, peer reviews or external experts from Stakeholder groups will provide input on technical or other substance topics under Integrated Natural Resources Management and Livelihood development. A sample of the target groups will be extracted from the selected counties in the Project development area disaggregated by age and gender at the different levels of implementation; household/homestead, subcatchment level. The survey will follow a quasi-experimental approach. The Consultant shall draw-up and compile a list of existing instruments which facilitate data collection at national, county, subcounty, ward, sub-catchment and household level and contribute to the regular monitoring, evaluation and reporting system of the Project. In addition, the Consultant shall ensure that the **Women's Empowerment in Agriculture Index (WEAI)** is fully incorporated into the survey exercise. The baseline surveys will include separate questionnaires which will be administered to establish a women's empowerment index. The WEAI is a comprehensive and standardized measure that directly captures women's empowerment and inclusion levels in the agricultural sector. There is consistent and credible evidence that when the status of women is improved, agricultural productivity increases, poverty is reduced, and nutrition improves. The WEAI is a tool for monitoring progress towards these objectives. (www.ifpri.org/book9075/ourwork/program/weairesource-center).

4.1. Questionnaire and variables

The draft COI survey questionnaire adopted and adapted to the INReMP log frame outcomes indicators, when relevant will be prepared and included as part of the ToR.

4.2. Sampling method

The sample frame is the list of all the units in the desired population, from which random samples of units are selected to build the survey samples. The baseline survey shall as far as possible, use the same sample (GIS coordinates of the sample should be taken at baseline to facilitate midline and end line surveys). It is necessary that the contracted party maintains an accurate register of households sampled in both the treatment and comparison groups for future reference. INREMP will strive to reach 60% of men and 40% of women in the sample frame. Women will be targeted as individuals or in households constituted by couples as well as in women headed households (aiming for 30% of the total pool of beneficiaries to belong to this later group). Thirty per cent (30%) are expected to be youth (people aged 18-35). Among these target groups, people with disabilities, Indigenous persons and people living with HIV/AIDS will be considered as potential beneficiaries in their own right, in so far as they comply with entry requirements. This latter category of vulnerable people will represent 5% of the whole INREMP beneficiaries. A second strategy to be employed will be to raise the awareness of households with a person with disability the possibility of considering becoming project beneficiaries; people with disabilities in this case will be targeted indirectly, through those that they largely rely

4.3. Probability sampling:

Probability sampling refers to the sampling method in which all the members of the population has an equal chance to be a part of the sample and it uses random selection to select the sample within the desired population. The sample should be stratified in order to reflect the different geographical regions and target sub-groups (women, youth, etc.) described above in the 'project characteristics and targeting' section.

4.4. Data quality control

As data is collected and entered into a storage mechanism (tablet), checking for errors and data quality is an important step and sufficient time should be allocated to review the data and assure its quality.

The following strategies shall be used:

- Double data entry.
- Spot checking.
- Sort data to find missing data, outliers, high, or low values.
- Use automation, such as drop-down menus.
- Format a database to accept only numbers.
- Review data for anomalies.
- Discuss data discrepancies and/or findings with the Project team.

Data-quality checks will be implemented while collecting the data rather than ex-post as in the case of paper -based surveys by using electronic devices for the data collection.

4.5. Computer entry

Data will be captured through an electronic system; the use of electronic devices and georeferencing is recommended.

4.6. Analysis and report

Analysis

Findings shall be analyzed both at global level (all data combined) and also using the stratification laid out above for the sampling methodology (e.g. specific findings for women, youth, for the specific counties, sub-counties, wards, sub-catchments or households). The survey reports will be structured around the programme outcome and impact indicators. The quantitative data shall be presented in detailed and summarized tables for each indicator, which should be accompanied by text and analytical comments in addition to the study process, the meaning of the data and the statistical significance. The qualitative data will be presented in a separate chapter.

Report

While writing the report, the firm will work in close collaboration with the Project Teams (PCMU and CPITs) and other implementing partners, to enable a learning process and to maximize transparency and accountability.

Once the survey has been conducted and its quality controlled, the analysis of the results shall be presented in a report. The report summarizes the conclusions emerging from the analysis and includes the following elements:

- the description of the methodology used
- the questionnaire
- the list of units surveyed
- the results of the survey
- the updated log frame
- the ToC and its description based on the results of the survey
- the analysis and interpretation of the results (detailed analysis with statistical significance and summarized tables for each indicator) The survey database should also be provided to project.

4.7. List of activities

Phase 1 - Inception phase

Initial situational analysis - review of project materials and data: The Project Team shall be responsible for providing key background documentation to the firm (financing agreements, Log frame, ToC, start-up reports, Project Design report,

List of beneficiaries if any or preliminary listing of potential beneficiaries, secondary data, etc.)

Phase 2 –Sampling strategy and survey instrument development

- Development of the survey questionnaire based on the draft provided by the Project.
 - Development of the sampling design
- Clearance by Project Team and IFAD of pilot sampling design and the questionnaire.
 - Develop interview manuals and instructions for field staff
 - Training of interviewers for the pilot study.
 - Pilot study fieldwork.
 - Revision of the pilot study questionnaires.
- Analysis of pilot study results, introducing adjustments to the draft questionnaire.
 - Development of the Final Questionnaire.
- Development of an appropriate data management system with adequate quality controls.
- Clearance of the final questionnaire and sampling design by Project Team and IFAD.

Phase 3 – Fieldwork Activities

- Preparation for field work (recruitment of interviewers, uploading of questionnaires not the data collection app and other fieldwork documents).
 - Staffing and Enumerator training
 - Administrative approval from necessary authorities
 - Quantitative data collection at the appropriate level of analysis
 - Data quality control
- Qualitative data collection (focus group discussion/semi structured in-depth interviews

Phase 4 - Data Processing, Analysis and Final Report Preparation

- Database formation.
- Data entry and cleaning.
- Statistical analysis of the data.
- Preparation of the final report.
- Translation of the final report.
- Clearance of the report.

4.8. Deliverables

Once selected, the firm will produce the following deliverables for the survey

- Deliverable 1: Updated working calendar and delivery schedule
- **Deliverable 2:** Survey design describing the sampling strategy, data collection instruments and data entry methodology
- **Deliverable 3:** Final questionnaire including electronic format (Stata, SPSS or SAS).
- **Deliverable 4:** List of households to be interviewed and list of communities/villages surveyed
 - **Deliverable 5:** Training manual for field staff and enumerators
 - **Deliverable 6:** Training of field staff and enumerators
 - **Deliverable 7:** Inception Report
 - **Deliverable 8**: Final Survey Report Analysis and Reporting
 - **Deliverable 9:** Clean dataset
 - **Deliverable 10:** GIS coordinates of respondent households
 - **Deliverable 11:** Compendium of photos of major scenes visited during the study
 - **Deliverable 12:** An updated project logframe with survey results incorporated

The firm should deliver all the material in electronic format.

The expected tasks for the firm shall be performed in accordance with a mutually agreed schedule. Final deliverables should be submitted according to this schedule and within the limits of the contract duration.

Deliverables are subject to agreement by the Project Team and IFAD and preliminary versions should therefore be submitted by the firm in time allowing for comments to be shared and if required changes to be introduced by the firm.

5. COMPETENCIES REQUIRED

5.1. Firm/Consultant expertise and required qualifications

The selected firm shall possess the following qualifications:

- Previous experience in carrying out evaluation surveys is a compulsory requirement, including demonstrated experience in designing and conducting evaluations and of organizing surveys on the scale of this project (including survey and sampling design)
 - Strong capacity and experience in planning and organizing survey logistics
 - Good network of experienced enumerators, supervisors and data entry clerks
 - Strong capacity in data management and statistics
 - Strong capacity in survey analysis and reporting of results
 - Strong interpersonal skills and a team-oriented spirit
 - Experience doing household survey work and carrying out evaluations in [country].
 - Strong background in statistics and econometrics.

5.2. Key staff/ required staff

The proposed team should consist of reasonable number of qualified and experienced professionals having proven track record in designing and implementing socio-economic and baseline studies and/ or evaluation studies and having good depth of understanding of rural development, integrated natural resource management, livelihood development as well as gender and social inclusion. The bidders are expected to propose a study coordinator/Team Leader and an appropriate number of experts, field supervisors, enumerators and support staff.

Minimum **key professional staff positions** (recommended):

- One study coordinator/team leader: Advanced degree in economics, statistics, agribusiness, agricultural economics, or related field. At least five years relevant experience in conducting impact evaluations, large quantitative survey implementation and analysis, experience in household and agricultural data collection and analysis required, ability to coordinate teams and ensure timely reporting. The study coordinator/Team Leader will be in charge of coordinating the planning and implementation of the survey and ensuring that the work is conducted following the highest professional standards. The individual will be in charge of ensuring that the quality control and supervision mechanism in place for the survey is effective, manage the data collection team and ensure that each member performs their specific scope of work.
- One expert in survey implementation and field supervision: Minimum five years' experience with large survey implementation, experience in implementing household and agricultural surveys required. Preferably with previous experiences in conducting surveys in Eswatini.
- One socio-economic researcher: Advanced degree in Sociology, Statistics, Economics, Agricultural Economics, Agribusiness or related fields, at least five years' experience in analyzing survey data using STATA or equivalent software. Strong background and experience in statistics and econometrics is required. Ability to write clearly and concisely in English. Previous experience in impact evaluation is preferred.

- One Agribusiness and livelihoods Specialist: Minimum of an Advanced Degree in Agribusiness Management, with proven experience in value chain development and management of agro-enterprises. Experience in benchmarking agri-business development indicators is desirable
- One Environment and natural resources management: An advanced university degree in environmental and NRM studies, Climate Change, or related field, at least 5 years' experience in the NRM and Climate Change sub-sectors. Should have a thorough understanding of the rural finance and micro finance with a particular focus on agricultural finance and knowledge of the cooperative sector
- One computer specialist in data entry and databases: Minimum experience of three years with large survey data sets and data entry software required. The data specialist will develop an appropriate data management system with adequate quality controls and finalize the data management system before the data collection team moves to the field. The data management system would also be organized in such a way as to deliver partial datasets on a regular basis to the Project Team.

Minimum **key support staff positions** (recommended):

- **Field supervisors**: Minimum of 2-3 field supervisors should be hired (best ratio would be 1 supervisor every 4 enumerators). They should be chosen based on the firm's best practices. Some degree of knowledge of local languages is expected at least from a sufficient number of the supervisors. At least two years' experience in conducting or managing household surveys is required.
- **Survey enumerators**: Minimum of 8-10 enumerators should be hired. Minimum qualifications include knowledge of local language. Preference should be given to candidates with experience in quantitative data collection in rural Eswatini, namely, on the themes of the questionnaire.
- Data entry technicians: Minimum qualifications include knowledge of local language and advanced computer skills. Preference should be given to candidates with experience in quantitative data entry and/or previous experience in survey work.
- **GIS field officers:** The firm should provide 1GIS officer. The specialist should also be responsible for organizing the GIS information and its linkage to the overall database

6. ADMINISTRATIVE AND OTHER ASPECTS

6.1. Proposal content

Interested consulting companies should submit their applications consisting of the following documents/information to demonstrate their qualifications: in accordance with ITT of ITB no...

- **Technical Proposal** will include: the profile of the company, relevant experience for the assignments, staffing (CV of each team member), proposed methodology to perform the assessment, the size of the sample to be analyzed, the work plan and schedule (activities) and resources (including number of person-day).
- **Financial proposal** will obligatory include the consulting fee and operational expenditures related to the assignment. The survey company will provide a break-down of the budget by the activities mentioned in the Activities section above and by phase of study i.e. Baseline, Midline and End line/completion survey.

6.2. Conditions for offer's submission

To be considered interested companies should submit their proposal (technical and financial offer) in original and a copy in separate sealed envelopes. Each envelope will consist of the technical and financial offer sealed in separate envelopes as well (a total of 2 envelopes, each with 2 envelopes inside) as detailed in the ITT or ITB no ...of the RFP.

6.3. Selection Process

The consulting company will be selected using Quality and Cost based selection method in accordance with GOK's and IFAD procurement policies and procedures and as detailed in section....of the data sheet under the Instruction to Consultants of the RFP

The final score obtained by each firm being composed of [75%] of the score for the parameter "Quality" (evaluated based on technical bid) and [100-25 %] - score obtained for the parameter "Cost" (established based on financial bid). The financial offer will be opened only if the provided technical offer will pass the minimum technical score of [75%] points.

Budget and mode of payment

The Budget should cover all costs for remuneration of experts/staff including their travel and miscellaneous cost. For firms Value-added tax certificate is a must as per the GoK rules on taxes on provision of services.

According to the estimated timeframe and schedule of execution, payments for the services provided will be made, after the products/deliverables are submitted in a timely manner and cleared by the Project Team and IFAD.

Mode of payment: payments for each of the three assignments (baseline; midline; end-line) will be made in the following three instalments:

- 20% of the agreed budget as an advance upon signing of the agreement and upon receiving the inception report
- 30 % of the agreed amount one week after the submission of the 1st draft report.
- Remaining 50 % after satisfactory quality check by the project team after submitting the final report after incorporating the feedback and comments.

6.5. Conditions of the contract

The project will issue a performance-based contract to the successful firm for conducting the survey, that is to say, based on the quality and timeliness of the report. The assessment on the performance of the contract will be conducted by the PCMU M & E Specialist in consultation with IFAD, using the criteria presented here below:

- A) Quality of report (80 points)
- Implementation of methodology as proposed in the Technical Proposal: (50%)
- Completeness of data (all indicators agreed to in the inception report are included): (50%)
- B) Timeliness of final report submission: 20 points (20%)
- C) Total Score = A+B = 100

Performance ratings of 75 and above will be considered adequate for confirmation of deliverable.

Future Use of the Data

The clean dataset as well as the resulting reports will be property of INREMP. The availability and use of technological data collection equipment (Tablets) is a one of the prerequisites for carrying out the study. INREMP team will assess the adequacy and availability of the equipment subject to confirmation of the contract award to the successful team.

6.7 Reporting Arrangements

An inception report and confirmation or adjustment to the proposed work plan shall be submitted two weeks after commencement of each assignment and approval by the Project Management Team.

The Principal Secretary of the State Department for Agriculture has the overall responsibility for the assignment. The consulting firm will be answerable to the PCMU Coordinator for all coordination and operational aspects of the assignment. During the execution of the survey, the consultant(s)/ Firm will work closely with the Monitoring & Evaluation Specialist for the Project, in collaboration with implementing partners, other Project staff, primary stakeholder groups to enable a learning process and inclusive decision making and to maximise transparency and accountability.

The Project team shall be responsible for providing key background documentation to the consulting firm (financing agreements, start-up reports, Gender, Youth and Targeting strategy, Theory of Change, Logframe, supervision reports, etc.) as well as letters of introduction and liaison teams where necessary.

6.8 Time Frame

The consultant(s)/firm is expected to carry out the survey and submit a report in 90 Calendar days from the date commencement of each survey

ANNEXES of the TORs:

- 1. Detailed targeting strategy
- 2. Log frame
- 3. Theory of Change (ToC)
- 4. Project's data:

Data points within the survey tools should at minimum reflect the data on the key components to measure Project implementation. These should include but not limited to the following categories and modules:

Socio-economic Status

Household Level;

- Demographics
- Education
- Nutrition
- Health
- Food security
- Income, expenditure, and consumption
- Social safety nets
- Household enterprises
- Shocks and coping strategies
- Asset ownership

Chiefdom activities and stakeholder mapping

- Basic information
- Community needs, actions & achievements
- Access to basic services

- Communal resource management
- Economic activities
- Agriculture activities
- Communal organization
- Map stakeholders that are present in the target areas and that engage with the same target group in the selected chiefdoms. Stakeholders include but are not limited to: non-profit or for-profit providers of services in adult/youth education and enterprise development, mobilization, business training, savings mobilization, access to credit, value addition, and/or market linkages micro-finance providers.

Agricultural Production

Farm Level

- Average plot size
- Land ownership
- Land usage
- Land allocation
- Plot details
- Labour details
- Market details
- Farm inputs
- · Details on other farm inputs
- Agricultural activities
- Agricultural production Stats
- Sales and storage
- Livestock and crops
- Machinery
- Details on farmer groups and associations
- Insurance and other services available
- Access to extension services

Business Capacity

- Registration of business
- Record keeping
- Financial management
- Cash flow analysis
- Availability of collateral
- Access to financial services
- Availability and use of bank accounts
- Use of credit
- Capacity to save
- Understanding and use of insurance
- 5. Draft questionnaire: Adopted and adapted from the COI questionnaire template

ANNEX 2: GUIDELINES FOR PREPARATION OF ANNUAL WORK PLAN AND BUDGET AND PROGRESS REPORTS

Attached as a separate file.



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LEAD IMPLEMENTING AGENCY AND WITH FIDUCIARY RESPONSIBILITIES

- 1. The Lead Implementing Agency of the INREMP programme will be the Ministry of Agriculture and Livestock Development (MoALD) of Republic of Kenya. The Programme Coordination and Management Unit (PCMU) will be responsible for overall fiduciary management of the Programme under MoALD will be the overall accounting hub for the Programme. The PCMU will be responsible for ensuring the implementation of Programme activities and will have the following fiduciary responsibilities:
 - a) the preparation of Annual Work plans and Budgets ensuring a bottom-up approach and timely submissions for inclusions in government overall approved budget estimates;
 - b) Procurement planning, execution and support service;
 - c) Disbursement of funds to other implementing agencies as per funds flow structure,
 - d) Management of withdrawal applications from IFAD;
 - e) Financial management of the Programme, including supervising and ensuring compliance with government regulations.
 - f) Financial reporting and preparation of annual of financial statements for audits.
 - g) Any requests for No Objection to IFAD will emanate from the PCMU.

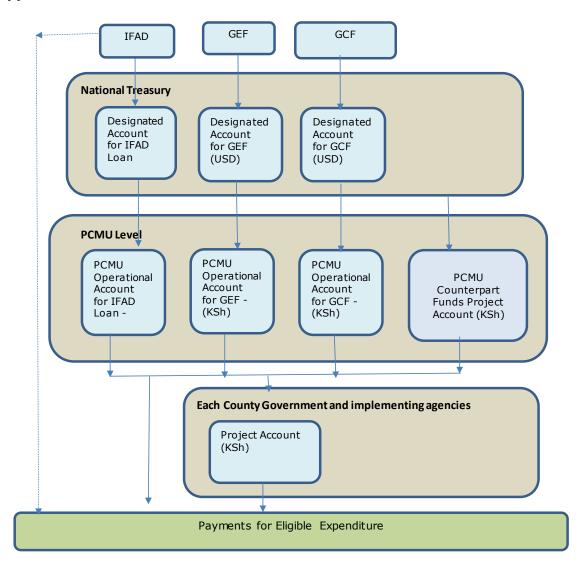
PLANNING & BUDGETING

- 2. The Programme is funded by various sources of funds namely IFAD, GCF, GEF, Beneficiaries contributions and Government of Kenya counterpart funds and shall therefore be subject to specific procedures. Budgeting of expenses and planning of operations in implementation areas shall be strictly related. The programme design report, Financing Agreements and any amendments thereof shall constitute the general framework of any annual or activity budgeting process within the course of the Programme.
- 3. Annual budgeting is a contractual obligation of the Financing Agreement. The Programme budgeting will be done in accordance with existing Government of Kenya procedures. The Annual Work Plan and Budget (AWPB) shall be approved by Programme Steering Committee and receive a no-objection from IFAD. The AWPB will be prepared and submitted early on time to IFAD, at least two months before the start of financial year in accordance with IFAD requirements. The AWPB will form the basis for defining the Programme activities and ensuring that sufficient funds are allocated to achieve the agreed results.
- 4. The purpose of the AWPB is to provide the Programme's management team with specific time and activity schedules, as well as detailed budgets for the impending year, thus facilitating the mobilisation of staff and resources when they are needed. The Annual Work Plan of activities serves as the instrument for emphasising and integrating management priorities for implementation, forecasting main procurement requirements and assigning detailed work responsibilities between implementing agencies and staff.
- 5. Cost estimates and budget allocations established during the development of the AWPB provide the basis for cost control and facilitate the release of funds by IFAD. The AWPB is the final document against which Programme performance shall be measured each year and the benchmark for monitoring physical and financial progress made by the Programme. The AWPB may be revised after half a year if significant changes occurred. It shall be the basis for reporting the Programme financial performance as per the required frequency (3 months). Non-compliance with budget / Cost Category may lead to cost ineligibility and a request for refund of already expensed cost to IFAD.

FLOWS OF FUNDS, BANK & CASH MANAGEMENT

- 6. IFAD disbursement procedures are outlined in detail in the Financial Management and Financial Control Letter (FMFCL). This part summarises the flows of funds and guides on cash and bank management.
- 7. There would be designated accounts for various sources of financing as per the funds flow diagram below to avoid commingling of funds. Each designated account will have a corresponding operational bank account in local currency. The project implementation is in-line with Government of Kenya administrative system; hence, funds are disbursed to activities to done in the counties. The PCMU may also pay for most project activities directly. However, it is envisaged for funds to disburse further to implementing counties for the payment of activities. The PCMU will also maintain a separate bank account in local currency for receiving funds from Government and processing counterpart costs. Below is a diagram summarising the flow of funds:

Appendix 1: Flow of Funds Chart



Direct payments would only be applicable under exceptional circumstances as will be described in the disbursements and Financial Management and Financial Control Letter. All major procurements activities and will be processed and paid from the PCMU that will be anchored within the MoALD. However, counties would be able to request funds to undertake procurement activities in their areas of operations to increase efficient and effectiveness of the programme. Counties will receive quarterly funding for planned activities and provide monthly financial and technical returns. Counties and the implementing agencies would each have one dedicated project account for receiving and processing these payments. The reporting template will be customized for each co-financier to provide clear financial reports by component, categories, and source of funds.

- 8. The PCMU would use an accounting system for recoding financial transactions and reporting to both IFAD and GoK. IFAD requires a financial system capable of (i) reporting expenditure per category and comparing budget vs actual for the current year and cumulatively since the start of project, (ii) reporting expenditure per component and comparing budget vs actual for the current year and cumulatively, (iii) reporting of expenditure per financier and (iv) extracting detailed listing of expenditure in required format. The accounting system must be capable of multiple analysis code for reporting on component, categories, and financiers, for reporting quarter, cumulative for the year and cumulative since start including in-kind contribution will be acquired at the start of the project. The selection of project finance staff will also consider the competence of the candidates to use computerised systems.
- 9. Programme financial statements: and any unspent balance by the end of the reporting period shall be consolidated as part of the overall Programme cash and bank balances. All bank accounts in the Programme shall follow a double signatory arrangement and have at least three authorised signatories, out of whom two signatures shall be required to authorise any payment by bank transfer or check.
- 10. IFAD requires the borrower's representative, as designated in the Financing Agreement, to provide satisfactory evidence of the authority, as well as authenticated specimen signatures of the individuals assigned to approve a Withdrawal Application (or 'WA') on behalf of the borrower. A sample template of WA Form is provided in the FMFCL. Each WA shall be signed by the authorised individuals and IFAD shall be notified of any change in the list of signatories authorised to withdraw funds from the loan or grant account.
- 11. IFAD shall also be notified of the designated authorised signatories for operating any Programme-related account, including changes thereto, whether or not these authorised signatories are included in the Financing Agreement. Such changes, as effected during the life of the Programme, shall be communicated promptly to IFAD. The borrower, guided by the sample provided with the FMFCL, shall 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 IFAD.
- 12. It is the Programme Finance Manager's responsibility to ensure that all WAs are correctly prepared, that the documentation is complete and submitted to IFAD in a timely manner. The necessary forms and supporting documentation to be attached to each WA are outlined in detail in the Project Financial Management and Financial Control Handbook.
- 13. The following staff positions have been provided for to ensure adequate coordination of payments for Programme expenditure, making appropriate accounting entries and financial reporting.

Implementation	Programme	Remarks
level	Staff position	
and numbers		
PCMU	 Finance manager. Project Accountant Two Accounts Assistant 	 The staffing is based on a similar IFAD funded Programme which has similar types of activities and implementation arrangement. These staff will be hired on two years contract, renewable based on
Counties	4. Seconded Project Accountants	performance which is expected to enhance performance.The staff will be hired as part of start-up activities.

14. The Programme Accounting team duties and responsibilities shall include:

- Installation of accounting systems to ensure that the PCMU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Kenya budget as required by the GoK budgeting processes and calendars including access to counterpart funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Communicate to all implementing partner institutions/ counties and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Assess compliance with Government of Kenya laws and regulations governing public financial management including adherence to international accounting standards, audits, and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with the prevailing standards.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Kenya and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Liaise with the other project implementing agencies/counties to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project

- implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
- Review eligibility of expenditure in accordance with the financing agreement.
- Report on the operation of internal control including budget controls and report any deviations.
- Assist the Project Coordinator with the Resource Mobilization of the Project.
- Deputize the Project Coordinator in matters project administration
- Any other duty as may be assigned by the Project Coordinator.

ACCOUNTING & FINANCIAL REPORTING

- 15. The PCMU under the MOALD will use a financial and accounting system for financial transactions recording and reporting. IFAD requires a financial system capable of (i) reporting expenditure per category and comparing budget vs actual for the current year and cumulatively since the start of project, (ii) reporting expenditure per component and comparing budget vs actual for the current year and cumulatively, (iii) reporting of expenditure per financier and (iv) extracting detailed listing of expenditure in required format. The accounting system should be capable of multiple analysis code for reporting on component, categories, financiers, for reporting quarter, cumulative for the year and cumulative since start including in-kind contribution will be acquired at the start of the project.
- 16. Programme activities are mainly in the form of receipt (income), legal commitment and expenditure of funds. The accounting system shall record, process, classify and organise essential data in order to produce useful financial information in the form of Withdrawal Applications (WAs), financial reports or budget vs. actual analyses that are needed by the Programme Financiers (i.e. donors and Government) as well as by the Programme management itself. The accounting system shall reflect the Programme's needs and be designed to provide the financial information required by all stakeholders (PCMU, IFAD, GCF, GoK and other parties). It shall also fulfil all the legal and regulatory requirements of the borrower. The accounting system is a critical part of the Programme's financial management system and design.
- 17. Recording transactions in the accounting system shall be governed by the privileged codes defining the levels of access for different users, that is: active use for inputting / editing data; read-only access; or no access. This shall allow a separated and controlled access to the accounting module (i.e. journal recording, posting to general ledger). Each accounting transaction shall record the user's ID, thus preventing unauthorised access to the system and an adequate level of protection against the input of false data, or even the destruction of records. At the same time, the data-sharing nature of the system shall involve strict coordination and active data exchange among various users. In this respect the system shall ensure the reliability in information storage and fast data processing.
- 18. The accounting system user's manual shall be an integral part of the financial management systems of the Programme and shall be completed by more detailed guidelines or instructions if necessary.
- 19. INREMP accounting policies shall notably take into consideration the national legislation as well as IFAD minimum reporting requirements. The Programme's main accounting policies shall be as follows:
 - Financial statements shall be drawn in accordance with IPSAS cash basis of accounting as by the recognition of receipt (income) and payment (expenditure) respectively;
 - Financial statements shall be prepared under historical cost convention;
 - Transactions in local currency shall be converted into the currency of the Designated Account using a 'FIFO' (i.e. 'First In, First Out') approach, i.e. the actual

rate arising from the latest transfer from the DA to the Birr denominated Operational Account thus avoiding currency exchange losses or gains.

- 20. The Programme chart of accounts shall: (i) be based on the Programme budget and Cost Categories; (ii) capture financial data under the appropriate headings / INREMP Components and Sub-Components; (iii) classify and group financial data for various financial reports; and (iv) record the sources of funding for each expenditure. The "cost centre" functionality, which is standard for many accounting software, shall be used, so as to draw analytical reports separately. Disbursement to the partners and counties will be made as advances. Recording of expenditure to the Programme accounting system will be done by PCMU based on expenditure reports submitted by the implementing agencies and counties.
- 21. The Programme expenditure initiation, authorization and payments will be in line with INREMP organisational structure. The Programme Coordinator at PCMU or the Principal Secretary at MoALD shall approve all payments requests before they are forwarded for authorisation. The Finance Manager at the PCMU will be responsible for proper recording in the accounting system and all financial reporting for the Programme and will produce a consolidated financial statement for all the components. The Finance Manager will check to ensure there are appropriate expenditure supporting documents as per IFAD requirements. The Programme will not use external funds to pay for taxes within the country and to this effect, the Government will provide counterpart funds for payments of local taxes and levies.

Recording and processing of transactions

- 22. Transaction recording under the Programme follows the cash basis of accounting, which requires recognition of cash inflows in the period they are received and reporting of expenses in the period those expenditure is paid. Individual records of transactions are treated as source documents. For the Programme accounting purposes, the following source documents shall be considered: signed purchase orders / contracts, invoices and deliverables / delivery notes / goods received notes / completion certificates.
- 23. All transactions incurred shall be registered in the accounting software in accordance with the date of payment and under the form of journals. Journal shall contain sufficient and detailed information about the type of transaction, its amount and a reference to the source document. All transactions shall be entered into the accounting software using the principle of double-entry, meaning that each transaction shall be recorded twice: once on the debit side and once on its credit side. The accounting software shall automatically process those transactions and post them to the ledger where all transactions of similar type are recorded. Timely recording shall allow the production of timely reports.
- 24. The Finance Manager shall verify the Programme accounts on a monthly basis. In case significant adjustment of accounting entries has to be made, the Accountant shall produce an annotation for the file in which the reasons and the way in which the adjustment has been made is explained. This note for the file shall be cleared by the Programme Finance Manager and communicated to the Programme Coordinator.

Financial reporting

25. Finance Manager at PCMU will be responsible for all financial reporting for the Programme and will produce a consolidated financial statement for the Programme. The financial reporting will comply with International Public-Sector Accounting Standards (IPSAS) -Cash basis.

- 26. There shall be segregation of duties between staff members in the finance Team. Finance Manager shall not only be in charge of recording financial transactions on a daily basis but also of summing up expenditure made under each Component / Sub-Component / activity and posting these totals on financial reports on a periodic basis during the reporting periods specified in the FMFC and the Grant Agreement. Periodic progress financial reports, shall include the following:
 - Statement of cash receipts and payments by Cost Category: this report summarizes
 all sources of Programme financing as well as the uses of funds in accordance with
 the disbursement Cost Categories foreseen in the Financing Agreement with IFAD.
 This report also states the cumulative expenditure from the start of the Programme
 until the date of the report and the cash flow forecast for the following semi-annual
 period;
 - Uses of funds by Programme category: this report details INREMP's expenditure by IFAD cost expenditure category / subcategory and by Financier.
 - Uses of funds by Programme activity: this report details the Programme expenditure for each Component / Sub-Component / activity consistent with those foreseen in the EU budget. The total planned, actual and cumulative expenditure in this report shall correspond to those mentioned in the statement of sources and uses of funds, as presented above;
 - Cash flow forecast: this report summarizes cash inflows and outflows for the following semi-annual period (see below for more details);
 - DA reconciliation statement please refer to Project Financial Management and Financial Control Handbook.
 - WA statements for the period: this report summarizes the claimed and received WA amounts from IFAD during the reporting period; and
 - Contract expenditure: this report details all contracts signed and amounts paid during the quarterly / semi-annual reporting period by Cost Category.
 - Interim Financial Reports (IFRs)
 - Interim Financial Report(s) (IFR) are required both for reporting and disbursement purposes.
 - IFRs for reporting purposes must be submitted in accordance with the frequency and submission deadlines detailed in FMFCL. When submitted as a component of Withdrawal Applications, IFRs must be submitted in a form and quality acceptable to IFAD.

Cash flow forecast

- 27. Preparing periodic cash flow forecasts is essential to ensure the Programme has sufficient funds to meet its legal or contractual commitments, i.e. planned expenditure to beneficiaries, lead implementing agency, contractors, service providers, suppliers of goods, salaries, operating costs of offices as they fall due. It is the Programme Finance Manager's responsibility to prepare periodic cash flow forecasts by undertaking the following steps:
 - Report the past reporting period's closing balance as opening balance for the coming period;
 - Calculate as accurately as possible and report all the cash inflows already secured from different sources for the coming period and break them down on a monthly basis;
 - Determine as accurately as possible and report all the cash outflows (i.e. payments) due in the coming period and break them down on a monthly basis; and
 - Based on the above computations, determine the estimated cash needed for the coming period, in consultation with the Programme Coordinator and the Component Managers.

28. When preparing cash flow analyses, key sources of information shall include: the updated AWPB and procurement plan, the disbursement timetable of all signed contracts, and historic expenditure reports of the Programme as these some aspects assumed to stay relatively constant over the INREMP implementation period. Based on estimated cash flow needs, the Programme Finance Manager shall submit for approval of the Programme Coordinator the required WAs in a timely manner, so as to ensure sufficient liquidity and avoid any delay in Programme implementation.

29. In-Kind Contribution

Domestic contribution is the monetary and in-kind contribution (IKC) provided by governments, beneficiaries, implementing partners, other project participants.

It relates to direct provision of asset/services (benefits) to the project or expenditure incurred expenditure by Government, beneficiaries or other implementing partners which otherwise would need to be paid for by the project meet its objectives. In-kind contributions are crucial as they will translate the real contribution of Borrower to the project in addition to the contribution in cash and tax exemptions.

It is critical to capture in-kind contributions from all sources: Government, beneficiaries, and other domestic co-financiers. Process must be regular and systematic. Below is a Simplified process for IKC: -

Development of Project's IKC Data collection, Disclosure in Identification framework tool Preparation of recording and financial areas of IKC as IKC AWPB statements for documents filing per PDR/FA audit (identified IKC, (Monthly, quarterly (For ease of basis of valuation. (Ideally per monitoring) etc as per the (As a disclosure and component) notes) framework) responsibilities

The IKC should meet the following criteria for recognition: -

1. IKC should directly be related to achievements of PDO

- 2. IKC framework/tool should highlight IKC activities (per component/Sub-component), definition and measurement, monitoring tools, responsibilities and frequency and minimum supporting documents
- 3. IKC shall be recognized at the fair market value and must be duly justified by supporting documents
- 4. IKC recording, documentation and filing should be adequate to enable independent verification/ audit. Recording should be done regularly, at least monthly or as may be applicable
- 5. IKC should be reflected in the Financial Statement (as a disclosure note) and be audited. It is also an additional schedule/report required for submission to IFAD as part of IFR

Asset management

- 30. Fixed asset management aims at tracking any equipment / furniture / material (or intangible assets) for safeguarding e.g. to ensure preventive maintenance and theft deterrence and financial accounting purposes. Adequate fixed asset maintenance shall also increase the sustainability of the Programme. There are three elements in fixed asset management that require the attention of the Admin. Officer:
 - Purchase of equipment (not detailed here see the procurement section of the PIM);
 - Recording fixed assets through maintaining labelling system and asset register; and
 - Physical inventory and disposal / handover of assets once the Programme is completed.

Recording fixed assets:

- 31. The Programme shall assign a unique, sequential asset tag number to all furniture and equipment items purchased for INREMP (excluding supplies / inventories such as stationeries); this shall be clearly labelled on each item. And every asset shall be recorded in the asset register (see below).
- 32. The Admin. Officer shall maintain a register of all (material) equipment of the Programme this shall also be recorded on the asset management module of the accounting software, when operational. The asset register shall record the following information for each individual piece of asset: 1) description; 2) tag number; 3) serial number; 4) officer responsible (i.e. custodian); 5) source of funding; 6) location; 7) date of purchase; 8) estimated life; 9) purchase value and other additional fields that may be required. The Programme fixed assets shall also be subject to proper visibility of the primary contribution to project funding: this involves putting donor logos / stickers on vehicles, laptops and other assets.

Physical inventory:

33. The Finance Manager shall ensure that an independent verification of all project assets is performed at least once a year. Any discrepancy identified between the physical inventory (verification exercise) and the fixed asset register to be investigated, documented and formally reported to management.

RECORDS KEEPING, FILING & ARCHIVING

34. Financial records shall be created and maintained for every transaction effected under the Programme. They shall be defined as any financial information kept in a writing (hard copy) or electronic way (soft copy); 'external evidences or documentary evidence' such IFAD Financing Agreement, signed purchase orders / contracts, invoices, cash receipts, delivery notes or bank statements, as well as internal forms, journal vouchers, computer data and other form of information storage shall all be included under the 'financial record' terminology for the purpose of this PIM.

- 35. The objective of this procedure is to preserve the financial records and files for further official use by Programme staff, IFAD reviews during supervision missions, as well as for internal / external audit purposes. The Programme financial records are the property of the INREMP and may not be removed or destroyed during Programme implementation and up to 10 years after completion.
- 36. The Programme staff, in particular the Finance and Admin. team (accounting and administrative staff), shall make sure to keep minimum original supporting documentation for stated key processes, as follows:

37. Procurement costs:

- Purchase request / procurement requisition: approved form or workflow signature in system;
- Tender file or procurement file: bidding documents / technical specifications / bill of quantities / consultants' ToR; published advert of call for tenders / proposals / invitation to bid / request for quotation form; original (technical and financial) bids / offers / quotations; bid register or bid analysis schedule; bid opening and evaluation report / procurement selection memo;
- Contract / purchase order signed with supplier / service provider / consultant / contractor;
- Proof of existence, i.e. performance (consultant report / deliverable), progress (completion certificate), delivery (goods received / delivery note / bill of lading) and beneficiary distribution;
- Invoice(s) and payment evidences (cash receipt, cheque copy or, better, bank statement);
- Evidence of link to AWPB / procurement plan and INREMP use (vehicle logbook / mission order);
- For works, contractual bank guarantees for advance payment and performance; and
- Communications from IFAD to evidence no-objection to the contract award (if applicable).

38. Staff remuneration costs:

- Terms of reference / job description with clear link to the Programme;
- Recruitment file: published advert of job vacancy; long-list of all candidates; CVs, written tests and interview forms / scoring sheets of short-listed candidates and final selection report;
- Employment contract and any approved policy mentioning additional benefits;
- Approved salary scale (corresponding to the Grade and Step mentioned in the contract);
- Approved payroll statement (detailing the calculations of total cost, gross and net salaries);
- Payment evidence (of both net salary and social insurance charge / other tax deductions); and
- Cost allocation / timesheet / monthly report / staff appraisal form

39. Transportation costs:

- Formal trip authorisation such as mission order (purpose, duration, destination, etc.);
- Trip commitment (ticket) and travel evidence (boarding pass / stamped passport, etc.); and
- Mission / trip / activity report or any other contractual deliverable.

40. Workshop / training / seminar costs:

- Annual training plan approved by IFAD and procurement file for the selected training centre;
- Formal invitation (letter / email) to all selected staff (duration, destination, costs covered, etc.);
- Agenda, handouts, signed list of participants, certificate, back-to-office report, photo, etc.; and
- Signed receipts of per diem / daily subsistence allowance.

41. Shared or apportioned costs if any:

- Clear evidence of link to the Programme (mission order, ToR, activity report, etc.);
- Cost allocation method (timesheet, logbook, square meter, head count, etc.); and
- Detailed calculations of apportionment / allocation percentages to both Programmes.
- 42. The Programme shall file original records in a well organised way and maintain them for at least 10 years after Programme completion, in accordance with IFAD general conditions. Filing of financial records shall be chronological, e.g. documentation shall be filed on a daily basis in separate folders clearly mentioning the concerned month and year (with separators). Records shall have a code / reference following a sequential order.
- 43. Appropriate (lockable) filing cabinets shall be used to keep all folders. Besides and in order to prevent unnecessary pile-up of files in a limited office space, the Programme Finance Manager shall make sure that the financial records are archived on a regularly basis. They shall be kept in appropriate storage areas, safe from water and fire, to which access shall be controlled and limited. The Programme Finance Manager shall also classify certain financial records as "Confidential", while other would be defined as "General". Any important correspondence (e.g. with IFAD, Government or GCF) shall be filed. Once a year, the Programme Finance Manager shall verify that archives allow for easy and prompt retrieval of files if required.

RISKS & INTERNAL CONTROL SYSTEMS

- 44. Internal control systems are defined as "processes applicable at all levels of management designed to provide reasonable assurance of achieving the following objectives:
 - a) effectiveness, efficiency and economy of operations;
 - b) reliability of reporting;
 - c) safeguarding of assets and information;
 - d) prevention, detection, correction and follow-up of fraud and irregularities;
 - e) adequate management of the risks relating to the legality and regularity of the financial operations, considering the measures designed to reduce the likelihood and / or potential impact of pre-identified risks."
 - This part exclusively focuses on fiduciary-related risks, which may arise at Programme design stage or all along the implementation period. Internal controls

- is the collective duty and responsibility of the Programme Coordination and Management Unit (PCMU). There are four layers of control as follows:
- First layer of controls: self-control or "double check" at lower operator level, for instance while preparing a purchase requisition / bank reconciliation or while counting fixed assets / cash;
- Second layer of controls: direct supervision, such as reviews and validation of first layer tasks;
- Third layer of controls: final authorisations / approvals, e.g. of expenditure payment; and
- Fourth layer of controls: independent checks or post-reviews of the above processes this last layer of controls is described below in part 8 of the present section of the PIM.

Anticorruption policies

- 45. The management of the Programme funds shall be sufficiently rigorous to safeguard INREMP against the risks of fraud and corruption. Fraud and corruption include, but are not limited to:
 - Corrupt practice, which may be defined as offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - Fraudulent practice, i.e. any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation – such as submitting fair and true financial statements for an action;
 - Collusive practice, i.e. an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party; and
 - Coercive practice, i.e. impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.
- 46. IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in Programmes financed through its grants. 'Zero tolerance' means that IFAD shall pursue all allegations falling under the scope of this policy and that appropriate sanctions shall be applied where the allegations are substantiated. IFAD takes all possible actions to protect individuals who submit allegations of fraudulent or corrupt practices in its activities from reprisal. The IFAD anticorruption policy is available on IFAD website at https://www.ifad.org/en/anti-corruption: it provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight.
- 47. It is the Programme Coordinator and the Programme Finance Manager's responsibilities to make sure that all Programme staff, including the finance and administrative teams, are aware of these anticorruption policy and IFAD whistle blowing procedures (https://www.ifad.org/en/document-detail/asset/39629358).

General internal controls

48. Designing, implementing and maintaining a system of financial internal controls is an integral part of the financial management function, although not exclusive to it. In order to achieve stated objectives (such efficiency and economy of operations, reliability of reporting, safeguarding of assets, prevention and detection of fraud and irregularities or general risk management and compliance with applicable laws and regulations), key features of an adequate internal control system usually include:

- Segregation of duties;
- Authorisations;
- Reconciliations and checks;
- Restricted access; and
- Monitoring and review.

Segregation of duties:

49. An important element in any internal control system is the separation of those duties which would, if combined, enable one individual to approve and / or process / record / pay a complete transaction. It is the Programme Finance Manager's responsibility to ensure that the following duties are segregated under the Programme: preparation, authorisation, execution, custody, treasury management and bookkeeping.

Authorisations:

50. Approvals / authorisations require the certification that an activity / event or transaction is acceptable for further processing. Several types of authorisations shall be in effect at the Programme, mainly in the procurement, payroll and bank and cash management cycles. The Programme Finance Manager shall verify that authorisations of PCMU staff ensure efficient implementation while keeping major risks as low as possible. Authorisations from Programme staff shall be in line with their respective job descriptions and approval limits.

Reconciliations and checks:

- 51. Reconciliations between independent, corresponding sources of data are a key control for identifying errors or discrepancies. The Programme Finance Manager shall verify the following reconciliations each month:
 - Bank reconciliations (between accounting ledgers / Programme expenditure listing and bank statements): any reconciling or balancing amount shall be promptly cleared or explained. Unusual / long outstanding reconciling items shall be brought to the attention of the Programme Finance Manager, who shall review and sign all bank reconciliations as evidence of review;
 - Reconciliations between system and special account receipts and payments statement;
 - Physical checks (both schedule and on the spot) of assets and petty cash held.

Restricted access:

52. All data, records and assets shall be kept in a physically secure environment. This shall cover safe keeping of financial records such as personnel files and bank details. In addition, any petty cash shall be kept securely. Financial data and other records shall also be protected in the form of back up procedures. All work shall be regularly saved and copy records stored securely off site.

SUPERVISIONS & AUDITS

53. IFAD supervision missions, INREMP internal and external audits constitute the added layers of controls, which shall remain independent from Programme implementation.

IFAD supervision missions

- 54. INREMP shall be subject to extensive supervision from IFAD during the whole implementation period to ensure that the PCMU fiduciary requirements are completed on time and to minimise the Programme's fiduciary risks. If financial arrangements of the PCMU are deemed acceptable, IFAD shall rely on them to provide assurance that the financing proceeds are being used for the intended purposes. In the case that IFAD identifies significant weaknesses in financial arrangements in place, it shall require the PCMU to take appropriate measures to mitigate those risks such as changing the design of internal controls or making sure their frequency or effectiveness improves or modifying the disbursement arrangements.
- 55. IFAD financial management supervision missions shall usually involve the following tasks:
 - Monitoring the timely submission of audit reports and reviewing them in details;
 - Verifying the implementation of audit recommendations made by past supervision missions;
 - Monitoring the submission of timely periodic financial reports and reviewing of these reports; and
 - Monitoring disbursement rates and quality of the received Withdrawal Applications.
- 56. Throughout Programme implementation, IFAD shall conduct annual or semi-annual financial management supervision (and implementation support) missions. Such missions shall determine ratings on compliance with IFAD overall financial management requirements. During supervisory missions, IFAD shall assess and monitor the adequacy of PCMU financial management arrangements for the following processes: accounting, budgeting, internal controls, flows of funds, financial reporting and auditing practices. The key findings and recommendations of the mission shall be captured in an "aide-mémoire" document.
- 57. When preparing for and during an IFAD financial management supervision mission, necessary supporting actions by the Programme Programme Finance Manager and his / her team shall include the following:
 - Update and make available INREMP financial information, i.e. AWPB and reports
 e.g. expenditure incurred by Component / category / Financier as of the last day
 of the preceding month;
 - Update and make available reports on the status of Counterpart funding has the Recipient / lead Programme implementation agency made available financing proceeds to the Programme as planned?
 - Provide a walkthrough of the existing accounting system including its main modules for budgeting, accounting, financial reports, fixed asset register as well as the security settings in use;
 - Facilitate checking of internal controls by way of system walkthroughs, in order to ensure that approved procedures are consistently being followed;
 - Make available recent Withdrawal Applications, Statements of Expenditure and all supporting documentation regarding expenditure claimed under applicable SoE thresholds to facilitate the verification of the adequacy, completeness and validity of claims;
 - Make available evidence of qualifications and educational background of the financial staff including organogram of the PCMU, CVs, ToR of each position and INREMP training plan;
 - Update and make available the central fixed asset register and facilitate sample test checks of the physical existence and tagging / labelling of assets;
 - Make available all written procedures regarding financial and administrative operations such as transaction processing, accounting manual, fixed asset maintenance and records management as well as the lead Programme agency's anticorruption policy and whistle blowing procedures;

- Avail the updated bank reconciliation statements, accompanied by the corresponding accounting ledgers and bank statements for all designated and Programme accounts;
- Arrange meeting with auditors and any other selected party requested by the mission;
- Make available all necessary documentation regarding procurement not subject to prior review;
- Provide an update on the actions taken regarding the past audit recommendations as well as action points outlined in the past aide-mémoire documents;
- Participate in report writing if necessary.

PCMU internal audits

- 58. Internal audits will be conducted to provide assurance that the Programme is being implemented in accordance with the PIM, complies with Government regulations and is complying with Programme financing covenants. The Programme will utilize the internal audit function at MoALD to carry out internal audit. The internal Auditors will be required to carry out the audit of the Programme at least twice annually.
- 59. The Internal Auditor shall plan his work much in advance and transparently. A risk-based annual audit plan for the following year shall prepared at least one month before the end of the current year this shall be planned by month / quarter and contain:
 - Routine financial tasks to be completed all year long, such as reviewing vouchers following a "full audit" approach, or on a sample basis if risks have been assessed as low: this may be done in the field or as a "desk review" provided that adequate archiving of electronic documents is in place;
 - Compliance audits to verify the Programme complies with its commitments towards the Financiers: this includes reviewing quarterly financial reports submitted to IFAD and annual reports to GCF and GEF.
 - Geographical audits focused on given Programme areas: this may involve interviewing all staff of the concerned office, starting with the National/District Coordinator ideally, each district shall be visited at least twice in a year, however priority may be given to high risk areas.
 - Process audits focused on key processes at PCMU: this may include Programme management (i.e. internal controls and tools designed to mitigate various operational risks for each Programme Component), as well as procurement, fixed asset and stock management, etc.
- 60. The annual audit plan shall be flexible in case new risks would arise during Programme implementation: it may therefore be revised as per the needs, but always formally, for instance 6 months after the year start.
- 61. Missions of the Internal Auditor, shall usually involve the following tasks:
 - Reviewing vouchers, contracts and procurement files for all or sampled transactions;
 - Verifying that Programme activities were conducted as per the plan and as described in reports;
 - Inspecting the policies and documentation prepared to manage specific Component activities:
 - Meeting a sample of beneficiaries in different localities and villages to obtain their feedback;
 - Reviewing quarterly financial reports, including Withdrawal Applications per Financier;

- Reviewing monthly trial balances, bank reconciliations, calculations of exchange rate, updated contract register, leave follow-up, fixed asset register, fuel consumption report; and
- Following-up imprest amounts, reviewing monthly cash counts and performing surprise counts.
- 62. Internal audit reports for each specific mission, as well as annual (and semi-annual) reports summarising all activities conducted against the annual audit plan, shall be made available to the PCMU and the Project Steering Committee. They shall be available for review during supervision missions and external audits. Financial procedures (including procedures required at community level) shall be documented in a Financial Implementation Manual, which shall be a condition for disbursement. Training of all staff on financial management and fiduciary controls shall be provided once before implementation begins; once after implementation has commenced and once two years after implementation.

External audits

- 63. The project will be audited by the Office of the Auditor General, which is the Supreme Audit Institution of Kenya. The auditor will prepare a work plan to ensure adequate coverage of the various counties/ implementing agencies that receive Programme funds and cover all the major risk areas. The audit terms of reference will be approved by IFAD in advance in line with the guidance provided in the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed projects. The audited financial statements for the project will be submitted to IFAD within six months after the period end in accordance with IFAD guidelines.
- 64. The Auditor in drawing up his audit Programmes incorporates review of the implementation of the previous period's recommendations. If those recommendations have not been followed this will be stated in the current audit report. The audited financial statements will be submitted to IFAD within 6 months after financial end as required by IFAD.
- 65. Nature of Programme eligible expenditures Programme expenditure categories have been allocated in accordance with the standard expenditure categories. Detailed cost tables are presented in this document. Transaction-based disbursement procedures will be used. The eligibility of expenditure should require:
 - a) The expenditure shall meet the reasonable cost of goods, works and services required for the Programme and covered by the relevant AWPB and procured in conformity with the procurement guidelines
 - b) The expenditure shall be incurred during the Programme implementation period, except that expenditures to meet the costs of winding up the Programme that may be incurred after the Programme completion date and before the closing date
 - c) The expenditure shall be incurred by a Programme party
 - d) If the agreement allocates the amount of the financing to categories of eligible expenditures and specifies the percentages of such eligible expenditures to be financed, the expenditure must relate to a category whose allocation has not been depleted, and shall be eligible only up to the percentage applicable to such category.
 - e) The expenditure shall be otherwise eligible in accordance with the terms of the financing agreement
 - f) Sub-grantees advances to sub-grantees will only be recognized as eligible expenditures once justified. The recipient will be accountable for the use of sub-grant funds. Recipient and sub-grantees' expenditure (if applicable) should be consolidated for inclusion in the SOF

- g) Income generated from advance withdrawals (if any) should be disclosed in the IFRs.
- h) Transaction Lists should provide a breakdown of individual transactions by expenditure category and should be easily reconcilable to the IFRs.
- i) Transaction Lists should include and integrate detail transaction lists from the Sub-Recipients, when applicable.
- j) IFRs should be prepared in the same currency as the denomination currency of the FA/GA. If Programmes incur expenditure in currencies other than that of the FA/GA, the exchange rate used for reporting expenditure should be the rate applied when funds were received, on a first in, first out (FIFO) basis.
- 66. The GCF handbook will be provided which provide guidelines on the utilisation of GCF funds.
- 67. All payment vouchers will be examined to ascertain the following requirements:
 - That the expenditure has been incurred on proper authority and is a charge to properly voted funds.
 - That payment vouchers are supported by original documents or certified photocopies of the original documents (such copies must be certified by the appropriate officer that he has taken all possible steps to ensure that no payment has been made on the original document).
 - That rates charged are according to regulations/contracts, fair and reasonable.
 - That appropriate authority has been obtained and a copy of the minutes attached to the payment vouchers for reference purposes.
 - That the allocation of account codes is correct.
 - That appropriate certificates have been signed by the officer authorized.
 - That the vote book control certificate has been duly signed to confirm availability
 of funds.
 - That the computations and costing have been verified and are arithmetically correct.
 - That the persons named in the payment vouchers are those entitled to receive the payment.
 - Any alterations of payment voucher should be counter signed by the head in charge of the unit.
 - That the signatories to the certificates are as per those indicated in the specimen signature document
 - That payments are supported by duly certified invoices, receipted bills (for direct cash payments), LPOs, LSOs, copies of supplier's delivery note, and the certificate at the reverse of the payment voucher signed to confirm stores entry into the relevant inventory ledgers.
- 68. External audits shall be ex-post reviews of INREMP financial statements, also looking at internal controls and compliance with all applicable rules, laws and regulations; they shall examine the adequacy of accounting systems and procedures, the capacity to maintain appropriate accounts and supporting documentation of the Programme expenditure. External audits aim at providing credibility and assurance of accountability to Financiers, Programme staff and other stakeholders such as the Government. Detailed instructions regarding external audits are outlined in IFAD Handbook for Financial Reporting and Auditing of Programmes available at https://www.ifad.org/en/document-detail/asset/39641638, which is updated from time to time.

PROGRAMME COMPLETION & CLOSING

69. The Programme Closing Date shall be six months after INREMP official Completion Date or as would be advised in the grant agreement. Both deadlines have direct financial implications on Programme management such as: development and submission of a recovery plan, ensuring eligibility of expenditure and submission of the necessary documents outlined below. Please also refer to section 1.3 of the Disbursement Handbook.

Recovery plan:

70. To ensure that INREMP Designated Account is completely and timely justified, the Programme Finance Manager is to develop a "recovery plan" outlining the percentages per Withdrawal Application that shall be recovered and paid respectively. This shall be submitted to IFAD 6 months before the Completion Date or when the outstanding balance (amount still undisbursed by IFAD) is less than double of the authorised allocation.

Grant completion:

71. As defined in the Financing Agreement, by then all the Programme activities shall have been finalized. Payments may also be done also after the Completion Date provided that commitments / contracts / purchase orders are signed and expenditure incurred (i.e. services rendered or goods delivered) prior to the Completion Date. Activities that have continued after the Completion Date are not considered eligible types of expenditure and may therefore not be financed by IFAD. Exceptions to the rule: after the Completion Date but no later than the Closing Date, the PCMU may still incur expenditure related to the "winding-up" process, e.g. final audit, Programme completion report, salaries of staff involved in winding up activities, PCMU maintenance cost or Programme completion workshop.

Progamme closure:

- 72. IFAD requires the following to be provided by the PCMU in order to close the Programme:
 - Confirmation of last Withdrawal Application;
 - Submission of final audit report; and
 - Submission of Programme completion report.
- 73. The final audit report shall cover the final Programme year and winding-up expenditure and may be paid from the funds available balance by using direct payment or reimbursement of pre-financed expenditure.

Terms of reference: Internal Audit Services Borrower: Government of Kenya

Contract Internal audit services.

Project INREMP

Location Republic of Kenya, various locations in the Country

Duration 2 month per annum

Starting Date [insert] **Languages required** English

1. Background:

[INSERT]

2. Reporting System:

The objective of the Internal Auditor is to add value and improve the Project's operations and assist Project's steering committee and management by independently reviewing all activities, processes and systems with particular regard to risk and control aspects and bringing a systematic and disciplined approach to the effectiveness of risk management, control, and governance processes.

The internal auditor will possess a thorough knowledge of internal auditing procedures, accounting procedures and have sound judgment on risk identification and management.

The internal auditor will produce a quarterly/semi-annual internal audit report presented to the Project Coordinator.

Internal Auditor shall monitor the appropriate follow-up on audit findings and recommendations. All significant findings will remain in an open issues file until cleared.

3. Independence:

The internal auditor reports to the Project Steering Committee, who appoints and terminates the internal auditor upon recommendation of the IFAD/Government. The internal auditor will work under the overall supervision of the Project's Steering Committee.

All internal audit activities shall remain free of influence by any element in the organisation, including matters of audit selection, scope, procedures, frequency, timing, or report content to permit maintenance of an independent and objective mental attitude necessary in performing the function.

Internal Audit shall have no direct operational responsibility or authority over any of the activities it reviews. Accordingly, it shall not develop nor install systems or procedures, prepare records, or engage in any other activity which would normally be considered management or staff's responsibility.

4. Authority and confidentiality:

Authority is granted for full and unrestricted access to all **THE PROJECT** records, physical properties, and staff relevant to any area under review. All employees are requested to assist the internal audit in fulfilling its function.

Documents and information obtained by the internal audit firm will be handled in the same prudent and confidential manner as by those employees normally accountable for them.

5. Duties and Responsibilities:

Within the framework, as described above, the internal audit auditor will carry out the following tasks:

 Conduct a post-audit procedure on the INREMP PCMU with respect to their functions and activities within the project. Make recommendations on possible improvements of the procedures to enhance control mechanisms, financial performance and produce quality reports for senior management and Project Steering committee, to enhance decision making, on monthly basis.

- Audit all contracts signed between INREMP PCMU and/or implementing agencies /counties with service providers, suppliers, and contractors to verify that (i) compliance with terms and conditions of grant / loan agreements and procurement regulations and donor guidelines; and (ii) the contract is in line with best practice with respect to compliance with terms of reference, request for proposal, tender documents etc.
- Develop professional and constructive working relationships with key managers and be able to challenge when necessary.
- Lead development of specific innovative ways of working and new ideas for reviewing risk and control issues.
- Assess risk and control related policies and procedures, provide input to updates in existing procedural documents with respect to controls as necessary
- Apply internal audit procedures to audit the financial statements, accounting records and other financial and non-financial registries applying accepted internal audit standards.
- Undertake special assignments and investigations and in particular undertake more complex and high-level audit investigations under advisement of the Project Steering Committee.
- Reviewing the means of safeguarding assets and, as appropriate, verifying their existence.
- Reviewing and appraising the economy and efficiency with which resources are employed.
- Reviewing operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned, including verify the adherence of INREMP PCMU staff to AWPBs, policies, plans, procedures, laws, and fund regulations that are influential on Fund works as well as donors accounting procedures.
- Asses the efficiency, effectiveness and economy of the usage of resources and reports of any deviations in case they are existed.
- Reviewing the adequacy, implementation and operation of donors' transparency and accountability policies and of other anti-corruption, fraud and related misuse policies and procedures.
- Confirming adherence to the Financial Manual (as approved by IFAD).

6. Audit Planning:

- Internal Audit firm shall regularly submit to the Project Steering Committee an up-todate summary of the audit work schedule.
- The audit work schedule is developed based on a prioritisation of the audit universe using a risk-based methodology. Any significant deviation from the formally approved work schedule shall be communicated to the Project Steering Committee through periodic activity reports.
- The audit planning shall pay specific attention to the activities of the implementing agencies which report to PCMU.

7. Qualification criteria:

- Internal auditor should be member of recognized professional international Accountancy/ Audit body
- The internal auditor shall adhere to The Institute of Internal Auditors' Code of Ethics and The Institute's International Standards for the Professional Practice of Internal Auditing.
- Assigned employees to have:
 - o Proven relevant working experience in Internal Audit.

- o Proven experience of risk management frameworks and approaches.
- Experience of operational auditing & risk-based approach to review.
- Excellent negotiating and high-level influencing skills and the ability to challenge at a senior level when necessary.
- Ability to work in challenging environments.
- Ability to work and deliver to tight deadlines.
- Logical and systematic in analytical thinking.
- o Facilitation and presentational skills.
- Full Working knowledge of English, including excellent drafting and presentation skills.
- Excellent computer skills, including full working knowledge of standard word processing, spreadsheets and presentation packages.

Terms of reference: External Auditor

Borrower: Government of Kenya

Project: Integrated Natural Resources Management Programme (INREMP)

Financing Agreements:

IFAD: Loan xxx;
GCF: Grant xxx

GoK: Counterpart Funds

Background

- The International Fund for Agricultural Development (IFAD) is aiding the Borrower in the form of a loan and grants.
- IFAD requires the Borrower to appoint an independent auditor to audit the accounts related to the Project, in accordance with the IFAD Handbook on Financial Reporting and Auditing.
- The Auditor for INREMP project shall be the Auditor General of Kenya.
- The entity prepares its financial statements in accordance with the IPSAS Cash Basis of Financial Reporting.
- (insert other relevant info)

Objective

The objective of this audit is to enable the auditor to express an opinion on whether the financial statements (including additional disclosures as outlined in section 5) fairly present, in all material respects, the financial position of the reporting entity as at [insert

year-end date], and/or the results of its operations and cash flows for the years then ended, in conformity with the [applicable accounting standards].

3. Responsibilities of the [borrower/recipient]

I. General

- Provide financial statements for the activities financed by the loan/[grant] that are reconcilable with its records and accounts.
- Provide the auditor with access to all legal documents and correspondence with consultants, contractors and other persons or firms engaged by the project and any other information associated with the project that the auditor deems necessary.
- Ensure that accounting policies are consistently applied and disclosed.
- Ensure that appropriate internal controls are implemented to prevent misstatements and susceptibility to fraud.
- Ensure compliance with all relevant laws and regulations that pertain to the entity, as well as with the financing agreement between the [borrower/recipient] and IFAD.
- Provide the financial statements to the auditor within a reasonable time and be available for any queries that the auditor may have.

II. Financial Statements

The [borrower/recipient] shall:

- Prepare financial statements covering the reporting period [date] to [date], in accordance
- with acceptable accounting standards that will be identified in the Notes to the Financial Statements.

In addition, the following specific disclosures will be included in the financial statements:

- Withdrawal application statement appendix 1 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects.
- Sources and uses of funds statement appendix 2 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects.
- Designated account statement and reconciliation appendix 3(a) and 3(b) to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects.
- [Statements of expenditures appendix 4 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects] applicable to grants.
- Expenditure transaction list online, provided in <u>IFAD Grant Forms</u> repository; see document C.2 "Transaction List"] applicable to grants.
- Where the amount transferred to the Implementing Partners (IPs) is substantial, the IPs should transmit a copy of the audited financial statement to the PMU/PCU.

4. Responsibilities of the auditor

I. Auditing standards

• The auditor is responsible for issuing an opinion on the financial statements in accordance with [ISA/ISSAI/national auditing standards].

II. General Principles

By agreeing to these terms, the auditor confirms that:

• The firm is independent of the project, its staff and its activities, consistent with international best practices.

- The firm is not currently providing consulting services to the project or preparing its project financial statements (nor has it done so in the previous two years).
- The auditor is suitably qualified and a member of a professional body affiliated with the International Federation of Accountants.
- [The office of [public auditors] is a member of the International Organization of Supreme Audit Institutions (INTOSAI)].
- The auditor is able to conduct the audit in accordance with auditing standards acceptable to IFAD, pursuant to paragraph 4 (I).
- The firm can assign an audit team with the necessary competence and skills to the audit.
- The firm has a proven track record in conducting audits of a similar nature and complexity.

III. Reporting

The auditor is required to deliver an audit package in compliance with ISA 700 and include:

- The audited financial statements, including additional disclosures as outlined in paragraph 3 (II).
- A report on factual findings, within the scope of agreed-upon procedures, as outlined in paragraph 6. Any ineligible expenditure identified should be clearly mentioned.
- A Management Letter, including the information outlined in paragraph 4 (IV).

IV. Management Letter

The Management Letter is an integral part of the audit package that documents accounting and internal control issues identified by the auditors. The format of the management letter should classify the findings by risk priority. The management letter should:

- Provide comments and observations on the accounting records, systems and internal controls examined during the course of the audit, identify specific deficiencies and areas of weakness in systems and controls and make recommendations for their improvement;
- Include project management's responses to the identified control issues and its proposal to address the issues identified within a specific time.
- Where applicable, follow up on the issues identified in the previous year's management letter.
- Provide comments on economy, efficiency, and effectiveness in project management's use of resources.
- Report on the degree of compliance with each financial covenant in the financing agreement and provide comments, if any, on internal and external matters affecting such compliance.
- Communicate matters that have come to the auditor's attention during the audit that might have a significant impact on the implementation of the project.
- Review results and findings on IFR reliability for the reporting period.
- Any other matters that the auditors deem pertinent.
- List additional procedures, if applicable.

The audit report should provide sufficient detail as to the nature and extent of the procedures performed by the auditor. The auditor is required to provide the audit package by no later than [insert date]. Reports are to be delivered in the official language of the financing agreement.

5. Scope of the financial audit

In performing the audit, the auditor shall, at a minimum:

- Confirm whether the financial statements have been prepared following international (IPSAS, GAAP, IFRS), regional or national accounting standards; in the latter case, identify elements of difference with the international standards.
- Confirm the auditing standards used for the audit.
- Obtain audit evidence that the financial statements are fairly presented and free of material misstatements, in accordance with the applicable accounting framework
- Assess internal controls related to the financial reporting process, and identify any weakness that might result in misstatements, whether due to fraud or error.
- Verify the reliability of the SOEs or IFRs, as the case may be, used to support
 withdrawal applications and ensure that they are reliable and accurately reflect
 expenditures incurred and activities carried out during the reporting period.
- Verify whether expenditure incurred in the name of the project is consistent with the terms of the financing agreement(s) (appendix xx) and incurred for the purposes intended in this agreement. Both IFAD and third-party funding should be considered.
- Verify whether counterpart funds provided by the Government of [Country] have been provided and used in accordance with the relevant financing agreement; verify that the amount of in-kind contribution is reported according to the agreed accounting principles and that the reported fair-market value for all in-kind contribution items is reasonable and fully and accurately disclosed in the financial statements.
- Verify that the inventory and fixed assets held by the entity exist, are complete, are properly accounted and are used for project purposes; at project closure, confirm that the project assets are transferred to the borrower/recipient or the entity identified in the financing agreement.
- Verify the project's recurrent costs (salaries and operating costs) claimed under WAs and ensure they are reasonable, congruent with the implementation needs of the project and within the acceptable threshold (FA schedule II and its revisions).
- The audit should cover selected project regional/provincial implementing units as per the audit plan agreed with the PMU/PCU

6. Scope of the agreed-upon procedures

The auditor is required to perform the following specific procedures and report on factual findings, as required in paragraph 4.3.

I. Withdrawal application statement

The auditor is requested to obtain the individual withdrawal applications (WAs) submitted to IFAD, as summarized in the withdrawal application statement, and develop test procedures to:

- Confirm that the withdrawal application statement is reconciled with the amounts disbursed by the Fund and deposited to the designated account (DA).
- Confirm that the withdrawal application statement is reconciled with the IFRs submitted to the Fund.
- Ascertain whether the designated account currency equivalent was determined using the historical exchange rate of transfers to the operating account or the accounting rules used.
- [List additional procedures, if applicable]⁵⁸

II. Designated account statement

The auditor is requested to review the activities of the designated account(s) associated with the project, including the initial advance, replenishments, interest that may accrue on the outstanding and year-end balances. The auditor is requested to develop test procedures to:

- Check the accuracy of the DA reconciliation(s).
- Confirm that the DA(s) has/have been maintained in accordance with the
 provisions of the financing agreement and that transactions from the DA(s)
 are accurately and correctly recorded in the financial accounts and
 statements of the project.
- Check that expenditures as reported in the project's financial statements are reconciled with the amounts withdrawn from the DA and that the amounts deposited to the DA are reconciled with the amounts disbursed by the Fund.
- Reconciliation should also be made with the amounts paid from the prefinancing account and direct payments (if any).
- [List additional procedures, if applicable]

III. Interim Financial Reports (IFRs) and Certified Statements of Expenditure (SOEs)

The auditor is requested to obtain the certified SOEs or IFRs as submitted to IFAD and apply such tests and control as the auditor deems necessary under the circumstances, to:

- Ascertain that the financial management system is reliable to produce the IFRs and has met Fund requirement during the year.
- Determine whether the expenditures incurred are related to activities outlined in the AWPB and consistent with the grant agreement.
- Determine whether the funds have been utilized for the intended purposes, with due regard to economy, efficiency and social equity.
- Determine whether the SOE threshold was set for the financing instrument and the IFRs prepared accordingly.
- Determine whether the expenditures claimed through IFRs or SOEs were properly and appropriately authorized, classified⁵⁹ and supported by adequate documentation.
- Identify any ineligible expenditures, including the nature of the ineligible expenditures, the date incurred, and the IFR period.
- [List additional procedures, if applicable]

IV. Agreed-upon procedures for donor-funded projects

- In the case of projects financed by the Green Climate Fund (GCF), the auditors will assess the compliance of the project accounting records and the GCF Annual Progress Report (APR) with the applicable GCF requirements (e.g. expenditure eligibility, categorization vis-à-vis the GCF budget categories; etc.).
- Include specific requirements for other donors, as needed.
- [List additional procedures, if applicable]

V. Other

• [List additional procedures, if applicable]

7. Public disclosure

IFAD promotes public disclosure of project financial information to enhance the level of transparency and accountability. IFAD will disclose project audit reports, as appropriate, in line with the Fund's disclosure policy. Management letters issued by auditors are not subject to public disclosure by IFAD. In agreeing to the terms of reference, the auditor explicitly acknowledges IFAD's right to publicly disclose audit reports (audited financial statements and audit opinion) and will issue reports without a limitation-of-use clause.

To facilitate the public disclosure process, the auditor is requested to submit two separate files as follows:

- Audited financial statements, audit opinion and report on factual findings (the latter where applicable).
- Management Letter.

8. Appendices

Appendix: Financing/grant agreement(s)

Appendix: Financial Management and Financial Control Letter

Appendix: IFAD Handbook on Financial Reporting and Auditing of IFAD-

financed Projects

Appendix: IFAD General Conditions for Agricultural Develop Financing

Signed by:

Date:

List of key expert positions whose CV and experience would be evaluated.

Key Expert Position	Area of Specific Expertise required	Minimum Qualification and Professional Experience Required	Likely Staff inputs required in person Days for Audit
Audit Director	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations; general coordination and management of the project, preparation and signing of audit report	Minimum 7 years of relevant project experience	10
Audit Manager	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations; Primary management, client communication and review.	Minimum 7 years of relevant project experience	15
Audit Senior	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations. Performance of	Minimum 5 years of relevant project experience	20

	detailed audit procedures.		
Audit Assistants (2)	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations. Primary review of working papers, financial statements and performance of detailed audit procedures.	Minimum 3 years of relevant project experience	20 day each

. Useful links

Document	Link
IFAD financial management e- learning	https://www.ifad.org/elearning_cfs_a/index.html
Revised IFAD policy on preventing fraud and corruption in its activities and operations (December 2018)	https://www.ifad.org/en/document-detail/asset/40189695
Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)	http://www.intosai.org/issai-executive-summaries/detail/intosai-gov-9100-guidelines-for-internal-control-standards-for-the-public-sector.html
IFAD General Conditions for Agricultural Development Financing	https://www.ifad.org/documents/38711624/394210 24/general_e.pdf/47c5f14b-2903-4285-b0b0- 62c67cd650b8
IFAD Handbook for Financial Reporting and Auditing of IFAD -financed projects (English)	https://www.ifad.org/documents/38711624/394210 09/IFAD+Handbook+for+Financial+Reporting+and +Auditing+of+IFAD-Financed+Projects/133b165d- 15c7-4f79-8217-aef95b79dd67
IFAD Loan Disbursement Handbook	https://www.ifad.org/web/guest/document-detail/asset/39635782
IFAD Financial Management and Financial Control (FMFCL)	https://www.ifad.org/web/guest/document-detail/asset/39637251
IPSAS Cash Standard	https://www.ifac.org/publications- resources/revised-cash-basis-ipsas

ICP page	https://icp.ifad.org/
ICP support email	icpsupport@ifad.org

TOR of INREMP Finance Staff

Terms of reference: Financial Manager

Post title:Financial Manager of INREMPOrganisation:INREMP PCMU Under MoALDLocation:Nairobi or Eldoret, Kenya

Name of Project: INREMP

Duration: Two-year renewable

Type of contract: short term Closing date: insert

1. Background

The Ministry of Agriculture and Livestock Development (MoALD) is responsible for the implementation and administration of agricultural projects financed by the Government of Kenya and other international donors.

MoALD has established Programme Coordination and Management Unit (PCMU) to implement Integrated Natural Resources Management Programme (INREMP) in the country.

The Overall Scope of Work for INREMP Financial Management Unit

The Finance Manager reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Finance Manager also supports the Project Coordinator in the resource mobilization of the Project. The Finance Manager will be responsible for expediting all loan management and disbursement activities through the Ministry of Finance.

Main tasks and Responsibilities

Specific responsibilities of the Finance Manager include but are not limited to the following:

- Installation of accounting systems to ensure that the PCMU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Kenya budget as required by the GoK budgeting processes and calendars including access to counterpart

- funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Communicate to all implementing partner institutions and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Assess compliance with Government of Kenya laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with the prevailing standards.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Kenya and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Liaise with the other project implementing agencies to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
- Review eligibility of expenditure in accordance with the financing agreement.
- Report on the operation of internal control including budget controls and report any deviations.
- Assist the Project Coordinator with the Resource Mobilization of the Project.
- Deputize the Project Coordinator in matters project administration
- Any other duty as may be assigned by the Project Coordinator.

2. Institutional Organization

The Financial Manager will work closely with INREMP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

3. Reporting and Aapproval

The Financial Manager will report to PCMU Coordinator who will evaluate performance of his/her responsibilities every year.

4. Qualifications and Experience

The Finance Manager should satisfy the following qualifications and criteria:

- An Advance Degree in Business Administration, Finance, Accounting, Economics or related with a relevant Bachelor's Degree from a recognized University.
- Professional Qualification in ACCA or CPA qualification.
- At least a minimum of 7 years' experience working in a similar field and level, 5 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

5. Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Terms of reference: Project Accountant

Post title:Project Accountant of INREMPOrganisation:INREMP PCMU Under MoALDLocation:Nairobi or Eldoret, Kenya

Name of Project: INREMP

Duration: Two-year renewable

Type of contract: short term **Closing date:** insert

1. Background

The Ministry of Agriculture and Livestock Development (MoALD) is responsible for the implementation and administration of agricultural projects financed by the Government of Kenya and other international donors.

MOALD has established Programme Coordination and Management Unit (PCMU) to implement Integrated Natural Resources Management Programme (INREMP) in the country.

The Overall Scope of Work for INREMP Financial Management Unit

The Finance manager reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Finance Manager also supports the Project Coordinator in the resource mobilization of the Project. The Finance Manager will be responsible for expediting all loan management and disbursement activities. The Finance Manager is assisted by Project Accountant and Assistant Accountant.

Main tasks and Responsibilities of Accountant

Specific responsibilities of the Accountant include but are not limited to the following:

- Manage the financial reporting systems to ensure that the accounting records and information is update to date at any given time.
- Support the finance manager and component heads to prepare the annual work plan and budgets for approval by GoK and IFAD.
- Assist to manage approved budget to ensure AWPB procedures and controls are applied to monitor expenditures to avoid commitments beyond available resources.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Ensure compliance with Government of Kenya laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.

- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Assist the finance manager to prepare interim financial reports and financial statements in accordance with the prevailing standards.
- Assist the finance manager in the prepare and make the books of the project available for both internal and external audits to meet the dates set by both Government of Kenya and IFAD.
- Assist the finance manager to implement audit recommendations in a timely manner.
- Review eligibility of expenditure in accordance with the financing agreement.
- Any other duty as may be assigned by the Project Finance Manager.

6. Institutional Organization

The project Accountant will work closely with INREMP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

7. Reporting and Approval

The Project Accountant will report to Finance Manager who will evaluate performance of his/her responsibilities every year.

8. Qualifications and Experience

The Project Accountant should satisfy the following qualifications and criteria:

- An Advance Degree in Business Administration, Finance, Accounting, Economics or related with a relevant Bachelor's Degree from a recognized University.
- Professional Qualification in ACCA or CPA qualification.
- At least a minimum of 5 years' experience working in a similar field and level, 3 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

9. Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Terms of reference: Assistant Accountant

Post title: Assistant Accountant of INREMP
Organisation: INREMP PCMU Under MOALD
Location: Nairobi or Eldoret, Kenya

Name of Project: INREMP

Duration: Two-year renewable

Type of contract: short term **Closing date:** insert

1. Background

The Ministry of Agriculture and Livestock Development (MoALD) is responsible for the implementation and administration of agricultural projects financed by the Government of Kenya and other international donors.

MoALD has established Programme Coordination and Management Unit (PCMU) to implement Integrated Natural Resources Management Programme (INREMP) in the country.

The Overall Scope of Work for INREMP Financial Management Unit

The Financial Controller reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Finance Manager also supports the Project Coordinator in the resource mobilization of the Project. The Finance Manager will be responsible for expediting all loan management and disbursement activities. The Finance Manager is assisted by an Accountant and Assistant Accountant.

Main tasks and Responsibilities of Assistant Accountant

Specific responsibilities of the Assistant Accountant include but are not limited to the following:

- Disbursements for advancing the project components' costs according to applications, payment of the PCMU costs from the project designated accounts;
- Preparation of monthly cash flow reports for all available project accounts;
- Inventory of fixed assets, assets procured under the projects, monitoring and the like;
- Accounting, ensuring proper control over the project financial resources, flow of funds and disbursements following the adopted procedures and accounting standards and complying with the requirements of IFAD and other donors;
- Processing the reports by components and primary documents, keeping the entire entries and daily banking operations in the accounting software according to bank statements;
- Processing the advance reports of both the PCMU staff and the components' staff;
- Keeping the electronic cash book and control over bank statements;
- Control over the fuel consumption and keeping the SOE;

- Cash payments and advances from the project cash for operating and other project (projects) costs;
- Preparation of all supporting documents on the project costs accompanying the withdrawal application;
- Preparation of monthly cash flow reports for all available project accounts;
- Participation in preparation of various reports, information materials at the request of the MoFPED, IFAD other donors;
- Perform other relevant duties at the request of the Finance Manager.

10.Institutional Organization

The Assistant Accountant will work closely with INREMP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

11.Reporting and Aapproval

The Assistant Accountant will report to Finance Manager who will evaluate performance of his/her responsibilities every year.

12. Qualifications and Experience

The Finance Manager should satisfy the following qualifications and criteria:

- A Bachelor's Degree in Business Administration, Finance, Accounting, Economics from a recognized University.
- Professional Qualification in ACCA or CPA qualification.
- At least a minimum of 5 years' experience working in a similar field and level, 3 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

13.Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Illustrative financial statements

Interim Financial Report (IFRs) Templates:

Interim Financial Report User Guide:

INTERIM FINANCIAL REPORT USER GUIDE

Protection Password: 1234

Tips:

Provide information in cells highlighted with this color

The cells containing sums and analysis shall be updated automatically.

Cash Forecast:

Provide project information in the highlighted Cells of the Sheet. The "Descriptions" of Categories and Components in this sheet are linked with other sheets. Once provided in this statement will automatically update the "Descriptions in all other statements.

Provide funds forecast for the subsequent two quarters along with anticipated direct payments, in line Provide funds forecast for the subsequent two quarters along with anticipated direct payments, in line with approved AWPB for current year. In case the Cash Forecast for subsequent two quarters include fourth quarter of the approved AWPB and the first quarter of the subsequent year (for which the approved of AWPB is awaited), provide forecast of the fourth quarter of approved AWPB in "Next Reporting Quarter" column and forecast of the first quarter as per the draft AWPB of subsequent financial year in "Following Reporting Quarter". Once the AWPB of the subsequent year is approved, the information is to be aligned as per the approved AWPB in subsequent WA.

Summary of Sources and Uses of Funds-DA Account:

Provide actual data in cells highlighted with this color.
It should only include the information related to the receipts and payments from DA only.

Designated Account Activity:

Provide required information in the cells highlighted with this color. Information in the other cells is linked with relevant statements/formulas and it shall be updated automatically. Relevant necessary instruction are provided in the last column for compliance.

"WA Submitted but not yet credited"; to include any pending WA that was submitted in ICP but was not credited to DA as of the relevant application date

"WA received after the end of the quarter (for emergency advances only)"; this line to be filled when project is submitting an emergency advance. It must include any WA received after the end of the directly preceding quarter.

Variance Analysis - Reporting Quarter:

Provide information in cells highlighted with this color.

Provide forecasted figures in the "Planned" column for the reporting quarter. The Planned figures for the Quarter are to be aligned with "Cash Forecast" of the resepctive quarter submitted in last WA.

Provide figures for any Direct Payments or Reimbursements in "Direct Payments/ Reimbursements" column that were made directly by IFAD to any other account during the reporting quarter.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement and shall be updated automatically

The formulas for variances are incorporated in "Variance" columns and the information shall be updated

Variance Analysis - Financial Year:

Provide information in cells highlighted with this color.

Provide approved AWPB figures in the "Planned" column for the respective year.

Provide year to-date figures for any Direct Payments or Reimbursements in "Direct Payments/ Reimbursements" column which were made directly by IFAD to any other account during the

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.

The Columns for Cash Forecast are linked with relevant columns of "Cash Forecast" statement.

The formulas for calculating "Balance", "Variance" and "Performance" are incorporated in relevant columns and the information shall be updated automatically

Variance Analysis - Cumulative:

Provide information in cells highlighted with this color.

Provide overall project allocations as per Project Design/Revisions (if any) in the "Planned"

Provide cumulative since inception to-date figures for any Direct Payments or Reimbursements in "Direct Payments," Reimbursements" column which were made directly by IFAD to any other account since the inception of the Project.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.

The formulas for calculating "Balance" and "Performance" are incorporated in relevant columns and the information shall be updated automatically.

Report I: Cash Forecast for Next 2 Quarters

Project Name: SAPEMP Finance Instruments Numbers

For the Period: Starting Date To End Date

				IFAD Loan	
	Disbursement Category	Ref	Next Reporting Quarter	Following Reporting Quarter	Total for 2 Subsequent Quarters
			Α	В	С
			DA D	enominated Curr	ency
Forec	ast by Category:				
1	Category 1 (As per the FA)		-	-	-
2	Category 2 (As per the FA)		-	-	-
3	Category 3 (As per the FA)		-	-	-
4	Category 4 (As per the FA)		-	-	-
5	Category 5 (As per the FA)		-	-	-
Total		I	-	-	-
Forec	ast by Component:				
1	Component 1 (As per the FA)		-	-	-
2	Component 2 (As per the FA)		-	-	-
3	Component 3 (As per the FA)		-	-	-
Total	(must be equal to I)	II	-	-	-
Total	Cash Forecast Expenditure	III	-	-	-
Less:	Planned Direct Payments/Reimburse	IV	-	-	-
Net pr	ojected expenditure from DA	V=III-IV			_

Authorized Signatory

Report II: Summary of Sources and Uses of Funds - DA Account

Project Name: SAPEMP Finance Instruments Numbers For the Period: Starting Date End Date IFAD Loan Quarter Year Inception Description REF To-Date To-Date **DA Denominated Currency** Sources of Funds: DA Opening Balances Operating account opening balance Petty cash opening balance Funds received Total Cash Available 1 Actual since Uses of Funds by Category: Actual for Qtr Actual for FY inception 1 Category 1 (As per the FA) 2 Category 2 (As per the FA) 3 Category 3 (As per the FA) 4 Category 4 (As per the FA) 5 Category 5 (As per the FA) Total Funds Used by Categories П Uses of Funds by Component: 1 Component 1 (As per the FA) 2 Component 2 (As per the FA) 3 Component 3 (As per the FA) Total Funds Used by Component (must be equal to II) Ш Category not yet identified/adjustments/advance, if any ١٧ Closing Cash Balances: Represented by: V=I-II-IV DA Closing Balance Operating account Closing Balance Petty cash Closing Balance

Total Closing Balance (must equal V): ۷I

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Name

Designation

Organization/Project

Report III: Designated Account Activity Statement

Project Name: SAPEMP Finance Instruments Numbers For the Period:

For the Period: <u>Starting Date</u> <u>End Date</u>

PART I		
	IFAD Loan	Remarks
	DA Denominated Currency	
PART I (Advances and Expenditure)		
Cumulative Advances into the DA by IFAD to the end of Reporting Quarter	-	
Cumulative Expenditure justified by IFAD until the end of previous reporting Quarter		This should match with IFAD records. In case of any differences between project figures and justifie figures as per IFAD records, it has to be explained in Line 11 below.
3. Outstanding Advances to be accounted for (Line 1 minus Line 2)	-	This should match with IFAD records.
DADTH (DA A et la)		
PART II (DA Activity)		
4. DA balance at beginning of Reporing Quarter	-	
Advances by IFAD during the Quarter		
Add/Substract - Cumulative Adjustments (if any)		If not zero, please provide explanation
7. Sub total of Advances and Adjustments (Line 5 plus Line 6)		
8. Outstanding Advances to be accounted for (Line 4 plus Line 7)	-	
9. DA balance at end of Quarter		
10. Expenditure incurred during the Reporting Quarter		
11. Add/Less - Adjustments (if any)		If not zero, please provide explanation
12. Total expenditure reported (net of adjustments) (Line 10 plus Line 11)		
13. Total Advance accounted for: Add Line 9 and Line 12	-	
14. Difference if any (Line 8 minus Line 13)	-	If not zero, please provide explanation
PART III (CASH FORECASTS)		
15. Total Forecasted amount for subsequent 2 Quarters	-	
Planned Direct Payments, Reimbursements, if any Net Forecasted Expenditures from Designated Account (Line 15 less)	-	
Line 16)		
18. Closing DA balance at the end of reporting Quarter after adjustments	-	
19. WA Submitted but not yet credited	-	
20. WA received after the end of the quarter (for emergency advances only)	-	Only to be filled in case of emergency advance
21. Replenishment Requirement for Subsequent 2 Reporting Quarters (Line 17 minus Line 18 to 20)	-	
PART IV (SUMMARY OF WITHDRAWAL APPLICATION)		
PART IV (SUMMART OF WITHDRAWAL APPLICATION)		
22. Amounts to be justified against the expenditure incurred during current quarter	-	This amount is to be submitted as justification through the "WA for justification" "his line could be not considered for emergency advances applications I his amount is to be submitted through a separate
23. DA Additional Advance - Cash requirement for Subsequent 2 Reporting Quarters, if required.*	-	"WA for advance" to request this additional advance
Explanation for Line 6 (if not zero):	FMR & AW Ref.	
Explanation for Line 11 (if not zero):	FMR & AW Ref.	
Explanation for item 14 (if not zero):	FMR & AW Ref.	I
	1	
Explanation for item 19 (if not zero):	FA4D 8 A14/ Def	
Expranation 101 Italii 19 (II flut 2010).	FMR & AW Ref.	I
	1	
		Authorized Signatory

Report IV: Variance Analysis of Use of Funds by Quarter

Project Name: SAPEMP Finance Instruments Numbers

For the Period: <u>Starting Date</u> TO <u>End Date</u>

			IFAD Loan		
	Planned	Actual Expenditure from DA	Direct Payment/ Reimbursement s		ance*
	Α	В	С	D	E
	Ref: AWP/ Forecast	Actual for the Quarter	Actual for the Quarter	A-B-C	D/A
		DA Denomir	nated Currency		%age
Expenditure by Categories:					
1 Category 1 (As per the FA)	-	-	-		
2 Category 2 (As per the FA)	-	-	-		
3 Category 3 (As per the FA)	-	-	-		
4 Category 4 (As per the FA)	-	-	-		
5 Category 5 (As per the FA)	-	-	-		
TOTAL I	-	-	-		
Expenditure by Components:					
1 Component 1 (As per the FA)	-	-	-		
2 Component 2 (As per the FA)	-	-	-		
3 Component 3 (As per the FA)	-	-	-		
TOTAL II (must be equal to I)	-	-	-		

^{*} Note: Provide reasons if the quarterly variances are equal to or more than 10%

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Report V: Variance Analysis of Use of Funds - FY

FY Start Date

Project Name: SAPEMP Finance Instruments Numbers For the Period:

1 Component 1 (As per the FA)
2 Component 2 (As per the FA)
3 Component 3 (As per the FA)
L II (must be equal to I)

IFAD Loan Actual Direct Payment/ Variance* Planned Expenditure Balance Forecast Reimbursements from DA D=A-B-C F=D-E G=(B+C)/A В Variance b/w Actual Actual Cumulative year todate AWPB Available Balance Cash Forecast for next 2 quarters Ref: AWP/ Forecast AWPB Balance and Cash Forecast Progress against AWPB year todate **DA Denominated Currency** %age Expenditure by Categories: 1 Category 1 (As per the FA) 2 Category 2 (As per the FA) 3 Category 3 (As per the FA) 4 Category 4 (As per the FA) 5 Category 5 (As per the FA) Expenditure by Components:

End Date

<u>To</u>

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^{*} Note: Provide reasons if the Cash Forecast is over and above AWPB Balance (i.e. the Forecast includes the Quarter 1 of the Subsequent AWPB)

Report VI: Variance Analysis of Use of Funds - Cumulative

Project Name: SAPEMP Finance Instruments Numbers

For the Period: Since Inception TO End Date

	IFAD Loan									
	Planned	Actual Expenditure from DA	Direct Payment/ Reimbursements	Progre	ess					
	Α	В	С	D	Е					
	As per Project Design	Actual Cumulative todate	Actual Cumulative todate	A-B-C	D/A					
		DA Denomir	ated Currency		%age					
Expenditure by Categories:										
1 Category 1 (As per the FA)	-	-	-							
2 Category 2 (As per the FA)	-	-	-							
3 Category 3 (As per the FA)	-	-	-							
4 Category 4 (As per the FA)	-	-	-							
5 Category 5 (As per the FA)	-	-	-							
TOTAL I	-	-	-							
Expenditure by Components:										
1 Component 1 (As per the FA)	-	-	-							
2 Component 2 (As per the FA)	-	-	-							
3 Component 3 (As per the FA)	-	-	-							
TOTAL II (must be equal to I)	-	-	-							

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Section 3 -Annual Performance Report Financial Information

Detailed financial information requirements established in the Funded Activity Agreement related to this project should be provided in this template. This document should be submitted together with the Annual Performance Report within 60 days after the end of the calendar year, unless otherwise specified in the AMA. Please fill the sections applicable to the Funded Activity.

Accredited Entity
Funded Activity Number and Title
Target Country(ies) of the Project
Project Implementation Period
Reporting Period covered in this report
Date of submission of this report
Reporting Currency¹

(Full name of the Accredited Entity)
(As per the approved Funding Proposal)

From: dd/mm/yyyy To: dd/mm/yyyy From: dd/mm/yyyy To: dd/mm/yyyy

dd/mm/yyyy

(EUR/USD/JPY/GBP)

Footnotes:

1/ Specify the reporting currency

3.1 GCF FUND BALANCE

			GCF Proc	eeds Only
			CUMULATIVE THROUGH TO THE END OF THIS REPORTING PERIOD (EUR/USD/JPY/GBP)	FOR THE CURRENT REPORTING PERIOD (EUR/USD/JPY/GBP)
3.1.1	Opening Fund balance		(2017/002/)1 1/ 021)	(2011) 002/31 1/ 021)
01212		Opening balance ¹		
3.1.2	Funded Activity Inflows			
a		Funded Activity Proceeds from GCF to AE:		
i.		Grant Instrument		
ii.		Loan Instrument		
iii.		Equity Instrument		
iv.		Guarantee Instrument		
b		Reflowed funds received by AE	-	1
С		Investment & Other Income	-	-
T	otal Inflows		-	•
3.1.3	Funded Activity Outflows			
a		Grant expenditure	-	-
b	Amount used for the Funded	Loan disbursed or used ²	-	
С	Activity	Equity paid	-	
d		Guarantees exercised	-	
Sı	ub-total Funded Activity Outflows		-	-
e	Reflowed Funds	Reflowed funds paid to GCF	-	-
Sı	ub-total Reflowed Funds		-	-
	otal Outflows		-	
3.1.4	Closing Balance			

Footnotes:

Note: Fill out cells without formula only. The rest of the cells will populate automatically based on the information presented in the subsequent sheets.

 $^{1/\}operatorname{Opening}\,balance\,should\,correspond\,to\,the\,closing\,balance\,of\,the\,prior\,reporting\,period$

 $^{2/}Loan\ disbursed\ or\ used\ by\ the\ AE\ out\ of\ GCF\ Proceeds$

					3.2 FINANCIAL	PROGRESS DETAI	LS- GRANT INSTRUMEN	VΤ				
OUTPUT/ COMPONENT ¹	SUB-OUTPUT / SUB- COMPONENT ¹	FINANCING SOURCE	BUDGET CATEGORIES ¹	APPROVED BUDGET FOR ENTIRE PROJECT PERIOD AS PER FAA	CUMULATIVE BUDGET THROUGH TO THE END OF THIS REPORTING PERIOD	BUDGET FOR THIS REPORTING PERIOD	CUMULATIVE EXPENDITURE THROUGH TO THE END OF THIS REPORTING PERIOD	EXPENDITURE FOR THIS REPORTING PERIOD	COMMITMENTS ²	TOTAL	BUDGET UTILIZATION RATE %	EXPLANATION OF VARIANCES FROM BUDGET ²
			Staff Cost							(#DIV/0!	
			Local Consultants							(#DIV/0!	
			International Consultant								#DIV/0!	
		GCF	Equipment								#DIV/0!	
			Construction Cost							(#DIV/0!	
	Sub-component 1.1		Training, Workshop & Conferences							(#DIV/0!	
			Travel Cost							(#DIV/0!	
		Co-financier 1. etc.									#DIV/0!	
		Co-financier 2, etc.									#DIV/0!	
		Sub-Total									#DIV/0!	
Component 1, etc.**			Staff Cost							(#DIV/0!	
		GCF	Local Consultants							(#DIV/0!	
			International Consultant								#DIV/0!	
			Equipment								#DIV/0!	
	Sub-component 1.2.		Construction Cost								#DIV/0!	
	etc.		Training, Workshop & Conferences							(#DIV/0!	
			Travel Cost								#DIV/0!	
		Co-financier 1. etc.									#DIV/0!	
		Co-financier 2.etc.									#DIV/0!	
		Sub-Total									#DIV/0!	
	TOTAL COMPO	NENT LETC									#DIV/0!	
			Staff Cost								#DIV/0!	
		l	Local Consultants								#DIV/0!	
		l	International Consultant								#DIV/0!	
		GCF	Equipment							(#DIV/0!	
Component			Construction Cost								#DIV/0!	
Project Management Co.	sits	l	Training, Workshop & Conferences								#DIV/0!	
.,		l	Travel Cost								#DIV/0!	
		Co-financier 1									#DIV/0!	
		Co-financier 2. etc.									#DIV/0!	
		Sub-total									#DIV/0!	
	TOTAL COMPO										#DIV/0!	
		PROIECT TOTAL:									#DIV/0!	
	P	ROIECT TOTAL: GCF:									#DIV/0!	
		Co-Finance 1&2 etc:									#DIV/0!	
	The plant to the	- Interest										

3.3.1 Loan Breakdown

Component/Output ²	FINANCING SOURCE	Borrower Name	Loan Agreement Signing Date (DD/MM/YYYY)	Loan Amount Committed	Tenor (and Grace Period) ²	out of GCF Proceeds	Interest and Fees Earned (incl. Service Fee and Commitment Fees)	Amount	Cumulative Repayment of Principal by Borrower	Cumulative Payment of Interest by Borrower	Loan Loss Provisions	Loan Write-off	Book Value of Loan	Comments ⁴
		A											0	
Component 1	GCF	00											0	
Component 2	OC.	C, etc											0	
		Sub-total		0		0	0	0	0	0	0	0	0	
		A											0	
Component 2, etc.	GCF	8											0	
Component 2, etc.	oc.	C, etc											0	
				0		0	0	0	0	0	0	0	0	
		A											0	
Component 1,2, etc.	Co-financers	8											0	
Component 1,2, etc.	CO-IIII ancers	C, etc											0	
		Sub-total		0		0	0	0	0	0	0	0	0	
Project Total GCF														
Project Total Co-finan	icers			0		0	0	0	0	0	0	0	0	

Component/Output ²	Name of Investor	Shareholder Agreement Signing Date (DD/MM/YYYY)	Total Number of Shares Subscribed To	Total Value of Shares Subscribed To	Cumulative Number of Shares Paid For	Cumulative Value of Shares Paid For	Percentage of Shareholding (based on Committed Amount)
	SCF						#DIV/01
Component 1	Co-financer 1						#DIV/01
Component 1	Co-financer 2						#DIV/01
	Sub-total		0	0	0	0	
	GCF						#DIV/01
Component 2, etc	Co-financer 1						#DIV/01
Component 2, etc.	Co-financer 2						#DIV/01
	Sub-total		0	0	0	0	
Project Total GCF							#DIV/0!
Project Total Co-finar	icers				0	0	#DIV/0!

3.3.3 Guarantee Breakdown

Component/Output ²	Name of Guarantor	Gurantee Agreement Signing Date (DD/MM/YYYY)	Amount of Maximum Guarantee ⁵	Cumulative Amount Exercised/Called
	GCF			
Component 1	Co-financer 1			
Component 2	Co-financer 2			
	Sub-total		0	0
	GCF			
Component 2, etc	Co-financer 1			
Component 2, etc	Co-financer 2			
	Sub-total		0	0
Project Total GCF				
Project Total Co-financers				

3.4 INVESTMENT & OTHER INCOME STATEMENT¹ (if applicable)

Please provide a statement of Investment & Other Income earned on GCF Proceeds

Date (DD-MM-YYYY)	TYPE OF INCOME ²	Amount for the reporting period (EUR/USD/JPY/GBP)	Cumulative Amount to the end of reporting period (EUR/USD/JPY/GBP)
	Total amount	0	0

Is the reported Investment & Other Income for the Consolidated GCF Account or for this Funded Activity only? 1
This Funded Activity Only
Consolidated GCF Account

Footnotes:

1/ For agencies with more than one project, where all GCF Funds are held in a consolidated GCF Special Account, provide only one investment income statement for all funds held for GCF projects including investment income from the Executing Entity(ies). Please tick box as appropriate.

2/ Indicate type of other income, such as bank interest, investment income, proceeds from disposal of assets, etc.

Date (DO.M.M.YYY) TYPE OF REFLOW ¹ Date (DO.M.M.YYY) TYPE OF REFLOW ¹ Date (DO.M.M.YYY) TYPE OF REFLOW ¹ TYPE OF REFLOW ¹ Date (DO.M.M.YYY) TYPE OF REFLOW ¹ Date (DO.M.M.YYY)				
	Total amount	0		

3.5 KEFLOWED FUNDS					
	REFLOWED FUNDS PAID TO THE GCF				
Planned Date (DD-MM-YYYY)	Actual Date (DD-MM-YYYY)	Amount for the reporting period	Cumulative Amount to the end of reporting period	Comments (Provide explanations of variances in the amount, date, prepayments, delinquent payments and others relevant information)	
	Total amount	0	0		

Footnotes:

3.6 REPORT ON AE FEES

Report on Accredited Entity fees ¹	USED AMOUNT (for the reporting period)	USED AMOUNT (Cumulative)	As percentage (% of Cumulative amount)
BY COST CATEGORIES			
Staff and consultant costs			#DIV/0!
Travel			#DIV/0!
Rent and common costs			#DIV/0!
Equipment supplies and other costs			#DIV/0!
Procurement and legal/Contractual services			#DIV/0!
Reimbursement of central services for core unit staff			#DIV/0!
Other, etc			#DIV/0!
Total:	0	0	#DIV/0!

Amount of AE fees disbursed (Cumulative):	
Amount of unused AE fees (Cumulative):	0

Footnotes:

1/ To be submitted on an annual basis

3.7 FINANCIAL CLOSE

FINANCIAL CLOSE ¹ (if applicable)		
Date of Financial Closing	(DD-MM-YYYY)	
Amount Disbursed from GCF to AE:	(EUR/USD/JPY/GBP)	
Total amount of GCF Funding used for the Funded Activity	(EUR/USD/JPY/GBP)	
Amount committed as at the date of Financial Closing ²	(EUR/USD/JPY/GBP)	
Unused Amount	(EUR/USD/JPY/GBP)	
Unused Amount paid to GCF	(EUR/USD/JPY/GBP)	

Please provide an explanation in the case of unused amounts not paid back to GCF at the date of Financial Closing (if any).

Footnotes:

1/ This section is only applicable to projects that have financially closed, per the terms of the Funded Activity Agreement. Closing Date refers to the date on which the Accredited Entity's right to receive disbursements in respect of the Funded Activity will terminate, as defined in the relevant Funded Activity Agreement.

2/ Refers only to the items as of the closing date where the AE has signed binding contracts, against which expenditure will be incurred after the closing date.

N.B. This sheet is designed for GCF to automatically e	xtract data from the other sheets in the financial performance report Excel template. No action is required by AEs on this sheet as all the below values are get	nerated with formulas.
Sources	Data fields	Values
Cover sheet (from Section 3 Financial Information)	Reporting currency	(EUR/USD/JPY/GBP)
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Grant	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Loan	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Equity	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Guarantee	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative reflowed funds received by AE	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative Investment & Other Income	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative total inflows	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Grant	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Loan	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Equity	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Guarantee	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Reflowed funds received by AE	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Investment & Other Income	
SCF proceeds only (from Section 3.1)	GCF proceeds For reporting period: Total inflows	
GCF proceeds only (from Section 3.1)	GCF proceeds Cumulative outflows: Amount used for the funded activity - Grant expenditure	İ
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid	
CF proceeds only (from Section 3.1)	GCF proceeds Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised	
GCF proceeds only (from Section 3.1)	GCF proceeds Cumulative Reflowed funds paid to GCF	
GCF proceeds only (from Section 3.1)	GCF proceeds Cumulative total outflows	
SCF proceeds only (from Section 3.1)	GCF proceeds Outflows for reporting period: Amount used for the funded activity - Grant expenditure	
GCF proceeds only (from Section 3.1)	GCF proceeds Outflows for reporting period: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds	
GCF proceeds only (from Section 3.1)	GCF proceeds Outflows for reporting period: Amount used for the funded activity - Equity paid	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Outflows for reporting period: Amount usedf for the funded activity - Guarantees exercised	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Reflowed funds paid to GCF	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Total outflows	
GCF proceeds only (from Section 3.2)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual+Committed)	
GCF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual+Committed)	
I/A	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid (Committed)	N/A
I/A	[GCF proceeds] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Committed)	N/A
GCF proceeds only (from Section 3.2)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual)	
CF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual)	
CF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid (Actual)	
CF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Actual)	
o-financing (from Section 3.2)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual+Committed)	
o-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual+Committed)	
I/A	[Co-financing] Cumulative outflows: Amount used for the funded activity - Equity paid (Committed)	N/A
I/A	[Co-financing] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Committed)	N/A
o-financing (from Section 3.2)	Co-financing Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual)	
o-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual)	
Co-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Equity paid (Actual)	
o-financing (from Section 3.3)	[Co-financine] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Actual)	



Republic of Kenya

Integrated Natural Resources Management Programme (INReMP)

PROJECT IMPLEMENTATION MANUAL (PIM)

OVERVIEW OF THE PROJECT IMPLEMENTATION MANUAL

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ABBREVIATIONS AND ACRONYMS

AFD Agence Française de Développement / French Development Agency AfDB African Development Bank AI Artificial Insemination AMR Antimicrobial Residues ASALS Arid and Semi-Arid Lands ASTGS Agricultural Sector Transformation and Growth Strategy AWPB Annual Work Plan and Budget BCR Benefit-Cost Ratio BETA Bottom-Up Economic Transformation Agenda BMU Beach Management Unit CAP Community Action Plan CBA Cost-Benefit Analysis CEC County Environment Committee CFA Community Forest Association CIDP County Integrated Development Plan CIG Common Interest Group COSP Country Strategic Opportunities Programme CSF Capital Stimulation Fund CSPE Country Strategic Opportunities Programme CSPE Country Strategy and Programme Evaluation DRSRS Directorate of Resource Surveys and Remote Sensing EFA Economic and Financial Analysis ESCMP Environment, Social and Climate Management Plan ESIA Environmental Social Impact Assessment EU European Union FAO Food and Agriculture Organization of the United Nations FGM Female Genital Mutilation FO Farmer Organization GALS Gender Action Learning System GBV Gender-Based Violence GCF Green Climate Fund GDP Gross Domestic Product GEWE Gender Equality and Women's Empowerment GEG Green Climate Fund GDP Gross Domestic Product GEWE Gender Equality and Women's Empowerment GEG Green Climate Fund GMG Greenhouse Gas Emissions GML Geoder Transformation Systems GMG Government of Kenya GRAW Green Roads for Water GTA Gender Transformative Approach ICRAF International Center for Research in Agroforestry IFAD International Center for Research in Agroforestry IFAD International Report IRR Internal Rate of Return	ABDP	Aquaculture Business Development Programme
AfDB African Development Bank AI Artificial Insemination AMR Antimicrobial Residues ASALS Arid and Semi-Arid Lands ASTGS Agricultural Sector Transformation and Growth Strategy AMPB Annual Work Plan and Budget BCR Benefit-Cost Ratio BETA Bottom-Up Economic Transformation Agenda BMU Beach Management Unit CAP Community Action Plan CBA Cost-Benefit Analysis CEC County Environment Committee CFA Community Forest Association CIDP County Integrated Development Plan CIG Common Interest Group CIMES County Integrated Monitoring and Evaluation System COSOP Country Strategic Opportunities Programme CSF Capital Stimulation Fund CSPE County Strategy and Programme Evaluation DRSRS Directorate of Resource Surveys and Remote Sensing EFA Economic and Financial Analysis ESCMP Environment, Social and Climate Management Plan ESIA Environmental Social Impact Assessment EU European Union FAO Food and Agriculture Organization of the United Nations FGM Female Genital Mutiliation FO Farmer Organization GALS Gender Action Learning System GBV Gender-Based Violence GCF Green Climate Fund GDP Gross Domestic Product GEWE Gender Equality and Women's Empowerment GEF Global Environment Facility GHG Greenhouse Gas Emissions GHI Global Hunger Index GIS Geographical Information Systems GGW Gorennent of Kenya GRAW Green Roads for Water GTA Gender Transformative Approach ICP IFAD Client Portal ICRAF International Center for Research in Agroforestry IFAD International Report IRR Internal Rate of Return		
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GEWE Gender Equality and Women's Empowerment GEF Global Environment Facility GHG Greenhouse Gas Emissions GHI Global Hunger Index GIS Geographical Information Systems GoK Government of Kenya GR4W Green Roads for Water GTA Gender Transformative Approach ICP IFAD Client Portal ICRAF International Center for Research in Agroforestry IFAD International Fund for Agricultural Development IFR Interim Financial Report IRR Internal Rate of Return	GCF	Green Climate Fund
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GIS Geographical Information Systems GoK Government of Kenya GR4W Green Roads for Water GTA Gender Transformative Approach ICP IFAD Client Portal ICRAF International Center for Research in Agroforestry IFAD International Fund for Agricultural Development IFR Interim Financial Report IRR Internal Rate of Return	GHG	Greenhouse Gas Emissions
GoK Government of Kenya GR4W Green Roads for Water GTA Gender Transformative Approach ICP IFAD Client Portal ICRAF International Center for Research in Agroforestry IFAD International Fund for Agricultural Development IFR Interim Financial Report IRR Internal Rate of Return	GHI	Global Hunger Index
GR4W Green Roads for Water GTA Gender Transformative Approach ICP IFAD Client Portal ICRAF International Center for Research in Agroforestry IFAD International Fund for Agricultural Development IFR Interim Financial Report IRR Internal Rate of Return	GIS	Geographical Information Systems
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ICRAF International Center for Research in Agroforestry IFAD International Fund for Agricultural Development IFR Interim Financial Report IRR Internal Rate of Return		
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IME International Monetary Fund		
	IMF	International Monetary Fund
INReMP Integrated Natural Resources Management Programme		
INRM Integrated Natural Resources Management		Integrated Natural Resources Management
IoT Internet of Things	IoT	Internet of Things
IP Indigenous Peoples		
IWUA Irrigation Water Users' Association		
KALRO Kenya Agricultural and Livestock Research Organization	KALRO	Kenya Agricultural and Livestock Research Organization

KeLCoP	Kanya Livertack Commercialization Project
KCEP-CRAL	Kenya Livestock Commercialization Project
KCEP-CRAL	Kenya Cereal Enhancement Programme-Climate Resilient Agricultural
KMCC	Livelihoods Window
KMCS	Knowledge Management and Communication Strategy
LMP	Livestock Master Plan
MCC	Milk Collection Center
MDA	Ministries, Departments and Agencies
MECCF	Ministry of Environment, Climate Change and Forestry
MIS	Management Information System
MNO	Mobile Network Operator
MoALD	Ministry of Agriculture and Livestock Development
MoU	Memoranda of Understanding
MRV	Monitoring, Reporting, and Verification
MSMEs	Micro, Small and Medium Enterprises
MTP	Medium-Term Plan
NAP	National Adaptation Plan
NCCSRP	National Climate Change Security Response Programme
NDC	Nationally Determined Contributions
ND-GAIN	University of Notre Dame Global Adaptation Initiative
NEET	Not in Employment, Education or Training
NGAO	National Government Administrative Officers
NRM	Natural Resources Management
NPV	Net Present Value
NUS	Neglected Underutilized Species
OPEN	Online Procurement End-to-end
ORMS	Operational Results Management System
PAL	Procurement Arrangement Letter
PCMU	Programme Coordination and Management Unit
PDO	Programme Development Objective
PDT	Project Delivery Team
PES	Payment for Ecosystem Services
PIM	Programme Implementation Manual
PLWHAs	Persons Living with HIV/AIDS
PLWDs	People Living with Disabilities
PP	Procurement Plan
PPADA	Public Procurement and Asset Disposal Act
PPRA	Public Procurement Regulatory Authority
PPS	Programme Procurement Strategy
PRA	Participatory Rural Appraisal
PSC	Programme Steering Committee
PWD	Persons with Disabilities
RCMRD	Regional Centre for Mapping of Resources for Development
RDMT	Resilience Design and Monitoring Tool
RK-FINFA	Rural Kenya Financial Inclusion Facility
RLMA	Rural Labour Market Assessment
SAI	Supreme Audit Institution
SBD	Standard Bidding Document
SECAP	Social, Environment and Climate Assessment Procedures
SME	Small and Medium Enterprise
SLM	Sustainable Land Management
SO	Strategic Objective
ToC	Theory of Change
ToT	Training of Trainers
UNDP	United Nations Development Programme
UNSDCF	United Nations Sustainable Development Cooperation Framework

USD	United States Dollar
UTaNRMP	Upper Tana Natural Resources Management Project
UTNWF	Upper Tana Nairobi Water Fund
VfM	Value for Money
VIP	Ventilation Improved Pit-latrine
VPH	Veterinary Public Health
WCCC	Ward Climate Change Committee
WRUA	Water Resources Users Association

PART I: FRAMEWORK AND RESPONSBILITIES

I.1: DEFINITIONS

- 1. **Farmer Field School (FFS) approach** It is a methodology that was originally developed by the Food and Agriculture Organization (FAO) as a participatory approach for people-centred learning. Practical field exercises using direct observation, discussion and decision making encourage learning-by-doing and participants can exchange knowledge in a risk-free environment. Local knowledge and outside scientific insights are tested, validated and integrated directly in farmers' fields, under their localized ecosystems and socio-economic settings.
- 2. **Watershed** It is a hydrological unit that discharges rainfall runoff to an outlet in the downstream. It has been described and used as a physical-biological unit that could be easily monitored using objectively verifiable indicators and also, on many occasions, as a socio-economic-political unit for planning and management of natural resources.
- 3. **Watershed Management Plans (WMPs)** are consolidated overviews of a given watershed, identifying geographical features of the watershed, of the main economic activities, in particular farming and livestock, as well as the local communities. They represent a holistic planning approach for project site selection. They are finalized upon site selection and technical assessment of proposed project activities.
- 4. Water Users Association (WUA) It is a local institution established with the objective of supporting the construction of water-related schemes and managing them after completion. Its major roles include: a) creating enabling environment (including community contribution/mobilization) during construction; b) ensure proper distribution of water after construction; c) managing water conflicts as well as carrying out the operation and maintenance. This could be an irrigation scheme, a multipurpose water point, etc.
- 5. **Food Insecurity** It is the inability to obtain sufficient food (in terms of calories) and other essential goods and services to lead a healthy life.
- 6. **Food Security** "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". (World Food Summit, 1996).
- 7. **Implementing Agencies (IA)** It is the agency assigned the responsibility of implementation of the Project. It leads the participatory process of preparing the Annual Work Plan and Budget (AWPB) and receives funding to support implementation of the approved activities. It also has the responsibility of monitoring, documenting and reporting progress towards achieving the Project's development objective.
- 8. **Nutrition-related Knowledge, Attitude and Practices (KAP) survey** It assess and explore peoples' KAP relating to nutrition, diet, foods and closely related hygiene and health issues. KAP studies are mainly used to: a) collect key information during a situation analysis, feeding into the design of nutrition interventions; and b) to evaluate nutrition education interventions.
- 9. **Project Implementation Manual (PIM)** It is an annex to the Project Design Report (PDR). It provides practical guidance to Project implementers on key implementation aspects. It describes in detail how the Project components and activities outlined in the PDR are intended to be implemented. The PIM outlines the detailed mechanisms, processes and procedures, formats, eligibility criteria, etc. which will ensure efficient Project implementation and achievement of the envisaged results. The PIM is a living document and may be updated at any time, as needs arise, during implementation.
- 10. **Time and Labour-Saving Technologies (TLST) and practices** These are tools and equipment that reduce the drudgery and/or improve the efficiency of performing various farming, off-farm and household activities. These may include: a) the use of draught animals for land preparation, planting, weeding and rural transport; b) cooking

on fuel efficient stoves; c) harvesting roof water for domestic purposes, agro processing and value addition, etc.

- 11. Climate Smart Agriculture (CSA) Comprises the actions needed to transform and reorient agricultural systems to effectively support development and ensure food security under a changing climate. It aims at sustainably increasing agricultural productivity and incomes and adapting and building resilience to climate change. The term covers practices such as: a) Conservation Agriculture (CA); b) water and soil management; c) integrated production systems with efficient use of resources and less external inputs; d) diversification to increase resilience, etc.
- 12. **Conservation Agriculture (CA)** A farming system that promotes minimum soil disturbance (i.e. no tillage), maintenance of a permanent soil cover, and diversification of plant species. It enhances biodiversity and natural biological processes above and below the ground surface, which contribute to increased water and nutrient use efficiency and to improved and sustained crop production (FAO, 2016).
- 13. **Nature-based Solutions (NbS)** "Actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits" (IUCN, 2020)
- 14. **Social and Behaviour Change Communication** a research-based, consultative process that uses communication to promote and facilitate behaviour change and support the requisite social change for the purpose of improving positive behavioural outcomes such as nutrition.

I.2: PROGRAMME OVERVIEW

- 15. INReMP was jointly designed by GoK and IFAD. The Programme's rationale is premised on the fact that the combination of the country's good economic performance coupled with a high population growth rate, contribute to an increase in demand for agricultural products and the resultant pressure on existing natural resources. Although the country has a number of high agricultural potential areas, agricultural yields have been declining over time, largely due to poor natural resources management practices and impacts of climate change.
- 16. On the other hand, it has been severally demonstrated (by the Upper Tana Natural Resources Management Project (UTaNRMP), Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods Window (KCEP-CRAL), and GEF-funded Upper Tana Nairobi Water Fund(UTNWF) that: a) natural resources can be sustainably managed by communities, while achieving improved livelihoods and sustaining food and nutrition security; b) supporting communities with irrigation facilities is a game changer in the agriculture sector, leading to communities having three to four cropping cycles in a year; c) the private sector can contribute to ensure sustainable natural resources management; and d) communities can be supported to increase resilience to climate change. These projects have been successfully implemented and have generated lessons and best practices that will be scaled-up by INReMP to address similar constraints in other parts of the country. Thus, the Programme will upscale successful interventions from past and ongoing projects to enhance natural resources management, resilience to climate change, and productivity of the target value chains and an overall improvement in the beneficiaries livelihoods.
- 17. The Programme Goal is to 'contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem' and the Programme Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'. The Programme will be implemented over a seven-year period.

18. The Programme will be implemented with particular emphasis on the following themes:

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- > Gender Equality and Women's Empowerment (GEWE) Kenya has made significant progress over the years in the advancement of GEWE. The Global Gender Gap Index 2020 ranks Kenya at 109th out of 153. The country has supportive laws and policies, including the 2010 Constitution, Vision 2030, national and county gender policies, support increased gender equality, reserving opportunities for women or men affirmatively, youth, persons with disabilities and vulnerable groups. However, challenges of implementation of laws at the different levels, entrenched socio-cultural norms and attitudes continue to disadvantage women in Kenya. Female farmers in the rural areas have limited access and control to land, access to credit, resources and business assets. At community level, discrimination in land ownership and property rights, and unequal intra-household power relations disadvantage women's access and control over resources and limit their decision-making power in the households. Women usually receive credit from informal sources, such as friends, relatives and group savings. This limits women's economic development and is one of the root causes of poverty. Women often lack management skills, due to relatively low levels of education and technical skills, especially in the rural areas. Women's empowerment is hindered by cultural and traditional practices, such as early marriages and harmful traditional practices, such as Female Genital Mutilation (FGM), leading to schooldropouts. Women are actively engaged in environmental management, farming, livestock husbandry and marketing of some produce with limited control over those resources. The income from sales of eggs and poultry is considered to belong to women. Traditionally, women had a limited role in honey production although they were involved in selling honey in the local markets. Women in pastoralist households perform all the household tasks. One of the most time-consuming tasks is the collection of water; women and girls living in rural areas spend long hours collecting water and firewood and continue to face gender-based violence (GBV). They are also responsible for the care of livestock, especially small ruminants, in addition to childcare, household and community roles:
- > Youth Kenya's population is largely young, with 35.7 million Kenyans (75.1%) below the age of 35 years and offers a dynamic workforce that is highly adaptable, with a high uptake of technological innovations. Yet, youth record a high unemployment rate of 35%. The challenges faced by rural youth include lack of access to entrepreneurial opportunities, finance, acquiring relevant skills and job qualifications. The key challenges for the participation of youth in agriculture include negative perception and attitude to agriculture, inadequate skills, knowledge and information, limited agricultural innovation, limited access to finance and resources such as land, as well as inadequate policies to support youth in agribusiness. Due to pressure on land in rural areas and the preference of many young women and men for jobs outside agriculture, there are high levels of youth migration to urban areas. On the other hand, gender disparities tend to exacerbate the situation. For example, in 2019, the share of young women not in employment, education or training (NEET) was nearly twice as high as the male rate (14.9%)¹. The GoK has put in place various legal, institutional and policy frameworks to empower the youth at national level. The five-year County Integrated Development Plans (CIDPs) articulate regional development aspirations and youth empowerment as key. CIDPs seek to increase the quantity and quality of education and training to match labour market needs and creating decent employment opportunities for youth, with a focus on agribusiness, environmental management and ICT;
- > Indigenous and Marginalised Groups The peoples who identify with the indigenous groups in Kenya are estimated to number approximately 79,000, and are found among the pastoralist communities of Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus,

¹Kenya Youth Agribusiness Strategy (KYAS), 2017-2021

Somali, Gabra, Pokot and Endorois communities. Some of these groups may be found living in the Nandi, Elgeyo Marakwet and West Pokot counties. They experience land and resource tenure insecurity, poor service delivery, weak political representation, as well as general discrimination and exclusion². Marginalised groups also include Persons Living with HIV and AIDS (PLWHDs) and Persons with Disabilities (PWDs), who are estimated to represent around 4.6% of the whole population in Kenya. More PWDs live in rural than in urban areas. A quarter of PWDs work on family farms or Micro, Small and Medium Enterprises (MSMEs) but about one-third are unemployed³. As the other marginalized people, PWDs often face challenges in accessing education, health care and financial services and are vulnerable to food insecurity and hunger;

- Food and Nutrition Security Enhancing food and nutrition security is a top priority for GoK, as stated in the Kenya Constitution (2010). This commitment is further emphasized in the government's Bottom-Up Economic Transformation Agenda (BETA) focusing on achieving Food and Nutrition Security for the country's population, especially the marginalised groups and those in the lower pyramid. About 2.8 million people were reported to be food insecure by January 2024 and over 940,000 children suffered from severe wasting (acute malnutrition)⁴. In the 2023 Global Hunger Index (GHI) report, Kenya ranked 90th out of the 125 countries with a level of hunger that is serious with a score of 22.05. Kenya's ranking reflects the consequences of a combination of climatic shocks and stress, such as irregular rainfall patterns and increased frequency of extreme weather events, resulting in underperforming food systems and high food prices. Although Kenya has made improvements in reducing stunting and underweight among children under the age of five in the past 20 years, 18% of children under 5 are stunted, 5% are wasted and over 30% of adults are overweight or obese⁶. The underlying causes for malnutrition and food insecurity include: a) unavailability, economic access, and utilization of required food groups and dietary requirements; b) inadequate feeding and caring practices at individual, household, and community level; c) poor environmental hygiene; (d) lack of clean portable water. It is estimated that Kenya has suffered a loss of KSh 373.9 billion, equivalent to approximately 6.9% of the GDP, due to malnutrition. However, the Return on Investment for nutrition in Kenya is high, with an estimated return of USD 22 for every USD 1 invested in nutrition⁷. The country has prioritized access to diverse diets as a key area to achieve sustainable consumption patterns and promote good nutrition8;
- ➤ Climate and Environment Kenya is recognized as highly vulnerable to Climate change impacts and changing weather events and is ranked 152nd out of 181 countries in the 2019 ND-GAIN Index. Events of climate change have the potential to change species habitats, their interactions, and the timing of key biological actions, leading to significant transformations in existing ecosystems and food chains. It can exceed ecosystems' ability to cope with extreme events and disturbances like wildfires, floods, and droughts. According to the Word Bank Climate Country Profile report, Temperatures in Kenya are projected to continue rising by 1.7°C by the 2050s and by approximately 3.5°C at the end of the century. In addition, it is projected to experience highly variable and uncertain precipitation that is expected to increase by mid-century, particularly during the 'short rains', which occur between October and December.
- 19. **Programme Outcomes** INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing

²https://www.iwgia.org/en/kenya

³Kenya National Survey for PWDs, preliminary report, 2007

⁴https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Kenya_Acute_Food_Insecurity_Malnutrition_2023_Jul2024Jan_Report.pdf

⁵https://www.globalhungerindex.org/pdf/en/2023.pdf

Data from KDHS 2022, available at https://www.knbs.or.ke/kenya-demographic-and-health-survey-kdhs-2022/

⁷https://www.unicef.org/esa/sites/unicef.org.esa/files/2019-05/UNICEF-Kenya-2016-An-Investment-Framework-for-Nutrition-Knowledge-Brief.ndf

⁸Kenya Food Systems Draft Action Plan

alternative livelihood opportunities to the target groups. The following are the expected outcomes: a) Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action; b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

- 20. INReMP's Development Objective will be achieved through the effective implementation of two technical components and a third component that will focus on augmenting the capacity of communities, institutions, and contributing to a conducive policy environment towards Programme implementation. The nutrition actions will be integrated into the three project components as entry points to enhance the nutrition benefits of the interventions. Job creation for young women and men, including persons with disabilities, will be a main focus of all investments in the Programme. Following below is a summary of the expected focus of the different components.
- 21. Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams and lakes).
- 22. **Component 2: Improved, Inclusive and Sustainable Rural Livelihoods** This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live.
- 23. **Component 3: Institutional Strengthening, Policy Support and Programme Coordination** This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

I.3: Targeting, Gender, Youth and Persons with disabilities Mainstreaming I.3.1: Targeting

24. INReMP Target Counties - NReMP will be implemented in ten counties served by the Cherangany Hills and Mau West water towers. In the first phase, implementation will focus on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem. The second phase focal areas will be decided as and when additional funding is accessed. The Cherangany-Elgeyo Hills and Mau Ecosystems are important natural resources that lie within the Lake Victoria and Rift Valley drainage basins; they drain their water to Lake Victoria and serve more than 10 million people. Participating sub-counties and wards will be selected as a Programme activity and this will guided by a set of criteria that is included in the Targeting strategy section below.

- 25. **Target Group** INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people). INReMP will support the target households to: a) sustainably manage natural resources and climate-related risks for increase resilience and income, b) access technologies that sequester carbon or reduce greenhouse gas emissions; and c) develop/rehabilitate 25,000 ha of farmland under water-related infrastructure. INReMP's outreach will be 40% women, 30% young males and females and 5% comprising of IPs, PWDs, PLWHAs and other vulnerable groups from the following socio-economic groups:
 - a) Poor food insecure and vulnerable rural farmer households(30% of project target) who have little or no capacity to generate incomes, have limited productive assets and face environmental and climate shocks. This group includes those vulnerable to poverty as well as those vulnerable populations such as IPs, women-headed, PWDs and PLWHAs who are at risk of falling into poverty, with a priority on the poorest and most excluded, the poor and near pooras identified by the community empowerment processes. This group may be benefitting from existing social assistance programmes. Their coping mechanisms include reliance on traditional safety nets, such as borrowing from family, friends, and 'village savings groups' where each person contributes a part of their daily earnings and each day a different person receives the sum collected on a revolving basis. They will gradually participate in Programme activities through their group membership benefiting from INRM-based and livelihood interventions (e.g. soil and water conservation, reforestation);
 - b) Moderately food insecure rural farmer households (40% of project target), who already meet their minimal needs through subsistence farming, but remain vulnerable to shocks that hinder their capacity for surplus production for consumption and to make their production market oriented. Only a few smallholders are involved in farmer organizations; about 10% are members of a planting, weeding, and harvesting groups. In addition, they generally do not have access to ecosystem services and livelihood opportunities to enhance their production. They may be members of informal or community organizations at village level but need support to organize collective action. These farmers will be instrumental to supporting poor and near poor food insecure farmers to build their capacities and aid in knowledge transfer through Farmer Field Schools as they act as lead farmers to host demonstrations and provide extension advice to others. This group will provide input and output markets for others due to bulking of orders and having a large enough demand for the presence of service providers, like agrodealers and rural finance services;
 - c) Food secure, semi-structured and structured medium farmer households (30% of Programme target) capable of engaging in market activities in the selected VCs but require additional support to productivity and production increase and entrepreneurship activities. Structured farmers may have some assets and/or are organized into formally established and legally registered operational and viable producer and/or processor cooperatives or organizations. These farmers may have a market-oriented approach but lacking entrepreneurial/management skills to farm as a business and have limited access to extension services and to more commercial markets. They will benefit from Programme activities, such as improved access to markets through skills training, infrastructure and engaging in markets. These are included in INReMP interventions because they have the ability to support poor smallholders towards market orientation for sustainable livelihoods and production; and
 - d) Others who will benefit from INReMP include: i)Micro, small and medium scale enterprises who support climate smart technologies, value addition and market linkages in selected VCs. These enterprises are already engaged in some

entrepreneurial logic, and will be supported through a combination of technical, business capacity building to ensure all the three Programme target groups above benefit from backward and forward market facilitation/linkages. This will be provided in the scope of innovative value chain arrangements that enable the participation of smallholders in the selected value chains; and ii) Government officials who will benefit from capacity strengthening activities.

- 26. **Targeting Strategy** INReMP will develop a detailed Targeting strategy at start-up. This will be led by the Community Empowerment specialist. The targeting strategy will guide beneficiary identification at community levels. The PCMU will develop a detailed Beneficiary database should be developed (as part of M and E database). This will include bio data of all identified beneficiaries and their community groups. INReMP will use the following targeting measures:
- a) Geographic Targeting the participatory community empowerment and planning processes will be conducted during the first year of implementation. During this process, INReMP will determine the participating sub-counties in each County based on the following criteria; (i) Vulnerability to climate change risks (ii) Identify potential value chains with the highest possible degree of inclusion such as horticulture, fruit trees, apiculture etc. (iii) rural poverty rate, ethnic minorities poverty, and poverty severity of sub-counties and opportunities for women, and youth; (iv) potential scale-up and economic impact of selected value chains development; and (v) selected MSMEs will include those with "good market linkages" to serve as a springboard for the target groups and communities. Subsequently, about 5 value chains have been selected;
- b) Direct Targeting INReMP will apply representation targets in interventions to ensure 40% women, 30% youth and 5% persons with disabilities, PLWHAs, nutritionally vulnerable groups and other vulnerable groups are targeted. Close attention will be paid to procedural matters such as duration, timings and location of trainings etc. to ensure that target groups participate in Programme activities;
- c) Self-Targeting The selection of value chains and related infrastructure development will be done based on how likely they will benefit smallholder men, women and youth. The selected INRM and livelihood activities will be suitable for all target groups, in particular women and youth considering their potential for processing and value-adding opportunities; and
- d) Empowerment and Capacity Building Measures –INReMP will work with women, youth, IPs and other vulnerable minorities and their organizations, including the Women, Youth to ensure their participation in planning and decision-making processes and strengthens their capacities of groups formed these will be achieved through targeted capacity building activities for the different target groups, using a mix of strategies to increase participation. INReMP participatory planning, coupled with free, prior and informed consent procedures and an established grievance mechanism will mitigate against elite capture and trigger remedial actions, should such malpractice occur.
- 27. The targeting principles that INReMP will apply will include: a) targeting the poor and the vulnerable rural people especially in marginalized counties of Elgeyo Marakwet and West Pokot; b) recognizing the dynamic nature of poverty and the importance of tackling the multiple forms of vulnerability; c) ensuring that working with relatively better-off stakeholders, especially on the value chains results to direct benefits for the vulnerable; d) testing innovative targeting approaches by strengthening existing partnerships, such as on the Youth Agribusiness Hubs; e) adopting consultative and participatory approaches to targeting; and f) empowering and building the capacity of those who have less of a voice and fewer assets.

I.3.2: Gender and Youth Strategies

28. The GEWE, youth sensitive and Social inclusion strategies will be implemented through all the Components using community empowerment activities as the entry point.

To achieve gender transformation in gender equality and women empowerment, INReMP will undertake a Gender analysis at baseline incorporating the COI Indicator on Empowerment in the baseline module. The Gender analysis will inform the development of a detailed GEWE strategy and Gender action plan. At start-up PCMU, County, National government staff and implementing partners will be trained on Gender transformative Approaches (GTA) and GALS as part of development of the GEWE strategy.

- 29. The GEWE strategy and action plan will specifically detail how INReMP will address the following objectives of the IFAD Gender policy per Component and Subcomponents: (a) increase women economic empowerment through increasing their engagement in community activities, NRM, nutrition education awareness, crop production and livelihoods opportunities. 40 percent women will be targeted in all INReMP activities and affirmative measures will ensure women can equally participate in the activities; (b) increase participation of women, representation and decision-making at household, in farmers organizations, CCFAs, WRUAs, Cooperatives, COGs, CBOs etc and at community levels; (c) reduce women workloads by introducing technologies to increase resilient production, reduce post-harvest losses, increased access to water, water harvesting and labour-saving technologies and clean energy for cooking; (d) increase joint benefits sharing between men and women at households and community by promoting more equitable gender norms and practices. At household level, INReMP will apply GTA and tools such as the Gender Action Learning System (GALS) household methodology; (e) reduce Gender Based Violence, especially amongst women in fishing communities, by raising awareness and prevention of harmful traditional practices, such as child marriages and Female Genital Mutilation (FGM). Where relevant, partnerships with stakeholders already involved in addressing such issues will be sought for effectiveness; and (f) support policy engagement through review or development of gender policies and guidelines at County levels.
- 30. The Project will also ensure women participation and access to digital advisory services and access to inputs through the voucher services while ensuring targeted interventions through GTA bearing in mind addressing barriers for access to technology for women. GALS methodology will be key in ensuring that advisory services are targeting women through the community groups and content is gender sensitive. The Project Coordinator will be overall responsible for gender transformation. The Component leads will work closely with the PCMU Community Development, Gender and Youth specialist to ensure integration. At the Community levels, the PCMU will work with the Counties Departments for Gender and Social Development. Details are included in the draft Gender Equality and Women Empowerment Strategy in Appendix 4.
- 31. To be youth sensitive, INReMP will support a youth targeted Rural Labour Market Assessment (RLMA) for the 10 counties at start-up/baseline to inform youth participation in the selected value chains. INReMP will leverage on learning by the ongoing IFAD/USTADI initiative to roll out this study. The study will aim to identify the barriers and opportunities for Youth employment along the selected VCs focusing on the below key areas that are critical for youth empowerment. Once the study is done, a detailed Youth sensitive strategy will be developed to roll out youth programming. To achieve youth empowerment INReMP will support a) youth targeted skills training, capacity building, mindset change focusing on farming as a business, entrepreneurship and equipping youth with tools, and confidence-building; b) engaging with counties to increase youth access to land; c) increase youth participation, and representation in decision making in WRUAs, CFAs, FOs, cooperatives, CIGs and other community structures; d) digital solutions to increase youth participation; e) establishment of at least three Youth agribusiness hubs and strengthen the existing IFAD/USTADI supported hub in Kakamega to leverage learning and best practices, learnings to inform scale-up of the new hubs. The youth agribusiness hubs will be critical to achieve market linkages for youth. The hubs will create at least 3,000 new and decent jobs through wage and self-employment. INReMP will target 30% young females and males aged 18 to 35. Younger youth below 18 years in schools will receive trainings and participate in school greening activities while those out of school will be

reached through community groups. Details are included in the draft Youth empowerment and social inclusion strategy in Appendix 5.

I.3.3: Food and Nutrition Security Strategies

32. Nutrition sensitive strategies will be mainstreamed in the three project components as entry points to enhance the nutrition benefits of the INReMP project interventions. The aim is to increase supply and demand of affordable, nutritious, culturally appropriate, and safe foods to meet the dietary requirements of target population in a sustainable and healthy way. This will be accomplished through several strategies: a) Introducing nutrientdense varieties and promoting viable nutrient-dense commodities derived from natural resources to preserve agrobiodiversity. b) Implementing good post-harvest practices, techniques, and equipment to maintain the nutritional quality and safety of foods. c) Supporting the preservation, processing, and marketing of selected nutrition-sensitive value chains. d) Promoting nutrition-sensitive market standards and certifications to the farmers and private sector to enhance market systems and infrastructure. e) Utilizing Social Behaviour Change Communication, social marketing, and consumer education to raise awareness about food and nutrition and promote hygiene practices. f) Building capacity and institutionalizing nutrition-sensitive outputs and strategies to foster ownership and sustainability.

I.4: CLIMATE AND ENVIRONMENT

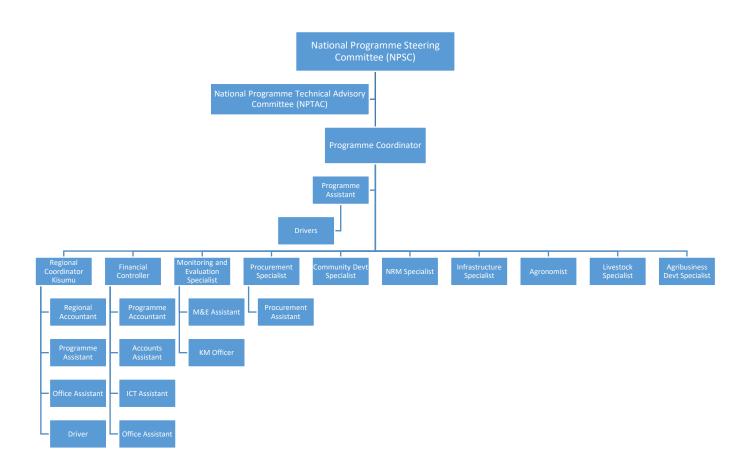
- 33. The Integrated Natural Resources Management Program has three components and respective subcomponents. The subcomponent that specifically addresses Climate and Environment is subcomponent 1.2 which seeks to improve environmental sustainability, INRM, and Ecosystem Services. The objective of this subcomponent is to enhance Integrated Natural Resource management, reduce degradation, rehabilitate, restore and sustainably manage available natural resources, protecting watershed and promote land management practices. The subcomponent will focus on forests, rangelands, arable land, wetlands and water resources using an ecosystem approach across the ten counties of the intervention. The programme will support rolling out, education and create awareness of communities on various Environmental Management and Coordination regulations. The expected outcomes include enhanced environmental sustainability and integrated management of natural resources and increased provision of ecosystem services, strengthening early warning systems and facilitating access to comprehensive climate data.
- 34. The protection of riparian zones. The areas of land adjacent to water bodies such as rivers, lakes, and wetlands, are crucial for safeguarding water catchments and maintaining the health of aquatic ecosystems. These zones serve as natural buffers that filter pollutants, prevent erosion, regulate water temperature, and provide habitat for diverse flora and fauna. Protecting riparian zones involves implementing measures to minimize human disturbances and promote ecological restoration, ultimately ensuring the sustainability of water resources and biodiversity. Riparian zones act as natural filters, trapping sediments, nutrients, and pollutants from runoff before they reach water bodies. By preserving these buffer areas, the quality of water in rivers and other water catchments can be enhanced, benefiting both aquatic ecosystems and human communities that rely on clean water for drinking, agriculture, dairy and diverse water utilities such as agri business and processing industries. The protection of riparian ecosystem will be realised through planting of appropriate vegetation like bamboos and vetiver grass within riparian zones which help stabilize riverbanks and reduce soil erosion by absorbing excess water and binding soil particles. This prevents sedimentation in water bodies, maintains channel stability and protects adjacent lands from the damaging effects of erosion such as loss of fertile soil and property damage.
- 35. **Forest Landscape Restoration**: This is the ongoing process of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes. It is more than just planting trees but rather restoring a whole landscape to

meet present and future needs and to offer multiple benefits and land uses over time. This intervention will be undertaken through different processes such as: new tree plantings, managed natural regeneration, agroforestry, or improved land management to accommodate a mosaic of land uses, including agriculture and protected forest reserves.

36. **Wetland restoration**: This involves taking efforts to restore a former or degraded wetland's physical, chemical, or biological characteristics to return its natural functions. Wetland restoration and protection often include on-the-ground collaborations between Community Based organizations, local Communities, and country government to advance shared interests. This approach often emphasizes wetland functionality to best support broader ecosystems and ecosystem services

I.5: Institutional arrangements and responsibilities

- 37. Implementation of the Programme will be mainstreamed into the GoK system, both at national and county levels.
- 38. Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer.
- 39. The Programme Organization Structure is outlined in the figure below:



I.5.1: Programme Coordination and Management Unit (PCMU)

- 40. Programme Coordination and Management Unit (PCMU) will be established comprising a team of officers recruited through a competitive process led by the State Department for Agriculture. The recruitment process will be subject to IFAD No Objection at the key stages of development of terms of reference, shortlisting, interviewing, and contracting. In addition to the PCMU's core staff of Programme Coordinator, Financial Controller, Monitoring and Evaluation Specialist and Procurement Specialist, the PCMU will comprise technical officers and support staff as follows: Deputy Coordinator (Regional Coordinator), Agronomist, Livestock Specialist, NRM Specialist, Infrastructure Specialist, Community Development Specialist, Agribusiness Development Specialist, Programme Accountants (2), Accounts Assistant, Knowledge Management Officer, M&E Assistant, ICT Assistant, Programme Assistants (2), Office Assistant (2), Drivers (5). Detailed Terms of Reference (ToRs) for the key PCMU positions provided in this PIM. The PCMU responsibilities will include, inter alia, the: a) facilitation of a conducive environment for Programme activities, including the multiple partnerships required for effective implementation; b) implementation of the Programme activities in line with the AWPBs approved by the National Programme Steering Committee (NPSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for Programme implementation; d) financial and administrative management of Programme resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, management, learning and reporting implementation progress; f) provision of the procurement function; and g) ensure collaboration mechanisms with other relevant projects/programmes.
- 41. In addition to the already established roles and responsibilities, the PCMU will: a) establish coordination mechanisms/strategies, including identifying key stakeholders involved in the Programme; b) develop tailored engagement strategies for different stakeholder groups, based on their profiles and expected contributions/roles; c) implement effective communication and feedback mechanisms; d) provide technical and institutional support to the different actors, especially the local institutions on how to effectively carry out their roles; and e) support regular stakeholders inter and intra meetings.
- 42. The PCMU shall be based in Eldoret, housed in a suitable National Government building.
- 43. **Interim Start-up Team** In view of the historical start-up delays in the Kenya Portfolio and following an agreement with GoK during the entry meeting to ensure INReMP deviates from this, an Interim Start-up team will be constituted to proactively take the lead in ensuring that all the identified key start-up activities are fulfilled within the stipulated timeframe. To kickstart and ensure full integration of the start-up team to the design process, the existing IFAD-GoK-EU funded KCEP-CRAL Programme Coordination Team (PCU) (which is also under the State Department for Agriculture) will onboard INReMP and act as the interim start-up team (for a maximum period of not more than six months). The key role and responsibilities of this start-up team to be completed within the six-months period will include but not limited to:
 - a) expediting all required processes to ensure entry into force, fulfilling disbursement conditions which entails drafting workplan and budget and procurement plans, opening of designated and operational accounts, ensuring the Programme budget is captured in the national and line Ministry's approved budget for relevant fiscal year, procuring and operationalising accounting system; finalising ToRs for competitive recruitment of PMCU staff and ensuring their smooth onboarding.
 - b) finalising draft programme implementation manual, setting up M&E framework including drafting ToRs for procurement of consultants to conduct baseline survey and relevant thematic studies.
 - c) drafting and finalising frameworks for onboarding of key implementing partners including supporting key county implementation structures set-up plans; and

- d) overseeing the preparation and planning for the Programme launching and startup workshop based on an elaborate plan within the first of Programme implementation.
- e) Finalizing the TORs and procuring the consultants to conduct the relevant SECAP studies.
- 44. Composition of the PCMU is presented hereunder and the respective ToRs/JoDs of all the PCMU staff are presented in the Annex 1. I.
- a) Project Coordinator;
- b) Financial Controller;
- c) Monitoring and Evaluation and KM Specialist;
- d) Procurement Specialist;
- e) NRM Specialist;
- f) Infrastructure Specialist;
- g) Agricultural Livelihood Specialist;
- h) Community Development, Gender and Youth Specialist;
- i) Nutrition and Social Inclusion Specialist:
- j) Agribusiness Development Specialist;
- k) Programme Accountant;
- Accounts Assistant;
- m) KM Officer;
- n) M&E Assistant;
- o) ICT Assistant;
- p) Procurement Assistant;
- q) Programme Assistant;
- r) Office Assistant; and
- s) Drivers (4).
- 45. A Regional Coordination Office shall be established and based in Kisumu, housed in a suitable National Government building. While the PCMU will be responsible for overall coordination of Programme activities in the ten counties, the Regional Coordination Office will support in coordination of the western and Lake Victoria counties (Kakamega, Kisumu, Homa Bay and Migori).
- 46. Composition of the Regional Coordination Office (RCO) is presented hereunder and the respective ToRs/JoDs of all the RCO staff are presented in the Annex 1:
- a) Deputy Coordinator (Regional Coordinator;
- b) Regional Accountant;
- c) Programme Assistant;
- d) Office Assistant; and
- e) Driver.

I.5.2: County Programme Implementation Teams (CPITs)

- 47. County Programme Implementation Team (CPIT) At County level, CPIT with representation mirroring the CPST, composed of members at the level of a director will be established and will be responsible for the day-to-day implementation of Programme activities. Also, a dedicated programme coordinating team composed of a Coordinator, Accountant, Procurement Officer and M&E Officer shall be seconded on a full-time basis by the county for day-to-day coordination of the Programme activities at the county level. The Coordinator shall be the head of the CPIT and the Secretary to the CPST. As much as possible, the coordinating team shall be ring-fenced to avoid interruption of Programme implementation. In direct collaboration with the CPIT, the responsibility of the dedicated Programme coordinating team at the county level shall be:
- a) facilitation of a conducive environment for Programme activities at the county level, including the multiple partnerships required for effective implementation;

- b) identification of project beneficiaries in close collaboration with the National Administration Officers;
- c) implementation of the Programme activities in line with the approved county AWPBs;
- d) development of operational strategies and establishment of effective tools for Programme implementation at the county level;
- e) financial and administrative management of Programme resources, coordination of the preparation of county AWPBs arising from the community action plans;
- f) mobilisation and coordination of implementation partners;
- g) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and
- h) provision of the delegated procurement function.
- i) Ensuring collaboration and synergy with other relevant projects/programmes at the county.

I.5.3: Programme Governance Structures

- 48. **National Programme Steering Committee (NPSC)** A NPSC under the cochairmanship of the Principal Secretaries, State Department for Agriculture and State Department for Environment and Climate Change, will be set up to provide overall policy and strategic guidance to the Programme. The other members will be Principal Secretaries drawn from: a) National Treasury; b) State Department for Livestock Development; c) State Department for Water and Sanitation; d) State Department for Irrigation; e) State Department for the Blue Economy and Fisheries; f) State Department for Forestry; g) State Department for Cooperatives; h) State Departments for Gender and Youth; i) State Department for Interior and Coordination of National Government; and j) State Department for Environment and Climate Change. The NPSC will also include a) a representative of the Council of Governors; and b) Two Executive Committee Members (CECM) from the Programme counties. The main responsibility of the NPSC will be to ensure successful implementation of the Programme. The NPSC tasks will include, inter alia:
- a) policy and strategic guidance on the INReMP focus;
- b) priority setting and institutional strengthening to ensure that the Programme achieves its objective and contributes to the higher-level sector policy and strategic goals;
- c) reviewing Programme progress against targets, assessing management effectiveness and appraisal of annual performance and recommending renewal of contracts of PCMU staff;
- d) deciding on corrective measures, where appropriate;
- e) identifying lessons learned and good practices; and
- f) approving AWPBs and Procurement Plans.
- 49. The NPSC will meet at least twice in a year and on a need basis to deliberate on Programme matters. The Programme Coordinator will serve as the secretary to the NPSC and in this regard will prepare and circulate to members a calendar of meetings at the beginning of the Financial Year. The Committee will work closely with the County Project Coordination Committees (CPCC) and PCMU).
- 50. National Technical Advisory Committee (NTAC) A National Technical Advisory Committee shall be established to provide technical advice to the NPSC. The NTAC shall consist of technical experts preferably at the Director/Commissioner level, appointed by the individual NPSC members. The membership in terms of institutional representation will therefore mirror that of the NPSC. The NTAC shall provide technical advice on matters that require approval and/or discussion by the NPSC. In line with standard practice for good governance, members nominated to serve in this Committee shall not serve in the NPSC.

County Programme Steering Team (CPST)

- 51. At County level A multi-sectoral County Programme Steering Team (CPST) composed of the CECMs of relevant County Departments, County Commissioner and relevant National Government Agencies at the county level shall be established to work closely with the existing County Agricultural Sector Steering Committee (CASSCOM) to steer implementation of the Programme activities at the county level. The CPST shall be chaired by the CECM in charge of Agriculture. The CPST will provide policy and strategic guidance to the Programme at the county level and hence it's responsibilities will mirror that of the NPSC. The CPST will be responsible for the following activities at the county level:
- a) policy and strategic guidance on the INReMP focus and the county level, ensuring that the programme activities are well aligned with the CIDPs;
- b) reviewing Programme progress against targets and assessing effectiveness of the county Programme staff; and
- c) approving county AWPBs and Procurement Plans.

I.5.4: Partnerships

- 52. *Implementing Partners* The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the KALRO, Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.
- 53. On the other hand, INReMP will seek to coordinate and harmonize with the projects/programmes financed by IFAD, the Government of Kenya and various development partners that support thematic areas related to its development objective. Essentially, this aims at taking advantage of synergies and avoid duplications. The list of potential partners for collaboration is presented below.

Potential INReMP's Collaboration Partners

Donor/Agency	Project	Geographical Area	Remarks
IFAD	Aquaculture Business Development Programme (ABDP)	Kakamega, Busia, Siaya, Kisumu, Homa Bay, Migori, Kisii	 Ongoing Possible areas of synergy: access to water for smallholder aquaculture producers; restoration of riparian and lake shorelines

Donor/Agency	Project	Geographical Area	Remarks
IFAD	Kenya Livestock Commercialization Project	Marsabit, Samburu, Elgeyo Marakwet, Baringo, Trans Nzoia, Bungoma, Kakamega, Busia, Siaya, Nakuru	Ongoing Areas of synergy: production of fodder crops; alternative livelihood support to communities living near the forests and support to development dairy value chain as incentive for community conservation efforts.
IFAD	Rural Kenya Financial Inclusion Facility (RK- FINFA)	Countrywide	Access to Finance for value chain actors; promote green investments
GEF - IFAD	Eldoret Iten Water Fund	Elgeyo Marakwet, Uasin Gishu	 Ongoing Areas of synergy: crowding in private sector into catchment restoration
GEF - GEF	Integrated land and water management for food, water and climate security in the dairy food system	Nandi, Kakamega	• Proposed
GCF - GCF	 Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) 	• TBD	 Proposed Access to Finance for value chain actors; promote green investments
GCF - IFAD	 Pathways to Dairy Net Zero: Promoting Low Carbon and Resilient Livestock in East Africa (PADNET). 	• TBD	 Proposed – under design Areas of synergy: Climate resilient dairy production

Donor/Agency	Project	Geographical Area	Remarks
GCF - FAO	Transforming Livelihoods through Climate Resilient, Low Carbon, Sustainable Agricultural Value Chains in the Lake Region Economic Bloc, Kenya (CRLCSA)	Lake Basin Region (including, South & North Rift and Western Kenya	Proposed – CN submitted, implementation expected to commence Mid 2024 Possible areas of synergy: Climate risk assessment in agriculture production and VC; Selection of suitable technologies and practices; Climate resilient business model and Community level agriculture landscape restoration Proposed – CN submitted, implementation and community level agriculture landscape restoration
FAO	Towards Securing Community Land Tenure in Kenya's Counties	• Countrywide	Ongoing GIS Technical trainings establishment and equipping of GIS laboratories – to support spatial and land use mapping; map landscapes in terms of natural resource use, management and degradation (including forests, soils, water and irrigation and wildlife and; assess suitability of selected value chains.

Donor/Agency	Project	Geographical	Remarks
The Word Bank	The National Agricultural and Rural Inclusive Growth Project (NARIGP)	• Kirinyaga, Kiambu, Murang'a, Nakuru, Bungoma, Trans Nzoia, Nandi, Vihiga, Kisii, Migori, Nyamira and Homa Bay	Completing Synergy: improve last-mile connectivity and support smallholder farmers water access for established small irrigation schemes, production and access to markets
The World Bank	The Kenya Climate Smart Agriculture Project (KCSAP)	•	 Completing Synergy: Improving water/soil management
African Development Bank	Kimira-Oluch Smallholder Irrigation Development Project	Homa Bay	Completed Synergy: improve last-mile connectivity and support smallholder farmers water access, production and access to markets

Donor/Agency	Project	Geographical Area	Remarks
European Union - IFAD	Boosting Sustainable Food Production in Kenya	Bungoma, Kakamega, Homa Bay, Migori and Nandi	 Ongoing Synergy: promoting agroecological practices including conservation agriculture, e- extension, soil testing, climate- smart agriculture and community water interventions Supporting farmers with access to bundled of inputs, services and technologies through mobile- based e-voucher platform led by agro-dealers Strengthening both national, council of Governors and County Governments' capacities in food systems, agroecology, biofortification, etc

PART II: DETAILED IMPLEMENTATION MODALITIES

II.1: START-UP

54. The State Department for Agriculture will develop a workplan and the associated budget for preparatory activities and liaise with IFAD to organize a start-up workshop. Such preparatory activities could include:

	Action	Who	Tentative Timing
a)	Sign the financing agreement (following IFAD board approval)	GoK/IFAD	September 2024
b)	Establishment of the national Programme Coordination and Management Unit (PCMU) and the County Programme Implementation Teams (CPITs)	State Department for Agriculture and the County Administrations for the 10 target counties in consultation with IFAD	Interim start-up team to take responsibility immediately (October 2024).
c)	Open Designated Accounts and identify signatories (ID and signature specimen).	GoK	November 2024
d)	Sign MoUs/Memoranda of Cooperation between the national Government and the participating counties and between MoALD and the other participating line Ministries, specifying the expected responsibilities and outcomes.	National Treasury /MoALD/participating Counties	October 2024
e)	Review and finalise the first year AWPB and Procurement Plan	PCMU/CPITs	1 month after EB approval
f)	Review and finalise draft PIM	PCMU/CPITs	1 month after EB approval
g)	Establish the National Programme Steering Committee and National Technical Advisory Committee introduce INReMP to them. Agree on how to proceed with the provision of the oversight function (frequency and modality of meetings)	MoALD	1 month after EB approval
h)	Establish the multi-sectoral County Programme Steering Teams (CPSTs)	County Administration	1 month after EB approval
i)	Procurement and installation of an off the shelf accounting software at the PCMU and CPITs and the chart of accounts coded to the detail possible	PCMU/CPITs	1 month after EB approval
j)	Hold the official INReMP start-up workshop. This would be used to orient the PCMU/CPITs and other stakeholders.	State Department for Agriculture and the County Administrations for the 10 target counties in consultation with IFAD	2 months after EB approval
k)	Initiate the undertaking of the INReMP baseline survey	PCMU/CPITs	Not more than 3 months after EB approval

	Action	Who	Tentative Timing
I)	Initiate the process of undertaking a capacity and system's needs assessment to elaborate capacity building plan	PCMU/Consultant	Not more than 5 months after EB approval
m)	Initiate the process of establishing the INReMP M&E system	PCMU/CPITs	Not more than 5 months after EB approval
n)	Conduct awareness creation on Programme objectives and implementation arrangements	PCMU/CPITs	Not more than 5 months after EB approval
0)	Review and finalise the targeting strategy for the selection of Wards, watersheds and specific beneficiary communities. Initiate the process of selecting the Wards, watersheds and specific beneficiary communities.	PCMU/CPITs/respective local governments	Not more than 5 months after EB approval
p)	Review and finalise the SECAP-related documents	PCMU/CPITs	Not more than 5 months after EB approval
q)	Hand-over period from the KCEP-CRAL PCU	State Department for Agriculture and the County Administrations for the 10 target counties.	Not more than 6 months after EB approval

II.2: COMPONENT 1: COMMUNITY-LED ENHANCED ENVIRONMENT AND INRM, ECOSYSTEM SERVICES, AND CLIMATE ACTION

55. This component will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and quality; d) improve dietary diversity; and e) capacity building of relevant institutions, such as County Environment Committees (CECs) and community-based organisations, such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs) to strengthen sustainable management of natural resources. Investments will employ a landscape approach to catchment management, payment for ecosystem services, and low carbon focused interventions for resilient crop and livestock production and associated value chains, with particular attention to enhancing climate resilience of the target beneficiaries. The component will contribute to the achievement of Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action. It comprises the following subcomponents.

II.2.1: Subcomponent 1.1: Community Empowerment and Gender Transformative Approaches

56. All Counties have County Integrated development plans (CIDPs) that guide community development and each administrative Ward has a committee to lead its development priorities related to NRM, livelihoods needs and other community needs. Community empowerment will include community awareness, sensitization, prioritization of actions and development of Community Action Plans (CAPs). The community organizations to be targeted will include County CFAs, WRUAs, Ward Climate Change Committees (WCCCs), Beach Management Units (BMUs), Farmer

organizations (FOs) and Common Interest Groups (CIGs). The groups will be required to meet membership quotas for women, youth, PWDs and vulnerable groups to benefit from the Programme. INReMP will support the establishment and strengthening of already existing community organizations and committees. The capacity strengthening will include technical areas, leadership, management and governance issues. The community structures will be the entry for planning, guiding and mobilizing development activities in the respective wards. This community empowerment will not only increase the level of ownership, it will also enhance the likelihood for sustainability.

- 57. At start-up, INReMP will train all key staff from PCMU, Counties, national institutions and implementing partners on Community empowerment and PRA approaches to equip them with necessary skills for implementation. At community level, community committees will be trained in partnership with the County Gender and Social Development Officers. This will be achieved through the following steps:
- Step 1: To identify, project implementation areas, INReMP will undertake mapping (including GIS co-ordinates) of existing river basins as defined by the WRA to determine participating Focal Development Areas (FDAs) and number of eligible beneficiary households per basin. Once participating FDAs, communities and target beneficiaries are identified and GIS mapped. A needs assessment for integrating digital technologies to support Integrated Natural Resource Management (INRM) and Precision Farming will also be conducted as part of the integration of digital technologies under this component. This assessment will support the PMU in understanding the existing challenges and gaps in the current farming practices and natural resource management techniques(ii) Determine what specific aspects of INRM and Precision Farming need to be addressed through digital technologies (iii) collect initial data through GIS and mapping key intervention areas.INReMP will undertake community sensitization and awareness creation about the Programme objectives INRM, sustainable rural livelihoods, nutrition, youth participation, targeting the vulnerable, gender equality and women empowerment. This will be undertaken in each river basin or FDA;
- Step 2: The first step in community engagement is sensitization and awareness rising. This will help communities understand the goal of the project and prepare them for active participation when they clearly understand their roles in project implementation. Community sensitization will be done in all the counties, selected sub-counties up to ward levels and specifically along the river basins. Community meetings will be held at some agreed points along the basins. Sensitization will be the first activity before the PRAs. INReMP will provide the needed mass media equipment and facilitate the County Gender and Social Development Officers to undertake mobilization campaigns;
- > Step 3: Creation and/or strengthening of community organizations Once the project areas are identified, existing groups focusing on NRM and livelihood opportunities in the selected VCs will be mapped to establish their membership and capacity gaps. Most of the project services will be delivered through groups, therefore, any group that is formed under the project or supported by the project should be entered in the Register of community Groups. This applies to all registered groups. The Register of Groups should be kept only by the Focal Person for the Community Empowerment component in the Social Development Office at the county level. The newly established groups will be added as they are registered. The Focal Persons in the Gender and Social Development Office should submit the updated Register of Groups to PCMU through their county coordinators on a regular basis. Based on the data in the Register of Groups, the total number of groups formed/supported will be reported on in the INReMP Physical Progress Table.
- > Step 4: The identified and established groups i.e. WRUAs, FDAs, CFAs etc will be trained to develop their capacity and relevant skills. Training will include group dynamics, conflict management, leadership, gender equality and women

empowerment, nutrition education and youth empowerment. Targeted and sessions for women, youth and vulnerable will be organized as needed. Once groups have been formed and their leadership trained, they will develop their NRM and livelihood action plans. Training under this output will mainly be on several topics. INRM and livelihoods approaches will be key, others will include GTA approaches, GALS methodology, nutrition education, youth trainings, leadership courses and general management and administration aspects for members and leaders of groups supported by the project. Any training activity is expected to be entered in the training register by the Focal Person in the County Gender and Social Development Office, and the persons responsible for organizing any training must be made aware of the fact that they should report some basic information to the Focal Person. See Training Register for the data to be recorded for each training activity. In the INReMP Physical Progress Table, the number of beneficiaries (disaggregated) trained will be summarized and reported by type of training - the major types of training that will be reported on should be defined by the Community Empowerment, Gender and Youth specialist.

- > Step 5: Development of Community Action Plans (CAPs) Every Participatory Rural Appraisal conducted in each Focal Development Area will result in a Community Action Plan for that FDA. FDAs will develop Community Action Plans (CAPs), CFAs will develop Forest Management Plans, WRUAs (including irrigation associations) will develop Subcatchment management plans (SCAMPs) and CIGs and CBOs including youth and women only groups will have their action plans focused on INRM and livelihood activities. These will be developed using participatory rural appraisal (PRA) and GTA approaches, such as the GALS methodology. To roll out PRA, staff and community TOTs will be trained per project area. Using PRA and GTA approaches, the plans are then documented prioritizing community needs and aligned to INReMP objectives. The Community Empowerment Focal Persons in the counties should obtain data on the total number of Community Action Plans produced from the County Project Facilitation Teams and the PRA reports and should keep a list on the total number of plans produced. This data should be regularly submitted to the Community Empowerment Specialist and Physical Progress Table updated.
- > Step 6 All project interventions under the different components will be based on the Community Action Plans. The plans will undergo appraisal by an oversight agent appointed by INReMP. INReMP will develop a Groups funding manual with groups criteria, ceiling allocations for different type of groups and type of intervention to be funded per FDA. Each group will be attached to a technical officer for guidance. The successful plans will form the basis for preparation of the annual workplan and budgets (AWPBs). These will be the community initiatives that will receive direct funding based on specific direct funding proposals e.g. through the matching grants administered by INReMP. The Community Empowerment Component Coordinator will obtain data on the number of cheques issued from the Project Accounts Controller, and this will be the basis for reporting on the number of community proposals received and funded in the UTaNRMP Physical Progress Table.
- > Step 7: Once community plans have been approved by PCMU, the annual plans are presented to the community through a public meeting for validation. Project activities are then implemented by the various groups through their Management Committees. The groups are trained in the necessary technical, management, leadership, and operation and maintenance skills. To receive support, the groups must be registered, have a constitution and by-laws, and a project bank account. The County department responsible monitors and supervises the relevant project activities in the plans.
- ➤ Nutrition strategies under Community Empowerment and Gender Transformative Approaches include incorporating the county's nutrition situation and Agri-nut strategies into the Community Action Plans (CAPs) and community mobilization training modules within subcomponent 1.1. This will provide detailed information about

the nutrition situation in the area and propose actions. GALS will be used to improve joint decision-making in households and communities regarding food and nutrition, and to balance workloads in order to make women available for cooking, feeding, and childcare (see more details in the Gender Transformative Approaches section).

II.2.2: Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services

58. Baseline studies and Mapping of Key Natural Resources

Under this intervention two activities have been proposed as follows:

- i. Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc
- ii. Mapping and Monitoring of key natural resources

i). Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audit

- 59. The Integrated Natural Resource Management Project (INReMP) will conduct baseline studies of key natural resources to understand the status and dynamics of key natural resources within the catchment areas. The programme recognizes the need for baseline studies to facilitate effective and targeted interventions for sustainable resource management. The baseline studies will inform targeted intervention for sustainable natural resources management. Specific studies will be on status of deforestation, wetlands, riparian ecosystem, groundwater potential and environmental assessments and audits for compliance. These studies will be carried out in collaboration with national and international research institutions (such as KARLO, CGIAR centers, and ICRAF) to ensure a comprehensive data collection and analysis, by engaging stakeholders and leveraging local knowledge in a participatory and inclusive approach. Through stakeholder engagement, the baseline studies will assess among other things, groundwater potential in the catchment to develop and implement strategies for sustainable use. This will be conducted via hydrological survey to illustrate the aquifer properties situation and recharge rate and groundwater quality. The Baseline survey on ground water will establish knowledge and capacity needs on groundwater utility patterns in order to promote sustainable extraction practices and recharges. Furthermore, the survey will model sediment flows to identify hotspots for Sustainable Land Management (SLM) interventions and develop measures to reduce soil erosion and sedimentation. The other aspect that the studies will focus on is soil erosion assessment to facilitate planning and conservation works such as slope stabilisation and erosion reduction. To achieve this objective, Geographical information System (GIS) and remote sensing techniques as well as plot experiment methods will be adopted. The project will work with an AgriTech provider and ICT Consultant to deploy GIS and Remote sensing to support with Spatial Analysis, this will involve analysis of various factors such as soil types, topography, land use, climate patterns, and water availability. By overlaying and analysing these spatial datasets, the project can identify areas with specific resource constraints or opportunities(ii) identify hotspots and areas needing interventions and those highly affected by soil erosion or sedimentation. The Project will also use this data as part of a baselining for monitoring the progress of the interventions on water quality, biodiversity, and land cover change.
- 60. In the same line, the baseline will evaluate the impact of weathering on escarpments, rivers, and streams and implement measures to mitigate erosion and siltation. To make this evaluation tangible, a strategic environmental assessment and environmental audits will be done to ensure compliance with National regulatory standards on environment and natural resources management plans to resolve issues of resources and habitats degradations.
- ii) Mapping and Monitoring of key natural resources:
- 61. The project aims to develop comprehensive and accurate maps of five critical natural resources: forests, rangelands, arable land, wetlands, and water resources. These maps

will serve as crucial tools for decision-making in resource management and restoration efforts. Also, the mapping will be helpful to monitor the impacts of interventions under the Integrated Natural Resources Management Program (INReMP). The results of the mappings will support decision makers on effective restoration and promotion and sustainable management of Kenya 's natural resources.

62. As regards the methodology of mapping, the project will utilize Geographic Information Systems (GIS) and remote sensing technologies to accurately map levels of degradation and monitor restoration progress. The mapping process will be conducted by identifying priority catchment and sub catchments for intervention with reference to the baseline studies carried out previously at earlier stage of project implementation. To enhance mapping capabilities and proper data capturing, the mapping activities will involve key stakeholders and institutions, including the Regional Centre for Mapping of Resources for Development (RCMRD), Directorate of Resource Surveys and Remote Sensing (DRSRS), and the International Center for Research in Agroforestry (ICRAF). During the mapping exercise, consultative process will be done to engage communities and government institutions, to determine indicators for NRM dynamics (land forest and land cover, water availability and biodiversity health).

Implementation Modality

63. INReMP will carry out baseline studies and mapping of natural resources for monitoring through the services of a qualified contractor to be hired in a competitive tendering process where interested bidders will submit proposals for the same. To ensure a comprehensive data collection and analysis, these studies will be carried out in collaboration with national and international research institutions (such as KARLO, CGIAR centers, and ICRAF). These institutions will be given roles of reviewing the reports and maps produced by contractors prior to final submission of the same to the PMU.

64. The following are the key activities for the digital activities under the component

Introduction digital solutions Environmenta Ecosystem Services	al Sus	tainab	ility, 1	NRM,	and	
Activity/task	Y1	Y2	Y3	Y4	Y5	
Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming						
Conduct a Geo- Mapping and geo fencing of Ecosystems (Wetlands, forests, rangelands etc) in 10 counties using digital tech						
Engagement of AgriTech Provider to provide remote sensing, soil management and GIS integrated solution for INRM with integrated Dashboard						
Training of Enumerators to collect Geo related Data and Spatial Data						
Training of PMU on PES and INRM digital System management to support monitoring						
Procurement of Digital Intelligent IoT Soil testing kits in partnership with KARLO						
Procurement of Mobile Devices (Smartphones/Tablets) at County level for GIS Mapping and to use for Data collection and Monitoring						

Maintainance and Support for Digital Solution for INRM			
Recruit an ICT4D Counsultant to provide periodic implementation support to the Project			

Outputs and Targets

- 65. The contractor is expected to deliver the following outputs:
- > Comprehensive status report including maps and datasets of key natural resources, including forests, water bodies, land, and wetlands, in designated areas.
- > Documentation of mapping methodologies, data sources, and accuracy assessments.
- > Training materials and capacity-building initiatives for stakeholders involved in natural resource management and planning; and
- > Regular progress reports outlining achievements, challenges, and recommended actions for optimizing mapping activities.
- 66. The contractor will undertake the following tasks:
- Undertake baseline survey and comprehensive mapping of key natural resources, including forests, water bodies, land, and wetlands, using GIS and remote sensing technologies;
- > Developing detailed maps and datasets to support planning interventions for water management, erosion control, and sustainable land management;
- > Integrating data from various sources and stakeholders to ensure accuracy and completeness of the mapped resources;
- Collaborating with stakeholders to identify priority areas for intervention based on mapped data and stakeholder input;
- Providing technical expertise and support to stakeholders for the interpretation and utilization of mapped data for decision-making and planning.
- 67. The contractor should possess the following qualifications and expertise:
- Extensive experience in geographic information systems (GIS), remote sensing, and spatial analysis, preferably in the context of natural resource management.
- Expertise in mapping key natural resources and conducting spatial analysis to support decision-making and planning.
- Knowledge of relevant software tools and technologies for GIS and remote sensing data processing and analysis.
- > Strong communication and collaboration skills, with the ability to work effectively with diverse stakeholders and institutions involved in NRM.
- 68. In the process of selection of the contractor, the Proposals will be evaluated based on the following criteria:
- Technical expertise and experience relevant to mapping key natural resources, particularly in using GIS and remote sensing technologies;
- Quality and accuracy of proposed mapping methodologies and data collection techniques;
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on supporting sustainable NRM interventions.
- > Cost-effectiveness and value for money in the implementation of mapping activities.

Improving key INReMP support Infrastructure

- 69. Efficient management of natural resources is crucial for sustainable development and environmental conservation. Key infrastructure supporting Integrated Natural Resource Management (INRM), such as meteorological stations, river gauging systems, and soil and water quality assessment laboratories, play a vital role in collecting data for monitoring, reporting, and verification (MRV) purposes.
- 70. The aim to develop an integrated plan that addresses various aspects of natural resource management including water resources, land use, biodiversity conservation, and climate change adaptation. The infrastructure development may include building or upgrading irrigation systems, water treatment plants, watershed management structures, and conservation facilities.
- 71. However, the state of this infrastructure may require improvements, upgrades, or new installations to ensure accurate data collection, impact monitoring, and informed decision-making. This TOR outlines the requirements for improving key INRM support infrastructure to enhance data collection, monitoring, and dissemination for sustainable resource management.
- 72. Improving integrated natural resource management (INRM) support infrastructure involves a comprehensive approach that addresses various components of the natural resource management system. The primary objective of this intervention is to improve key INRM support infrastructure to facilitate data collection, monitoring, and decision-making processes.
- 73. Specific objectives of the intervention include:
- Making necessary improvements and upgrades to existing infrastructure to enhance data collection capabilities for MRV on land, water, and air
- > Installing new infrastructure, as required, to fill gaps in data collection and monitoring, particularly in areas critical for natural resource management; and
- > Providing access to data, forecasts, and information generated through the improved infrastructure to relevant stakeholders/partners.
- 74. **Specific activities** planned under this intervention include the following:
- Upgrading weather stations and river gauges
- > Upgrading and equipping water and soil labs
- > In-situ soil test kits for farmers
- 75. The expected outcome after upgrading of weather stations, river gauges and equipping of water and soil labs is efficient data collection, monitoring, and decision-making processes. The target is to have 25 weather stations upgraded in 10 counties, 25 river gauges installed, 25 labs for water equipped and 25 soil labs equipped in all 10 counties. As regards in provision of in situ water and soil kits for farmers, 2,000 farmers will benefit from this activity through acquisition of kits coupled with knowledge on how to undertake soil and water tests at their farms as well interpret results for application.

Implementation modalities

- 76. To implement two related activities (i.e. a) upgrading weather stations and river gauges; and b) upgrading and equipping water and soil labs), the PMU will procure the services of the supplier who will be responsible for the following tasks:
- > Assessing key INRM support infrastructure, including meteorological stations, river gauging systems, soil and water quality assessment laboratories; and
- > Identifying areas for improvements, upgrades, or new installations based on the assessment findings and project requirements.
- 77. Making necessary improvements and upgrades to existing infrastructure, including repairs, calibration, and installation of new sensors or equipment.

- 78. Installing new infrastructure, such as additional meteorological stations or river gauging systems, to fill gaps in data collection and monitoring.
- 79. The supplier is expected to deliver the following outputs:
- Assessment report detailing the state of existing infrastructure, areas for improvements, and recommendations for upgrades or new installations; and
- Documentation of improvements, upgrades, and new installations made to key INRM support infrastructure.
- 80. The supplier should possess the following qualifications and expertise:
- > Extensive experience in assessing, improving, and installing infrastructure related to natural resource management and environmental monitoring;
- > Expertise in project management, particularly in coordinating infrastructure improvements and installations in remote or challenging environments; and
- Knowledge of meteorology, hydrology, soil science, and environmental monitoring principles.
- 81. Proposals from Suppliers will be evaluated based on the following criteria:
- > Technical expertise and experience relevant to improving key INRM support infrastructure;
- Quality and feasibility of proposed methodologies and strategies for infrastructure assessment, improvement, and installation;
- > Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing data collection, monitoring, and decision-making processes for natural resource management.
- Cost-effectiveness and value for money in the assessment and improvement of key INRM support infrastructure.
- 82. *Implementation modality for the 3rd activity i.e. provision of in-situ soil test kits:* In line with our commitment to improving soil health and agricultural productivity, there is a pressing need to establish soil quality at the farm level. This can be achieved through application of in situ soil testing kits. These kits will play a pivotal role in providing quick soil analysis to farmers, thereby facilitating informed decision-making and sustainable agricultural practices. By quick soil testing at the farm levels, these kits will contribute to enhancing soil fertility, optimizing crop yields, and promoting environmental sustainability.
- 83. The PMU will procure the service of the supplier of these kits who will be competitively selected through an open tendering process. The supplier will be required to not only supply the kits but also train farmers on how to undertake in situ testing of soil quality as well as interpreting the results for application in their day-to-day farming practices. There will be 200 farmers who will be selected from each county and who will be provided with soil test kits along with training. Members of farmers association will be the primary beneficiaries of the kits as it is eased to train and monitor them.
- 84. The contractor/supplier will be responsible for the following tasks:
- Designing of training manuals that will be used to train farmers on how to use soil test kits;
- > Developing protocols and procedures for the systematic collection of soil samples at the farm level;
- > Collaborating with relevant stakeholders, including agricultural extensionists farmer groups, cooperatives, and local authorities, to facilitate continuous monitoring of the performance of te test kits.
- ➤ 4. Providing training and capacity-building to farmers and agricultural extension workers who will be involved in soil testing and analysis activities.
- 85. The contractor will be measures against delivery of the following outputs:

- Supply of soil test kits that are suitable and easy to use commensurate with the prevailing conditions;
- Relevance of protocols and procedures for systematic soil sample collection and testing;
- Documentation of training materials and capacity-building initiatives for farmers, agricultural extension workers;
- > Regular progress reports outlining achievements, challenges, and recommended actions for optimizing soil testing services.
- 86. The contractor/supplier should possess the following qualifications and expertise:
- > Extensive experience in testing equipment and support, with a focus on soil testing and analysis;
- Expertise in soil science, agronomy, or related fields, with a thorough understanding of soil health parameters and testing methodologies.
- > Proven track record in managing similar projects, preferably in the context of agricultural development and soil health enhancement.
- > Knowledge of quality management systems and standards for soil testing operations.
- 87. Proposals from bidders will be evaluated based on the following criteria:
- > Technical expertise and experience relevant to soil testing and training.
- > Quality and feasibility of proposed methodologies and protocols for soil sample collection in situ and analysis.
- > Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing soil health and agricultural productivity.
- Cost-effectiveness and value for money in the implementation of the activity.

Implementing targeted natural resource specific interventions.

88. Under this intervention the following activities have been proposed:

- > Forests Restoration-Promoting agroforestry, afforestation, and reforestation
- > Implement Clean energy solutions;
- Sustainable land management practices (training and support to farmers; riverbed protection);
- Rehabilitation of Rangelands;
- Protection of springs, enhancing water storage and desilting of small dams.vi. Wetland Restoration

Forests Restoration-Promoting agroforestry, afforestation, and reforestation

- 89. Reforestation refers to the process of replanting trees in areas where deforestation has occurred. It is undertaken to restore degraded ecosystems, combat climate change, and promote biodiversity. Afforestation is the process of planting trees on land which has not been forested. It involves converting non-forest land into forested areas. Afforestation is often undertaken for various purposes, including environmental conservation, ecosystem restoration, carbon sequestration, soil stabilization, biodiversity enhancement, and mitigating the effects of climate change.
- 90. The dynamics in reforestation activities can lead to more sustainable outcomes by ensuring that local knowledge and practices related to forest management are leveraged effectively. Sometimes communities often possess valuable traditional knowledge about forest ecosystems, which can contribute to the success of reforestation efforts and the preservation of biodiversity. By involving all stakeholders (local communities, Administration at all levels) through capacity building in reforestation activities and climate change, communities and administration can build resilience to environmental challenges such as climate change and natural disasters. Considering communities needs into

reforestation can create economic opportunities for women, youth, such as employment in tree planting, agroforestry, and sustainable forest management activities. This not only improves household incomes but also fosters economic empowerment and reduces gender disparities in income and access to resources.

- 91. The primary objective of this assignment is to implement forest interventions, including afforestation, reforestation, and agroforestry to restore forest ecosystems and promote sustainable resource management, build capacity of local administration such as village leaders and the committees on natural resources management. Specific objectives include:
- > Undertaking agroforestry, afforestation, and reforestation activities to increase forest cover and enhance carbon sequestration.
- > Prioritizing indigenous/native tree species and Neglected Underutilized Species (NUS) to restore biodiversity and support ecosystem services.
- > Advocating for the replacement of invasive tree species with indigenous trees to reduce deforestation and promote sustainable fuelwood sources.
- 92. This activity is aimed at having agroforestry, afforestation, and reforestation of land to increase forest cover, restore biodiversity, and support ecosystem services, while promoting the use of indigenous/native tree species and replacing invasive tree species with indigenous ones. About 33,200 Hectares of land will be under forest at the end of 8 years.
- 93. The program will collaborate with Community Forest Associations available at village levels. Kenya Forest Service will also be involved as partners in implementation of this activity.
- 94. Establishment of Tree Nurseries: This activity shall be undertaken mainly by registered community groups organized within the framework of Community Based Organizations (CBOs) within the Focal Development Areas. The communities will have their capacity built on issues of leadership, Constitution and by-law making, group dynamics; record keeping and conflict resolution by the subcomponent 1.1. On the other hand, technical trainings on environmental governance such as tree nursery management will be conducted through KFS, KWS and NEMA. Trees raised in the community tree nurseries shall be used in the rehabilitation of hilltops in communal lands and trust lands, rehabilitation of rangelands, wetlands and riverbanks, School greening programme and on-farm forestry. The programme shall be expected to purchase seedlings from communities for rehabilitation of the identified degraded areas Hotspots" at the current government prices.

Rehabilitation of Degraded Forest areas (National Parks and Forest Reserve)

- 95. This activity will be confined within the forest margins accessible to the Community Forest Associations. The rehabilitation of the degraded forest areas will be part of implementing the PFMP for respective CFAs. This would involve the reintroduction of timber tree species of major economic importance such as *Ocotea usambarensis*, *Vitex keniensis*, *Warbugia ugandensis* and *Prunus africana* in degraded areas of the Forest Reserve. Reforestation in the forest reserve shall be undertaken by the KFS in collaboration with CFAs.
- 96. Restoration of Hotspots through Community-based natural resources management: This shall focus on rehabilitation of degraded trust lands such as hilltops and other publicly owned lands and communal lands. The hotspots will be identified through the baseline studies and mapping exercise supported by INReMP. The project shall use the established government procedures to purchase seedlings from communities for rehabilitation of the identified degraded areas. at the prevailing government prices. Tree nurseries established at schools will also serve as a source of tree seedlings. The communities on the other hand shall be expected to provide manual labour for planting and protecting the planted sites. In sites that fall within the jurisdiction of the local authorities e.g. hills, the local authorities

shall be fully involved in the mobilization, planning, implementation and monitoring of activities therein.

- 97. Rehabilitation of Hilltops: These shall fall into two categories:
 - a) Hilltops without CFAs-The interventions shall be carried out in degraded trust lands, which have no Communities through the coordination of the County Kenya Forest Service (KFS) and NEMA and relevant local authorities shall carry out reforestation of these areas. An actual hectarage would come out during the baseline survey, SOE and PRA process. The project shall provide support through provision of training to communities, the procuring of required seedlings, and facilitation of KFS staff to guide and monitor the activity from PCT through respective Counties.
 - b) *Hilltops with CFAs-* The rehabilitation of these hilltops will be done as per part of implementing the Participatory Forest Management Plans (PFMPs).
- 98. **Implementing Clean energy solutions.** Developing waste-to-energy solutions for organic waste conversion into biogas or bioenergy to reduce deforestation, promoting the use of energy-efficient cookstoves in rural areas, and introducing alternative energy sources for clean cooking and heating in f area that are near forests. On the other hand, promotion of renewable energy and utilisation of improved cooking stoves offers numerous benefits, ranging from environmental sustainability to socio-economic advantages.
- 99. Renewable energy sources are sustainable alternatives to fossil fuels, reducing greenhouse gas emissions and mitigating climate change. Improved cooking stoves reduce indoor air pollution, which is a significant cause of respiratory diseases, particularly affecting women, and children in developing countries. Investment in renewable energy projects creates jobs and stimulates economic growth, especially in rural areas where resources are abundant. Diversifying energy sources through renewables reduces dependence on imported fossil fuels, enhancing energy security for countries.
- 100. To have community members adopt energy cooking stoves at their homes hence reducing the quantity of fuelwood use t consequently reducing the felling of trees for fuelwood in rural areas. The target is to have a total 20,000 homesteads with efficient cooking stoves in 10 counties in 8 years.
- 101. Energy efficient cooking stoves: Technical skills on how to construct energy efficient cooking stoves will be offered to at least 2 local technicians(youth) in each of the selected villages. Training of technicians will also involve having in place demonstration units of cooking stoves at two homes in each of the selected villages. Both training and establishment of demo stoves will be funded through INReMP.
- 102. Community members especially women will be sensitized through village meetings on the benefits of the cooking stoves. Interested members of the community will be invited to see how such stoves work. Whoever is interested to have the cooking stove installed at their homes will contribute some amount of money sufficient to pay the technicians' labour fee while materials will be supplied through GCF grant. There will be a committee of 5 members headed by the village chief or assistant village chief for this activity. Committee members will be selected from the community. *Biogas production:* Biogas production has a fairly good potential in the project area especially where dairy cattle are a norm in homesteads. The programme shall consider supporting communities who identify the biogas units as a need but only a few will be done as demonstrations.
- 103. Sustainable land management practices (training and support to farmers; riverbed protection). Erosion control measures are crucial for preserving soil integrity and preventing agriculture degradation. This can be realised based on different approaches such planting grasses with strong root systems which can stabilize soil and reduce erosion.
- 104. Tree planting can also help to stabilize soil with their root systems and provide additional erosion protection. Building terraces or contour bunds on slopes can reduce

water flow and erosion by creating level steps. Installing silt fences along slopes or construction sites can trap sediment and prevent it from washing away. Constructing check dams using rocks or logs across drainage channels can slow down water flow, reducing erosion. Building retaining walls can prevent soil from sliding downhill and control erosion on steep slopes. Minimizing land disturbance during construction activities and practicing conservation tillage in agriculture can reduce soil erosion. Regular inspection and maintenance of erosion control measures are essential to ensure their effectiveness over time for land management sustainability.

- 105. Climate-smart agriculture (CSA) and climate-smart livestock farming are approaches that aim to address the challenges of climate change while enhancing agricultural productivity, resilience, and sustainability. This aimed at Identifying vulnerabilities, risks, and opportunities associated with climate change impacts on agriculture and livestock farming in the ten counties. Engage with local stakeholders, including farmers, agricultural experts, researchers, and policymakers.
- 106. In the context of the Integrated Natural Resources Management Program (INReMP), the focus is on implementing erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices to enhance soil health, reduce emissions, and optimize land use. Implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices targets 13,900 hectares of land.
- 107. On the one hand, implementation of this activity will be through participatory approach where farmers' associations will be trained on Climate-smart agriculture (CSA) and climate-smart livestock keeping practices.
- 108. On the other hand, the contractor will be sought to undertake the following tasks:
- Designing and implementing erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across designated areas within the INReMP framework;
- > Collaborating with relevant stakeholders, including farmers, agricultural extension workers, and local communities, to identify suitable locations and prioritize interventions.
- > Developing detailed plans for the implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices, ensuring alignment with project objectives and sustainability principles.
- > Providing technical expertise and support to farmers and livestock keepers for the adoption and implementation of sustainable land management practices.
- Conducting training sessions and capacity-building initiatives to enhance awareness and knowledge of erosion control, conservation agriculture, and climate-smart livestock farming practices among stakeholders.6. Monitoring and evaluating the effectiveness of implemented interventions, identifying challenges, and recommending adjustments as necessary to ensure successful outcomes.
- 109. The contractor is expected to deliver the following outputs:1. Implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across 13,900 hectares of land.2. Documentation of implemented interventions, including maps, reports, and monitoring data.3. Training materials and capacity-building resources for stakeholders involved in sustainable land management practices.4. Regular progress reports outlining achievements, challenges, and recommended actions for optimization.
- 110. Qualifications and Expertise: The contractor should possess the following qualifications and expertise: a) Demonstrated experience in implementing sustainable land management practices, preferably in agricultural and livestock farming contexts; b) Expertise in erosion control, conservation agriculture, and climate-smart livestock farming techniques, with a focus on environmental sustainability and productivity enhancement;

- c) Strong communication and facilitation skills, with the ability to engage effectively with diverse stakeholders and communities; and d) Knowledge of local agroecological conditions and socio-economic dynamics, with experience working in similar contexts.
- 111. *Evaluation Criteria:* Proposals from contractors will be evaluated based on the following criteria:
 - Technical expertise and experience relevant to erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices;
 - Quality and feasibility of proposed methodologies and work plans for implementation within the INReMP framework;
 - > Demonstrated understanding of project objectives and stakeholder needs, with a focus on sustainable land management and livelihood improvement;
 - ➤ Cost-effectiveness and value for money in the implementation of interventions across 39,000 hectares of land.
- 112. Rehabilitation of Rangelands, Protection of springs, enhancing water storage and desilting of small dams and Wetland Restoration. Rangeland rehabilitation involves restoring degraded or overgrazed rangelands to a healthier and more productive state. During INReMP implementation, an assessment of rangeland 's current condition will be conducted in the ten counties, these will look at type of soil health, vegetation cover, water availability, and grazing patterns.in addition the assessment will identify the causes of degradation, such as overgrazing, soil erosion, human pressure, invasive species, inappropriate land practices and management. Develop a comprehensive rehabilitation plan tailored to the specific needs of the rangeland, considering factors like soil type, climate, and ecological characteristics.
- 113. The finding will inform and provide methodologies to implement controlled grazing practices to prevent overgrazing and allow vegetation to regenerate. Control invasive plant species through methods such as mechanical removal, herbicide application, or biological control using natural predators or competitors. Introduce native plant species through seeding or planting to improve biodiversity and restore ecosystem balance. Besides, on soil conservation, measures to conduct erosion control such as terracing, contour plowing, or installing silt fences to prevent soil erosion and retain moisture. Regarding improvement of soil fertility, techniques like organic matter addition, mulching, or applying appropriate fertilizers to promote plant growth and nutrient cycling may be adopted.
- 114. This intervention will raise awareness about the importance of rangeland conservation and the benefits of rehabilitation efforts for ecological, economic, and social well-being. Overall, rangeland rehabilitation is a multifaceted approach that not only restores degraded ecosystems but also provides numerous environmental, economic, and social benefits for present and future generations.
- 115. The intervention is expected to result in the following outcomes: To have in place written Community Action Plans including implementation schedules for restoration of Rangelands, Wetlands and riparian areas. To have established buffer zones around wetlands/riparian areas to prevent encroachment and promote conservation. To have water collection or access points constructed at designated locations to facilitate agricultural use and productive utilization of water resources.
- 116. To have in place documentation of wetland rehabilitation activities, including progress reports, monitoring data, and success stories. To have capacity of local communities built and stakeholders involved on wetland conservation and management.
- 117. **Implementation modalities**: The implementation of this intervention will be in an inclusive manner. There will be stakeholders' involvement, engagement of local communities, landowners in the rehabilitation process through participatory approaches, workshops, and outreach programs. Provision of training and technical assistance to land users on sustainable rangeland management practices, including rotational grazing, fire

management, and livestock management techniques will be part of the intervention. Community forest associations, farmers association and community-based organization will be mobilized to take a center stage in the whole process. Community Action Plans will be prepared through involvement and participation of community groups. Facilitators will be hired to lead the process of planning and the community members will propose and implement activities through the support and facilitation of experts.

- 118. Integrated school greening program. School greening program is a set of activities aimed at transforming schools into models of sustainability for communities. Its main objective is to inculcate a greening culture to youth in schools by mentoring and engaging them in hands-on green growth initiatives for sustainability of communities. The schools also act as learning and demonstration sites on tree planting and species selection for the neighbouring communities. This approach also ensures high seedling survival rates.
- 119. It is expected that under this intervention not less than 300 schools across the 10 counties will have the program rolled out and the following infrastructure set up: tree nurseries as the source of supplying tree seedlings to pupils and nearby communities, water harvesting tanks to support the nurseries, biogas plants for school to serve as a demo site.
- 120. **Implementation modalities** The children are encouraged to adopt a tree(s) from the planting to subsequent maintenance. The parents and teachers are also encouraged to participate in the activity as the school act as demonstration areas to the neighbouring community. In order for a school to qualify for selection they will be required to submit a written request to the County Forest Office.
- 121. As regards participation of other stakeholders in the program, the County Forest Office should facilitate the school greening through an Memorandum of Understanding where the roles of the children, Parents and Teachers Association and Kenya Forest Service are clear. The associated draft Terms of Reference (ToRs) are presented in Annex 1 of this document.
- 122. Payment for Ecosystem Services, Carbon Credit, and Tax Credit Promoting carbon marketing, which involves the buying and selling of carbon credits or offsets, can be an effective approach to incentivize emission reductions and support sustainable development. During the project implementation, public awareness about the importance of carbon markets and the role of individuals, businesses, and governments in reducing emissions will help to drive demand for carbon credits and foster broader participation in carbon markets. By promoting community awareness on the subject and leveraging the benefits of carbon marketing, stakeholders can play a significant role in reducing GHG emissions and advancing towards a more sustainable and low-carbon future.
- 123. In the pursuit of sustainable natural resource management (NRM), Payment for Ecosystem Services (PES), Carbon Credit, and Tax Credit schemes play crucial roles in incentivizing conservation efforts and mitigating environmental degradation. Building upon successful models such as the Rewards for Biomass and Soil Carbon Mechanism, this activity aims to establish robust mechanisms for implementing and overseeing PES, Carbon Credit, and Tax Credit schemes within the context of the Integrated Natural Resource Management Project (INReMP). These schemes will not only ensure equitable compensation for conservation activities but also stimulate private sector engagement in NRM initiatives. Overall, the primary objective of this activity is to develop and implement effective PES, Carbon Credit, and Tax Credit schemes to incentivize conservation activities and promote sustainable NRM practices.
- 124. The outcome of this activity will be:
- Established and operationalized digital platform for PES, Carbon Credit, and Tax Credit schemes;
- > Baseline assessments documented including methodologies applied and grading schemes for conservation incentives;

- Regular progress reports prepared outlining achievements, challenges, and recommended actions for optimizing the schemes
- The list of stakeholders involved, trained and capacity built in in PES, Carbon Credit, and Tax Credit schemes
- 125. This activity will be implemented through the services of a contractor to be selected in a competitive manner. The contractor will be required to undertake the following:
- Conduct baseline assessments for carbon and biodiversity to measure and incentivize impactful conservation efforts;
- Design and implementation of a digital platform for PES, Carbon Credit, and Tax Credit schemes, ensuring robust monitoring, reporting, and verification (MRV) processes
- Development of transparent measures and grading schemes to determine the level and value of rebates/benefits, as well as penalties for defaults or non-conformities;
- > Exploration of avenues for the private sector to adopt identified critical natural resource opportunities and offer ecosystem payment services to relevant stakeholders;
- Collaboration with relevant stakeholders, including government agencies, local communities, and private sector entities, to ensure the successful implementation of PES, Carbon Credit, and Tax Credit schemes
- 126. The performance of the contractor will be measured against the following deliverables:
- Establishment and operationalization of a digital platform for PES, Carbon Credit, and Tax Credit schemes;
- Documentation of baseline assessments, methodologies, and grading schemes for conservation incentives;
- > Training materials and capacity-building initiatives for stakeholders involved in PES, Carbon Credit, and Tax Credit schemes;
- > Regular progress reports outlining achievements, challenges, and recommended actions for optimizing the schemes.
- 127. The suitable contractor should possess the following qualifications and Expertise:
- ➤ Demonstrated experience in implementing PES, Carbon Credit, and Tax Credit schemes, preferably in the context of natural resource management or conservation;
- > Expertise in MRV processes, baseline assessments, and incentive mechanisms related to ecosystem services and carbon sequestration;
- > Strong communication and stakeholder engagement skills, with the ability to collaborate effectively with diverse groups and organizations;
- Knowledge of climate finance mechanisms and experience in integrating conservation incentives with private sector initiatives.
- 128. In the selection process of the contractor, the following evaluation criteria shall be applied to the submitted proposals:
- > Technical expertise and experience relevant to PES, Carbon Credit, and Tax Credit schemes, particularly in the context of natural resource management;
- Quality and feasibility of proposed methodologies and strategies for implementing and overseeing the schemes;
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting sustainable NRM practices;
- Cost-effectiveness and value for money in the establishment and operation of PES, Carbon Credit, and Tax Credit mechanisms.

SECAP and Compliance

- 129. In compliance to SECAP requirement, all activities related implementation of ESCMP, Stakeholder engagements and Grievance Redress Mechanism shall be the responsibility of the PMU. An Environmental and Social Safeguard specialist shall be part of the PMU staff to oversee compliance of SECAP and related matters.
- 130. Establishing a digital platform for Payment for Ecosystem Services (PES), implementing mechanisms for tax credits and carbon credits in water catchment protection, forest cover protection, and water source conservation to incentivize conservation efforts and engage the private sector actively.
- 131. **Nutrition strategies** to improve environmental sustainability, INRM, and ecosystem services will involve mapping associated agrobiodiversity for healthy diets as part of the baseline studies and mapping of key natural resources. The aim is to understand the distribution patterns of species in specific counties. By combining existing GIS layers, satellite imagery, and ground-truthed data, critical information on the availability and status of wild fruit trees, herbal/medicinal plants, non-timber forest products, and neglected underutilized species will be obtained. This mapping will be used to expand alternative livelihoods and income opportunities for smallholders, as well as improve the nutritional quality and environmental sustainability of diets promoted under component 2, through homestead or group production.
- 132. The mapping information will be documented as an inventory of the cultural and natural heritage, aiming to revitalize local county food cultures, traditional food preparations, and the celebration of specific traditional medical identities that have been forgotten and not passed on to younger generations. This revitalization will be accomplished through food and nutrition events/sessions in collaboration with Farmer Organizations (FOs) and Common Interest Groups (CIGs), including those for women, youth, persons with disabilities (PWDs), and vulnerable groups. The strategic stakeholders for this activity include the Alliance of Bioversity International and CIAT, agricultural training colleges, and county nutritionists.
- 133. The planned capacity building sessions for the improved Cookstove Promotion Initiative will include information on nutrition and consumer awareness, to educate households about optimal food preparation techniques and the health impacts of air pollution. This is especially important for women and children who spend a significant amount of time around the fireplace, as they are exposed to higher concentrations of pollutants compared to the outdoor level. The objective is to promote the correct use of the improved green cooking stoves, ensure proper cooking of food, and maintain its nutritional value. Furthermore, promoting healthy practices can help prevent negative pregnancy outcomes caused by air pollution. Additionally, the use of green cookstoves in local schools will serve as a model for students and teachers, encouraging them to adopt the technology and make the necessary behavior changes.
- 134. The integrated school greening program will collaborate with service providers and utilize county environment and hygiene teams to enhance communication regarding the prevention of vector-borne diseases related to water, sanitation, and hygiene. The aim is to empower students on suitable management and utilization of nature-based products.

II.3: COMPONENT 2: IMPROVED, INCLUSIVE AND SUSTAINABLE RURAL LIVELIHOODS

135. This component will seek to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live. Component activities will target selected value chains. Cost sharing mechanisms will be used to support farmers and community groups in areas such as access to planting materials/seed for recommended crop/trees species; support for fodder production in livestock, introduction of appropriate small stock and adoption of yield enhancing equipment in beehive production. Support will

not be limited to technical and production issues but will include bulking of produce for sale, formation, and support of marketing groups to deal collectively with traders with different farm produce. Local community groups will be supported to undertake value addition of agricultural products and non-agricultural products through facilitating access to appropriate technologies, adherence to product health and safety standards, enterprise management and marketing support for processed products. Techniques and technologies for postharvest management to reduce loss of produce in storage will be promoted.

- 136. Value Chain Identification and planning Only enterprises assessed as having neutral or beneficial environmental impacts will be supported. Value chains have been selected based on the following criteria: i) neutral or beneficial environmental impacts ii) the commodity is produced or can be easily produced by most targeted beneficiaries (potential for volume aggregation and scale iii) availability of profitable and structured markets (existence of SMEs, processors, aggregation centres) iii) potential to contribute to household nutrition iv) potential for inclusivity (youth/women participation). For an effective value chain approach, the availability of complementary support to the other actors along the value chain is also an important consideration. On the basis of these criteria and consultations with the Counties the following value chains have been prioritised: i) dairy ii) poultry iii) apiculture iv) fruit trees (avocado) and v) horticulture (tomatoes, leafy vegetable). The programme is however expected during implementation to regularly review these value chains to determine continued relevance and take on board any new ones that best respond to the objectives of the programme. The following approach to the identification of value chains is recommended:
- Consult farmers, farmer groups, country agricultural authorities to identify commodities that align with the selection criteria set above.
- Identify key actors at all the levels of each value chain.
- ➤ Identify key factors constraining producers to link with existing markets as well as those faced by agribusiness institutions in dealing with farmers producing the respective commodity. The analysis will clearly outline available opportunities which if exploited will increase the profitability for farmers and/or agribusiness firms.
- > Identify current and recent past programmes with relevant interventions that provide opportunities for complementarity/synergies or scaling up.
- 137. **Matching grants to value chain actors** A matching grant facility with two separate windows one for production support to farmers and the other for value addition and agro-processing for support to market intermediaries (including farmer business organisations) will be used to support actors within target value chains. Matching grant contributions for producers and groups under the Production Window will be lower than those for Agro-processing and Value Addition window(i.e. 10% and 20% cash contributions, respectively). Administration of grants will be by the PCT. An Independent Oversight Agent will be recruited to appraise and assess the applications before awarding by the PCT. Funds will be disbursed in tranches based on the achievement of the milestones specified in the grant agreements. The award of the grants will be done using the guidelines and procedures of grants manual developed by the project for application, evaluation and administration procedures.

II.3.1: Subcomponent 2.1: Improve Production and Productivity of Selected Nutrition- Sensitive Value Chains and Nature-based Enterprises

138. Interventions under this subcomponent aim at enhancing productivity and production of the target value chains. Value chains have been selected based on the following criteria: a) neutral or beneficial environmental impacts; b) the commodity is produced or can be easily produced by most targeted beneficiaries (potential for volume aggregation and scale); c) availability of profitable and structured markets (existence of MSMEs, processors, aggregation centres); d) potential to contribute to household nutrition; and e) potential for inclusivity (youth, women, PWDs, PLWHAs and other vulnerable groups participation). For an effective value chain approach, the availability of

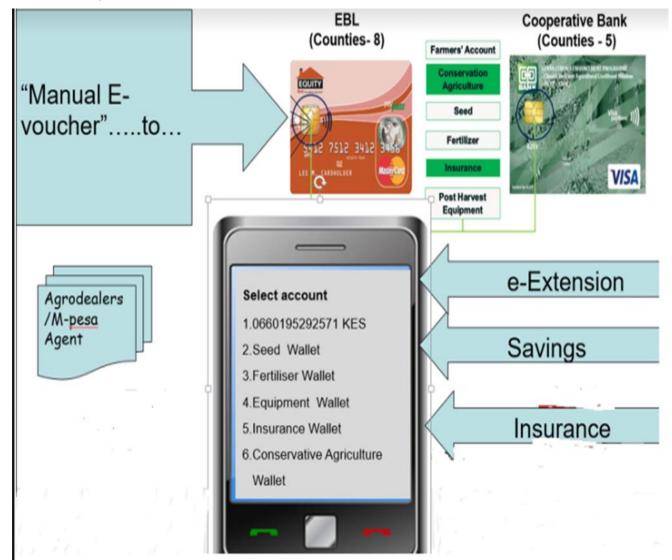
complementary support to the other actors along the value chain is also an important consideration. Based on this set of criteria and consultations with all ten target counties, the following value chains were prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees (avocado, mangoes); and e) horticulture (tomatoes, leafy vegetables). INReMP is expected to review these value chains regularly to determine continued relevance and take on board any new ones that best respond to INReMP's objective.

- The following nutrition sensitive activities will be integral part of this component: a) introducing nutrient-dense varieties and promotion of viable nutrient-dense commodities from natural resources with aim at conserving agrobiodiversity; b) introduction of good post-harvest practices, techniques, and equipment that preserve nutritional quality and ensure safety of foods; c) facilitating preservation, processing, and marketing of selected nutrition-sensitive value chains; d) facilitating nutrition sensitive market standards and certifications to the private sector for supportive market systems and infrastructure; e) Social Behaviour Change Communication, social marketing and consumer food and nutrition awareness and hygiene education.
- Support activities will cover crop and livestock production by ensuring that the targeted beneficiaries accessed subsidized bundled of inputs, technologies, services and facilities through the established digital voucher platform, market linkage, value addition and consumer nutrition awareness ensuring effective integration of farmers in the target value chains.
- Delivery of digital bundled services and e-voucher INReMP will adopt the digital bundled services approach, scaling up the lessons and technologies deployed under the KCEP-CRAL⁹ Project, with the objective of: i) to enable targeted beneficiaries to access bundled inputs through the evoucher , technologies, services and facilities for improved crop and livestock productivity and production (improved livestock breeds, animal feeds, fodder seeds, improved crop varieties, (bio)-inputs for enhanced productivity and soil health, improved tree seedlings, modern beehives, etc.; ii) deploy digital advisory services to provide information to farmers on best practices to support livestock feed and fodder production, pasture management and feed preservation. This intervention will also seek to integrate AI-enabled advisory services (such as the Digital Green AI Farmer Chat¹⁰) leveraging on KARLO's Farm stack as this has proved to be effective in providing the needed advisory services farmers.
- Implementation modalities. INReMP will replicate and scale up KCEP-CRAL's evoucher experiences, lessons, innovations and best practices that IFAD, EU and GoK have been implementing over the last seven years as well as drawing emerging lessons from GoK and WB e-voucher scaling up approach. The KCEP-CRAL e-voucher model is led and driven by the private sector within the framework of Public-Private-Producer Partner (PPPP) where financing is co-shared among these actors both in terms of the systems development, operation and access to the subsidized bundled of inputs, services and technologies based on market prices. The system has also evolved in becoming costeffective transitioning from GoK-led paper based voucher system in earlier 2010s, through customized debit-card solution (e-voucher 1.0) under KCEP-CRAL, to mobile/cardlessbased solution (e-voucher 2.0) under KCEP-CRAL Plus (under EU funding as mitigation measures against COVID-19 risks) and piloting Blockchain (e-voucher 3.0) that IFAD piloted in KCEP-CRAL to enhance the end-to-end encrypted traceability of financial flows. KCEP-CRAL has conducted full scale impact assessment through contracted consultants and main conclusion is that the e-voucher is a game and transformative changer and multiple benefits have been accrued when comparing treatment against control group on productivity increase, income increases, food and nutrition security, job creation and asset

⁹The KCEP-CRAL e-voucher platform is led by the private sector creating an opportunity to deliver last mile services, inputs, technologies by crowding in the private sector and ensured that segmented e-wallets (conservation agriculture service, crop insurance, certified seeds, agrochemicals including (bio)fertilizers, post-harvest equipment) provided targeted farmers to securely access these assorted supports while also creating opportunity for their financial inclusivity. The platform used both debit-card-point of sale and USSD for all the transactions across 13 KCEP-CRAL Counties.

¹⁰https://farmerchat.digitalgreen.org/

accumulation, financial inclusions and resilience. The figure below demonstrate the KCEP-CRAL e-voucher system



INReMP would therefore adopt the KCEP-CRAL e-voucher approach to ensure that private sector is crowded in to the digital voucher system involving i) competitive procurement of two to three providers who could also demonstrate capacity to provide financial inclusions (both services and products) to the targeted value chain actors and have demonstrated presence in the INReMP targeted counties by ensuring the value chain actors can access the system in their proximity/localities. The Procurement will involve open call for expression of interests, call for proposal from those who have qualified or shortlisted after EOI, selection of potential providers after meeting minimum eligibility criteria on both technical and financial proposal, negotiations and contracting. As in KCEP-CRAL, INReMP will use the performance-based contracting which are subjected to renewal after satisfactory performance; ii) the providers should commit to co-finance the system development, operation and maintenance and based on negotiations with the INReMP, ensure some level of systems integrations/interoperability of the INReMP M&E/MIS systems. The digital system should be amenable to integrated both frontier technologies e.g. Blockchain, Artificial Intelligence (AI), Chatbot enabled and USSD functionalities but still remain cost-effective both in the medium and long-term.

144. The Policy, procedure, process will be adopted from the existing KCEP-CRAL e-voucher manual for the INReMP digital voucher manual which would be

drafted during the PY by the interim start-up team and finalise during the INReMP Management Team and contracting of the procured service providers.

145. The following are the key activities that need to be followed

Introduction digital bundled services and e	-אטווכ	her				
	Y1	Y2	Y3	Y4	Y5	Y6
Engagement of KARLO and Digital Green to support Extension Advisory and Development of AI enabled AgriBot leveraging Farm Stack Data						
Curate Content and Knowledge to promoting green technologies, water saving and on-farm water management water practices for digital advisory leveraging L-FFS curriculum and extension data						
Integrate Feed and Fodder advisory into the Agribot in liaison with ILRI to support diary value chain farmers						
Competitive Procurement of digital voucher platform provider (issuing expression of interest, call for proposals, selection, negotiation and contracting)						
Development, testing and rollout of the digital voucher platform						
Selection, Registration of farmers on the digital Voucher and link to Farmer Registry collaboration with KARLO						
Selection, registration Enrollment and Onboarding of Agrodealers and Agribusiness for digital voucher services						
Finalisation (PY1) and revision of digital evoucher manual						
Implementation of digital voucher platform based on the phasing of the beneficiaries to access validated subsidized bundled of inputs, services, technologies, equipment/facilities across the 10 counties						
Tunining of Extension Workows to provide Digital						
Training of Extension Workers to provide Digital Advisory Services						
Operation and Maintenance of the digital voucher system						
Train LFFS farmers and lead farmers in good and climate smart agronomic practices using digital content						
Procure Mobile Tablets to support delivery of advisory Services by Extension Agents						
Monitoring, evaluation and reporting of the digital voucher platform						

146. The INReMP support through this digital voucher platform will ensure differentiated targeting through a sliding subsidy principle where: a) the most vulnerable beneficiaries (e.g. youth, PWD, PLWHAs, IPs and those impacted by climate risks (floods, droughts) will receive Programme input-package start-up support at 90% subsidy with the vulnerable contributes 10%; b) rural smallholders moderately food insured including only youth CIGs, FOs, CFAs will receive INReMP support for start-up package at 80% subsidy of the cost of the package and they contribute the remaining 20%. Details of the planned activities are presented hereunder.

I. Production Support to Target Value Chains

A. Dairy Value Chain activities

147. In the programme counties, dairy productivity varies across regions, with farmers reporting an average milk production of 3-8 Litres/cow/day. Main factors affecting productivity include the use of breeds with low milk production potential, poor access to quality feed, poor animal husbandry techniques, inadequate disease control. The table below presents main production challenges and planned interventions.

Dairy Value Chain: Summary of key production challenges and opportunities

S/No.	Activities	Challenges	Interventions/opportunities
1)	Breeding	the dairy herd, contributing to low milk productivity. Access to A.I is a challenge due to few inseminators and limited distribution of the inseminators and at times lack of equipmen such as the liquid nitrogentanks. High costs of AI, poo success rates/conception rates long calving intervals and low level of adoption of AI. Genetic erosion due to	a Support programs that will increase availability and the dsuccess rate of breeding stechnologies. to Enhance adoption of good nanimal breeding practices 4
2)	Animal feeds	animal feeds and over reliance on natural pastures limiting productivity of animals Low level of knowledge and skills on animal feeding and feeds management, feed conservation and limited awareness of other non conventional feed sources High cost of concentrates	establishment of high-quality of fodder and pasture formulation eand production facilities by gfarmers. Capacity building on epasture establishment and dconservation depasture and fodder seed Capacity building initiatives to address the issue of feed conservation and exposure dto the alternative feed sources available for use. Access to modern

		1	(Capla) and to promote bull-
			(Scale) and to promote bulk forage cultivation and bulking by Co-operatives. Utilize open fields at
			county farms for feed production.
3)	Animal health	 Cattle disease prevalence attributed to domination of extensive production systems. These diseases include tick borne diseases such as ECF, Anaplasmosis and ther diseases such as Foot and Mouth disease, Lumpy skin disease and anthrax. Limited access to veterinary services in some counties in addition to having few/inadequate animal health practitioners at both public and private levels. High cost of veterinary services both curative and preventive Collapse of cattle dips due to high cost of acaricides & poor governance/management Infiltration of animal health service by untrained people and emergence of antimicrobial, and acaricide 	 Strengthen of disease surveillance and monitoring mechanisms in addition to farm biosecurity measures Capacity building of animal health practitioners and agrovets Rehabilitation of cattle dips Establishment of revolving fund for procurement of livestock vaccines and revival of tick control infrastructure Support for the purchase of motorcycles to enable animal health service providers reach farmers for vaccination activities. Train and equip youth as Community Sprayers (in noncattle dipping zones i.e. among zero-grazers) Establishment and enforcement of regulations on the provision of animal health services by untrained personnel, as well as the sales and distribution of falsified
4)	Extension services	livestock extension staff Transport /mobility for livestock extension officers is a challenge. Inadequate technical skills on emerging dairy technology	 substandard livestock medicines Enhance the capacity of staff on emerging technology in dairy/capacity support to the Dairy Training Institute. Equipping extension agents for effective and efficient service delivery Support in the provision of mobility/transport for livestock extension officers. Empowerment of farmers and training of village-based youth to offer basic extension services and identify model farmers to offer advisory services at the village level as community-based vets. Optimization of digital technologies and other media – Radio, TV, and social media platforms- for delivery of extension messages to farmers.

	Promote the farmer field
	school approach to empower the
	dairy farmers.

- 148. The following have been identified as priority intervention activities for INReMP for the dairy value chain.
- 149. **Identification and mapping of farmers and other stakeholders** This activity will seek to identify and map the location of existing individual and groups of producers and their level of production. The mapping will also cover other actors, such as buyers, input suppliers and suppliers of equipment. This activity would lead to the production of a "milk map" showing concentration of producers and, thus, potential supply areas. The information will assist in determining the potential supply areas and ideal locations for aggregation centres. A total of ten mapping exercises will be conducted, one in each of the target counties.
- 150. **Improve access to climate smart feed and fodder and water** The project will strengthen the collaboration between fodder producers with Kenya Seed Company and other private fodder seed companies to deliver quality fodder seeds. The fodder seeds will be distributed through private agrovet and farmers cooperatives. Emphasis will be placed on dissemination of legumes drought resistant and low-input fodder varieties for higher productivity and lower pressure on natural resources. This will rely on supporting the emergence of a feed, fodder, and fodder seeds supply chain. It will include support to KALRO for the identification and selection of varieties and to private seeds producers to deliver quality planting materials and support to private feed and fodder producers and rangeland rehabilitation.
- 151. Capacity building to improve fodder production such as grass and legume intercropping, agroforestry and weed management will be done at the community and cooperative level to enhance uptake of good fodder production practices. Best practices in fodder crop pest management and soil conservation management for feed and fodder production will be identified, and pasture/rangeland rehabilitation and sustainable land management strategies will be developed in participative way and implemented. To mitigate the impact of droughts and improve feed and fodder quality, fodder choppers and conservation equipment, including hay stores, plastic barrels for small-scale silage making, will be provided, including for hay and small-scale silage making. This intervention will also address seasonality by making higher quality feed/ fodder available throughout the year for dairy production thus reducing fluctuation in the volumes of milk supplied to the cooperatives. Feed/ Fodder of higher digestibility will also contribute to reducing enteric methane emission.
- 152. Prior to rolling out the feed/ fodder support activities an assessment of the status of the availability and accessibility of livestock feed/ fodder will be undertaken at the county level to estimate the feed and forage deficit and identify opportunities and challenges. The project will identify opportunities to involve women and youth in fodder production as a business. The project will also leverage on the assessments and analysis conducted by other IFAD project like KeLCoP to identify the best ways to intervene and support the development of a sustainable fodder value chain.
- 153. **Strengthen delivery of public and private animal health services** Sick animals are unproductive and use resources inefficiently. To strengthen the system of disease surveillance and monitoring the project will assess the existing disease surveillance systems in the project counties and intervention for strengthening the systems identified The support could among others include enhancing the capacities of public and private veterinary services to deliver essential Veterinary Public Health (VPH), including for surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians and technicians/para-vets, inspection, and diseases emergency response). At least 2 para-vets per village will be trained.

- 154. The project will also collaborate with the counties to develop disease contingency plans to respond to any sanitary challenges. The contingency plans are required for each disease that is a risk to livestock production. Prior to making investments in the development of the plans, the project will review existing contingency measures and support the respective counties to develop plans for common and any other known emerging diseases depending on the epidemiological situation in the county and assessed risks. To project will support surveillance by providing smart devices to be issued to disease monitors, community surveillance reporters for regular tracking, monitoring, and reporting diseases. The smart devise will improve the efficiency of disease reporting and response. The lessons learnt from the use of smart devises in monitoring, reporting, and responding in KeLCoP can be used to enhance the efficiency and use of devises in disease monitoring.
- 155. The project will put in place a Behaviour Change Communication Approach (BCCA) with the aim of changing farmers habits and attitudes to prevent introduction and spread of livestock and zoonotic diseases. The training will target dairy farmers and communities on improve animal husbandry practices to prevent and reduce disease occurrence at the farm. BCCA entails designing and implementing interventions in a manner that is interactive and a process of discovery learning and adaptation.
- 156. **Delivery breeds and breeding services by public and private sector** Overall productivity in the dairy sector remains low in the targeted counties and natural resource use efficiency can be improved by selecting more productive animals while keeping the adaptive capacity of local breeds. The project will provide a total of 2000 productive dairy animals to farmers through matching grants. In calf heifers suitable for the different agroecological zones will be selected, procured, and delivered to vulnerable households, with priority being given to poor women headed households. Other poor household will also benefit over time through the Pass-On-the-Gift (POG) system. Support and facilitation of the POG will be implemented collaboratively by the project management and local groups, with a progressive transfer to other group members. This will result in increased production, nutrition, and incomes for these specific households.
- 157. Prior to the delivery of the cows, technical capacities of smallholder farmers in the domains of animal husbandry (including reproductive management, feeding, health management, animal welfare), fodder production and conservation, milk hygiene and quality, manure management will be conducted. Careful selection of the beneficiaries will also be done using a predetermined criteria to ensure the beneficiaries have capacity to manage the animals and reduce mortalities during the project and beyond. The ultimately result of the capacity building is to increase productivity, improved animal welfare, and reduced GHG emission intensity.
- 158. The project will support both public and private players to deliver efficient AI services to the farmers for breeding. The public artificial insemination (AI) mechanism will be strengthened to improve the delivery of quality of locally produced semen, and its availability throughout the country, including through better availability of liquid nitrogen. The network of private AI technicians will be strengthened through training and provision of equipment, to improve the last mile delivery of AI services in the field. A mechanism for registration and accreditation of AI technicians, performance monitoring and continuous capacity building will also be established to ensure quality of services and improve the success rate of AI. Intervention will support delivery of 15000 doses of semen. Attention will also be given to keeping traits that are relevant for climate change resilience, while breeding for more productive animals will also result in lower emission intensities.
- 159. Support delivery of extension services (Enhance capacities, assets, and community organization of producers to adopt good agricultural practices for across the value chains To strengthen farmers' technical skills and enable the dissemination of best practices and technologies in feed/fodder, herd management, breeding, animal health, manure management at farm level, and rangeland management,

community-based training and extension mechanisms will be supported with a strong focus on climate change adaptation and mitigation.

- The project will support the development of private extension mechanisms at the cooperative level, as well as employ digital extension. Recognizing that the capacity of the County Governments to provide extension services using the traditional visit approach is no longer feasible given the shrinking manpower and operational budgets of county governments, the project will therefore implement an digital based approach to extension services using e-extension based models that are appropriate for the needs and literacy levels of its targets. The main aim of the e-extension is to bridge the gap on the dissemination of technical innovations and on the linkages between research and farmers. The project will procure e-extension services on a competitive basis from the range of service providers available in the country. The e-extension can be integrated to deliver other key messages for project beneficiaries like messages on nutrition awareness messages. In addition, the service provider will develop modules which allow farmers to access expert veterinary advice on call for diagnosis and treatment of ailments for which local expertise may not be readily available. To establish a sustainable e-extension model, the farmers willingness to pay for services will be assessed during the implementation and the lessons learnt used to determine the best delivery model. The ESMF and ESMP identify risks such as e-waste disposal, that are associated with the use of digital technologies. The PMCU should ensure that these risks are mitigated during implementation.
- 161. The project will support development of Livestock-Farmer Field Schools (L-FFS) for dairy farmers. The project support will include development of training curricula, training of trainers and facilitators, and facilitation of L-FFS, including provision of inputs for field trials and demonstrations.
- 162. The development and roll out of L-FFS will involve in the first-place development of a specific curriculum on climate smart dairy production, based on existing curricula developed by FAO and building on the dairy L-FFS curriculum developed in Rwanda under RDDP, successfully tested and improved over the 6 years of implementation. The curriculum will be developed by hiring a service provider on practical high-quality training of the complex aspects of climate smart livestock management.
- 163. The second step will be the training of master trainers, who will be selected among existing master trainers already trained by FAO. Master trainers will then train the 300 facilitators. The first generation of facilitators will be the subcounty and ward Livestock extensionists, and the second and following generations will be farmer facilitators selected among the first generation of trainees.
- 164. The primary focus of L-FFS will be to improve farm management practices and increase production, productivity, and resilience of systems. The main technical entry point for L-FFS will be fodder production and conservation to ensure that: (i) fodder and food crops are not in competition but rather complement each other through adequate intercropping and crop association between fodder (especially legumes, fodder trees, etc.) and food crops, and valorisation of crop residues for cattle feeding; (ii) fodder varieties and practices contribute to climate resilience (utilisation of drought-resistant varieties, introduction of fodder conservation techniques, composting, etc.); and (iii) feed quality, digestibility, and feed balancing is improved to ensure satisfaction of production needs and thus enhance productivity, but at the same time reduce emission. In dairy systems, the L-FFS will also put emphasis on milk quality and hygiene at farm level, including milking hygiene and control of mastitis, to improve productivity and food safety. Animal welfare is an important issue because of impact on productivity and health, market implications (need to comply with World Organization for Animal Health guidelines for international trade) and societal concerns. The zero-grazing system has some implications on animal welfare, and the L-FFS curriculum will include guidelines to improve living conditions of animals kept in zero grazing systems, including appropriate cowshed standards and good practices such as daily outdoor walk.

B. Improved Local Poultry Value Chain Activities

165. Local improved poultry production is an economic activity predominantly carried out by women, youth and marginalized segments of the population. Poultry occupy relatively smaller spaces that do not interfere with land for agriculture and can easily be carried out by women and youth. Poultry can recycle household waste and low value biomass as feed, hence having limited impact on natural resources, and provide high quality protein. The main constraint to local poultry production is the low level of productivity due to diseases (e.g. Newcastle), limited access to hatching/fertilised eggs and chicks of more productive breeds, high cost of feed, poor housing infrastructures, inefficient and costly aggregation methods, and lack of processing facilities.

Poultry Value chain: Summary of key production challenges and opportunities

			Interventions (apportunities
S/No.	Activities	Challenges	Interventions/opportunities
1.	Poultry Production	j .	of farmers on modern poultry production technologies Supporting farmers to establish hatcheries through matching grants.
2.	Poultry feeds	 High cost of feeds and limited access to quality feeds Unavailability of raw materials for feeds production Competition for feed with the dairy sector and humans and high aflatoxins levels 	
3.	Poultry health	diseases such as Newcastled Disease (ND) leading to mass loss of birds Insufficient knowledge on farm biosecurity measures Low technical knowhow on poultry disease prevention and management Limited access to poultry vaccines and medicine Poultry drugs missuse by unqualified	 Enhance routine and timely vaccination. Capacity build farmers on disease control and poultry health management Support agro dealers in stocking and maintaining the cold chains towards the vaccines and drugs for poultry. Promote new versions of vaccines that do not require refrigeration such as the thermo stable vaccines. Train and support community-based vets to periodically vaccinate the chicken on

leading t	to	Antimicrobial
resistance.		

- 166. The main constraints include poor access to eggs and chicks, high cost of feed, poor housing infrastructures, inefficient and costly aggregation methods and lack of processing facilities. The following have been identified as priority activities for the improved local chicken in INReMP.
- 167. **Identification and mapping of farmers and other stakeholders** This activity seeks to identify and map the location of existing individual and groups of producers and their level of production, including other actors such as buyers, and suppliers of inputs and equipment. This mapping will include a gendered analysis of the farmers to inform targeting. The obtained information will assist in determining the potential supply areas as well as identify the support needs of other actors along the value chain.
- 168. *Improve poultry breeds to farmers* The Programme will establish linkages with suppliers of improved chicken to deliver poultry to the farmers. For vulnerable groups, youth, and women the Programme will provide a start-up kit for up to 100 birds per farmer. Although farmers will produce individually, they will be encouraged to form production groups that facilitate learning and allow for coordinated production for more economic use of certain inputs as well as enabling them to attract market intermediaries/aggregators. About 80.000 farmers will receive day-old chicks. The project will support both public and private hatcheries to deliver improved day-old chicks to farmers. KeLCoP is currently strengthening the capacity of KALRO centres in Kakamega and Naivasha to produce and deliver improved chicken to farmers in the targeted countries. Private suppliers are already working with other IFAD projects like KeLCoP to supply improve poultry breeds to the project beneficiaries. The linages develop in other projects can be used to accelerate the delivery of improved poultry to beneficiaries.
- 169. Targeted beneficiaries for improved chicken producers will be organized into group and trained on animal husbandry (including feeding, health management, animal welfare and marketing). Careful selection of the beneficiaries will also be done using a predetermined criteria to ensure the beneficiaries have capacity to manage improved chicken. The ultimately result of the capacity building is to increase productivity, improved animal welfare, and offtake of improved chicken and eggs. Given that the distribution of women will mainly target vulnerable women and youth, special effort will be made to include improved infrastructure for poultry.
- 170. A criterion will be developed by the project to identify beneficiaries as well as identify suitable packages to support the identified beneficiaries in the targeted counties.
- 171. Delivery of day-old chick will only be done after groups have been trained and organised into group to enhance collective action. Collective action will ensure that the chicken farmers benefit from the economies of scale during production and marketing. Though the capacity building will be conducted tin groups improved chicken will be given to individual farmers as group management of poultry was identified as a major challenge during the design mission.
- 172. Strengthen delivery of public and private animal health services and essential input to support production: Public and private veterinary service providers used to support the dairy enterprises will also be involved in providing the needed animal health support to poultry producers during project implementation. Veterinary Public Health (VPH) missions such as surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians, inspection, and diseases emergency response) will also be shared.
- 173. Disease contingency plans that will be developed by the counties will also respond to improved chicken disease challenges. Disease surveillance system developed by the project will also cover poultry diseases and other livestock diseases to help in the management of zoonotic diseases in the targeted counties.

- 174. Farmers will be linked to private supplier of key input like feed. The project beneficiaries and farmer groups will be linked to reliable suppliers of inputs to support poultry production. The project will develop a list of agrovet input suppliers in each targeted counties and work with the identified suppliers to ensure that the quality of input supplied is of good quality. Capacity building on local/home poultry feed formulation will be provided to farmer groups to help them reduce the cost of feed and the use of available feed resources. The project will also identify and evaluate options for supporting youth to engage into the poultry input supply as well as milling. This will be done through matching grants.
- 175. Messages and training will also be put in place for Behaviour Change Communication Approach (BCCA) with the aim of changing farmers habits and attitudes to prevent introduction and spread of livestock and zoonotic diseases. The training will target farmers and communities on improve animal husbandry practices to prevent and reduce disease occurrence at the farm. The packages developed using the BCCA will b delivered at the group level by group mentors. The group mentors will also inform members about other channels through which information may be available.
- 176. Support delivery of extension services and poultry infrastructure (Enhance capacities, assets, and community organization of producers to adopt good agricultural practices for livestock production) The project will support extension to farmers to enhance dissemination of best practices and technologies in feed, poultry management, and animal health. This will be conducted by both public and private extension service providers. The project will support implementation of an ICT based approach to extension services using e-extension based models that are appropriate for the needs and literacy levels of its targeted beneficiaries. The main aim of the e-extension is to bridge the gap on the dissemination of technical innovations and on the linkages between research and farmers. The e-extension package will include all domains that need to be communicated during the project to enhance productivity as well as NRM components of the project.

C. Apiculture Value Chain Activities

- 177. Due to their intrinsic interaction with the surrounding environment, bees play a significant role by pollinating crops and wild plants, including forest trees, thus offering a vital ecological role in biodiversity conservation and maintenance of landscapes. Furthermore, apiculture represents a valuable adaptation strategy. During droughts in fact, bees can forage in the wild vegetation and still be productive while crops productivity decreases. However, beekeeping and consequently the honey production, is challenged by environmental harmful practices such as deforestation and unregulated pesticide use. This results in loss of greenery and forage for bees, causing higher absconding rates.
- 178. **Identification and mapping of farmers and other stakeholders:** This activity will seek to identify and map the location of existing individual and groups of producers and their level of production including other actors such as buyers, and suppliers of equipment. This information will assist in determining the potential supply areas.
- 179. **Improved honey production**: This activity will invest in training of farmers in good beehive management including effective control of pests and diseases. Farmers will also be made aware of the advantages of adopting and using modern beehives that allow for better management of the queen bee as well as honeycomb management. Activity to be supported include acquisition and distribution of honey quality equipment that comprises of the following items: Langstrothe hives, bee suits, honeycomb, smoker, swarm catcher, queen excluder, and honey extractor.
- 180. **Initiate GAP training and demonstration in apiculture**: The Programme will: i) Provide CSA/GAP trainings for extension service and smallholder apiculture farmers/apiculture associations with a particular focus on good environmental practices (i.e. correct use of pesticides). This will include sensitising them on the importance of preserving/maintaining the ecosystem (i.e. tree cover maintenance), thus promoting the

protection and planting of trees; ii) Encourage honey production combined with the growing of bee-friendly crops like sunflower and alfalfa which may increase the honey production season beyond the current 3 months per-year (October – December) and also create linkages with other commodities; and iii) where land degradation will be recognised as an impeding factor for the sustainable development of the COMMODITY, the Programme will explore the best environmental practices for land restoration (i.e. promoting the protection and planting of specific tree species). This will contribute to improve the resilience of beekeepers while aligning the Programme's intervention to the GoM's strategic objectives to reduce GHG emissions and preserve its ecosystem.

D. Fruit Tree Value Chains (Avocados)

- Fruit tree production contributes positively to natural resource conservation through providing ground cover that should lead to reduced incidences of soil erosion. Fruits, for home consumption and marketing, provide an economic incentive for households to invest in such fruit tree production. This activity prioritizes avocado tree production although other tree types, like mangoes and banana, could equally be promoted depending on available local market opportunities in target counties. The Hass avocado variety has more market opportunities and is the most widely cultivated, with many farmers reporting its production. The number of farmers engaged in avocado production varies across the counties, ranging from a few hundred to tens of thousands. The average area of land put under avocado production by farmers varies slightly across the counties but is on average 0.25 acres and the number of trees per farmer ranges from around 15 to 25. The objective of this intervention is to increase the number of farmers producing the crop as well as the number of trees per unit area. This will, in turn, increase the volume of avocados available for the market. Some 92.000 households are targeted. The main constraints faced by farmers include poor access (availability and cost) to quality planting materials/seedlings, limited knowledge of good ag
- 182. Agricultural practices, inadequate access to mother blocks for rootstock and scions, low skills on nursery management and absence of specialized inputs in the local agrodealers' shops. Planned interventions include:
- 183. **Production and distribution of quality seedlings** The aim is to facilitate farmers to access good seedlings from certified nurseries. First, the project will support existing nurseries to access quality planting materials for multiplication and facilitate their certification. This requires a close working relationship with specialized research stations that could serve as a source of such materials. A second element is to support farmers to acquire seedlings at reasonable cost; 92.000 households are targeted.
- 184. **Training in Good Husbandry Practices** To enhance survival rate of planted seedlings, training will be provided to beneficiaries on good tree management, importance of using grafted seedlings for planting, recommended plant spacing, pruning and soil testing. The main challenges that exist in managing avocado health include inadequate knowledge and skills on pest and disease identification and management, as well as the availability of counterfeit pest control products in some areas. Farmers will be trained in integrated pest management and disease control. Linkages will also be established with reputable input suppliers. In addition to individual and group training, the Programme will also promote field days, demonstrations, exchange tours, field visits, etc.;
- 185. **Strengthen delivery of public and private extension services in avocado production** There is need for increased training facilitation and widespread adoption of new technologies throughout the avocado value chain. Training will be provided to public extension staff to improve their technical knowledge on avocado production. Training will also be extended to farmers' groups and their lead farmers to contribute to farmer training. Planned activities include support for organization of field days, demonstrations, agricultural shows and exhibitions, exchange tours, field visits, and group visits as part of their extension activities; and

186. **Strengthening Delivery of Inputs**. An assessment will be done at the start of the programme to determine limitations that agro dealers face to meet inputs requirements for fruit tree production. Training for input suppliers will include exposure to specific input needs for fruit trees, appropriate packaging of inputs, correct and safe use of agricultural chemicals, improving communications with individuals and farmer groups. Proper linkage to VSLAs is further important, as this will provide smallholder producers with the required capital to invest in improved inputs.

Fruit Tre	ruit Tree Value Chain: Summary of key production challenges and opportunities				
S/No.	Activities	Challenges Interventions/Opportunities			
1.	Access seedlings inputs	to Unavailability of and quality. grafted seedlings establishment of certified and certified nurseries not nurseries close to the farmers. within the reach of farmers farmer through E-Voucher High cost of subsidy program. seedlings & inputs Capacity building of Co-(fertilizers and operatives, CIGs and individual pesticides). nurseries on nursery management. technical know-how on Avocado production. by mandated institutions e.g. Inadequate access KEPHIS, HCD, Department of to mother blocks for Agriculture. rootstock and scions. Uncertified vets to stock specialized avocado (roadside) nursery inputs like pheromone traps. operators. Diseases and for scions and establish mother blocks for root stock. Low production due Empower youth to use of locally available engage in Seedling production.			
2.	Adoption GAPS	use of locally available engage in Seedling production. seedlings of Lack of knowledge Capacity building on on GAP and good GAPS and global Gap agronomic practices and certification inadequate training on Continuous sensitization and demonstration/training of Slow adoption of the technologies. new technologies and resistance to change. Low transition to provision of inputs subsidy, sustainable/regenerative agricultural practices like Fruit tree nursery in the county. organic farming. Train more youth on clean & Certified seedling			
3.	Fruit health	tree Unaffordable soil testing, inadequate skills sampling and analysis, IPM and on IPM, importation of support to the provision of diseased seedlings. High cost of agro chemicals. Inadequate technical knowhow on chemicals subsidy using Enutrient application and pest and disease control.			

 Counterfeit pest 	 Strengthen extension
and disease control	services by deployment of
products.	agronomists to provide advisory
 Inadequate 	services.
knowledge and skills on	 Revitalize and adequately
avocado pests and	fund plant clinics.
diseases control	 Support provision of
 Lack of adequate 	water harvesting and water
water for the avocado fruit	conservation technologies
trees	 Capacity build farmers on
 Inadequate 	integrated pest management
knowledge on post-harvest	and disease control and relevant
	technologies of post-harvest
_	management of avocadoes

E. Horticulture (tomatoes, green leafy vegetable)

The horticulture value chain presents an alternative livelihoods opportunity for sites that have benefitted from water harvesting and irrigation infrastructure development. This intervention has the potential for women empowerment. The major challenge with horticulture products is their highly perishable nature and, thus, this requires the availability of organized and profitable markets, especially where large volumes are produced. On the other hand, organized markets require a consistent supply of good quality produce. The following constraints have been identified and will be the focus of project interventions: i) uncoordinated production leading to surplus that does not match level of demand; ii) limited knowledge of good agricultural practices; iii) poor access to the requisite inputs; and iv) inadequate disease and pest control. Successful small-scale horticultural production requires high levels of organisation among farmers to coordinate production and access to water.

Horticulture Value Chains: Summary of key production challenges and opportunities

S/No.	Activities	Challenges Interventions/opportunities
4.	Production	 Low adoption of Capacity building and training improved poultry breeds of farmers on modern poultry and genetics.
		 Poor hatching and Supporting farmers to brooding practices Low adoption of matching grants. modern poultry production technologies such as improved housing and
		ventilation, feeding and watering systems and climate control systems
5.	Poultry feeds	 High cost of feeds and limited access to quality feeds Unavailability of raw supporting farmers and groups to materials for feeds production Competition for feed with the dairy sector and humans and high aflatoxins levels High cost of feeds Capacity building of farmers and groups to supporting farmers and groups to acquire feed mixers Establish mechanism for feeds inspection and analysis. Seek alternative source of feed such as homemade rations or climate smart production of feed such as using the Black soldier fly.

	High cost of concentrates, low quality of concentrates and inadequate protein
6. Plant	health High incidence of diseases such as Newcastle Disease (ND) leading to mass loss of birds Insufficient Low technical knowhow on poultry disease prevention and management Limited access to poultry vaccines and medicine Poultry drugs misss use by unqualified veterinary service providers leading to Antimicrobial resistance. High incidence of and monitoring. Capacity build farmers on disease control and poultry health management Support agro dealers in stocking and maintaining the cold drugs for poultry. Promote new versions of vaccines that do not poultry vaccines and require refrigeration such as the thermo stable vaccines. Train and support community-based vets to periodically vaccinate the chicken on especially in the agrovets leading to Antimicrobial resistance.

- 188. Activities to be implemented targeting some 107.000 households include:
 - Market opportunity assessments This is to identify commodities with market opportunities. Such assessments will be done every production season. The assessments will focus on identifying crops with local and national markets to be supported. The assessments will also identify contract production and aggregation opportunities.
 - Support for increased Production and Productivity INReMP will provide training to farmers on good agricultural practices for target commodities. Approaches will include setting up demonstration plots, organising field days. Key training themes will include nursery establishment, planting density, fertilization, pest and disease control;
 - Facilitating Access to Inputs To produce quality vegetables and tomatoes, it is necessary to use appropriate seed varieties and chemicals to control pest and diseases. The project will support farmers, using the matching grant mechanism, with start-up inputs necessary to enter into identified and prioritized horticulture value chains. The Programme will help the organised producers to aggregate their demand for the different requisite inputs. INReMP will facilitate linkages with local input dealers for mutually beneficial dealings. Any organisational support needed will be provided to ensure that inputs are locally and timely available to farmers.
- 189. **Nutrition strategies** within the Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises component will include:
 - Supporting inclusive, climate-smart, and nutrition-sensitive production and productivity enhancement. This will involve capacity building for registered farmers' groups, cooperatives, and community organizations to enhance their understanding of the nutritional values of selected products. The chosen value chains include dairy, indigenous (improved) chicken, honey production, avocados, mangoes, and bananas. Additionally, the project aims to promote the cultivation of herbal/medicinal plants, non-timber forest products, and neglected underutilized species (NUS) to diversify nutrients and protect the environment. Intercropping

and crop diversification with climate-smart, nutrient-rich crops, such as indigenous vegetables, will also be encouraged.

- In terms of delivering Digital Bundled Services, the digital advisory services will feature nutrition content on nutrient-dense pasture management and feed preservation. The lead farmers' model and community engagement digital advisory will complement traditional capacity building activities to provide content on the nutritional values of selected value chain products, including food quality and safety across the value chain. This includes identifying impurities, monitoring storage conditions, and forecasting shelf-life quality control systems, which may reduce food wastage and ensure safe, high-quality goods. AI-enabled advisory services, such as Digital Green's Artificial Intelligence-powered Farmer Chat4, will provide targeted nutrition and consumer advice for households with malnourished children.
- Strengthening input supply services and systems: The provision of e-vouchers to support farmers in accessing vouchers for feed, fertilizers, and seeds will also include agro-diversity inputs, including Non-Timber Forest Products and Nutritious and Underutilized Species inputs, from onboarded agro-dealers. Consumer awareness and nutrition education content will be adapted to their needs, with voice messaging and SMS messages. Printed materials will also be developed for farmers to access during technical skills training and nutrition education sessions, promoting better nutrition practices within the communities.
- Promoting nature-based enterprises and non-timber forest products: Non-timber forest products and neglected underutilized species (NUS) are important for restoring soil fertility and providing food and health benefits. They contain antioxidants and micronutrients, contributing to sustainable and healthy diets. The biodiversity mapping done in component 1 will help identify potential Non-Timber Forest Products (NTFPs) and Nutritious and Underutilized Species (NUS) that have market demand. This will improve production and processing techniques, ensure product quality and certification, and connect producers with buyers, retailers, and consumers. The project will empower local communities, especially small-scale producers and indigenous groups, to engage effectively in nature-based and non-timber forest product enterprises. Access to capacity building and training programs tailored to nature-based enterprises will be facilitated through existing partnerships between IFAD and organizations like ICRAF (World Agroforestry), Bioversity International, the private sector, and agricultural institutions at the county level, as well as the SUN Business Networks. The technical training could cover sustainable harvesting and cultivation practices, post-harvest handling, value addition, marketing skills, and business management. This not only enhances income-generating opportunities but also contributes to biodiversity conservation and ecosystem resilience. Through collaboration, coordinated efforts, knowledge sharing, and resource leveraging, successful nature-based enterprise initiatives will expand. The project will also support legislation and guidance to incentivize sustainable resource use, protect indigenous knowledge and intellectual property rights, facilitate access to finance and markets for NUS and NTFPs, and promote fair trade practices.

II. Climate-Proof Production Infrastructure

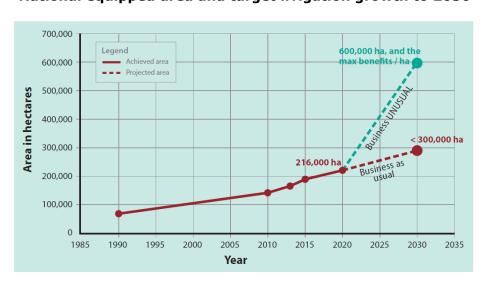
- 191. INReMP will support development and implementation of climate-proof infrastructure to support production and improve productivity of identified value chains. The project will support: (i) smallholder irrigation infrastructure development (ii) investments in green and water-efficient irrigation technologies and other farm-based agricultural water productivity interventions and (iii) multi-purpose community water supply schemes for both productive (irrigation, animal watering etc) and domestic use. Farmers groups will be encouraged to use simple weather tools to predicate weather behavior and be better guided to take informed farm management decisions (linked to component 1.2).
- 192. The **expected results** of the production infrastructure component will be: (i) prioritized sub-catchment-level community infrastructure investments identified through

participatory stakeholder consultations involving men, women and youth; (ii) approximately 4,500 ha irrigated farm and climate resilient irrigation infrastructure benefitting 6,000 smallholder farmers iii) 300 multi-purpose water supply schemes developed to support household-level production (dairy, fruit trees, vegetable farming) to benefit around 30,000 households and put around 9,000 ha under irrigation; and (iv) 2,700 ha put under green and water-efficient irrigation technologies.

193. Participatory sub-catchment Level Infrastructure Investment Planning – The INReMP-supported infrastructure investments will be identified through participatory planning process involving women, men and youth beneficiaries. The planning process will identify priority smallholder irrigation scheme that need some infrastructure improvements, multiple-purpose water supply systems that need to be developed and feeder roads in micro catchments, supportive to the identified value chains (dairy, fruit crops, vegetable farming). The participatory community consultation and planning process will consist of (a) initial visits to communities in target micro-catchments, to inform communities about the project and to establish a long list of possible locations for INReMP-supported community infrastructure, (b) first dialogue meetings, to agree on a shortlist of priorities for interventions for the community, and (c) follow-up dialogues, particularly to establish links of the infrastructure to the value chains and to finalize intervention selection. These will be followed by call for proposal for infrastructure development, development of implementation partnership agreements and the actual implementation and handover of the projects.

> Small-scale irrigation schemes

194. The objective of this intervention is to increase agricultural production through the rehabilitation and improvement of small-scale irrigation infrastructures for selected value chains. In doing this, INReMP will contribute to the Kenya Vision 2030 national strategy that identifies irrigation and agricultural water management as priority investment areas to drive agricultural transformation in the country. INReMP will also support the National Irrigation Services Strategy (2022–2026) that aims for a massive increase in total irrigated area, from 248,000 ha to 600,000 ha between 2020 and 2030. In addition to expansion, the government also wants to see increased water productivity and better irrigation scheme operations, where farmers pay for operations, management and maintenance (OMM).



National equipped area and target irrigation growth to 2030

Source: Irrigation development and experiences in Kenya: best practices emerging from a review of selected implementation programs (NIA, MoWS&I, WBG and KFW)

195. This component will be implemented with support from the National Irrigation Authority, the Irrigation Directorate in the Ministry of Water and Irrigation, and the County

Irrigation Development Units (CIDUs) in the counties (see institutional arrangements and strengthening in Component 3). INReMP will target critical improvement of key irrigation infrastructure (abstraction, main distribution networks – getting irrigation water to farmgates), improve water use efficiency and enhancing of adoption of soil and water conservation measures in the schemes (also linked with component 1.2). In addition, INReMP will enhance operations in the irrigation scheme. Considering the selected value chains, the irrigation schemes to be developed (rehabilitated and/or modernized) will be selected through a prioritization process explained above.

- 196. The project emphasizes farmer participation and ownership in irrigation improvement. It starts by identifying beneficiaries and land tenure through local agricultural cooperatives, followed by a demand analysis to understand socio-economic, land tenure, and water-related challenges. Awareness sessions will inform farmers about improvement measures and modern irrigation technologies to get their consent. Before executing physical improvements, irrigation water users' associations (IWUAs) will be formed (linked to component 1.1).
- 197. The national government, in consultation with the county governments, has identified priority of more than 40 irrigation schemes covering over 40,000 ha in the 10 counties; this will form a basis for further selection. The selection will be guided by feasibility assessments. The irrigation schemes to be developed will selected using the following criteria: (i) reliable water source, (ii) a demonstrated link to a market for the intended produce, with a possible link with lead enterprises and SMEs supported under this component; (iii) the investment encourages youth participation; (iv) the investment benefits women farmers and the irrigation technologies do not increase the workload of women; (v) demonstrated potential for increasing household income sustainably; (vi) commitment to contribute at least 15 per cent of investment costs in cash/kind. The shortlisted schemes will be assisted at undertaking feasibility studies to be submitted for final selection. The feasibility studies and full proposals need to confirm how each of the criteria indicated above will be met. The feasibility studies will include the environmental impact analysis (EIA), required for irrigation schemes, and development of Environmental Management Plans (EMP).
- 198. The actual locations of the irrigation schemes will be demand-driven, considering the linkages that will be established between the producer groups and value chain lead enterprises. Priority schemes identified by the Ministry of Water and Irrigation (attached in Annex) will provide further guidance. The irrigation types will be determined by the crops and topography of the areas. The project will follow the SECAP procedures in the planning and implementation of the schemes. The land ownership will be on communal lands or farmers with offer letters or leases from the government. The focus is on households rather than head of households to prevent women being excluded due to their lack of access to land and other productive assets. INReMP will include women (50 per cent) in the management committees of the irrigation schemes.
- 199. Irrigation schemes will typically have less than 300 participating households, with an average 0.5 ha per household. The typical average size of irrigation schemes will be less than 200 ha. A total area of 4,500 ha will be developed under this intervention. The expected number of direct beneficiaries is around 9,000 households.
- 200. The associated draft Terms of Reference (ToRs) are presented in Annex 1.III. of this document.

> Water-saving technologies and on-farm water management practices

201. **Rationale** – Increasing water productivity is a critical pillar in the National Irrigation Services Strategy (2022–2026). Regardless on the irrigation typology, the continued use of some surface irrigation methods such as flood irrigation, lack of information by farmers on when and what amount of water to apply, poor integration with

other farm-based water conservation practices, the use of fossil-fuel based small motorized pumps etc, need to be urgently addressed, to get more "crop per drop".

- 202. **INReMP Intervention** The project will test, demonstrate and offer farmers a menu of options of green, water saving technologies and farm-based water management practices, to improve water productivity. This will be done in the FFS. The project will create a platform to link farmers with green technology suppliers, who will also participate in FFS. These technologies/practices will include solar-powered irrigation pumps, low-cost drip irrigation systems, sub-surface irrigation, sprinkler irrigation, conservation agriculture etc. The project will implement smart water management technologies, including soil moisture sensors and drip irrigation systems. Efficient water use minimises energy-intensive pumping and contributes to sustainable land management.
- 203. **Target** INReMP aims to put 20% of the total area irrigated under the irrigation schemes and that irrigated from the multiple-purpose schemes under this technologies and practices by INReMP. This will be about 2,700 ha.

Multi-purpose community water supply schemes

- 204. The primary objective of this intervention is to increase the community's access to safe water throughout the year for multi-purpose use both productive (crop farming, backyard gardening, livestock etc) and domestic use. Bringing safe water closer to households will improve nutrition and health outcomes while freeing productive time for farming, especially women and youths. These water schemes will serve households, tree nurseries (link to component 1.2) and institutions (particularly schools).
- 205. Data on access to domestic water services at households from DHS, 2022, indicate that proportion of people with no access to water in the INReMP counties range from a high of 73% in Kakamega to a low of 28% in Uasin Gishu (see Table x below). Hence, there is a huge gap in access to water in households, which could be bridged by INReMP. In rural settings, data on access to water in institutions is near similar to households as design of water schemes is done to supply water to communities, including community-based institutions.

Access of water in households in INReMP Counties

County	% population without drinking water on premises
Kakamega	72.6
West Pokot	68.6
Nandi	68.2
Homa Bay	64.1
Migori	61.7
Kericho	61.2
Trans Nzoia	60.5
Kisumu	55.4
Elgeyo Marakwet	41.7
Uasin Gishu	28.2

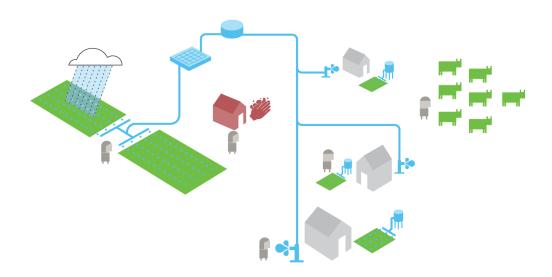
Source: Adapted from Demographic Health Survey, Kenya, 2022.

INReMP Intervention

206. The figure below shows a schematic illustration of a multiple-use system or a multipurpose water supply scheme. Depending on the locality, the water source could be groundwater (e.g. borehole), or abstraction from surface water sources like a perennial stream. INReMP will adopt green technologies for pumping (e.g. use of solar pumping systems). As the anticipation is to serve a community, water will be lifted to reservoir(s), with adequate capacity to serve a community of up to 100 households (less than 100 m3).

From the reservoir, water will be distributed by gravity to households, who can also have small water storage systems, complemented by rainwater harvesting systems, to enhance water supply. Water for drinking purposes may need some treatment, and this can be done by Point of Use water treatment. The design will consider the national guidelines for minimum water requirements for various water uses, but a general guideline given from studies shows it should be between 400-600 litres per household per day^[1]

Illustration of a multi-purpose community water supply scheme



- 207. Community participation and feasibility studies done in sub-catchments will guide the water abstraction sources, which could include high-yielding boreholes, water pans, dams (already constructed which will be desilted), rivers/streams, rainwater harvesting reservoirs, and the lake. INReMP will invest in efficient green technologies such as solar powered pumping systems to enhance abstraction, conveyance and the use of water. Priority will be given to rehabilitation of existing water sources and water supply systems.
- 208. For the downstream (lake counties), an innovative approach for water abstraction and reticulation will be explored. INReMP will explore the use of green energy technologies for upstreaming water from Lake Victoria to uphill reservoirs/collection points and releasing for irrigation and other purposes. Also, the downhill flow of water can be used for micro-turbine energy generation. This is with the integration of water collection points such as wears, ponds and other natural/artificial collections. Introducing solar-powered or other renewable energy sources for irrigation systems will reduce dependence on fossil fuels, mitigate greenhouse gas emissions, and provide a sustainable energy solution for agriculture.
- 209. Selection of communities for multi-purpose community water supply schemes will be competitive, following an expression of interest and a call of proposals by the project. An initial call for proposals will shortlist potential communities to be assisted using the following criteria: (i) reliable water source, (ii) a demonstrated multiple use a high concentration of users must already be doing farming in one of the selected value chain; (iii) the investment encourages youth participation; (iv) the investment benefits women farmers and the water supply technologies do not increase the workload of women; (v) demonstrated potential for increasing household income sustainably; (vi) commitment to contribute at least 15 per cent of investment costs in cash/kind. The shortlisted schemes will be assisted at undertaking feasibility studies to be submitted for final selection. INReMP will support communities with screening of the potential investments for environmental and social risks and the development of the EMP as required.

- 210. The management arrangements for the water schemes will follow the standard practice for rural water supply systems and managed by the community WUAs. For efficiency, the use of prepaid water payment systems will be explored.
- 211. Beneficiary institutions (schools) will be within the community benefiting from the multiple-use water system and will be required to submit an expression of interest with a string commitment towards the school greening program (school gardening, tree planting, use of bio-energy, rainwater harvesting etc.) in component 1.
- 212. The selection of households for rooftop and/or open catchment water harvesting should meet the following criteria: (i) adequate average annual rainfall for the intended purpose of water harvesting, (ii) households meets the poverty criteria for the project, with special focus to the vulnerable groups: women, elderly headed households, and people living with disabilities, and (iii) households invest in roofing suitable for water harvesting and in digging the pond/tank, with consideration given to vulnerable households who may not afford roofing sheets.
- 213. INReMP will develop 300 multi-purpose water supply schemes, with each scheme serving up to 100 households, and among other uses, which could irrigate 9,000 ha.
- 214. The associated draft Terms of Reference (ToRs) are presented in Annex 1 of this document.

II.3.2: Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises

- 215. Access to profitable markets is considered a key element of sustainable natural resources management interventions (Subcomponent 1.2); target beneficiaries must be provided with an avenue to market their surplus produce. Value chain studies conducted as part of this design have confirmed existence of market opportunities. Follow-up assessments during implementation will identify additional market opportunities. These opportunities will drive the production support activities under 2.1. Against that background, this subcomponent focuses on the following activities.
- 216. **Market Opportunity Assessments** These market opportunity assessments for the target value chains will be undertaken during the first year of implementation and at the start of each marketing period to update information on the main actors and their location, availability of produce, volume of produce required by market intermediaries and potential suppliers of raw materials. These assessments will guide market linkage interventions to be supported by INReMP. Further selection of value chains and defining relevant intervention activities should take a systematic approach. For of the selected value chains, the following approach is recommended:
- Assessing the size of the market, volumes of sale, market integration and/or segmentation.
- Identifying the weakest linkages and bottlenecks in the supply line and of opportunities to make it more productive (e.g. through improving the flow of knowledge and market intelligence).
- Understanding the local market structure and key risks and barriers in the enabling environment (e.g. information asymmetry, security issues or policies affecting market access).
- Procurement mechanisms, market requirements (quality and other standards, conditions for delivery) and prices; Identifying existing service delivery actors active in these value chains, and other potential actors if relevant.
- Identifying specific opportunities for women and youth to be involved in the value chains.
- Identifying local businesses (processors, manufacturers) relevant for producers to connect with and what they can offer to the producers.
- Identifying possible new links that can be created and supporting existing links that can be improved upon.

- Analyzing supporting functions that are required to make the value chain work, including both existing and missing support functions (e.g. infrastructure, information, and related services).
- Developing simple gross-margin analysis for the identified value chains.
- Identifying financing opportunities along the selected value chains as well as well as associated risks.
- Identifying groups/production areas. Run a light assessment of the identified producer groups by collecting data on: type of organization, level of organizational maturity, number of farmers, financial health and if any services are provided to farmers.
- 217. Prepare a "Market Assessment and Value Chain Analysis Report" as with practical recommendations that can be used to inform the development of sound, sustainable, and locally appropriate strategies aimed at creating viable agricultural value chains that support targeted communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. The set of recommendations include actions, partnerships, and investments that are necessary to ensure the sustainable production and off-take of the produce from the selected value chains.
- 218. **Market Information Support** The Programme will initiate or leverage existing market information support initiatives to address information needs of actors within the target value chain. Support activities will include both information collection and dissemination. The recommended approach comprises the following:
- Assess the information needs of the various actors in the target value chains
- Undertake a review of market information systems both at county levels and those managed elsewhere that have a coverage of the respective county
- Determine gaps in information services with respect to the objectives of the programme
- Assess feasibility of partnerships with existing information services to address identified gaps
- Define an intervention strategy for the programme complete complete, clearly defining the role of the programme with respect to that of other partners. Leveraging other initiatives and existing institutions is recommended for sustainability.
- Support for Commodity Aggregation, Value Addition and Market linkages - The information collected through market opportunity assessments will be used as the basis to facilitate forward linkages between the various actors in target value chains. The Programme will support contract business models between organised groups of producers and market intermediaries. Priority will be given to identifying entities that can serve as off-takers (private sector, cooperatives) and work with them to address identified market linkage constraints with farmers. The type of activities to be supported will be determined by initial assessments. It is envisaged that interventions would revolve around facilitating coordinated production and deliveries, establishment of aggregation centres, addressing emerging quality issues, sorting and grading, as required. Training will be provided to farmer groups on contract management, quality, grading and nutrition labelling and certification requirements for identified market opportunities. The Programme will identify processors - cooperative, county, or private sector owned that have potential for growth to be integrated into the programme. The entry point to such support will be an assessment of their business development status and capacity building requirements. It is envisaged that the project will provide such processors/cooperatives with business development support including business plan development, business/specific enterprise development training and advisory services and development of business growth strategies. This activity will also support through a PPP model private sector investments in value addition. This will include facilitating partnerships between farmer business organisation and the private sector in the management of processing facilities. Project support to such PPP investments will be for investments material to improved linkages with smallholder farmers and will be limited to 30% of the cost of the additional investment.

a) Dairy Value Chain

The main channel for marketing milk are cooperatives that are involved in aggregation and sometimes processing. Main challenges faced include low levels of milk collection due to inability to mobilize enough farmers to deliver milk and therefore coolers operate below capacity, governance issues that affect smooth operations of milk collection and aggregation, Inadequate equipment at aggregation centers such as milk coolers, milk testers and high costs of operating the milk chilling equipment. The project will support the development and upscaling of existing sustainable business models for dairy aggregation and access to markets which include cooperatives, Milk Collection Centers (MMCs), dairy hubs and cluster producers through capacity building to improve the quality of services. The Project will promote energy use efficiency and renewable energy options, like solar, for adoption by MCCs for milk chilling as well as processing. Improved cowshed and milking hygiene will be encouraged through capacity building at the cooperative. At the farm level the renewable energy technologies that will be promoted include biogas for manure management as well as provision of energy for household use. Through a matching grant, cooperatives will be supported to acquire or upgrade existing milk storage and processing equipment, including cooling tanks and stainless-steel and aluminum milk pots and biogas units.

Summary of dairy aggregation and market challenges and opportunities

S/No.	Activities	Challenges	Interventions/Opportunities
1)	Milk collection and chilling	Low levels of micollection due to inability mobilize enough farmers deliver milk and therefore coolers operate belocapacity. Some cooperative hat affect smooperations of micollection and aggregation Lack of marketing and entrepreneurial skills farmer cooperative levels and therefore lack of coperatives' capacity compete in the markets. Inadequate equipment at aggregation and aggregations of micollection and aggregations and therefore lack of coperatives' capacity compete in the markets. Inadequate equipment at aggregation and aggregations of operating the milk chilling equipment.	Capacity building of to cooperatives on governance, to marketing, and entrepreneurship reskills W Supporting farmer cooperatives with market linkages es with buyers and processors ES Support farmer throoperatives with matching grants like acquire milk collection and actilling equipment such as milk goolers and other related at equipment. EL Provide business develop or raining support to cooperative to ntegrate business model of extension in their functions and eposition extension as a business on growth strategy in their dairy like usiness operations.
2)	Selling and marketing	ssurance due to use oor milk handlir	ty Capacity building of farmers of milk hygiene and milk handling agpesides enforcement of regulations cich milk handling and hygiene. Of Partnership with county governments for prioritization of

		dequate milk testing mprovement of road network in a lairy production areas. Prevalence of Supporting farmers to nformality of milk selling trengthen dairy cooperatives for and marketing combined milk aggregation and to increase with lack of organized he negotiation capacity with buyers narket arrangements, or better prices and payment Fluctuating milk erms. Prices combined with Supporting farmer delayed payments to operatives to establish value armers. Post-harvest losses building and use of matching the lack of milk value grants.
		addition and transport challenges due to poor road nfrastructure.
3	Milk processing	 Low level of Capacity building programs knowledge and skills by targeting farmer cooperatives on farmers on milk processing milk processing and value addition. Low milk volumes Strengthening the farmer to sustain milk processing cooperatives and building value throughout the year. High cost of milk volumes. High cost of milk volumes. equipment for milk Support the establishment processing combined with of medium processing plants based limited access to low-cost on Public-Private-Partnership credit to start processing (PPP) models. High cost of arrangement for the medium electrical power processing plants such as solar (electricity) needed to runsystems. the processing facilities Establish farmer-inputresearch-market (FIRM) transaction platform to resolve production and marketing issues around dairy operations.
4	Milk distribution	 Limited number of specialized milk on milk hygiene and milk handling transportation trucks besides enforcement of regulations Long distance on milk handling and hygiene. between farmers and scooperatives to acquire specialized combined with poor road infrastructure. Poor milk handling institutions. resulting to spoilage of milk during transit. Partnership with county governments for prioritization of improvement of road network in dairy production areas.

221. The following intervention activities have been prioritised:

• Strengthen efficient value chains for milk aggregation and access to market: Milk production and marketing in some of the targeted counties is poorly organised which

hinders their bargaining power, market access opportunities and access to services including credit. In communities where farmers are not organised at all, the project will follow a gradual approach by first initiating self-help groups and community-based organisations that will progressively graduate into Community Business Networks, and then cooperatives. For organised cooperatives and aggregators, the project will support capacity development to provide a sustainable market to the producers through capacity building to improve the quality of services, including provision of extension services to members. Capacity building will focus on governance, business management, market access, and technical aspects such as milk handling and processing. This will ensure that the project supports the development and upscaling of existing sustainable business models for dairy aggregation and access to markets which include cooperatives, Milk Collection Centres (MMCs), dairy hubs and cluster producers.

• Improved Access to Sustainable Energy Sources – The project will promote energy use efficiency and renewable energy options, like solar, for adoption by MCCs for milk chilling as well as processing. Through cooperatives and aggregators, the project will enhance production of safe milk for household consumption and for the markets. This includes reducing milk losses and waste on farm and throughout the value chains, as well as reducing the occurrence of mastitis and Antimicrobial Resistance (AMR). This will be achieved through awareness raising, support for testing quality and training campaigns at cooperative/ farmer group level and at household levels. At the farm level, improved cowshed and milking hygiene will be encouraged through capacity building at the cooperative while renewable energy technologies that will be promoted include biogas for manure management as well as provision of energy for household use. Through the matching grant facility cooperatives and farmers will be supported to acquire or upgrade existing milk storage and processing equipment, including cooling tanks and stainless-steel, aluminium milk pots and biogas units.

Emphasising the multiple benefits of biogas underlines the long-term sustainability of related interventions. The multiple benefits of biogas contribute to long-term positive impacts that include improved health, economic well-being and environmental protection. Clean energy production facilitated by improved cookstoves not only meets immediate energy needs, but also supports sustainable environmental conservation while reducing household workloads. The use of bio-slurry as organic fertiliser increases agricultural productivity, ensuring sustainable soil fertility and consistent crop yields. In addition, the reuse of bio-slurry as non-cattle feed creates a circular system that promotes diverse agricultural practices and reduces dependence on external inputs. Environmental protection remains an integral part of the sustainable impact of biogas interventions, as they reduce deforestation by reducing dependence on traditional fuel sources. The economic sustainability dimension is evident in the income generated from the sale of bio-slurry, which provides a reliable source of funding for the target beneficiaries. At the same time, the creation of employment opportunities strengthens the socio-economic resilience of communities, ensuring lasting benefits beyond the immediate project timeframe.

Gender sensitization for producer groups/cooperatives – The training will also include sessions on gender awareness and relevance for youth inclusion. As such the project will promote active participation and representation of women (including in leadership positions) to ensure women have equal access to project services and decision-making offered to producer groups/cooperatives. The training will also consider livelihood activities women are mostly involved in and technologies developed to respond to women's needs.

b. Improved Local Chicken/Poultry Value Chain

222. Farmers primarily use informal methods and channels to market their poultry produce. While markets exist for processed products most of the poultry trade involves unprocessed whole eggs and live birds. Key challenges faced by farmers in marketing include lack of organized market systems, lack of bargaining power, lack of cold storage and proper transportation facilities, inadequate volumes/supply for commercial processing operations, lack of necessary equipment and skills for processing, and limited awareness on food safety concerns related to processed poultry products. Planned interventions aim to address these challenges and will include supporting mobilisation and organisation of farmers, strengthening of cooperative societies, support to processing facilities, capacity building on marketing and developing structured markets. The project will also support establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements and matching grants. The project will seek to explore PPP arrangements to improve management of processing facilities.

Table ...: Summary of poultry aggregation and market challenges and opportunities

			challenges and opportunities
S/No.	Activities	9	Interventions/Opportunities
1.		aggregation centres and lack of col chain facilities Marketing of poultry products by farmers is disjointed and dominated by middlemen since	strengthening of poultry cooperative societies. Support to the establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements or matching grants.
2.	the	 Poultry cooperatives lack adequate facilities or outlets for sale of poultry and poultry products. Lack of facilities for processing and value addition of poultry products 	partnership with county governments for establishment of marketing outlets Support to the establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements or matching grants.
S/No/	Activities	Challenges I	nterventions/Opportunities
1	Poultry processing	of poultry abattoirs. s Limited technicaling skills and lack of the the skills in the	f poultry slaughterhouses or labs and processing facilities ncluding cold storage facilities in he counties. Capacity building of armers on poultry processing and

 Inadequate
volumes for processing
and lack of cold storage

223. The following activities have been prioritised:

• Improve poultry breeds to farmers – The project will support both public and private hatcheries to deliver improved day-old chicks to farmers. KeLCoP is currently strengthening the capacity of KALRO centres in Kakamega and Naivasha to produce and deliver improved chicken to farmers in the targeted countries. Private suppliers are already working with other IFAD projects like KeLCoP to supply improve poultry breeds to the project beneficiaries. The linages develop in other projects can be used to accelerate the delivery of improved poultry to beneficiaries in this project. 80.000 farmers will receive day-old chicks.

Targeted beneficiaries for improved chicken producers will be organized into group and trained on animal husbandry (including feeding, health management, animal welfare and marketing). Careful selection of the beneficiaries will also be done using a predetermined criteria to ensure the beneficiaries have capacity to manage improved chicken. The ultimately result of the capacity building is to increase productivity, improved animal welfare, and offtake of improved chicken and eggs. Given that the distribution of women will mainly target vulnerable women and youth, special effort will be made to include improved infrastructure for poultry.

A criterion will be developed by the project to identify beneficiaries as well as identify suitable packages to support the identified beneficiaries in the targeted counties.

Delivery of day-old chick will only be done after groups have been trained and organised into group to enhance collective action. Collective action will ensure that the chicken farmers benefit from the economies of scale during production and marketing. Though the capacity building will be conducted tin groups improved chicken will be given to individual farmers as group management of poultry was identified as a major challenge during the design mission.

• Strengthen delivery of public and private animal health services and essential input to support production – Public and private veterinary service providers used to support the dairy enterprises will also be involved in providing the needed animal health support to poultry producers during project implementation. Veterinary Public Health (VPH) missions such as surveillance (through digitalization of surveillance systems), disease control (equipment and training of public veterinarians, inspection, and diseases emergency response) will also be shared.

Disease contingency plans that will be developed by the counties will also respond to improved chicken disease challenges. Disease surveillance system developed by the project will also cover poultry diseases and other livestock diseases to help in the management of zoonotic diseases in the targeted counties.

Farmers will be linked to private supplier of key input like feed. The project beneficiaries and farmer groups will be linked to reliable suppliers of inputs to support poultry production. The project will develop a list of agrovet input suppliers in each targeted counties and work with the identified suppliers to ensure that the quality of input supplied is of good quality. Capacity building on local/home poultry feed formulation will be provided to farmer groups to help them reduce the cost of feed and the use of available feed resources. The project will also identify and evaluate options for supporting youth to engage into the poultry input supply as well as milling. This will be done through matching grants.

Messages and training will also be put in place for Behaviour Change Communication Approach (BCCA) with the aim of changing farmers habits and attitudes to prevent introduction and spread of livestock and zoonotic diseases. The training will target farmers and communities on improve animal husbandry practices to prevent and reduce disease occurrence at the farm. The packages developed using the BCCA will b delivered at the group level by group mentors. The group mentors will also inform members about other channels through which information may be available.

• Support delivery of extension services and poultry infrastructure (Enhance capacities, assets, and community organization of producers to adopt good agricultural practices for livestock production) – The project will support extension to farmers to enhance dissemination of best practices and technologies in feed, poultry management, and animal health. This will be conducted by both public and private extension service providers. The project will support implementation of an ICT based approach to extension services using e-extension based models that are appropriate for the needs and literacy levels of its targeted beneficiaries. The main aim of the e-extension is to bridge the gap on the dissemination of technical innovations and on the linkages between research and farmers. The e-extension package will include all domains that need to be communicated during the project to enhance productivity as well as NRM components of the project.

c. Apiculture Value Chain

224. The project aims at supporting farmers to set up honey collection centres through which they collectively market their honey. Such groups will be linked to processors through formal contract arrangements. Small scale processing activities will also be supported through acquisition of appropriate equipment, training on quality, packaging, requirements for certification and basic business management. Training will also seek to improve awareness on food safety concerns related to processed honey and requirements for certification. Training will also cover techniques on production of profitable by products such as wax polish and candles.

d. Avocado Value Chain

The table below summarises key constraints faced in the marketing of avocados

S/No/	Activities	Challenges	Interventions/Opportunities
1)	Marketing o	f Lack of market and	Provision of market
	avocado	rice information, poor	formation, formation of farmer
		ackaging, no refrigerated	IGs and cooperatives, establish
		torage facilities, poor	ack house, farmer trainings.
		arvest, poor transport,	Improve quality, new
		norganized mkt.	harkets, strengthen market
		Low quality, Low	hannels.
		rices, unstructured	Capacity building of farmer
		narkets.	ooperative to export fruits and
		Middlemen take	alue addition (processing into
		dvantage of farmers,	
		ence low prices.	Provision of cold storage
		Compromising	acilities.
		arvesting maturity by	Stabilization funds (GMRs),
		hiddlemen resulting in	rmation of county aggregation
		ejection of fruits.	enters, capacity building of
		Unstructured local	rmers, and enforcement of
		harkets.	ontracts.

	torage, high post-harvest passes, low market prices. Fluctuating market rice locally and sternationally, quality size, shape, texture, hemical residues, unburns, pests, and iseases), breach of ontracts (side selling), nadequate volumes to ervice customer orders. Group governance and dynamics. There is no rganized marketing hannel as every farmer ells his/her own produce. Exploitation by liddlemen on poor pricing, ack of cold storage facility, oor infrastructure, lack of redit facility. High post-harvest	Training of farmers and onstruction of aggregation Formation of avocado roducer association, Enhance capacity on postarvest management. Enhance capacity on iAPs.
S/No/ Activities	psses Ihallenges	nterventions/Opportunities
1) Processing	inadequate skills. Availability of raw material. Lack of processing facilities. Lack of community awareness. Inadequate funding to support processing infrastructure. Inadequate capacity to operationalize processing plants. Low volumes for processing. Low quality of the produce. Lack of processing knowledge. Limited products marketing. Low value addition technology Lack of agroprocessing plants	production. Establishment of processing facilities. Establishment of avocado oil processing facilities. Adequate funding. Capacity building on adoption of new technologies. Develop legal/regulatory framework (policies). Stabilization funds (GMRs). Formation of county aggregation centers. Enforcement of contracts. Trainings and credit facility for startups. Promotion of value addition, capacity building and provision of avocado processing equipment.

- 225. Across the INReMP programme counties, farmers utilize brokers and local traders to sell their avocado produce. The limited presence of operational aggregation centres has been identified as a common problem across all counties. Maintaining quality is a challenge where premature harvesting by middlemen can lead to fruit rejection in the export market. Project intervention activities aim at:
- promoting increased farmer organisation for collective marketing, provide support to aggregation centre,
- providing training to increase awareness on requirements of export, sorting and grading and use of proper harvesting methods. T
- Collecting and disseminating relevant market information to assist producers in the identification of profitable market opportunities.
- 226. Processing of avocados into oil and cosmetic products has been identified as an opportunity for absorbing produce that does not qualify for the export market. The project shall collaborate with County governments to explore PPP opportunities for such investments.

e. Horticulture Value Chain

- 227. Target horticulture crops are tomatoes and leafy vegetables. However, it is expected that other commodities will be identified during market opportunities and introduced into the program. Farmers sell individually and they lack negotiation power when dealing with market intermediaries. Local market centres lack cold chain facilities limiting shelf life for commodities farmers bring to the market. Planned interventions include:
- organisation of farmers for collective production and marketing to ensure that products reach the market in the right quantities and quality.
- supporting organized groups to establish aggregation centres.
- establish cold chain facilities at such aggregation centres; and
- provision of training on governance and group dynamics as well as contracts and contracting. The project will also collect and disseminate relevant market information to assist producers in identification of profitable market opportunities.

Market Access and Marketing Infrastructure

a) Climate proofed feeder road rehabilitation

- 228. **Rationale** Good access to roads in rural areas is critical to raising agricultural productivity. Lack of rural road connectivity seriously constrains agricultural production: in the absence of rural feeder roads, the cost of moving produce can be as high as \$2.00 per ton-kilometer. But the roads should be climate resilient. Climate proofing is critical in sustainability of rural access roads. Climate-proofing will be done on these roads by integrating climate-resilience features in the design of the road to ensure it remains usable throughout the year, which will include both engineering/structural measures and bio-engineering measures. The Green roads for water (GR4W)^[1] innovation which incorporates water harvesting into road drainage structures (for livestock drinking water and small gardens) will be explored. The most effective method of making roads climate-resilient is to anticipate and fully consider climate change impacts during the planning stage and integrate resilience measures in the design using local climate information in combination with geophysical information.
- 229. **INReMP Intervention** The objective of this activity is to provide improved and reliable access to markets and services. An integrated approach to support rehabilitation of selected last mile feeder roads will combine the following options: (i) the road should be linked to an area producing for a VC, selected for INReMP support under Component 2, (ii) the investment includes climate resilient design and

construction, and (iii) the potential of utilizing road surface as catchment areas to collect surface runoff for livestock drinking water and irrigation. As a nutrition benefit, rehabilitation of feeder roads will improve efficiency of transportation of produce to markets (thereby reducing food loss and increasing household income) and travel by household members to markets to source food or to healthcare facilities.

- 230. The priority feeder roads will be selected by the communities and participating micro-catchment level infrastructure planning and value chain lead enterprises. Feeder roads do not require a mandatory EIA. However, infrastructure development will be screened for any environmental and social risks before the investment's approval.
- 231. INReMP targets to develop 250 km of feeder roads under this intervention. The feeder roads will have an average length of less than 5 km.
- 232. The Associated ToRs are included in Annex 1 of this document.

b) Produce Storage Facilities, Aggregation Centres, Warehousing

- 233. Establish storage facilities, aggregation centers, and warehouses to optimize storage and distribution of agricultural produce.
- 234. **Background** Efficient storage and distribution infrastructure is crucial for optimizing agricultural produce management and enhancing market accessibility. Establishing produce storage facilities, aggregation centers, and warehouses is essential to minimize post-harvest losses, facilitate aggregation, and improve market linkages within the agricultural sector. This initiative aims to enhance supply chain efficiency, promote value addition, and support economic growth in rural areas.
- 235. **Objectives** The primary objective of this assignment is to establish produce storage facilities, aggregation centers, and warehouses to optimize storage and distribution of agricultural produce. Specific objectives include:
- Establishing storage facilities and aggregation centers at strategic locations to minimize post-harvest losses and improve market accessibility.
- Implementing temperature-controlled storage infrastructure to preserve product quality and extend shelf life.
- Constructing warehouses equipped with modern handling and packaging facilities to facilitate efficient distribution and marketing of agricultural produce.
- 236. The Associated ToRs are included in Annex 1 of this document.

c) Smart Kiosks and Smart Markets

- 237. **Background** This activity will implement technologically advanced hubs (smart kiosks and smart markets) for aggregation and value addition of agricultural products. Efficient post-harvest management and market accessibility are critical for sustainable development in the NRM sector. Introducing Smart Kiosks and Smart Markets integrated with renewable energy and sustainable infrastructure aims to revolutionize market access, quality preservation, and marketing accessibility, particularly in rural areas. This initiative will not only reduce post-harvest losses but also strengthen linkages for accessing inputs and market information, thereby enhancing economic opportunities for stakeholders in the NRM sector.
- 238. **Objectives** The primary objective of this assignment is to integrate Smart Kiosks and Smart Markets equipped with renewable energy and sustainable infrastructure to enhance post-harvest efficiency and profitability in the NRM sector. Specific objectives include:
- Introducing Smart Kiosks and Smart Markets in designated areas to provide intelligent outlets for sales, processing, and marketing.
- Implementing temperature-controlled storage infrastructures powered by solar energy to minimize perishability and ensure product quality.

- Constructing Smart Markets, fully equipped with energy-efficient cold chain and processing facilities to serve as hubs for distribution and processing.
- 239. The Associated ToRs are included in Annex 1 of this document.

d) Micro-Mobility Solutions

- 240. **Background** Enhancing accessibility within NRM/agricultural areas is crucial for improving productivity and efficiency in the nature-based enterprises and agricultural sector. Integrating electric and non-electric micro-mobility solutions can significantly contribute to addressing transportation challenges, facilitating the movement of goods and people, and promoting sustainable NRM/agricultural practices. This TOR aims to outline the requirements for the successful implementation of micro-mobility solutions to enhance accessibility within agricultural areas.
- 241. **Objectives** The primary objective of this assignment is to integrate electric and non-electric micro-mobility solutions to enhance accessibility within agricultural areas. Specific objectives include:
- Introducing micro-mobility solutions tailored to the needs of agricultural communities to improve transportation efficiency and accessibility.
- Implementing infrastructure and support systems to facilitate the adoption and usage of micro-mobility solutions.
- Promoting sustainable transportation practices and reducing carbon emissions through the deployment of electric micro-mobility solutions.
- 242. The Associated ToRs are included in Annex 1 of this document.

e) Commodity Platforms

243. **Background** – Establishing platforms for actors within target value chains to collaborate on resolving issues affecting the smooth functioning of the value chain, facilitating business linkages, sharing knowledge, and influencing policy to scale the success of implementation and foster collaboration among stakeholders. The effective functioning of value chains in the agricultural sector is essential for ensuring food security, promoting economic growth, and reducing poverty. Establishing commodity platforms provides a structured mechanism for stakeholders within target value chains to collaborate, address challenges, share knowledge, and influence policy decisions. These platforms facilitate business linkages, promote innovation, and contribute to the scaling of successful interventions, thereby fostering collaboration among actors across the value chain.

Objectives – Actors within target value chains will be organised into platforms that would allow for coordinated resolution of issues affecting the smooth functioning of the value chain. Such platforms are established to meet the following objectives:

- To collaborate on resolving challenges related to production, processing, marketing, and distribution within target value chains.
- Facilitating business linkages between different actors in the value chain, including producers, processors, traders, and service providers, to enhance market access and improve efficiency.
- Sharing knowledge and best practices among stakeholders to promote innovation, improve productivity, and enhance competitiveness within target value chains.
- Influencing policy decisions at the local, regional, and national levels to create an enabling environment for the sustainable development of target value chains and address systemic issues affecting stakeholders.
- Operationally, it is a multi-stakeholders transaction forum that meets periodically to facilitate business linkages among members, provide services to farmers and ensure steady flow of raw products to the market (processors). These platforms facilitate

business linkages, promote innovation, and contribute to the scaling of successful interventions, thereby fostering collaboration among actors across the value chain.

244. The Associated ToRs are included in Annex 1 of this document.

f) Implementation of Waste Management Solutions

- 245. **Background** Efficient waste management is imperative for sustainable development and environmental protection, particularly in industries such as agric market/retail sector. Implementing waste management solutions is essential for creating circular economies within the value chain, reducing environmental pollution, and maximizing resource utilization. This TOR aims to outline the requirements for the successful implementation of waste management solutions in the agric market/retail sector.
- 246. **Objectives** The primary objective of this assignment is to introduce effective waste management solutions in the smart markets and other linked retailing points to promote environmental sustainability and resource efficiency. Specific objectives include:
- Introduction of waste management solutions at smart markets and processing facilities to create circular economies within the value chains.
- Integration of green, blue, and grey bin waste management techniques for the collection of organic and non-biodegradable waste.
- Utilization of collected organic waste for fish feed manufacturing, organic fertlisers and biogas generation to minimize waste and promote resource utilization.
- 247. The Associated ToRs are included in Annex 1 of this document.

248. *Implementation Arrangements and Workflow by Activity of all Infrastructure Activities in Component 2* – The infrastructure activities under the Component 2 will be carried out in coordination with other activities of Component 2 and will follow the sequence described in the table below.

Implementation Plan for Infrastructure Activities

Activity	Location	Participants	Purpose		ollow up task for roject staff	When
Exploratory Visit	Sub- catchment level	Political and administration leaders of the wards in the sub-catchments (MCAs, ACCs, village elders), farmers, including meetings with leaders of women and youth groups. MoWI, County Government, agriculture SMEs and lead enterprises	Inform them about the project and get long list of possible locations for community infrastructure needs in following areas: • Agricultural production infrastructure: Irrigation schemes; Multi-purpose water supply schemes; irrigation technologies • Market access and marketing infrastructure: Feeder roads; Produce Storage Facilities, Aggregation Centres, Warehousing; Smart Kiosks and Smart Markets; Micro-Mobility Solutions; Commodity Platforms and waste management solutions	•	Project staff analyse long list and prepare shortlist based on agreed criteria Prepare for the infrastructure investment planning meeting (templates, endorsement forms)	Q2,Q3. Year

			•	Communicate selection criteria and targets for inclusion of women and youth. Formation of project subcatchment level infrastructure committee		
Infrastructure Investment Planning	Sub- Catchmen t Level	Political and administration leaders of the wards in the sub-catchments (MCAs, ACCs, village elders), farmers, including meetings with leaders of women and youth groups. MoWI, County Government, agriculture SMEs and lead enterprises	•		Project staff to prepare endorsement forms to be signed by subcatchment level infrastructure committee Prepare and share templates for expression of interest/proposals from communities for endorsement at sub-catchment level	Q3,Q4, Year 1
Introductory meetings	Communit y level	Community level leaders, farmers, including meetings with		 Introduce project to communities Indicate interventions targeted for those communities 		Q1, Year 2

		leaders of women and youth groups. MoWI, County Government, agriculture SMEs and lead enterprises	 Communicate the modalities for expression of interest/call for proposal for infrastructure development, development of implementation partnership agreements and the actual implementation and handover of the projects. Formation of project community level infrastructure committees Endorsement of community level infrastructure by the community infrastructure committee 		
Feasibility studies and EIAs	Infrastruct ure sites	 Community infrastructure committees Contractors Ministry and County Government staff NEMA staff 	 Conduct feasibility assessments and EIAs, to determine final sites for implementation of infrastructure Communicate and endorse final feasible sites for infrastructure Call for proposals and expression of interests from communities 	 Support communities finalize their proposals Communicate outcome of selection of communities to benefit from infrastructure and next processes 	Q2-Q4, Year 2

Contracting for infrastructure services and implementati on	Infrastruct ure sites	Community infrastructure committees Implementation Contractors Ministry and County Government staff IFAD staff	 Communicate community contribution – 15% contribution Introducing contractors to communities Signing of the partnership agreements Participatory development of implementation plans Actual implementation of both agricultural production and market infrastructure Periodic reviews (half yearly) on progress on implementation Periodic impact assessments 	Community engagements and supervision Use feedback from reviews to improve project delivery Devise project exit strategies	Years 3- 6
Project completion	Communit y level	 Community infrastructure committees Implementation Contractors Ministry and County Government staff IFAD staff 	 To assess project performance and obtain beneficiary feedback Handover of infrastructure Project exit 	 Document lessons learnt Project closure 	Year 7

- 249. **Nutrition interventions** The following interventions will be undertaken for nutrition mainstreaming:
- Supporting farmers and CBOs in accessing up-to-date training opportunities, including site demonstrations on value addition technologies for dairy, poultry, fruits, vegetables, honey, and NUS. This will involve providing access to evidence-based value addition technologies and processes for products such as yogurt, probiotic drinks, sour/fermented milk, poultry meat, eggs, feathers, honey by-products, horticultural products, and NUS products. The project will also ensure compliance with product health and safety standards, nutrition labelling, and certification. Additionally, the PCMU will provide enterprise management and marketing support for processed products to target county nutrition objectives. This activity will be conducted in collaboration with county agricultural technical institutions. Training support will be provided to all households and CBOs on safe post-harvest handling to preserve the nutritional value of food and extend its shelf life, with the aim of encouraging the adoption of green labour-saving technologies, such as biogas, and food processing equipment, such as grinders, mills, and dehydrators.
- The project will utilize technical support from the SUN Business Network to organize capacity building trainings for SMEs on food safety (HACCP) and other standards (ISO), product development (desirability, palatability, nutrient content), labeling, branding, and packaging. It will also raise awareness among businesses about the Kenya Mark of Identity (Brand K) to promote the use of local produce, nature-based enterprises, and non-timber forest products.
- Promote consumption of products and nutrition awareness both at household and national level to improve nutrition outcomes as well as increase demand.
- 250. Social and Behaviour Change Communication (SBCC) actions will be implemented across components 1 and 2. To facilitate this integration, the PCMU will design an actionable blueprint for INReMP SBCC activities. To determine nutrition SBCC actions, the INReMP integrated Knowledge, Attitudes, and Practices (KAPs) study will include diet diversity questionnaires that adhere to the Kenya Nutrition sector-specific guidelines on assessments for maternal, infant, and young child feeding. The Nutrition KAP baseline study section will cover various topics, including nutrition-related knowledge, attitudes toward healthy diets, promotion of positive caregiving practices, enhancement of food production and consumption, and improvement of access to health and nutrition services. It will also examine the characteristics, preferences, challenges, and information needs necessary to support the nutrition and consumer behavior change objectives related to the components.
- The Programme will carry out public nutrition education and consumer awareness campaigns using traditional and digital tools in communities, schools (including early childhood development centres [ECDs]), markets, and through local and faith-based community leaders and influencers. Nutrition education and SBCC messages will be tailored to reflect the local context and the needs of smallholder farmers and nutritionvulnerable communities. The aim of these activities will be to positively influence the knowledge, attitudes, and practices related to nutrition and health. SBCC materials will be developed in the local language and will incorporate culturally and linguistically appropriate images and visuals. These campaigns will promote the consumption of nutritious foods, facilitate behavioral change, enhance willingness to pay, transfer knowledge, and establish connections between producers, buyers, retailers, and consumers. Examples of SBCC activities include village and market nutrition days (where the entire community gathers to learn and apply nutrition knowledge through interactive games and activities), cooking demonstrations, and the dissemination of key messages via road shows, nutrition fairs, and AI Farmer Chatbot. The project will provide an integrated package that includes nutrition, food safety, quality and hygiene, environmental sustainability, climate change, and improved agriculture production and husbandry to communities and various groups receiving services from the project.

- 252. School nutrition education will raise awareness among schoolchildren about the importance of healthy eating, environment, and natural resource management. These activities will be jointly planned by the Nutrition and Social Inclusion Specialist and KM Specialist. To garner support from various partners, the PCMU team will reach out to explore contributions and linkages to existing/ongoing county SBCC initiatives.
- 253. County health promoters, Agrinut extension teams, and gender focal persons will provide targeted support. The PCMU will use county, sub-county, ward, and community health, hygiene, and nutrition media shows to ensure that the targeted population receives nutrition education messages. The Agrinut, health, and nutrition promoters will carry out mobile culinary demonstrations to engage community groups in preparing nutritious food for their families using the selected value chains. They will also promote improved food preservation techniques to avoid seasonal food waste. Cooking competitions among target community groups will promote the exploration of new recipes from NUS and non-toner products that are often neglected dishes. Additionally, within the nutrition SBCC strategy, key community influencers and nutrition champions (depending on each county) will be trained and empowered to convey messages and conduct dialogues on barriers to positive nutrition behaviours.

II.4: COMPONENT 3: INSTITUTIONAL STRENGTHENING, POLICY SUPPORT AND PROGRAMME MANAGEMENT

254. This is a cross-cutting component servicing the two technical components and facilitating pathways for the effective and inclusive implementation of all Programme interventions. The objective of the component is twofold to: a) provide targeted support to selected policy areas and augment the capacity of selected institutions to facilitate participatory planning and development processes and oversee INReMP implementation; and b) manage the Programme in an efficient and effective manner by providing overall coordination, including planning and implementation, financial management and control, procurement support, Monitoring and Evaluation, knowledge management, and progress reporting. It will also ensure liaison and linkage with all other relevant projects/programmes being implemented in the country that seek to address similar or related constraints. This would be aimed at taking advantage of existent synergies and avoiding duplications. Accordingly, the component has two subcomponents: a) Subcomponent 3.1: Institutional Strengthening and Policy Support; and b) Subcomponent 3.2: Programme Coordination and Implementation Support Services.

II.4.1: Subcomponent 3.1: Institutional Strengthening and Policy Support

- 255. Interventions under this subcomponent will contribute to the achievement of Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods. Interventions will help to develop or improve existing institutional systems and processes. They will also facilitate the process of ensuring a supportive policy environment during and after Programme implementation. The success of INReMP and its eventual sustainability will largely be influenced by the implementation capabilities of the institutions to execute the Programme as per the design and their ability to ensure sustainability of the resultant achievements. The subcomponent will have a dual focus: institutional strengthening and policy support.
- 256. **Institutional Strengthening** the institutions that will be supported under this subcomponent include government institutions that will implement the Programme directly and those supporting the smooth implementation of the Programme indirectly (national, county and research institutions). Community-based organisations will be key implementing partners for the Programme and, hence, they will be supported to address capacity gaps. Private sector institutions are also crucial stakeholders in the successful implementation of INReMP, including technology suppliers, input dealers, off-takers, after sale service providers, contractors, and consultants. The Programme will seek to ensure that they are enabled to appropriately provide the needed services in all INReMP's domains of focus.

- 257. INReMP will prioritize supporting the Programme coordination units to enhance their coordination abilities, financial management, procurement, planning, monitoring and evaluation, and knowledge management.
- 258. INReMP is a gender transformative Programme and, therefore, guidelines will be prepared and training will be provided on Gender Transformative Approaches (GTA) to institutionalize the approaches in all implementing agencies. The PCMU skills in GTA will be improved following a rigorous capacity assessment that will inform the delivery of tailored training package.
- In addition to the above-mentioned activities, INReMP will support the following activities: a) strengthening the capacity of national and county governments' relevant institutions to coordinate environmental conservation and integrate extension, and advisory services to support agriculture, livestock and natural resources and climate risk management; b) renovation of Agriculture Training Centres and Dairy Multiplication Centres;c) support the establishment of County Irrigation Development Units (CIDUs); and d) support the Programme staff to enhance their coordination abilities, financial management, procurement, planning, monitoring and evaluation, knowledge management and main streaming themes (gender/social inclusion, nutrition, environment and climate change); e) enhance capacity of CFAs in propagation of quality agroforestry seedlings for improved incomes, food and nutrition security as well as contributing seedlings availability to the Presidential directive for 15 billion tree growing programme by 2032; etc.
- 260. Also, an institutional capacity gap assessment will be undertaken during the first year of INReMP implementation to formulate an institutional capacity development plan.
- 261. The project will enhance the nutrition capacity of the PCMU by involving county-level nutritionists and stakeholders from the County's nutrition sector. They will assist in training, drafting, and validating the project's nutrition action plan. In collaboration with government agencies, NGOs, research institutions, private sector entities, and local communities the project will provide financial support for implementing county policies that safeguard target households from harmful marketing practices and misleading labelling of ultra-processed foods. The project will also support legislations and guidance that incentivize sustainable resource use, protect indigenous knowledge and intellectual property rights, facilitate access to finance and markets for NUS and NTFPs, and promote fair trade practices.
- 262. In order to effectively coordinate these interventions, the INReMP PCMU will hire a dedicated Nutrition and Social Inclusion Specialist cost to be responsible for tracking and assessing the implementation performance of nutrition-sensitive actions for the project. The Project will also be backstopped by a specific nutrition specialist/consultant on part time for three years s over six years of the project duration.
- 263. **Policy Support** INReMP seeks to ensure that there is a supportive policy environment during and after implementation. Accordingly, the Programme will support the analysis that will strengthen the national and/or county policy framework covering INReMP's areas of focus, including agriculture, environment, climate change, cooperatives, gender equality, youth and natural resources management. This will involve the development, review and update of policies, strategies of selected subsectors for their effective and structured development. For a start, consultation undertaken during the design process prioritised the following possible interventions:
- a) policy/strategies to help address land fragmentation issues at the county level;
- b) facilitate the rolling out, dissemination and awareness creation of some Acts and Regulations of selected State Departments¹¹; there are currently at different stages of review;

 11 Details of the Acts and regulations of the different State Departments will be provided in the Programme Design Report.

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- c) support Counties to mainstream resilience into their plans, strategies, policies, regulations through the use of the evidence-based resilience scorecard/index¹²;
- d) support the finalisation of the Draft Land Reclamation Policy and Bill;
- e) support completion of National Agroforestry Strategy; and
- f) finalization of the pending gender and youth policies, policy reviews and development of addendums to address gaps identified to achieve gender transformation and youth empowerment in the participating counties.
- 264. The PCMU will liaise directly with the responsible government institutions and agree on the implementation plan for the provision of the requisite policy support. In addition, once the prioritised policy areas get addressed during the course of INReMP implementation, the PCMU will seek advice and guidance from the National Programme Steering Committee on which other policy areas to focus on during the remainder of Programme implementation.
- 265. With regard to **nutrition**, policy engagements will focus on building capacity and institutionalizing nutrition-sensitive outputs and strategies to improve ownership.
- 266. PCMU will ensure national-level support for the Kenya Food System Transformation agenda by actively engaging and aligning with ministerial actions. The PCMU will ensure that learnings from the INReMP project efforts in counties are incorporated into the agenda and vice versa. Additionally, the PCMU will actively participate in county nutrition multisectoral coordination forums, including County Nutrition Coordination meetings and county food systems forums. This is to ensure that the Programme's nutrition-sensitive outputs and outcomes align with the county's nutrition/Agri-nutrition action plans and strategies, and that they are accurately reported on the integrated county monitoring systems.

II.5: ANNUAL SUPERVISION

- 267. INReMP will be jointly supervised by IFAD and GoK to assess achievements and lessons learned and, when required, provide implementation support with the objective of ensuring effective Programme implementation and increase the likelihood of achieving the target objective. Missions would be fielded at least once every twelve months. However, and depending on the extent and quality of implementation progress, implementation support Missions would be fielded as frequently as warranted by conditions on the ground so as to address any emergent issues that may have the potential to negatively impact Programme implementation.
- 268. The composition of the implementation support mission would be influenced by the issues identified as needing redress. As part of the annual missions' objectives, a review of the effectiveness of implementation arrangements will be undertaken to ascertain whether any adjustment/restructuring is needed to ensure optimum performance. ToRs for the supervision missions will be prepared by the IFAD Country Director except those for the: a) Financial Management consultant; IFAD's Financial Management Division (FMD) would be responsible for preparing the ToRs and recruitment of the Financial Management consultant for the mission; and b) Procurement the Head of the regional Procurement team in Nairobi will be responsible for preparing the ToRs and for allocating the Specialist to the Mission. The timing of the supervision missions will be influenced by factors, such as the status of AWPB implementation coordinated with the production of interim financial statements in accordance with IFAD interim financial reporting guidelines. This will enable Supervision Missions to measure the progress at the specific cut-off dates.

II.6: MTR

269. An INReMP Mid-Term Review (MTR) will be undertaken during year four of Programme implementation; it will evaluate whether the Programme is on course to

 12 KCEP-CRAL is successfully using the tool to plan and target critical interventions to support most climate vulnerable locations or socio-economic groups.

achieve the objectives. It will identify any prevailing constraints and recommend such reorientation as may be required to help the Programme get back on course to achieve its objectives.

- 270. There will be four outputs of the MTR: a) an Aide Memoire summarizing the findings; b) MTR report detailing the findings and recommendations on the way forward; c) a revised PDR (if the MTR has necessitated a restructuring of the Programme) to reflect the mission's recommendations; and d) a detailed Programme closure plan. This will be accompanied with: a) a revised budget to guide utilization of the remaining funds; and b) an updated PIM.
- 271. Undertaking of the MTR is the responsibility of government/PCMU. The government/PCMU may consult IFAD to facilitate the process, including identification of consultants, etc.

II.7: PROJECT COMPLETION

- 272. The Project Completion Review (PCR) exercise at the end of Programme implementation will be led by IFAD with key contributions from the borrower, covering the elements described in the general conditions of the Financing Agreement, as described in the 2023 PCR Preparation Guidelines.
- 273. The main purposes of the completion review process are to promote accountability, reflect on performance and elicit lessons learned to inform future programme/project design and to define an appropriate post-project strategy. The learning dimension of the completion process will be used by both IFAD and GoK as the foundation for improvements in future programme/project design and implementation. The completion review process will also be critical for identifying opportunities for scaling-up best practices. The PCR would need to be undertaken after INReMP completion but before the Project closure period. The PCR will be undertaken in two distinct steps: a) a Beneficiary Impact Assessment (BIA)/End-line Survey; and b) Project Completion Report preparation. If a detailed project closure plan does not get developed at MTR, it should get developed subsequently but, certainly, earlier than the last year of implementation.
- 274. Recruiting the Completion Review Team About six months before the planned start of the completion review mission, it is recommended that IFAD takes the necessary actions to identify and recruit the members of the Completion Review Team. By that time, IFAD, in liaison with GoA, would have agreed on the composition of the Completion Review Team (number of persons and types of expertise required) during the last supervision mission. Given INReMP specific domains of intervention, the expertise will be selected to ensure coverage of all Programme domains.

PART III: PROJECT PROCEDURES

III.1: PLANNING AND AWPB DEVELOPMENT

- 275. The planning cycle will follow the Government of Kenya (GoK) planning and budgeting cycle. The cycle will commence with preparation of the AWPB, as a key instrument for implementation and operational control. The Programme will follow a bottom-up participatory planning process for the AWPB.
- 276. The first stage of planning and preparation of the AWPB will be carried out at ward level, following the devolved local government administration framework. At this level, communities within selected micro-catchments will identify and prioritise the interventions for support by INReMP. These priorities will be summarised into Community Action Plans (CAPs). The CAPs will then be consolidated into ward level plans. The Ward Plans will then be consolidated at the sub-county level to make the subcounty plans. The subcounty plans will then be consolidated at county level by the County Programme Implementation Team to prepare the county level plans and budgets. The respective County M&E Officers will check the quality of the plans and alignment to available budgetary resources as per established guidelines for budgeting, before consolidation. The ten County Plans and Budgets will then be submitted to the national PCMU for compilation and consolidation of the overall Programme Annual Workplan and Budgets.
- 277. The M&E Officers within the respective ten CPITs will in consultation with the PCMU M & E Specialist and Technical Component Heads, disseminate Planning and budgeting guidelines to guide the lower-level units' preparation of the annual plans.
- 278. At each of the levels, the programme steering, and technical committees will review the plans before they are transmitted to the next level, to ensure alignment with the relevant devolved government policies and priorities. The steering committees will also approve the plans at their respective levels. The programme wide annual work plan and budget will be reviewed and approved by the National Programme Steering Committee before submission to IFAD for expression of a no objection. The approved AWPB will be the only mechanism through which Programme resources would be spent and the basis for progress monitoring. Preparation of the AWPB will be led by the PCMU in liaison with the CPITs and will follow the approved Government of Kenya Planning Cycle.
- 279. The Programme will review the AWPB every six months to assess progress in reaching annual targets including factors affecting attainment of the targets, and will adjust it accordingly

III.2: MONITORING AND EVALUATION

- 280. **M&E System** Monitoring and Evaluation (M&E) System The Monitoring and evaluation system for INReMP will be based on the logical framework, in which a series of key performance indicators (Core indicators and project specific indicators) have been defined, the project design report and the project implementation manual.
- 281. The M&E system will help to streamline monitoring, evaluation and reporting procedures, responsibilities and processes essential to track performance and progress of the various components and activities of the project in comparison with the set targets in the Annual Work Plans and Budgets. The system will work as a useful tool to guide management during implementation of the Programme.
- 282. An M&E framework will be developed to guide M&E processes within the project. The framework developed at the beginning of implementation will detail the scope, organisation and contents of the M&E system; roles and responsibilities; a plan for data (sex- and age-disaggregated where appropriate) collection, analysis, reporting, use and management; timeline for M&E-related activities; staffing and capacity building plan; budget; etc.; The Framework will also include an M & E plan that will set out guidelines for progress monitoring of implementation as well as evaluation of the performance of the Programme in relation to the performance indicators in the Programme Logframe.

- 283. The M&E framework will thus focus on:
 - a) Data collection and reporting formats for the diverse reporting requirements;
 - b) Design and implementation of beneficiary assessment of program performance on specific investments;
 - Definitions of specific responsibilities and roles of different stakeholders at Federal, Regional, Woreda and Kebele levels in monitoring, evaluation and reporting of the project implementation progress;
 - d) Integration of the project activities into the AWP&Bs at Federal, Regional and Woreda levels:
 - e) Recommendation of a web-based open source DHIS2 Management Information System for data storage, analysis and reporting for all levels;
 - f) Plans for capacity building for the PCMU and CPITs, Sub- County and Ward Staff to ensure that the M&E system is operational.
- 284. The conceptual thrust of the M&E Framework will be based on the following assumptions:
 - a) Timely project management at National and County levels, participating sub counties as well selected Wards.
 - b) Subcounty and Ward Administrations' commitment to the INReMP activities.
 - c) Staff of relevant calibre are available, recruited, and motivated.
 - d) Adherence to transparent procurement and fiduciary practices.
 - e) Timely provision of project operational resources to the participating Counties, Sub- counties and Wards.
- 285. The INReMP M&E system will be participatory, gender sensitive, inclusive, climate and environmentally sensitive, and results-oriented while enabling the integration of physical and financial progress reporting. In addition, the system will enable the analysis of climate change vulnerability and resilience among the beneficiaries using the combined resilience score card. The system will incorporate in-depth COI surveys at baseline, midline and completion, a mid-term review, and other specific thematic studies as relevant.
- 286. The general principles for participatory monitoring of programme activities will include:
 - a) Community Level Organisations (e.g., Water Resources Users' Associations-WRUAS, Community Forestry Associations, CFAS, Wetland Management Committees, Cooperatives and Cooperative Unions e.t.c.) will monitor respective community level activities.
 - b) County Technical Implementation Teams will monitor activities, input, and output achievements in their respective areas. The M&E officers based within the CPITs will monitor progress, compile county level project reports on a quarterly, biannual, and annual basis for consolidation by the PCMU;
 - c) Technical assistance will be provided to (i) communities to ensure they are able to monitor the implementation of the CAPs, (ii) Support the PCMU's and CPITs performance management systems and processes to produce relevant and welltimed data and (iii) strengthen staff capabilities to analyze data on gender outcomes and outcomes of restoration of ecosystem services and integrate insights into programming in a timely manner.
 - d) The M&E unit based at the PCMU, will monitor and evaluate the impact of the project, compile and consolidate the project's quarterly, bi-annual and annual reports for dissemination to external stakeholders, State Department for Agriculture, other line ministries and the participating counties, sub counties and wards;

- e) The State Department for Agriculture will monitor overall operations for planning and facilitation purposes in line with its development objectives and those of the Government of Kenya.
- 287. The M&E system will be a simple but comprehensive tool that will facilitate:
 - a) A web-based Management Information System, built on a DHIS2 interface to provide information satisfactory to the needs of management.
 - b) Effective coordination and management of information during the main phase of Programme implementation.
 - c) Information gathering and effective communication amongst all Levels of implementation of the programme.
 - d) Preparation of quarterly, bi-annual and Annual reports for presentation to various stakeholders.
 - e) Preparation of mandatory evaluations reports: Midterm evaluation and Project Completion Review.
- 288. **Structure and Processes** Under INReMP, sub-county level project specific work-plans will be extracted from the broad Community Action Plans and ward level consolidated workplans and submitted to the County CPITs and then later to the National level PCMU for consolidation into a project wide AWPB, prior to the start of the GoK Financial Year. The CPITs will assess existing resource commitments and other ongoing/planned development partner interventions when requesting for resources and this will be strictly aligned to work plans and indicators and as guided by the programme Implementation Manual.
- 289. Programme performance will be measured annually with targets set out in the AWPB which will be prepared and consolidated by CPITs and National Level PCMU.
 - a) The INReMP M & E system will be centred on:
 - b) Beneficiary assessment of project performance on completion of a specific investment.
 - c) Annual reviews of the functioning of completed investments.
 - d) Monitoring progress of activity implementation.
 - e) Quarterly and six months reports from various implementing state departments, and partner institutions
- 290. **Monitoring Responsibilities for Different Stakeholders** The programme monitoring, and evaluation function will involve key personnel at different levels. Evaluations will be undertaken by independent experts hired by the programme. Staff at all levels will work together with the experts to learn lessons from the evaluations and apply them to improve project management and implementation. The different levels are highlighted hereunder.
- 291. National Programme Steering Committee (NPSC) The NPSC will be responsible for providing policy guidance, review and approval of the consolidated Annual Workplan and Budget, Annual Progress Reports as well as Audit Reports. Other steering committees at the county level, also known as the County Project Steering Team (CPST) and County Agricultural Sector Steering Committee (CASSCOM), will review and approval respective levels of annual workplans and budgets and annual reports.
- 292. The State Department of Agriculture The State Department of Agriculture will monitor the overall operations for planning and facilitation purposes of the interventions for attainment of project objectives
- 293. The Programme Coordination and Management Unit The Programme Coordination and Management Unit will be responsible for ensuring that respective state departments, agencies, and all participating counties and their respective lower units adopt and follow appropriate monitoring mechanisms, processes and procedures. The PCMU will support

the CPITs and the lower units to establish meaningful and measurable indicators during the start-up phase so that suitable means of data collection can be built into Programme activities. The PCMU will also monitor and evaluate the overall performance of the Programme and compile the Programme's quarterly and annual reports for dissemination to the stakeholders.

- 294. County Programme Implementation Teams The CPITs will ensure that activities within their respective counties are monitored well in accordance with established programme level M&E mechanisms, procedures and processes.
- 295. The sub-county technical teams The Sub-County staff, will be responsible for ensuring that implementation is efficiently and effectively carried out according to the approved work plans and budgets. The sub-county focal point persons will be responsible for the day-to-day monitoring of activities at sub-counties and ward levels including monitoring inputs, activities and achievements, and overall coordination of monitoring at that level. The focal persons will also be responsible for ensuring harmonisation with other sub-county level monitoring processes to improve efficiency of information collection while avoiding duplication of monitoring tasks.
- 296. Ward Level Monitoring One of the responsibilities of the Ward Administration is to integrate INReMP activities into their respective AWPs. The Ward administrations will be responsible for monitoring the Programme against stated targets and will provide backstopping of planning efforts by the beneficiaries and will be instrumental in ensuring that monitoring tools and procedures are incorporated into activity plans of proposed subprojects identified in the Community Action Plans.
- 297. Activity Level Monitoring Implementation of INReMP interventions will involve various service providers/stakeholders, government agencies, and state departments. These will be given clear monitoring procedures and reporting formats for the activities under their authority for on-ward transmission to the wards, sub-counties, counties and national monitoring levels.
- 298. Monitoring by Implementing partners The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies. Each of these partners will monitor and report on activities under their implementation and as guided by the programme monitoring and reporting framework.
 - Kenya Agricultural and Livestock Research Organization (KALRO) will monitor outputs and activities related to agricultural and livestock research within the programme and as defined.
 - Lake Basin Development Authority (LBDA) Will monitor outputs and activities related to sustainable development within the Lake Victoria basin
 - National Environmental Management Authority (NEMA)- will monitor outputs and activities related to wetlands and environmental monitoring, in line with the ESCMP as defined using its relevant structures at national and devolved levels
 - Directorate of Environment and Climate Change in the State Department for Environment and climate change as the NDA for Kenya, will monitor any activities and outputs related to climate change
 - Kenya Forest Service (KFS) will monitor outputs and activities related to forestry development and conservation
 - Kenya Wildlife Service (KWS) will monitor activities and outputs related to protection of wildlife
 - Kenya Forest Research Institute (KEFRI)- Will monitor activities and outputs related to forestry research
 - Kenya Water Towers Agency (KWTA) Will monitor activities and outputs related to sustainable management and development of water towers

- National Environment Trust Fund (NETFUND) will monitor activities and outputs related to mobilization of resources for environmental management
- Water Sector Trust Fund Will monitor activities and outputs related to provision of grants for capacity building of counties on water management
- Water Resources Authority Will monitor activities and outputs related to access to and availability of clean water
- National Irrigation Authority will monitor activities and outputs related to development of irrigation infrastructure
- Kenya Meteorological Department will monitor activities and outputs related to provision of timely early warning weather and climate information
- Kenya Marine & Fisheries Research Institute (KMFRI) will monitor activities and outputs related to fisheries research
- The Nature Conservancy will monitor activities and outputs related to the GEF funding.
- 299. The respective technical officers at PCMU will coordinate activities related to environmental and Climate Change monitoring and the use of the Resilience Design Monitoring Tool (RDMT).
- 300. Beneficiary/Community level Monitoring Upon preparation of Community Action Plans, the beneficiaries will coordinate with activity implementers, and or Community Facilitators on the channels to be used to collect information and transmit it to higher levels.
- 301. **Information Needs Flow of INReMP** In order for different levels of programme stakeholders to guide the project's planning, implementation, monitoring and evaluation, they will require different types of information from various sources.
- 302. Beneficiary/Community Level Beneficiaries will be the centre of the decision-making process, planning, monitoring and evaluation of activities of the programme. In order for them to own the interventions and ensure ease of monitoring by the various stakeholders and for the future and sustainability of the project, each Community Facilitator will prepare detailed planning matrices clearly indicating the community goal, purpose, outputs, and the action plan showing the activities to be undertaken, responsible persons and timing of the activities. The work plans will be prepared using simplified formats to accommodate the changing information/data needs that conform to and feed into formats for higher reporting levels.
- 303. In addition, the Community Facilitators will consolidate the information from the different beneficiary/Community groups into Community reports. After the consolidation, the Community reports will be forwarded to the Ward level.
- 304. Ward Level At the Ward level, all the received community/group level reports will be compiled and consolidated into one Ward report by the Ward community development assistant. Besides consolidating the report, the assistant will ensure that the important aspects in the work plans are well articulated in the Community reports. The Community Development Assistant will also incorporate information generated during project implementation monitoring to constitute a comprehensive Ward report. The Ward report will be forwarded to the Sub-County level.
- 305. Sub-county Level The received Ward reports will be consolidated into Sub- County reports by the Sub- County focal person with support of the Technical Implementation Team. Sources of information at the Sub- County level include but not limited to the project monitoring reports, meetings and consultations among the Sub- County staff involved in the INREMP implementation.
- 306. County Level At County Level, all the Sub- County level reports will be consolidated into one County Report by the M&E Staff based within the County CPIT. The

County Reports will then be transmitted to the National PCMU for consolidation into a project wide report to be shared with project stakeholders.

- 307. National Level At National Level, all the County level Reports will be compiled and consolidated into one project wide report by the staff at the PCMU. The consolidated report will then be circulated to IFAD, GEF, GoK and other stakeholders.
- 308. Feedback information will follow the reverse order from IFAD through the National PCMU to the County CPITs, Sub- County Focal persons, Ward Community Development to beneficiaries. Through planning and review meetings, feedback will be channeled to the project implementers and beneficiaries.
- 309. **Logical Framework** The Programme logframe with pre-defined Core and Programme specific indicators has been developed. And to the extent possible these indicators have been quantified. The monitoring indicators, disaggregated by gender where applicable, will compare programme performance each year with the targets set in the Annual Work plan and Budget for that year. Outcome level indicators will be assessed through COI surveys to be carried out at baseline, midline and endline. The resilience indicator will be assessed through the RDMT while the carbon sequestration indicator will be assessed using the EXACT tool. The Programme will finance a baseline survey to benchmark performance indicators and facilitate future monitoring and evaluation of outcomes and impact.
- 310. Indicators Relevant indicators have been specified in the INREMP Logframe and, to the extent possible, quantified. The indicators relate to the different levels (output, outcome and impact), and include IFAD Core Indicators (CIs) as well as project specific indicators. This is based on the theory of change and demonstrates the logical links between the results at their different levels and thereby enabling the meaningful analysis of whether the project is on-track towards its planned results even in the first few years of implementation when higher-level results are not yet expected. The monitoring indicators will compare project performance each year with the targets set in the AWPB for that year.
- 311. Data Collection Data collection for updating the operational M&E framework will be supported by a web-based Management Information System which will depend on the use of cloud servers for easy administration, electronic tablets for data collection and online transmission to the cloud-based servers and collection of GPS coordinates for easy location of project beneficiaries and interventions. The serves will be administered at both County and National levels, for storage and processing.
- 312. Data collection for Physical progress monitoring will be based on two principles: a) AWPB-based progress monitoring this will involve checking and reporting on implementation progress of each activity in the AWPB; and b) registers of physical progress by recording key information on selected activities in specific registers, which will provide a cumulative historical record of practically all activities undertaken by the project. The purpose of the registers of physical progress will be to systematically record information on certain types of activities and results of Programme implementation, in order to create a historical, cumulative overview. They will be integrated with the webbased MIS just like the AWPB monitoring. Initially, the following physical progress registers are envisaged:
 - a) Register of contracts For each contract signed under the project, with suppliers, consultants and other service providers, the register of contracts will contain one line of information, which will include: description of the contract; name of the supplier/service provider; procurement method; contract sum; when the contract was signed, when the work started, when it was expected to be completed and when it was actually completed; number of invoices received and payments made;
 - b) Register of training activities The register for training activities is a very broad register that will be used to capture formal training courses, workshops, seminars, conferences, study tours, exchange visits, field demonstrations, key meetings,

even studies and surveys. The same register can be used because the key information that is important to be recorded is basically the same for all these types of activities, and includes: a description of the activity; whether it was for beneficiaries or staff; where it took place (venue, destination); when it started and ended; who was responsible for organizing the activity (person/institution); who the participants were; how many participants (men/women/youth/PWDs/IPs); the cost; and the duration;

- c) Register of infrastructure In the register of infrastructure, one line of information will summarize key facts about any piece of infrastructure that is constructed, rehabilitated, expanded, or equipped under the programme. The information in this register will include: the type of infrastructure; a description of the infrastructure; where it is located; when the contract for the work (if applicable) was signed, when the work started, when work was expected to end and when it actually ended; who the main contractor or supplier is (if applicable); who supervised the works; the total cost and the community contribution; and the estimated number of people(disaggregated by gender, age and vulnerability) who benefit from the infrastructure;
- d) Register of groups and or farmers' organisations In the register of groups, one line of information will summarize key facts about any group that has been established or is being supported under the project, for example farmers producer organisations, cooperatives, and infrastructure management Organizations such as the Catchment Management Association, Water Resources User Organisations, Community Forestry Association, Wetland Management Committees e.t.c. The information in this register will include: the type of group; the name of the group; where it is located; when it was formed; a brief description of the group purpose and main activities; a description of the project's involvement with the group; the number of group members (disaggregated as men/women and youth).
- 313. These registers shall be kept and updated regularly at the PCMU, and CPITs. The county level, agencies, state departments and other partner implementation level registers will be submitted at least on a quarterly basis to the CPITs for review and consolidation and transmission to the PCMU. To assist officers at County and lower levels, formats will be developed by the PCMU consistent with the register structures maintained within the web- based MIS and distributed to the subject matter specialists in charge of monitoring at that level.
- 314. The AWP&B-based progress monitoring in principle will use detailed activities exactly as they are presented in tables in the AWPB. The basic task will be to regularly note down, activity by activity, how much progress has been made, what has been achieved, comments and whether any special action is required. To do this, the files used during AWP&B preparation will be accessible to the County CPITs for respective monitoring.
- 315. To the extent possible, special emphasis will be placed on the need to integrate planning and monitoring as standard responsibilities in the work of project implementers and ensuring that recording progress information is done regularly and consistently. In principle, the M & E Officers from the county CPITs as well as focal persons from each of the implementation partner institutions will be responsible to collect and submit data for input into the MIS.
- 316. The progress information will be carefully analysed by staff of M&E Units at the CPITs and PCMU. The analysis will seek to identify any implementation constraints to be addressed by the project management. The same information will be used to prepare quarterly, half yearly and annual reports, which will contain the full tables with detailed, activity by activity progress information. These reports will be produced by the respective CPITs and will be consolidated initially at County level and later at PCMU into a project-wide report for submission to relevant Government offices, IFAD and other INREMP funding partners. Reports will provide information such as: a) overview of intervention activities

undertaken in the last quarter and cumulatively over the fiscal year; and b) progress and outputs in terms of the agreed M&E indicators, provide lessons learnt, and knowledge gaps identified. The reports will also seek to identify any constraints encountered so as to seek guidance (where needed) from Project management for addressing the constraints.

- 317. It should be noted that progress information will be from the beginning of the year to-date to reflect cumulative progress. This means that for the third quarter, for example, the tables will contain the progress made and achievements from the beginning of the financial year until the end of the third quarter, in addition to the separate results for the third quarter. Further, information will be provided on the cumulative progress since the beginning of the programme. This is meant to assess the progress towards achieving programme targets in line with the IFAD's Operational Results Management System (ORMS). Standard reporting formats will be developed during the development of the M&E Framework and M&E plan to provide guidance on the various monitoring focal persons/offices as defined above.
- 318. Regular project Implementation Reviews will be undertaken every quarter as a platform for assessment of project implementation and performance as well as share experiences in implementation. Participation in the reviews will be by all those involved with activity implementation as well as selected sector actors and stakeholders, the hosting of which will follow internal rotational arrangements among the CPITs.

Progress Reporting – The main source of information for Programme Management will be progress reports produced by the Programme's M&E team. Standardized formats will be developed and used consistently. The M&E officers at different levels will validate the information before sending it to the next level. The information will be consolidated in the process of producing progress reports; the consolidation will be based not only on figures but on detailed analysis, linking the physical with the financial progress and estimating the overall achievements towards set targets.

- 319. Quarterly Progress Reports All INREMP activities integrated into plans of County government departments/sections will be reported upon every 3 months by respective units implementing them. Where the private sector implementers are involved in INREMP activities, the County CPITs will be responsible for ensuring compliance of the service providers with regard to the monitoring and reporting requirements included in the service providers' contract.
- 320. Bi-annual Progress Reports Consolidation of quarterly reports will be done by the respective units. The PCMU will prepare a consolidated 6-months progress report for sharing with GoK, IFAD and other stakeholders/co-financers, as may be required. The progress reports will include an overall assessment of INREMP's achievements against the targets in the AWPBs. Reports will be submitted within six weeks from the end of each reporting period.
- 321. Annual Progress Reports The annual progress reports will be a consolidation of the progress of achievements attained during a financial year and assess the overall performance of the project against set objectives and indicators in the project logframe. This will be done by the respective CPITs and the PCMU.
- 322. Back to Office Reports These will be produced on demand and following field visits to the project area. The reports will be submitted within one week of undertaking the field activities. The reports will contain feedback on the purpose of the field visits, the people met during the visits, the salient findings, the lessons learnt and recommendations for improvement.
- 323. The table below provides a summary of reports to be generated/produced by the INREMP Programme M&E System.

Туре	of	Responsible Officer		
Report			Frequen	Deadline
			cy	

	Nation al and County Levels	Sub- county Level	Ward Level		
Quarterly	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	Once every 3 Months	1 st Week of proceeding month of the following quarter
Bi-annual Progress Reports	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	Once every 6 Months	2 nd Week of proceeding month of the following quarter
Annual Reports	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	Once every 12 months	3 rd Week of proceeding month of the following quarter
Back to Office field reports	PCMU and CPITs	Sub- county focal person	Community developmen t Assistant	On demand	Within 1 week of completing the field visit

- 324. **Baseline and Impact Evaluation** Baseline and Impact Evaluation A baseline study will be undertaken during the first year of project implementation to benchmark the project indicators and provide a basis for future assessment of outcomes and programme impact. NReMP will adopt and adapt the standard COI survey guidelines and methodology to undertake the project baseline survey. The PCMU together with the CPITs will work together to adapt the ToR and the COI questionnaire as well as the Request for Proposals (RFP). The survey will be undertaken with external consultant support recruited through a competitive bidding and selection process as per established procurement guidelines.
- 325. IFAD will undertake periodic monitoring, evaluation and supervision Missions to assess the status of Programme implementation and evaluate its direction with respect to its objectives, outputs and outcomes.
- 326. The Programme will also carry out outcome and impact assessments with a focus on the Programme's overall goal and specific objectives, as defined in the Programme logframe.
- 327. During implementation, the following evaluations will be undertaken by independent consultants with the help of the PCMU and CPITs to establish the relevance, effectiveness, efficiency, and sustainability of the project:
 - a) The mid-term review which will be undertaken in the 4th quarter of year 4 of the programme; and
 - b) The project completion review, which will be undertaken in year 8.
- 328. The project evaluations will be based on:
 - a) Accumulated and interpreted data from the periodic monitoring
 - b) Analysis of completion reports of the community investments from the selected beneficiaries
 - c) Bi-annual and annual progress reports at all levels
 - d) Specific impact exercises at mid-term and completion
 - e) Responses of beneficiaries, Sub-counties, and Wards to INReMP procedures.
- 329. The PCMU will engage external consultants to carry out the assessments in line with standard impact assessment methodology and following the approved COI survey

framework for the case of core outcome indicators. Consultants will also be engaged to assess the resilience indicators using the resilience score card RDMT as well as in determining the carbon sequestration using the Ex- Ante Carbon Balance Tool. Secondary sources of data will be used particularly to provide information on the overall sector goal indicators.

330. The table below provides a summary of the basis, responsibility and frequency for the planned Programme evaluations:

Basis for Evaluation	Responsible Persons	Frequency
Accumulated and Interpreted data from periodic monitoring	PCMU and CPITs	Continuous
Analysis of investment completion reports from various beneficiaries' /communities	PCMU and CPITs, subcounty focal persons and Ward Assistant CDOs	Continuous
The PCMU and CPITs consolidated bi-monthly and annual progress reports	Programme Coordinators (National and County Levels)	Bi-Annual and Annual
Sub-County project reports	Sub-county focal persons	Quarterly, Bi-annual and annual
Specific Impact Exercises at Mid Term and Completion	Programme Coordinator	On Demand
Responses of beneficiaries to INReMP procedures	Community Facilitators	Once every 18 Months

331. **Management Information System (MIS)** – A web-based management information system (MIS) will be developed in the first year of implementation and will be used to support day-to -day monitoring of the programme activities and outputs. Data collection at field level will be carried out by field staff using electronic tablets and uploaded into the MIS from where it will be accessed by the M & E Officers at the PCMU for administration and management. The CPIT Coordinators will only have user rights while the M&E Specialists will have editing rights to ensure data quality and consistency. The Specialists will also be responsible for technical performance of the system. The field staff will ensure that any errors in data entry are promptly communicated to the M & E Specialists at PCMU to enable temporary permission to the affected staff for reloading of the data. The MIS based on the DHIS2 interface will be designed using external consultancy support who will also build capacity of the field staff to use the system well. In addition, a technical manual will also be developed, and relevant training provided to all field staff, to enhance the use of the MIS.

III.3: KNOWLEDGE MANAGEMENT, LEARNING AND COMMUNICATION

The core relevance of the M&E system is in the use of the information it elicits for planning and decision-making as well as accountability. Knowledge Management (KM) will be an integral part of INReMP to ensure that Programme implementation is a continuous learning process in which quantitative and qualitative data will be compiled, analysed and disseminated as lessons learned, together with thematic studies and stories from the field that document successful approaches, explain challenges encountered and results achieved. The Project M&E system will form the foundation of KM and learning system and will thus be a primary instrument of information capture and storage, based on the indicators detailed in the results framework. Tools, such as case studies, stakeholder interviews and surveys, will be used to deepen understanding of factors contributing to successes and failures, and to enable full documentation of impact. The Knowledge management and Learning Officer within the PCMU will be responsible for all KM activities in liaison with the M & E Specialist and other technical component heads. Collaboration

with relevant research and learning institutions to design and undertake studies and analyses as well as communicate lessons learnt will be encouraged.

- A Knowledge Management strategy will be developed built on three core pillars of KM: people, processes and technology. In addition, a knowledge Management and Communication Action Plan that outlines specific activities on how information is to be obtained, analysed, and disseminated, will be developed in line with the KM strategy. The Plan will be developed to translate the strategies into action. Plans to support the implementation of the KM Action Plan will be integrated in the Project's AWPB. In this regard, the KM & Communication Action Plan shall include an outline how knowledge will be disseminated using, but not limited to, the communication channels. Effective communication at all levels will be critical to promotion and awareness raising, learning and adoption of innovative techniques and practices promoted by the programme. Issues related to mainstreaming of gender, indigenous persons, and nutrition in the programme activities and encouragement of youth participation in natural resources conservation and management will be emphasised. Quarterly review meetings with implementing counties, GoK agencies and state departments, and private sector partners will be organised by project management to discuss progress towards results in relation to each quarterly progress report, the format of which will explicitly include a focus on lessons learnt in terms of challenges, good practices, etc. Study tours, exchange visits and learning routes will be organized for lateral knowledge transfer. In order to facilitate the online dissemination of generated knowledge products to government and other stake holders, INReMP will ensure adequate sharing of information through a Knowledge Management Portal to be developed and set up and linked to the State Department for Agriculture as well as encourage use of other online knowledge sharing mechanisms such as the use of social media, short messaging services and other digital communication services. The programme will also encourage the access to climate and weather information as well as market information by the various value chain actors.
- 333. Concurrently, a downward and upward flow of information about project progress to beneficiaries and implementing partners in the field is of utmost relevance in fostering ownership and participation. Systems for these information exchanges will be developed and used on a regular basis, including stakeholder review meetings, planning workshops, and a newsletter to be shared with all Catchment Management Organisations, WRUAs, CFAs, FOs and cooperatives involved in programme implementation. The project will ensure the full participation of all partner departments and agencies to produce relevant knowledge products and communication materials, such as press releases, e-extension materials, IVR and radio spots.
- 334. **Knowledge Management Plan** In order to facilitate an effective provision of the KM function during INReMP implementation, a KM plan is provided herewith. The plan outlines specific activities on how information will be obtained, analysed, and disseminated within INReMP. It outlines the main objectives of KM, the broad approaches that will be used, the activities that will be undertaken, the knowledge products expected to be generated and disseminated, the resources required and an evaluation plan to inform the project management on the performance of KM within the project. This plan will be updated from time to time to align with emerging knowledge needs of the project during implementation.

1.Current situation / background

Knowledge Management in INReMP will have a major focus on innovations and capturing of lessons learnt and using these to enhance programme perfomance and impact. The KM and Communication system will be intergrated and aligned with the result based M & E system to ensure evidence based knowledge generation. KM will be implemented through out the programme period but with a phased focus and targeted approach commensurate with the stages of implementation. That is to say, the early phases of its implementation will focus primarily on promoting the programme and creating awareness and later phases will be focused on creating visibility of

	project results, supporting successful and innovative ap of lessons from the now Management Project (UTaNR INReMP seeks to upscale in Towers.	oproaches. INReMP KM will closed Upper Tana Nati MP) whose successful imple	also draw a lot ural Resources ementation, the
2.Overall programme / project objectives	INReMP will be implemented goal 'to contribute to improvince me security in a sus Programme Development On natural resources managem and improve beneficiaries' liwomen, youth and other vulimplemented in 10 Counties two water towers. INReMP estimated 2,035,880 housel project will have an environ climate adaptation, gendes sensitive focus, and will also of the community such as persons.	ved rural households' food tainable and resilient ed bjective (PDO) is to 'Enhance to velihoods, putting particular linerable groups'. The Programment and ecosystem service transformative, youth target among others vules tainable and resident and ecosystem services transformative, youth target among others vules	cosystem'. The ance integrated climate change ar emphasis on gramme will, be and Mau West seholds and an an counties. The ces restoration, and nutrition erable members
	The programme objective implementation of two field strengthening and project outcomes from INReMP implementations.	technical components and management component.	
		nced environmental sust Jurces management (INR on;	•
	b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and		
	c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.		
3. Purpose, objectives and expected results	KM within INReMP will particulalry be important in creating awareness among stakeholders about the programme, creating visibility of programme results and Impact, supporting policy engagement and scaling up of successful and innovative approaches. The objectives of the KM plan thus will be to: i. Develop a Knowledge Management and Communication Strategy to guide the systematized documentation, packaging and dissemination of knowledge generated from programme implementation ii. Develop key messages, appropriate multimedia platforms, tools and channels for effective knowledge sharing and communication with various target audiences. iii. Build Knowledge Management and Communications capacity for		
4.Activities, approaches	Programme Implementation. The following activities, approaches and tools are envisaged within Implementation of INReMP KM		
and tools	Main	Means of verification	Due date
	Intervention/activity	Means of verification	Due uale

Carry out a Stakeholder analysis and KM needs assessment for supporting the development of the KM strategy	Review report	PY1
Undertake an assessment of the ICT infrastruture in the target counties for enabling KM and communication in INReMP	Review report	PY1
Develop the KM and Communication Strategy building on findings of the preliminarly assessments and the lessons learnt from ongoing and closed IFAD supported projects such as the UTaNRMP	KMC strategy developed	PY1
Validate the KMC strategy with key project stakeholders	KMC strategy validated	PY1
Develop annual KM action plan and budget for the strategy.	AWPBs	PY1, PY2up to PY8
Develop and operationalise communication channels including a Knowledge Managemnet Portal for the programme but with links to all respective ten counties web-portals, leverage social media platforms and other multimedia platforms	 Knowledge Management Portal Social media handles TV and Radio Talk show agreements e.t.c 	PY2
Develop and implement IEC materials and knowledge products	 Tools developed, Materials developed- Brochures, Newsletters, Documentaries, posters, fliers, leaflets, manuals, e.t.c 	PY1, PY2up to PY8
Systematically conduct case studies to understand in detail emerging results and impact of programme implementation, document lessons learnt and success stories	 Case study reports , lessons learnt, Success stories 	PY3, PY4upto PY8
Carry out detailed policy review of INReMP results to generate evidence for	Policy BriefsPolicy engagement meetings/minutes	PY3, PY4, PY5, PY6,PY7 and PY8

	policy engagement and advocacy		
	Engage the mass media at National and County levels to communicate and share knowledge on INReMP focus areas	Contracts signed and implemented with media houses	PY1up to PY8
	Promote brand visibility of the Programme and its funding partners (IFAD, GEF, GoK e.t.c)	Promotional items such as Sign boards, Branded materials e.t.c	PY1up to PY8
	Build capacity of the programme staff and partners to ensure systematic learning and knowledge sharing are fully embedded in Programme management and implementation	KM Monitoring Reports	PY1up to PY8
	Design and implement a training programme for PCMU and CPIT staff as well as staff of county Information and media teams and other relevant government agenciies and departments as required on KM and Communication approaches, methods and tools.	Staff trained	PY1up to PY8
	Develop annual plans and budgets that ensure the Programme KM and Communication strategy is continuously monitored and improved.	AWPBs	PY1up to PY8
5.Knowledge sharing &	Knowledge Products	Dissemination Channels	Target Audience
knowledge products	Case stuy reports	Workshops, mass media, social media platforms, project website, print media	Project implementers (staff and Implementing partners), Government departments and external stakeholders
	Brochures, Fliers	Distribution during workshops, Fairs and field visits and any other gatherings	Primary project beneficiairies and potential

		projects enthusiasts
Newsletters	Project Website	External stakeholders
Documentaries	Project website, mass media (radio and TV)	External stakeholders and project beneficiairies
Policy briefs	Policy advocacy meetings, website	Natioanl and County Government departments and ministries
Branded Items	Public events/exhibitions/fairs/ Value chain platforms and public places	Project beneficiairies, External stakeholders and project financiers

6.KM in project management

Knowledge Management (KM) will be an integral part of INReMP to ensure that Project implementation is a continuous learning process in which quantitative and qualitative data will be compiled, analysed and disseminated as lessons learned, together with thematic studies and stories from the field that document successful approaches, explain challenges encountered and results achieved. The Project M&E system will form the foundation of KM and learning system and will thus be a primary instrument of information capture and storage, based on the indicators detailed in the results framework. This means that knowledge management activities will build on the M & E findings and results of project implementation.

The Knowledge management and Communication Officer at PCMU and M & E Officers within the CPITs, will be responsible for all KM activities in liaison with the respective counties information and media teams amd other relevant line ministries and departments. The KM Officer at the PCMU level will be directly responsible for developing the KMC strategy, drawing annual plans and budgets in line with the strategy and ensuring that identified activities are implemented as planned. The staff will also be responsible for reporting on the perfomance of the KM function within the project. The KMC Officer will coordinate KMC activities, ensuring that all required inputs are solicited and knowledge products developed and disseminated accordingly. He/She will liasie with respective technical component heads to carry out the KM assignments.

A web-based knowdge portal will be developed and linked to respective county web-based portals. The KM portal will have dashboards through which updates on the perfomance of the programme, events, reports, and any other relevant materials will be provided for easy sharing across the range of INReMP stakeholders.

Through the Project M & E system, outcome and thematic surveys will be undertaken to generate results on the perfomance of the project. The results from such surveys will inform the conduct of detailed case studies on particular themes as may be identified from time to time.

The KMC Officer will also be respossible for developing other knowledge products in consultation with technical component teams and county
governors' media teams.

III.4: FINANCIAL MANAGEMENT

Attached as a standalone module.

III.5: PROCUREMENT

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1 APPLICABLE PROCUREMENT RULES

IFAD General Conditions (Section 7.05. Procurement) lay emphasis on use of Borrower/ Recipient's procurement regulations, provided they are found to be consistent with IFAD's procurement quidelines. Procurement under INReMP will be carried out in accordance with GoK's Public Procurement and Asset Disposal Act (PPADA 2015) which sets out the rules and procedures of public procurement by Ministries, Departments and Agencies (MDAs) and County Governments, and provides mechanisms for enforcement of the law. The national framework will apply for procurements to the extent that they are consistent with IFAD Project Procurement Guidelines. National Standard Bidding Documents (SBDs) will be used and will be amended for consistency with IFAD Guidelines. International procurements and consulting services will use IFAD SBDs. All project procurement activities will be made in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) will apply to INReMP to ensure compliance with the highest ethical standards. Other provisions stipulated in the Procurement Arrangement Letter (PAL) will be applied for all procurement activities.

Under the PPADA, the Public Procurement Regulatory Authority (PPRA) has been established. The PPRA has oversight and regulatory functions, including undertaking procurement reviews and audits.

2 Procurement Methods, Thresholds and Prior Review

2.1 PROCUREMENT PLANS (PP)

The PP should reflect the analysis presented in the PPS. It is the responsibility of the Project to prepare a consolidated Procurement Plan covering all the activities funded by the project. The Procurement Plan should include all procurement packages expected to be implemented within a period of at least 12 months. The PP should be updated at least annually to reflect actual needs and changing circumstances.

The initial Procurement Plan prepared for the project should be for a period of 18 months, with successive 12-month plans to be prepared for the following period of implementation. The plan should be realistic and shall be consistent with the Project Annual Work Plan and Budget (AWPB) and shall form part of it. NPCU and County level PPs will be developed as soon as the AWPB are ready.

Any updates to the Procurement Plan should be submitted to IFAD for its review and no objection. Any changes to the Procurement Pan should be justified through a revised PPS. The Plan shall include description of the procurement packages to be implemented, funding source, methods of Procurement, type of review (prior or post), quantities, estimated costs, time schedule for the different steps involved in the procurement process and the responsible procuring entity. The Procurement Plan is a "live" document that should be updated regularly. It is recommended to review the plan at least once quarterly. Any major adjustments or amendments to the plan would require IFAD no-objection. The plan should be ready and updated for review by supervision missions.

2.2 OPEN

IFAD OPEN (Online Project Procurement End-to-End System) supports borrowers maximize value for money and increases transparency and efficiency over the procurement processes in IFAD-financed operations. The system provides support to borrowers with built in guidance from procurement planning stages to contract completion, tracking key stages of the procurement process. The system also generates analytics that supports evidence-based management.

Project procurement will be carried out as per the approved Procurement Plan (PP) processed in IFAD's OPEN. No activity will be implemented prior to receipt of a no objection through OPEN.

2.3 CONTRACT REGISTER (CR) AND CONTRACT MONITORING TOOL (CMT)

All contracts, Memorandums of Agreements, purchase orders and related payments must be recorded in the Contract Monitoring Tool (CMT) of the IFAD Client Portal. The contract register in use by the project will be in form of entries to the CMT. All contracts by the project will be captured in the CMT in a timely manner. The project procurement officer will ensure regular updates to the CMT to reflect accurate physical and financial progress of contract entries.

2.4 TABULAR SUMMARY OF APPLICABLE METHODS AND THRESHOLDS

Method Selection Currency: US\$	Prior Review Thresholds				
	GOODS	/NCS			
Shopping	NCB	ICB			
≤ 100,000	< 200,000	≥ 200,000	≥ 70,000		
	WORKS	/NCS			
Shopping	NCB	ICB			
≤ 250,000	< 1,000,000	≥ 1,000,000	≥ 150,000		
	CONSULTING SERVICES/NCS				
cQs	LCS and FBS	QCBS and QBS			
≤ 70,000	< 150,000	≥ 150,000	≥ 60,000		
ICS Prior Review Threshold			≥ 30,000		

2.5 SPECIAL PROCUREMENT ARRANGEMENTS

a) The table below represents procurement arrangements for low value items:

Contract	Category	Estimated Cost	Procurement Approach and Method
Off-the shelf Goods, Minor Works, and small assignments.	Works /Goods /Consulting services	Not more than USD500, up to an annual cumulative cost of USD5,000 (as defined in the PAL)	Contracts to be procured through local administrative procedures and a file of all such purchases be maintained.

- b) Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, salaries, and allowances for project staff. These expenditures will not be subject to procurement clearance, hence, will not be reflected in the approved procurement plan. Items under this category would be procured using local administrative procedures acceptable to IFAD. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB, and will be subject to external audit.
- c) Training / Capacity Development initiatives through the project are not Procurement Transactions unless a service provider is exclusively hired from Market through agreed Selection Methods of Consultant / Non-consulting services as appropriate to render training or capacity development. The expenditure plan under

this category will be submitted annually to IFAD for review and no objection through the AWPB and will be subject to external audit.

2.6 STANDARD PROCUREMENT DOCUMENTS (SPD) TO BE USED

National SBDs will be used and will be amended for consistency with IFAD Guidelines. The SBDs will include porvisions on IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), and IFAD right to audit. International procurements will use IFAD SBDs and provisions. A complete list of SPD templates is available for download and can be accessed on https://www.ifad.org/en/project-procurement/quidelines-and-documents

2.7 GUIDANCE OFFERED IN THE IFAD PROCUREMENT HANDBOOK

The IFAD procurement handbook will be referenced for consistency to any procurement activity undertaken by the project when procuring goods, works or services under INReMP, and consistent with the Financing Agreement and PAL. Consistent application of the handbook's provisions and procedures is essential for ensuring greater efficiency, transparency, uniformity of documents and decisions and lower procurement costs.

2.8 PRIOR REVIEW DOCUMENTATION

In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

2.7.1 Procurement Plan (PP)

Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans shall be subject to prior review.

2.7.2 The General Procurement Notice(s) (GPN)

General Procurement Notices that are drafted prior to their publication shall be subject to IFAD prior review.

2.7.3 Goods, Works, Consulting and Non-Consulting Services

The procurement process for Goods/Works/Services shall require IFAD's No Objection (NO) for contracts designated for "**prior review**" in the project's procurement plan. No downstream procurement action by the project 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	IFAD "NO" is required
1	Call/Request for Prequalification document and related advertisement	Yes
2	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes
3	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)
4	Technical Specifications for Goods/Works/NCS	Yes, usually as part of NO request for issue of the bid docs (step 9 below)
5	Composition of evaluation committees	Yes, usually as part of 9, 13 or 15
6	Prequalification report for Goods/Works/NCS	Yes
7	Shortlisting report for consultants' selection	Yes

8	The use of "prior lists" for shortlisting consultants	Yes
9	Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable	Yes
10	Use of a Performance Guarantee template if other than	Yes
	unconditional, irrevocable and on-demand guarantee	
11	Amendments to the Bidding Documents and RFPs, CfPs	Yes
12	Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS)	Yes
13	Technical evaluation report (in two envelope procedures)	Yes
14	The combined evaluation report (in two envelope procedures)	Yes
15	The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS)	Yes
16	Decisions concerning abnormally low bids	Yes
17	Draft contract	Yes
18	Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS	Yes
19	Rejection of all bids/proposals and cancellation of the procurement procedure	Yes
20	Failure of negotiations and proceeding to next ranked consultant	Yes
21	Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS	Yes
22	Determination to reject a bid/proposal because of cross-debarment	Yes, usually as part of steps 13, 14 or 15
23	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
24	Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	Yes
25	Termination of a contract in Goods/Works/NC	Yes
	Services/Consulting Services	
26	The use of Force Account	Yes

2.7.4 Other specific Prior Review requirements

In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

1	Procurement Plans submitted as part of Annual Work Plans and Budget and any	
	subsequent amendment of these plans;	
2	General Procurement Notices (GPNs);	
3	The first 5 procurement activities using ICB and NCB;	
4	Any use of Force Account;	
5	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;	
6	Award of any Memorandum of Agreement irrespective of its value;	
7	Award of any contract for goods and goods-related non-consulting services estimated to	
	cost US\$ 70,000 or more;	

8	Award of any contract for works and works-related non-consulting services estimated to
	cost US\$ 150,000 or more;
9	Award of any contract for consulting services provided by firms estimated to cost US\$
	60,000 or more;
10	Award of any contract for individual consulting services estimated to cost US\$ 30,000 or
10	•
	more;
11	Award of any contract via Direct Contracting for Goods and related Non-Consulting
	Services above the low-value threshold specified in PAL paragraph 6 b) iv). Any contract
	below this low-value threshold does not need NO if the cumulative value of such low-
	value contracts does not exceed the cumulative threshold stated in PAL paragraph 6 b)
	iv) in the current fiscal year;
12	Award of any contract via Direct Contracting for Works above the low-value threshold
12	, and the second se
	specified in paragraph PAL 6 a) iv). Any contract below this threshold does not need NO
	if the cumulative value of such low-value contracts does not exceed the cumulative
	threshold stated in the same paragraph;
13	Award of any contract via Single/Sole Source Selection of Consulting Services to firms
	above the threshold specified in PAL paragraph 6 c) vi). Any contract below this threshold
	does not need NO if the cumulative value of such low-value contracts does not exceed
	the cumulative threshold stated in the same paragraph;
14	
14	Award of any contract via Single/Sole Source Selection to individuals above the threshold
	specified in PAL paragraph 6 c) vii). Any contract below this threshold does not need NO
	if the cumulative threshold stated in the same paragraph is not exceeded and the
	contract duration is three months or less.

2.8 OTHER PROCUREMENT-RELATED COORDINATION WITH IFAD

It is not intended that the procurement manual will foresee all possible situations that could arise in processing of procurement activities and decisions. Where in doubt, the project will seek guidance from IFAD from time to time during INReMP's implementation. A proactive approach will be required to ensure procurement best practices are retained throughout project implementation.

3 Critical Procurement Issues

3.1 AREAS OF INCONSISTENCY BETWEEN NATIONAL LAW AND IFAD PROJECT PROCUREMENT GUIDELINES

3.1.1 Comparison between National and IFAD Procurement

The National Procurement framework has been assessed and compared to IFAD procurement framework. The areas of possible non-compliance to IFAD project procurement framework:

- a) PPADA Provision 118 provides for request for proposal through advertisement without RFOI.
- b) Provision 131 sets a condition for BAFO procedures where the lowest evaluated price is in excess of available budget, but without a probity Auditor for BAFO procedures.
- c) Minimum period for International tender advertising provided as seven days in Regulation 83.
- d) PPADA provision 157 provides for participation of candidates in preference and reservation. It requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents a mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating in international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender.
- e) PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted

that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.

- f) There are no ICB documents for Works/Goods, though documents can be customized for international competition.
- g) There is no procurement manual.
- h) No Social/Labour or Environmental considerations of SPP. The same is not a requirement in the prequalification and bidding processes.
- i) Regional agreements are not specifically reflected in procurement policy.

3.1.2 Extent of Application of the National Procurement rules under the Project

The National Procurement rules will apply for procurement processes subject to IFAD project procurement framework and consistency with IFAD procurement guidelines and PAL.

3.2 COST AND SCHEDULE ESTIMATE

The Programme's costs and procurement estimates of the first 18 months are tabulated below.

N	Component and Outputs	Cost (US\$)	Perc e nt	Key procurement activities (First 18 months)
1	Component 1. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action: 1) Output 1.1 Community Empowerment, Youth and Gender Transformative Approaches 2) Output 1.2 Improve Environmental Sustainability, INRM, and Ecosystem Services	85,700 8,449 77,251	34%	Supply of weather stations, river gauges, other equipment, Supply of Equipment for water and soil labs, Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc., Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming, Consulting service for mapping, registration of community groups.
2.	Component 2. Improved, Inclusive and Sustainable Rural Livelihoods: 3) Output 2.1 Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises 4) Output 2.2 Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises	74,132 49,515	49%	Procurement of 12No motor vehicles (for Extension), Procurement of 105No Motor Cycles for Extension services, Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems, Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems, Nutrition Specialist/Consultant, Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture), Provision of Business development support to MCC, Consulting services in support of Processing Equipment, Feasibility assessments, ESIA and Design of Climate-Proofed Access Roads, Development of Applications and

3.	Component 3. Institutional Strengthening, Policy Support and Programme Coordination: 5) Output 3.1 Institutional Strengthening and Policy Support 6) Output 3.2 Programme Coordination and Implementation Support Services	43,654 5,229 38,425	17%	Procurement of 3No Utility Vehicles 4WD, Procurement of 2No Double Cabin Vehicles, Supply of IT Equipment (18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office Rehabilitation - National PMCU and Regional PMCU, Development of the programme MIS including related infrastructure, accessories and training of staff, Development of a Programme Knowledge Management Portal, Consulting service for Development of a Knowledge Management and Communication Strategy, Consulting service for Institutional capacity gap assessment and production of a capacity
	Total	253,000	100	development plan, PMU staff (consultants).
			%	

3.3 Publication of Notices

3.3.1 GENERAL PROCUREMENT NOTICE (GPN)

The GPN is a publication that will be made at the beginning of each planning period to achieve the following:

- Notify bidders of the existence of the INReMP
- Notify bidders of upcoming procurement opportunities
- Enable the INReMP to create or improve its supplier database

IFAD's NO is required prior to publication of the GPN.

3.3.2 PRE-QUALIFICATION (GOODS, WORKS AND NON-CONSULTING SERVICES)

In this process, information on the qualifications of potential bidders will be obtained and evaluated in order to compile a list of qualified bidders who will receive solicitations for closed procedures. This will be done through publication of a pre-qualification notice, the receipt of submissions and the evaluation of submissions against predetermined criteria.

3.3.3 NOTICES FOR OPEN BIDDING PROCESSES

For open bidding processes, publication of the advertisement will be made for open competitive bidding. This shall be done – at a minimum – via publication on the IFAD website and in national newspapers. International Competitive approaches shall require additional publication on the United Nations Development Business portal - UNDB online.

3.3.4 Request for Expressions of Interest (REOI)

For openly competitive procurement activities through Request for Proposals, Publication/issuance of an REOI containing a briefing on the assignment and the shortlist assessment criteria will be made. The evaluation criteria in the RFP stage will be more robust and not be used in the shortlist.

3.3.5 Publication of Contract Awards

The publication of contract awards will follow the same advertisement method used for the announcement of the procurement activity.

3.4 AWARD OF GRANTS/LOANS

Grant schemes awards will be subject to IFAD review and No Objection.

3.5 PROCUREMENT PRINCIPLES AND ETHICS

3.5.1 Procurement Principles

In accordance with the IFAD Project Procurement Guidelines, the IFAD Anticorruption Policy and the IFAD Code of Conduct, project procurement staff are expected to:

- a) maintain and enhance the reputation of the Government of Kenya by:
 - (i) maintaining the highest standards of honesty and integrity in all professional relationships;
 - (ii) developing the highest standards of professional ethics;
 - (iii) maximizing use of IFAD funds and other resources for which they are responsible for the purposes for which they were provided to the borrower/recipient country;
 - (iv) providing information in the course of their duties that is true, fair and not designed to mislead;
 - (v) complying with both the letter and the spirit of:
 - the financing agreement;
 - · the laws and regulations of the Republic of Kenya;
 - professional ethics;
 - contractual obligations.
- b) declare any actual, perceived, or potential personal interest that might affect, or reasonably be perceived by others to affect, impartiality in any matter relevant to their duties (conflict of interest). In such a situation, the respective official should not participate in the procurement process in any way to avoid adverse measures, including the declaration of misprocurement;
- c) respect the confidentiality of information obtained in the course of duty and not use such information for personal gain or for the unfair benefit of any bidder, supplier, or contractor
- d) Two of the most common sources of concern are conflicts of interest and the acceptance of gifts and hospitality by officials. The complete guidelines can be found in IFAD's Anticorruption Policy.

3.5.2 Gifts and hospitality

Any public official of the borrower/recipient involved in an IFAD-funded procurement activity:

(i) is not permitted to accept any gifts from current or potential suppliers, contractors, or consultants, unless such gifts are of very low intrinsic value, such as a calendar or business agenda;

- (ii) must refrain from accepting any business hospitality that might be viewed by others as influencing a business decision;
- (iii) has a duty to promptly report any case of prohibited practices, including but are not limited to fraud and corruption, as defined in IFAD's Anticorruption Policy, by a colleague, bidder, supplier, contractor or consultant, to IFAD and the national authorities, as required.

3.5.3 Conflicts of interest

- (i) The IFAD Project Procurement Guidelines require that any public official of the borrower/ recipient involved in an IFAD-funded procurement activity shall declare any personal interest that may affect, or might reasonably be deemed by others to affect, impartiality in any matter relevant to their duties (conflict of interest).
- (ii) On becoming aware of a situation of this nature or the potential for such a situation, the official(s) concerned should immediately recuse themselves from any aspect of the procurement process to avoid being placed in the position of having a conflict of interest.
- (iii) When IFAD becomes aware of a situation in which a conflict of interest may have existed but was not declared, it is sufficient grounds to declare misprocurement, in keeping with the IFAD Project Procurement Guidelines.
- (iv) Where there is a question about the existence of a conflict of interest, or potential conflict of interest, IFAD may be consulted for advice or guidance. However, IFAD operates under the general principle that if there is any uncertainty, it is safer to recuse oneself from the process rather than risk a negative perception of the process and a (potential) declaration of misprocurement.

3.6 COMBATTING CORRUPTION AND SEXUAL HARASSMENT

All contracts signed by vendors (suppliers, consultants/consulting firms or contractors) shall contain material demonstrating that the vendor is compliant with the regulations of IFAD's Revised Policy on Preventing Fraud and Corruption in its Activities and Operations and the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (SH/SEA) by the use of self-certification forms. To this end, all vendors shall sign a self-certifying declaration annexed to the contract, certifying that they have not and – for the duration of the contract – will not engage in fraud and corruption and SH/SEA, as defined in the respective policies indicated above. This self-declaration is part of the contract forms of the standard procurement documents provided by IFAD.

The SH/SEA Policy is available at: https://www.ifad.org/en/document-detail/asset/40738506

The Anticorruption Policy at: https://www.ifad.org/en/document-detail/asset/40189695

3.7 RECORD KEEPING

Each procurement activity will have its own separate file, folder, or dossier where records related only to the procurement in question are kept in properly coded chronological order. Documents related to other procurement projects must not be included in the procurement record. It should be possible to review the entire historical record of the procurement in a logical and sequential manner at any time. The list of complete records to be retained in a file is referenced in the IFAD procurement handbook and as contained in Annex 2.

4 Procurement Transactions – Institutional Setup and RACI

4.1 Delegated Procurement Responsibilities to local entities

Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-

to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer.

The PCMU will be directly responsible for project procurement. In addition, the Head of procurement at each of the partner organizations will be responsible to support procurement of the low value limited to activities within the RFQ/shopping threshold, and consistent with project's PAL.

KALRO and County Governments, will be implement National Competitive procedures for their respective procurement activities and within the defined thresholds. All other procurement activities are to be undertaken by the PCMU.

4.2 IMPLEMENTING PARTNERS

The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the Kenya Agricultural and Livestock Research Organization (KALRO), Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.

4.3 ACCOUNTING FOR PROCUREMENT BY IMPLEMENTING PARTNERS

Any small value procurements and procurements of operational expenditures undertaken by implementing entities will be subject to periodic reporting before replenishment of funding by the PCMU and in and line with the Financing covenants.

4.4 Institutional Setup, Roles and Responsibilities

4.4.1 Evaluation Committees

Each competitive procurement package will have an *ad hoc* Evaluation Committee comprising of members skilled in the subject matter at hand. Evaluation committee members should not be restricted to only PCMU members, to ensure sufficient skill mix; independent external members may also be used.

For all items above the prior review threshold, IFAD's No Objection on the solicitation documents will be required.

4.4.2 Roles & Responsibilities, including TOR

A. Procurement Specialist

1. **Procurement Specialist** – Reporting directly to the Programme Coordinator, the Procurement Specialist will be responsible for all procurement-related aspects under the Programme and for maintaining all procurement documentation in good order. The Procurement Specialist will be part of the Project Team working on the implementation of the project's activities. The specialist will be responsible for the specific procurement activities needed for project implementation and will provide leadership and guidance to all PCMU. The Procurement Specialist will oversee the overarching role of PCMU for programme-wide procurement of consolidated Goods and be responsible for all procurements that approach the international market.

- 2. **Duties and Responsibilities** Under the direct supervision of the Programme Coordinator, the Procurement Specialist will have the following duties and responsibilities:
 - Coordination of procurement of project requirements at national level and guidance to decentralized procurement at county, and partner institutions level as appropriate.
 - Review and update the procurement section of the project PIM and initial 18-month procurement plan. The reviewed PIM should adequately provide for all internal procedures and milestones.
 - Installation of appropriate procurement systems and procedures for effective planning and monitoring of procurements under the Programme.
 - Communicate to all implementing entities and service providers their responsibilities and requirements with respect to procurement in keeping with prevailing Government practices which are acceptable to IFAD.
 - Oversee preparation and consolidation of inputs to the Annual Procurement Plan.
 - 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.
 - Maintain all procurement records in a form appropriate for regular auditing.
 - Coordinate preparation of TORs for consultancy services and technical specifications for goods procurement, in conjunction with the relevant user Departments/Divisions.
 - Undertake local shopping for goods and services where this falls within the procurement guidelines.
 - Prepare request for bids in the required format and advertising or inviting bids from qualified (or pre-qualified) suppliers.
 - Advise selection of Evaluation Committees to have people with appropriate expertise, and support bid evaluation committees to undertake technical evaluation of bids or proposals for supply of goods and services.
 - Monitor implementation of contracts: report status and problems to the Programme Coordinator and intervene to address any problems upon request by the Programme Coordinator.
 - Initiate approval processes for progressive payments to contractors against the agreed milestones or outputs.
 - Maintain a register of approved suppliers for smaller items procured locally.
 - Prepare quarterly and annual reports of progress with implementation of the Procurement Plan, and regularly inform the Programme Coordinator of problems and make proposals to overcome bottlenecks; and
 - Carry out any other activities that are assigned by the Programme Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a Masters degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and Projects in Kenya;
 - He/she would have at least 10 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

- 4. **Competencies** The following are desirable competencies:
 - Ability to work well in teams and to interact with a wide range of partners, including private sector and government representatives.
 - · Knowledge of work planning and reporting.
 - Excellent analytical skills.
 - Honest and Integrity.
 - Strong written and oral communication skills in English; and
 - Ability to work independently, with limited supervision.

B. Procurement Officer

- 1. **Procurement Officer** Reporting directly to the Programme Coordinator, the Procurement Officer will ensure achievement of results-oriented outcomes in the procurement function.
- 2. **Duties and Responsibilities** Under the direct supervision of the Programme Coordinator, the Procurement Officer will have the following duties and responsibilities:
 - Support the Procurement Specialist in execution of procurement related tasks.
 - Put in place a system that would allow for appropriate planning with regard to the
 consolidation of a list of all needed procurement items for the effective
 implementation of the a given Programme Year's work plan. The list should be
 exhaustive including the appropriate specifications, quantity, the preferred delivery
 time period, etc.
 - Support in guidance and capacity building of participating counties, and partner institutions on procurement policies and procedures of the project.
 - Work closely with the Procurement Specialist and PCMU to ensure that an informative and detailed project work plan and budget is timely prepared.
 - During the course of AWPB implementation, monitor implementation of the different contracts, report status and problems to the Programme Coordinator and intervene to address any problems upon request by the Programme Coordinator.
 - Keep an appropriate contract register for all contract entered during INReMP implementation. The register must be continuously updated to reflect the physical and financial progress.
 - Preparation of regular procurement progress reports.
 - Maintain all procurement records in a form appropriate for regular auditing.
 - Prepare quarterly and annual reports of progress with implementation of the Procurement Plan, and regularly inform the Programme Coordinator of problems and make proposals to overcome bottlenecks; and
 - Carry out any other activities that are assigned by the Programme Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Kenya;
 - He/she would have at least 5 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

C. County Procurement Officer

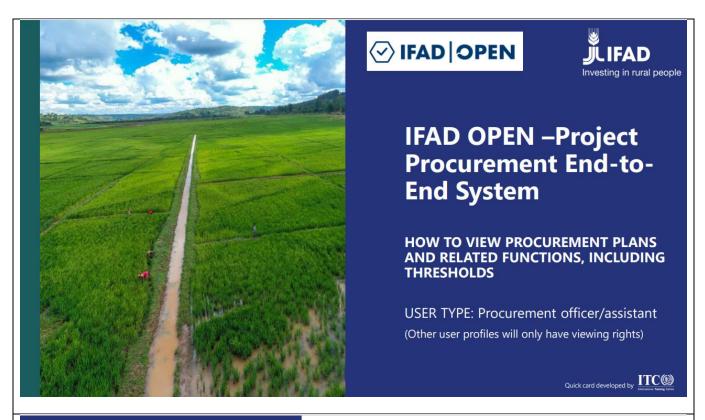
- 1. **County Procurement Officer** Reporting directly to the PIU Coordinator and functionally to the Head of Procurement at the County, the County Procurement Officer will ensure achievement of results-oriented outcomes in the procurement function.
- 2. **Duties and Responsibilities** Under the direct supervision of the County Programme Coordinator, the Procurement Officer will have the following duties and responsibilities:
 - Support the PIU in execution of procurement related tasks.
 - Put in place a system that would allow for appropriate planning with regard to the
 consolidation of a list of all needed procurement items for the effective
 implementation of the a given Programme Year's work plan. The list should be
 exhaustive including the appropriate specifications, quantity, the preferred delivery
 time period, etc.
 - Preparation of annual county project procurement plans in collaboration with other members of the PIU, in accordance with the Project Procurement Manual.
 - Support in guidance and capacity building of participating communities, SPs and partner institutions within the county on procurement policies and procedures of the project.
 - Procurement of project works, goods and services at county level.
 - Preparation and advertisement of TORs, tender and contract documents for county specific procurements according to GOK and IFAD guidelines.
 - Participation in relevant county tender and quotation evaluation committee meetings and assisting with the preparation of reports.
 - Maintenance of high-quality county procurement files and contract registers for review by supervision missions and auditors.
 - Preparation of regular county procurement progress and contracts management reports.
 - Undertake any other duties assigned by the County Project Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Kenya;
 - He/she would have at least 5 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

ANNEX 1: PROCUREMENT RECORDS AND FILES

Docu	ment ement	Preferred Format
(i)	a copy of the published REOI advertisement or shortlist (if applicable) *	Hard copy
(ii)	a copy of the published pre-qualification and bidding documents and any amendments, extensions or clarifications requested and issued *	Hard copy
(iii)	a record of the tender opening, signed by all TEC members and the bidders present	Hard copy
(iv)	a full copy of each bid received and evaluated, plus clarifications requested and responses received	Hard copy
(v)	a copy of the evaluation report*	Hard copy
(vi)	signed minutes of all meetings related to the procurement, including pre-bid and negotiation meetings, when held	Hard or soft copy
(vii)	a contract award notice*	Hard copy
(viii)	any letter of tender acceptance to the supplier, contractor or consultant*	Hard copy
(ix)	the signed contract document and contract acceptance*	Hard copy
(x)	any contract amendments*	Hard copy
(xi)	all contractual correspondence between the procuring entity and a supplier, contractor or consultant	Hard or soft copy
(xii)	post-contract documents related to the fulfilment of contract obligations, especially photocopies of bank guarantees or payment guarantees	Hard copy
(xiii)	signed minutes of any meetings related to contract management, including contract progress or review meetings	Hard copy
(xiv)	signed delivery documents evidencing delivery of supplies, or signed completion certificates related to a contract for services or works under the contract, including any contract delivery records	Hard copy
(xv)	a copy of all invoices for works, services or supplies, including working papers verifying the accuracy of payments claimed and details of the actual payment authorized	Hard copy
(xvi)	a copy of cumulative payment worksheets/records evidencing management of all payments made	Soft copy
(xvii)	all decisions of the concerned borrower's approval authority related to the procurement, including the approval of the bidding documents, the approval of the evaluation report(s), the contract award, the approval of contract documents and contract amendments and any decision to suspend or cancel procurement proceedings	Hard copy
(xviii)	a copy of any claims made by the procuring entity with respect to any warranty, non- warranty, short supply, damage and other claims against the contracted vendor or the procuring entity	Hard or soft copy
(xix)	in the case of IFAD prior review, all submissions and correspondence related to the seeking of IFAD's no objection (NO) and a copy of the respective IFAD NO letter	Hard or soft copy
(xx)	any other communications related to the procurement in question, including internal entity correspondence	Hard or soft copy

^{*} Ideally, drafts of these published documents and reports should also be retained for completeness and to provide a full picture of how the published document evolved. It is accepted, however, that in the case of space limitations, this is not always feasible in practice.

ANNEX 2: GUIDANCE ON USING THE PROCUREMENT PLAN





WHAT DOES THIS QUICK CARD COVER?

- Card view of the PP
- · Table view of the PP
- · Gantt chart view of the PP
- Download a Procurement Plan
- Thresholds views
- People
- Holidays
- · Info

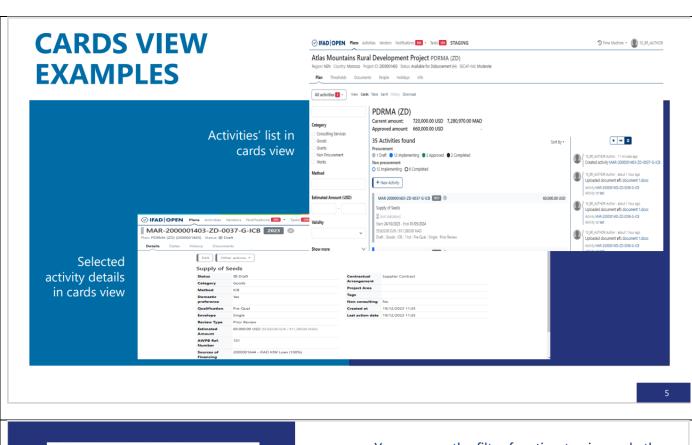
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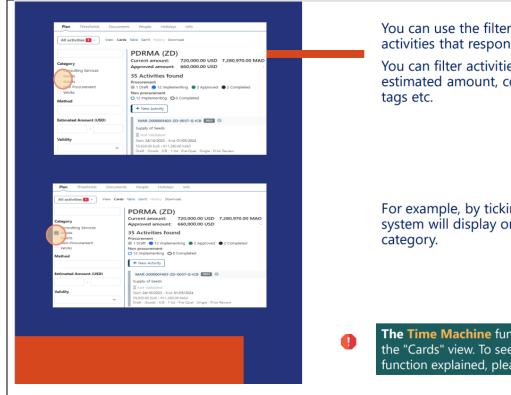


EDIT AND DELETE AN ACTIVITY FROM CARDS VIEW MAR-2000001403-ZD-0037-G-ICB 2023 MAR-2000001403-ZD-0037-G-ICB 2023 📀 MAR-2000001403-ZD-0037-G-ICB 2023 Plan: PDRMA (ZD) (2000001403) Status:

Draft Plan: PDRMA (ZD) (2000001403) Status: Draft Plan: PDRMA (ZD) (2000001403) Status:

Draft **Details** Dates History Documents Details Dates History Documents Edit Other actions * **Details** Dates History Documents Supply of Seeds Edit Draft Supply of Seeds Status O Draft Goods When clicking on an activity from the Procurement Plan, the system will display all the activity details. From this view, you can access both the "Edit" and the "Other actions" buttons. MAR-2000001403-ZD-0037-G-ICB 2023 Click on the title of the Edit Other actions * Plan to go back to the __ Supply of Seeds cards view. Draft



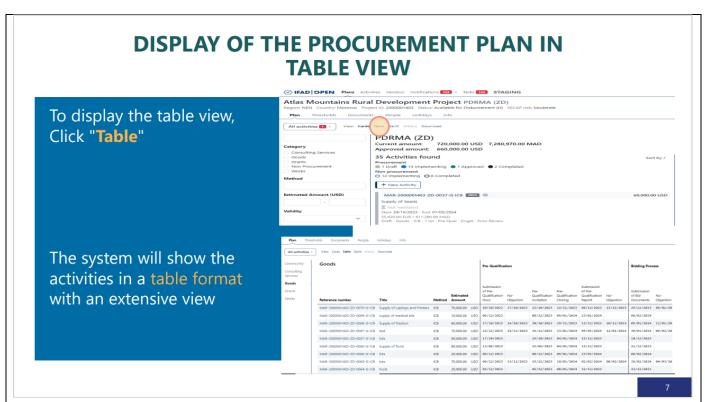


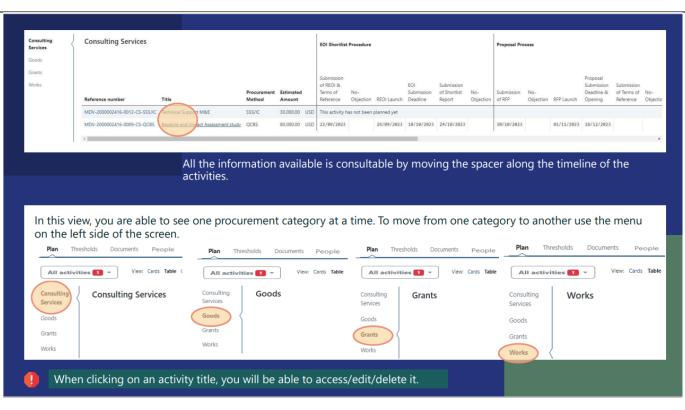
You can use the filter function to view only the activities that respond to specific criteria.

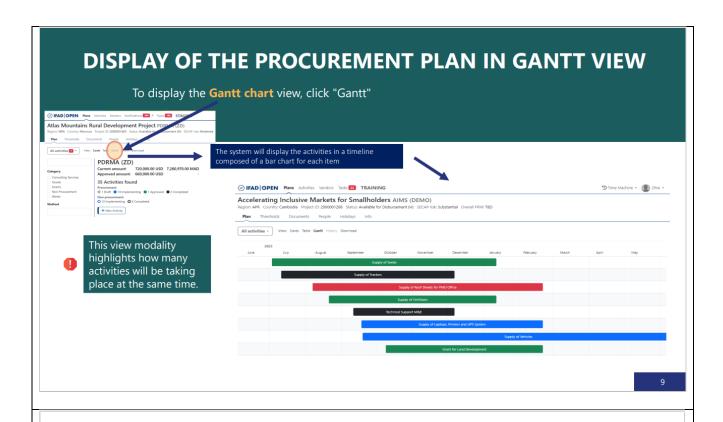
You can filter activities by category, method, estimated amount, contractual arrangements, tags etc.

For example, by ticking the filter "**Goods**", the system will display only activities in the goods category.

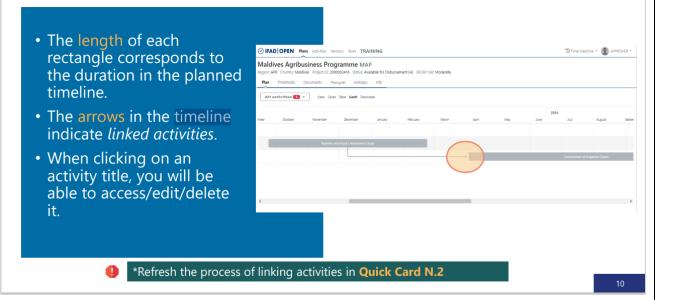
The Time Machine function is also available in the "Cards" view. To see the "Time Machine" function explained, please refer to Quick Card 1.

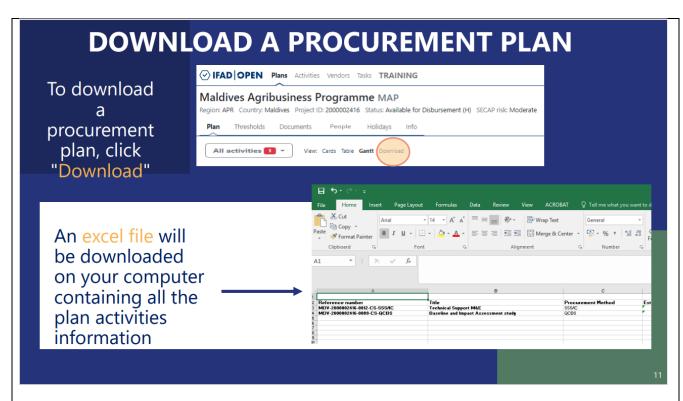


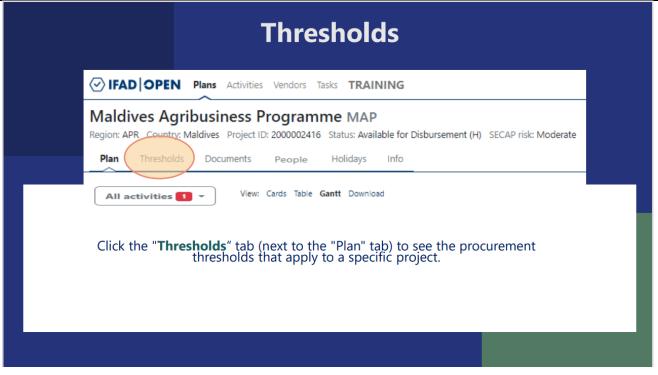


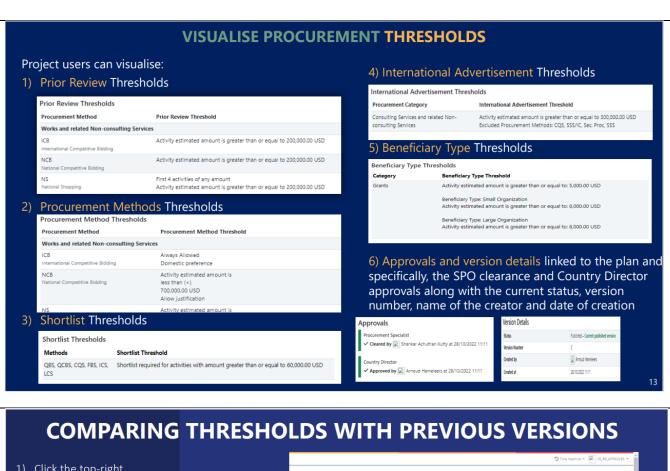


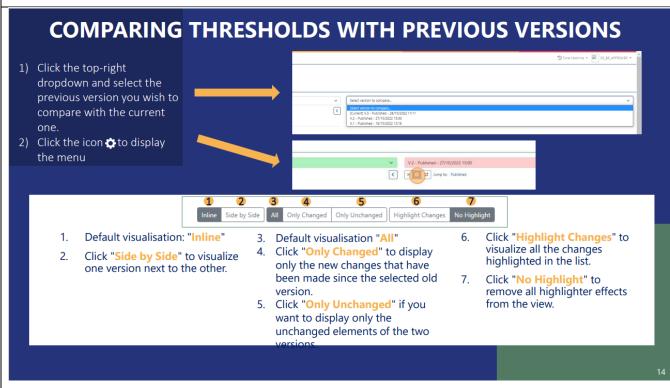
FEATURES OF THE GANTT VIEW

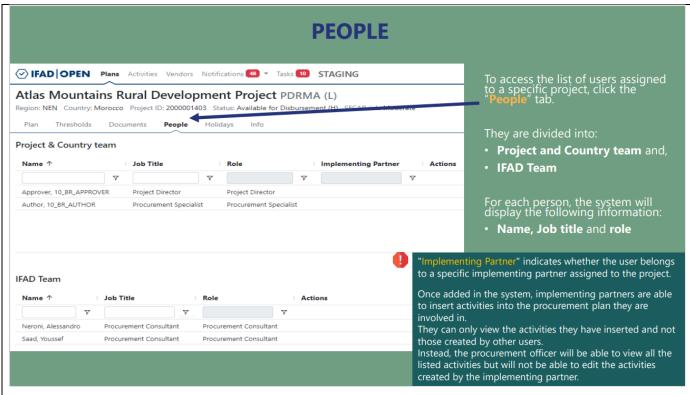


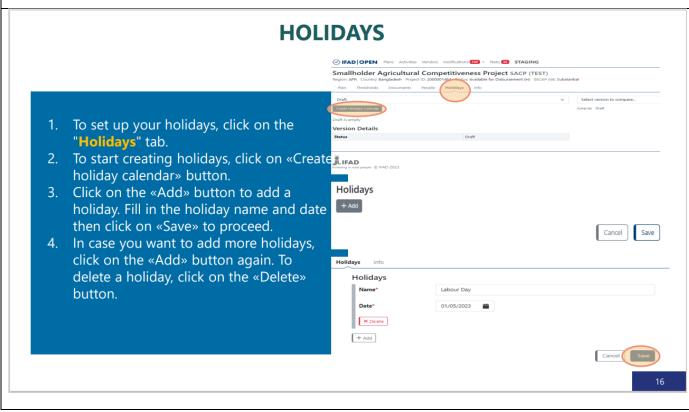


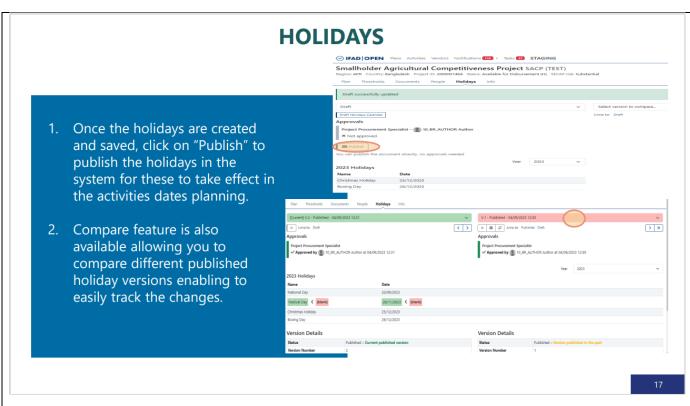














ANNEX 3: GUIDANCE ON USING THE CONTRACT MONITORING TOOL

IFAD Client Portal Project Procurement Contract Monitoring Tool

Overview

The contract monitoring area is where you can enter contract data, update and amend it. You can also access the Report section to have an overview of the overall implementation of contracts and to identify any issues with project implementation.

Enter a contract and then, as it progresses through implementation, update the key information of the contract:

- Status of the contract;
- Percentage of physical implementation
- How much has been paid against the contract
- How much has been claimed on WAs for the contract
- An evaluation of the quality of the performance of the contractor.

The data inserted in the contracts have to be confirmed at the end of each quarter, then quarter is closed off and it enables comparison progress reports to be generated.





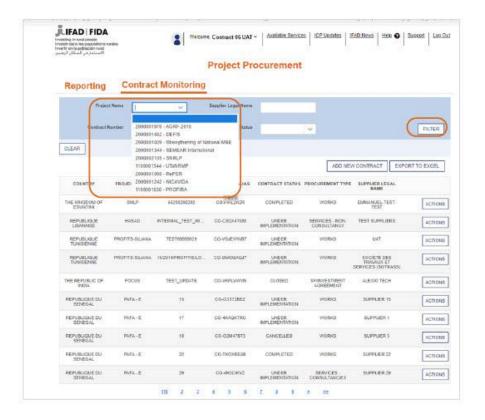
Accessing Contract Monitoring

Access the ICP Home Page, expand the sidebar menu and click on "Operations", then on Project Procurement Contract Monitoring Tool. By default the page will open on Reporting, click on Contract Monitoring in order to enter a new contract or view an existing contract.



If you only have access to one project this will be defaulted in the different parameters. If you have access to more than one project you can select it directly in the **Project name** field. Alternatively, you can look for a contract number, supplier name or contract status.

The clear button is used to remove all the filters and the list produced can be exported to excel to review the information on contracts.





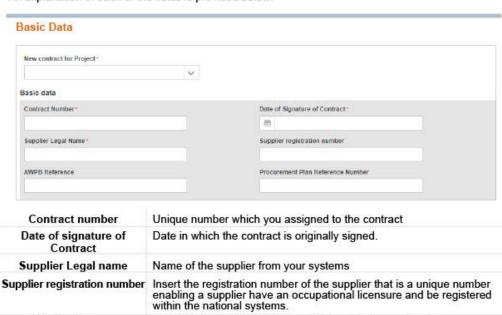
1. Enter New Contract

If you want to create a New Contract click on Add New Contract, and the page below will open up. Select the Project that you are working on and enter the data. All of the mandatory data fields (marked with an asterisk) have to be updated. To complete your action cilck on Save.

Any contract or Purchase Order (POs) that is a product of a procurement process should be entered in the CMT independent of its value.

All contracts with a new start date, signature and end date, should be entered in the system as new contracts.

An explanation of each of the fields is provided below:



Procurement Information

AWPB Reference

Procurement Plan

Reference Number



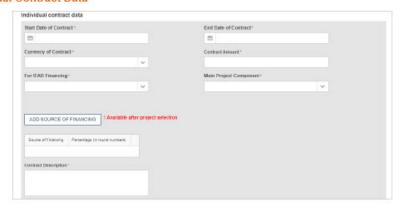
Insert the procurement plan reference number

Insert the Annual Work Plan and Budget Reference Number



Procurement Type	A drop down list of the main procurement categories used by IFAD project. Not all contracts are procured or sourced using standard procurement methods, as such several broad categories based on common practices have been established. For more information, refer to the glossary of terms.
Method of Procurement	This is dependent on the Procurement Type and thus can only be completed once
Country of origin	Country in which the supplier is registered
Defined at Design	Select yes if the method of procurement was defined at design and No if not.
Prior/Post review	Select "Prior Review" if the activity was subject to IFAD's No Objection. Select "Post Review" if the activity was not subject of IFAD's No Objection. To be indicated for all contracts even if not financed by IFAD
No objection number	If a no-objection has been issued through NOTUS for the contract you are inserting, a number will have been allocated to the NO from NOTUS.

Individual Contract Data



Start date of the Contract	The first time you enter contract data, insert the date that the contract is expected to start. Once it has commenced, you can update this field with the correct date.
End date of Contract	This is when a contract is expected to be concluded. The contract may include a date beyond which implementation should be completed. Alternately the contract may have a duration. Make sure that the end date of the contract is in line with the start date. Please note: In case the end date of contract is officially revised (e.g. in case of an extension to the contract), please use the amendment section to register this information.
Currency of Contract	Select the currency of the contract
Contract Amount	Include the full amount of the contract
For IFAD financing	Select Yes or No
Add Source of financing	Select the source of financing from a drop down list and indicate the percentage that the contract is funded by the financing. You can select more than one source and you do not need to only include IFAD financings. Please note the percentage of different sources of financing must add up to 100%. Please note that you cannot enter percentages with decimals: kindly round up the total amounts so that decimals are not included in the split and ensure that the total adds up to 100%.
Contract Description	Provide a description of the contract you are inserting

Contract Performance ige of Physical Completi al Security For Advance Payment Provi Advance Payment Percentag Risk Flag **Contract Status** When you generate a new contract, the Contract Status is automatically populated with the contract status Not Started. You are able to select a contract status immediately by choosing one from the dropdown menu. For more information on the status refer to section below 'Contract Status' Contract performance This area can be used to evaluate the performance of the contract and/or evaluation supplier and can be changed during the life of the contract. The available options are: 5 - Exceeded expectations; 4 - Meets expectations; 3 - Below expectations; 2 - Failure to perform; 1 - Do not re-engage. Percentage of Financial This is automatically calculated as the Amount Paid on contract divided by the total amount of the contract (considering also any amendments). completion It is the amount paid on a contract. Amount Paid on Contract This is an estimate, in percentage terms, of the progress in the implementation Percentage of physical of the contract. completion It represents how much of the contract has been implemented. Amount already claimed In this field you insert the amount of money already presented in Withdrawal on contract under WA Applications for this contract. Amount planned to be In this field you insert the amount planned to be claimed under Withdrawal Applications (WA) in the current calendar year for this contract. This should claimed under WA in the include all amounts to be claimed from IFAD whether or not the financing current calendar year comes directly from IFAD or not (i.e.to include OFID funded financings). This field displays the amount remaining to be claimed in Withdrawal Total amount remaining to Applications (WA) against the contract and is calculated automatically by be claimed on contract This is where you indicate if the contract has an advance payment or not. Advance Payment Y/N Select Yes or No **Advance Payment** This is where you indicate the percentage amount of the advance Percentage payment (if any) and is only available if you select Yes in the field above. **Financial Security For** This where you indicate if the supplier/contractor provided a financial **Advance Payment** security for the advance payment (if any). Select Yes or No. Provided Amount of Financial This where you indicate the amount the supplier/contractor provided as a financial security for the advance payment (if any) and is only available if Security provided you select Yes in the field above IFAD FIDA 5

Contract Status

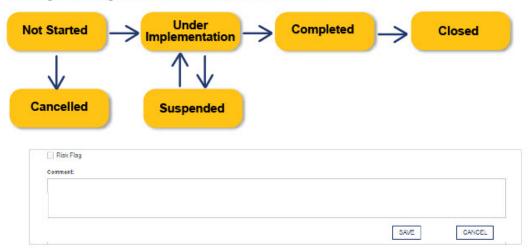


If contract implementation has not begun, you will need to select **Not Started**. Once the contract implementation commences or has already started, you will need to select the contract status **Under Implementation**. If there is a problem with the contract and it is cancelled, you select the contract status **Cancelled**. Please note that this status should only be used where there has been no implementation and no payments made under the contract.

Whilst a contract is **Under implementation** it may be necessary to suspend the implementation of the contract, for example due to force majeure. Where this happens, the status can be changed to **Suspended** and back to **Under Implementation** once the suspension has been lifted.

Once the contract has been implemented and all goods have been delivered or services rendered, the contract status can be moved to Completed. Change the status to Closed once all the final payments have been made, any performance bonds or guarantees have been paid and when all amounts have been claimed on WAs

The diagram below gives an overview of the contract statuses:



Risk Flag

Tick the **Risk Flag** box in case you identify high risk in the contract project. The aspects that define a high risk contract can be the following:

- A complex contract, with many deliverables.
- The contract implementation is to be developed in a low-security geographical area.
- In the past the project didn't succeed, there was a negative experience, the implementation didn't go as previously planned.

Remember: After ticking the box, you must enter a comment in the comments field. Please note, every time you change the contract you have to justify the Risk Flag, by writing in the comment box.

Once the above data has been entered you can save the contract.

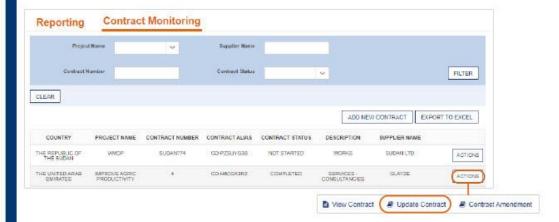
All information entered can be updated at any point if you notice the presence of inaccuracies.

Click on Save to save your new contract, or click on Cancel to exit without changes.

IFAD | FIDA
Inserting in rural people
Insert in the les populations rurales
Insert in en la poblaction rurales
Insert in la poblaction rurales
If de la company
Inserting la comp

2. Update a Contract

You can update the data of your contract at any point. In the Contract Monitoring page insert the details of the contract you are looking for (you can also leave them blank) then click on Filter. Click on the Actions button of the contract you intend to update, then click on Update Contract.



The contract is open, you can modify all the fields in the following sections: Basic Data, Procurement Information, Individual contract data and also Contract Performance, whose fields are explained above.

3. Delete a contract

Whenever a contract is erroneously entered and saved in the list of your contracts, it is possible to delete it. By clicking on the **Update Contract** function seen above and scrolling to the bottom of the page, it will be possible to click on **delete**.

The contract will be permanently deleted and will no longer appear in the contract list.





4. Confirm Quarter End Data

As your contract progresses through its life-cycle and at least once per quarter, you should review the contract and make sure the contract performance information is up to date.

You will need to change the status of the contract, insert the percentage of physical completion, the amount paid on the contract and the amount on the contract claimed in Withdrawal Applications. You can also rate the overall performance of the supplier on the contract.

You can see an explanation of each field above, in the Contract Performance paragraph above.

There is no approval required of the data.

One week before the end of the quarter, the user will receive a notification inviting them to confirm that the data is up to date:

"There is one week to the end of the quarter. Please review the contract data and make sure it is up to date for the quarterly close. Once you have made all changes, you can confirm the validity of the data".

The user will have the option to update or amend the data or confirm that it is correct. Once the user confirms, the information is date-stamped as being data valid for the end of the quarter. It will also be possible to confirm the information until one week after the end of the quarter.

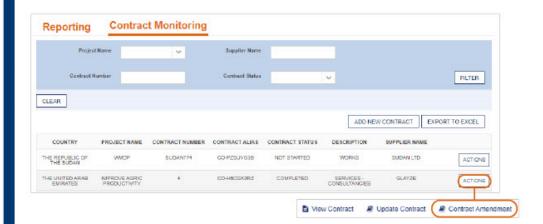
If the data is not confirmed for the quarterly close, the user will receive reminder notifications every week:
"Please note that the contract data for the quarter ending {month-year} has not been confirmed.

Please review the contract data and confirm the validity for the quarter close"

It is not necessary to go through every contract, but make sure to review the most significant ones.

5. Contract Amendment

A Contract Amendment is a formal record of changes into the contract. You can make as many amendments as you want, and the system will keep track of the date the amendment was made, the original data and the new data.

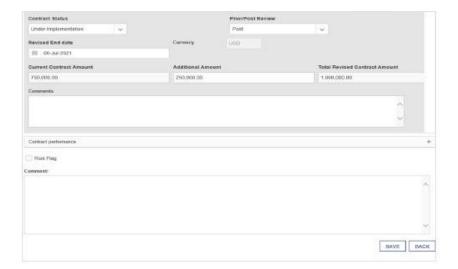


From the contract list, click on Actions then click on Contract Amendment.



The amendment page is now open. The fields which can be amended are: End date of contract and Amount, Pre/Post Review and Currency. Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.

The current contract amount will already be pre-populated with the original contract amount. In the additional amount you will need to insert the additional contract amount and the system will automatically calculate the Total Revised Contract Amount. You will also need to select a Revised End Date



Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.



ANNEX 4: GUIDANCE ON USING OPEN

IFAD has developed a new online system that would automate and manage procurement reporting throughout the procurement cycle ("from end to end") – that is, from procurement planning to contract management. The new Online Procurement End-to-End System - or IFAD OPEN - has been launched.

IFAD 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 the transparency and efficiency over the procurement processes of IFAD-financed projects.

IFAD will provide periodic training and hands-on engagements to enhance the use of the IFAD OPEN during implementation stage.

IFAD OPEN guidelines consist of the following documents that are available in the IFAD Client Portal (ICP):

- Online Procurement End-to-End QC1 System Overview
- Online Procurement End-to-End QC2 Managing activities
- Online Procurement End-to-End QC3 Procurement Plan Views
- Online Procurement End-to-End QC4 Managing Documents
- Online Procurement End-to-End QC6 Managing Activities and Submission of PP for NO
- Online Procurement End-to-End QC8 Consulting Services Implementation
- Online Procurement End-to-End QC10 Goods Implementation
- Online Procurement End-to-End QC12 Works Implementation
- Online Procurement End-to-End QC14 Grants Implementation

ANNEX 5: VENDOR ASSESSMENT FORM

SUPPLIER EVALUATION FORM

Use this form to evaluate the overall performance of vendors you are currently working with or plan to work with. Include all information associated with the vendor. Then, apply a strength factor, 5 being the strongest, to each item you evaluate. Total each column once you conclude the evaluation. Add up the columns to arrive at a total. Compare that total against the totals of similar vendors to gauge the vendor's performance.

A. SUPPLIER INFORMATION:

NAME:	SUPPLIER ID:	
BUSINESS CATEGORY:	CONTACT PERSON:	
REVIEW DATE:	ADDRESS:	

B. SUPPLY CONTRACT DESCRIPTION:

TITLE AND REF. No:	CONTRACT DATE:	
CATEGORY:	DURATION:	
USER DEPARTMENT:	ACTUAL DELIVERY DATE:	

C. EVALUATION

Vendor Evaluation	1	2	3	4	5
Timeliness of Deliveries					
Quality of Parts/Products/Material Upon Delivery					
Overall Quality of Parts/Products/Material					
Competitiveness of Price					
Quality of Service Provided					
Competitiveness of Terms and Conditions					
Credit Rating					
Overall Financial Condition					
Reputation of Company					
Quality of Design Compared to Specifications					
Level of Assistance in Research & Development					
Expertise of Sales Staff					
Technical Support Staff's Level of Expertise					
Column Totals					
			Gr	and Total	

D. EVALUATION REPORT:

FINAL COMMENT:			
REVIEWER SIGNATURE:	DAT	TE:	

ANNEX 6: DEBRIEF, PROTEST AND APPEAL TIMELINE

1) Debrief timelines:

- a) Any bidder that wishes to learn why its bid or proposal was not selected may request an explanation from MoALD/INReMP. This explanation is known as the debrief. INReMP will first have sent a notice that the evaluation is completed. After receiving this information, the unsuccessful bidder may request a debrief.
- b) INReMP shall promptly provide an explanation in writing of why the bid was not selected. The bidder may then request a meeting. If INReMP agrees to a meeting after providing the debrief, the bidder shall bear all the costs of attending the meeting. INReMP shall provide the written debrief within periods required in procurement framework.

2) Protest timelines:

- a) The protest is the first level (Level 1), while the appeal is the same complaint filed at the second level (Level 2). The entity that receives, assesses, and decides on the protest (i.e. the Level 1 authority) is the MoALD/INReMP. The entity that receives, assesses, and decides on the appeal (i.e. the Level 2 authority) is defined in the national procurement framework.
- b) All protests must be filed by the protest deadline, which is the **close of the tenth business day** after the notice of intent to award has been received or could reasonably expected to be received by the bidder. Procurement actions using shopping cannot be protested.
- c) Once a protest is filed, the procurement process will automatically be suspended until a final decision about the protest is issued. The automatic suspension will be lifted as defined in the national procurement framework.
- d) MoALD/INReMP will issue its decision no later than periods prescribed in national framework, and in absence of such period within 10 working days after receipt of the protest. MoALD/INReMP will extend this period an additional five business days if sufficient reasons are provided.

ANNEX 8: THE PROJECT PROCUREMENT STRATEGY (PPS)

MINISTRY OF AGRICULTURE AND LIVESTOCK DEVELOPMENT (MoALD) REPUBLIC OF KENYA

Project Procurement Strategy (PPS)

For

Integrated Natural Resources Management Programme (INReMP)

KENYA

Dated: 15 March 2024

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Abbreviations and Acronyms

_	
AfDB	African Development Bank
AWPB	Annual Work Plan and Budget
BoQ	Bills of Quantity
DaIMA	Dairy Interventions for Mitigation and Adaptation
DLP	Defects Liability Period
EOI	Expression of Interest
ESHS	Environmental, Safety and Health Safeguards
ESS	Environmental and Social Safeguards
ESCMP	Environmental Social and Climate Management Plan
FAO	Food and Agriculture Organization of the United Nations
FfP	Fit for Purpose
GCF	Green Climate Fund
GEF	Global Environment Facility
GRM	Grievance Redress Mechanism
IA	Implementing Agency
ICB	International Competitive Bidding
ICT	Information and Communication Technology
IFAD	International Fund for Agriculture Development
ILRI	International Livestock Research Institute
INReMP	Integrated Natural Resources Management Programme
KALRO	Kenya Agricultural and Livestock Research Organization
MOALD	Ministry of Agriculture and Livestock Development
OPEN	Online Procurement End-to-end system
PADNET	Pathways to Dairy Net Zero
PAL	Procurement Arrangement Letter
PCMU	Programme Coordination and Management Unit
PCT	Project Coordination Team
PDO	Project Development Objective
PIM	Programme Implementation Manual
PP	Procurement Plan
PPS	Project Procurement Strategy
QCBS	Quality and Cost-Based Selection
RFB	Request for Bids
RFP	Request for Proposal
RFQ	Request for Quotations
SECAP	Social, Environmental and Climate Assessment Procedures
SBD	Standard Bidding Document
SDG	Sustainable Development Goals
SPD	Standard Procurement Document
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UTaNRMP	Upper Tana Natural Resources Management Project
USD	United States Dollars
VfM	Value for Money
V 11 1	value to thomey

1. Project Overview

Table 1: Project components and allocations

Country:	Kenya
Full Project Name and Number:	Integrated Natural Resources Management
	Programme (INReMP)
Programme Cost (US\$):	253,000,000
Loan/Grant Number:	
Name of Procurement contract or	Goods, Works, Consulting and Non-consulting
group of similar contracts	Services
Estimated Contract Cost (US\$)	13,673,000

a) PROJECT DESCRIPTION

The Integrated Natural Resources Management Programme (INReMP) will scale-up UTaNRMP's results to the Cherangany Hills and Mau West water towers to further enhance the sustainable use and management of natural resources. This will be done by supporting integrated natural resources management (NRM), access to payment for environmental services and improved nutrition-sensitive production and sustainable rural livelihoods. The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture and livestock Development.

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support the implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem.

INReMP's direct beneficiaries are estimated at 845,487 vulnerable rural households, equivalent to 4.2 million people.

INReMP will be aligned with DaIMA, the Dairy Interventions for Mitigation and Adaptation project funded by the GCF. The implementation of the two projects will be coordinated by the same team.

b) **SUMMARY OF PROGRAMME OBJECTIVE**

Programme Development Objective (PDO) - The PDO is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'.

INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes:

- Outcome 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action;
- Outcome 2: Improved, Inclusive and Sustainable Rural Livelihoods; and Outcome 3: Institutional Strengthening, Policy Support and Programme Coordination.

c) **PROJECT COMPONENTS AND COSTS**

The total cost for INReMP is estimated at US\$ 250 million over an 8-year implementation period. This is to be financed as follows: IFAD 12 loan of US\$127 million. The Programme is being designed with a financing gap of US\$44 million to be covered from the IFAD-13 cycle. That brings the total IFAD contribution to US\$171 million; representing about 68% of the total cost. Co-financing from GCF and GEF is estimated at US\$40 million and US\$8 million respectively; equivalent to 16% and 3% of the total cost. Domestic co-financing from Government of Kenya is estimated at US\$12.8 million in form of in-kind contribution, including duties and taxes; representing 5% of the total cost. Contribution from beneficiaries is estimated at US\$8 million (3%). Co-financing from the private sector is estimated at US\$10 million (4 % of the total costs).

Table 2: Project components and allocations

N	Component and Outputs	Cost	Perc	Key procurement activities
		(US\$)	е	(First 18 months)
			nt	
1	Component 1. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action: 7) Output 1.1 Community Empowerment, Youth and Gender Transformative Approaches 8) Output 1.2 Improve Environmental Sustainability, INRM, and Ecosystem Services	85,700 8,449 77,251	34%	Supply of weather stations, river gauges, other equipment, Supply of Equipment for water and soil labs, Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc., Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming, Consulting service for mapping, registration of community groups.
2.	Component 2. Improved, Inclusive and Sustainable Rural Livelihoods: 9) Output 2.1 Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises 10) Output 2.2 Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises	74,132 49,515	49%	Procurement of 12No motor vehicles (for Extension), Procurement of 105No Motor Cycles for Extension services, Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems, Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems, Nutrition Specialist/Consultant, Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture), Provision of Business development support of Processing Equipment, Feasibility assessments, ESIA and Design of Climate-Proofed Access Roads, Development of Applications and Web based commodity trading platform.
3.	Component 3. Institutional Strengthening, Policy Support and Programme Coordination:	43,654	17%	Procurement of 3No Utility Vehicles 4WD, Procurement of 2No Double Cabin Vehicles, Supply of IT

11) Output 3.1 Institutional Strengthening and Policy Support 12) Output 3.2 Programme Coordination and Implementation Support Services	5,229 38,425		Equipment (18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office Rehabilitation - National PMCU and
Coordination and Implementation	253,000	100 %	Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office

d) Project Procurement Profile

The procurement profile is mix of high value / risk as well as small value procurement activities to be undertaken by the PCMU. The project procurement will involve Goods, Works and Consulting and Non-consulting Services.

e) Spend per category

Procurement activity commitments for the first 18 months amount to US\$ 13,673,000 (~5.4% of the project envelope).

Table 3: Project Spend Profile per category

Procurement Category	Amount in US\$
Goods	6,258,000
Works	250,000
Consultancy services – Firms and Individuals	7,165,000
TOTAL	13,673,000

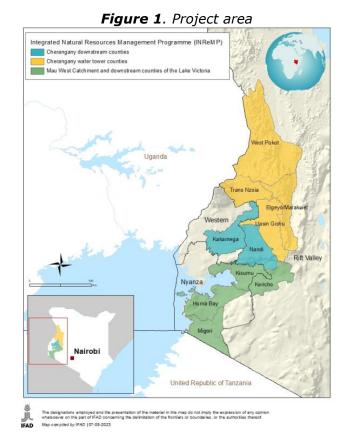
2. Overview of Country, Recipient and Marketplace

a) **OPERATIONAL CONTEXT**

1. Governance aspects¹³

-

 $^{^{13}}$ SOURCE: AfDB-REPUBLIC OF KENYA COUNTRY STRATEGY PAPER 2024-2028 $\underline{https://www.afdb.org/en/documents/kenya-country-strategy-paper-2024-2028}$



Kenya is an important anchor for regional stability in East Africa. However, its borders remain exposed to spillover risks of extremism, piracy, human trafficking, and refugee flows. Kenya has held two successive peaceful elections since 2017, which have contributed to a stable and predictable political environment. The general elections of August 9th, 2022 were relatively peaceful and resulted in the election of Dr. William Ruto as the 5th President of the country. The political stability and improvement in social and governance indicators have contributed to Kenya becoming a top investment destination in the region. Kenya was ranked 13/54 on governance by the Mo Ibrahim index in the 2022 edition from 14/54 in 2021. The improved ranking was supported by upward movements in the scores of 'participation, rights and inclusion' and human development'.

Similarly, according to various editions of Transparency International's Corruption Perception Index (CPI), Kenya slightly improved its score to 32/100 (with global ranking 123/180) in 2022 from score of 30/100 (128/180) in 20216. The score is at par with Sub-Saharan average of 32 for 2022 and remains far below best performers in the region i.e., Seychelles (70/100) and Botswana (60/100)7. Kenya has put in place policies to combat corruption. However, challenges remain. Kenya improved its ranking by two places to 6 in 2021 against 8 in 2020 out of 54. This improved ranking can be attributed to its high standing on the continent in the following dimensions: Infrastructure and Regional Integration (3rd on the continent), Policies for Social Inclusion/Equity (4th), and Structural Policies (6th). However, the 2022 edition of the CRFA shows that Kenya has high pressures in corruption and bribery; presence of armed conflict; access to justice; insecurity in neighboring countries (e.g., civil war in the Sudan); poverty and inequality; and vulnerability to natural disasters.

Agriculture is a devolved function in Kenya, and devolution has progressively shaped the way resources are allocated to meet priorities of communities within the jurisdiction of the 47 county governments. Similarly, administrative processes at the county level have progressively improved since promulgation of the 2010 constitution, enabling the

April 2024

establishment of systems and processes that seek to govern in the long-term the realization of the objectives of devolution at the national as well as the county levels and below.

2. Economic Aspects¹⁴

Recent macroeconomic and financial developments: Kenya attained a lower middleincome status in 2015. Since then, GDP growth averaged 4.5%, lower than Vision 2030 and the MTP-III growth targets of 10.0% and 7.0%, respectively. Growth has not yet been appreciably inclusive especially in job creation except in other dimensions such as health and education. This is attributable to the minimal contribution of structural transformation to growth. Labor is moving out of agriculture to a less labor-intensive services sector than industry. The status quo implies that growth remains vulnerable to shocks and a more than 7% a year growth in GDP is required to absorb new entrants into the labor market. In general, structural transformation, infrastructure, human capital, and improved governance are key for a rapid, sustainable and inclusive growth and to avoid the middleincome trap. Structural transformation is constrained, among other things, by: (i) macroeconomic instability; (ii) weak private sector participation (e.g., in industry 15); (iii) low agricultural productivity; (iv) shortage of skilled labor and skills mismatch; (v) weak governance; (vi) inadequate access to finance; and (vii) deficiency in enablers of structural transformation (e.g., infrastructure - energy, transport, water, etc.).

Economic and Financial Governance: Since the publication of the Public Finance Management (PFM) Act of 2012, changes which, among others, promote transparency and accountability have been introduced. Positive developments include harmonization of accounting standards across all Ministries, Department and Agencies (MDAs); linking IFMIS to the CBK to allow online processing of payments to suppliers; over 90% of the Government bank accounts are now opened and operated at the CBK; connecting the National Government and the Counties with the e-procurement; introduction of the Treasury Single Account (TSA) and availability of consolidated GoK financial statements due to up-to-date financial reporting with the MDAs and county governments. The PFM Reform Strategy (PFMR) 2019-2023 is anchored on the findings and recommendations of 2017 Public Expenditure and Financial Accountability (PEFA) report. The 2022 PEFA report has highlighted some areas in which there has been improvement with other indicators remaining unchanged. As noted earlier, Bank's updated 2023 Country Fiduciary Risk Assessment (CFRA) identified improvements on the transparency of public finances, but still indicated areas on accountability and external audit which require improvements especially the 100% coverage of audit of all public funds. Governance and corruption still remain a challenge, hindering performance in the public sector. A review of the country procurement system through the Methodology for Assessment of Procurement Systems is being undertaken and is expected to improve governance performance.

3. Sustainability Aspects

Kenya's long-term development blueprint Vision 2030 is implemented through five-year Medium Term Plans (MTPs). The current and third MTP 2018 -2022 that aim to achieve accelerated, high, inclusive, broad based, sustainable economic growth, social economic transformation and development mainstreamed the SDGs and Africa Union Agenda 2063. Further, mainstreaming of SDGs in performance contracting, actions plans and subnational County Integrated Development Plans, 2018 -2022, position Kenya to better implement the SDGs and Agenda 2063.15

The Programme has been screened in line with IFAD's Social, Environmental and Climate

¹⁴ SOURCE – AfDB-REPUBLIC OF KENYA COUNTRY STRATEGY PAPER 2024 – 2028

https://www.afdb.org/en/documents/kenya-country-strategy-paper-2024-2028

¹⁵ https://sustainabledevelopment.un.org/memberstates/kenya

Assessment Procedures (SECAP) and deemed to fall under the Moderate category for both Environmental & Social as well as Climate Risk categorization. There are sustainability, environmental and social aspects that have a procurement impact during project implementation. During implementation the impacts and risks could be vegetation clearance at construction sites, temporary visual intrusion (marred landscape), impairment on Soil quality and solid waste nuisance at Construction Sites.

4. Technological Aspects

One of the objectives of the National Treasury is to ensure Ministries, Departments, Agencies and Counties (MDACs) are using an end to end e-procurement system that is in compliance with the PPADA 2015 and attendant Regulations for a full fiscal year and that procurement data generated by the system is disclosed in the Public Procurement Information Portal (PPIP) following Open Contracting Data Standards (OCDS). The National Treasury with technical support of the World Bank, reviewed the current Procure-to-Pay module in (IFMIS) in order to identify its functionalities and deficiencies with a view to developing an end-to-end e-procurement system, and further develop an e-Government Procurement (eGP) Implementation Strategy. It is expected that the system will be in use at the early stages of project implementation.

5. Legal Aspects

The Procurement framework in use is the Public Procurement and Asset Disposal Act, 2015; Public Procurement and Asset Disposal Regulations 2020. Some of the shortcomings of the framework include (1) PPADA Provision 118 provides for request for proposal through advertisement without REOI; (2) Provision 131 sets a condition for BAFO procedures to include the lowest evaluated price is in excess of available budget. (3) Minimum period for International tender advertising provided as seven days in Regulation 83. (4) PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.

6. Conclusions on Operational context to be addressed through the procurement approach.

The national framework will apply for procurements undertaken by INReMP, to the extent that they are consistent with IFAD Project Procurement Guidelines. Procurement will follow the Kenya procurement framework rules where these are aligned to and consistent with the IFAD Procurement Guidelines. All procurements will be implemented through the implementing agency procurement units. INReMP will take into consideration that agriculture is a deveolved funtion and there are structures to undertake procurement within county governments.

National SBDs will be used and will be amended for consistency with IFAD Guidelines. All project procurement activities will be made in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) will apply to the project to ensure compliance with the highest ethical standards.

b) IA CAPABILITY ASSESSMENT

Implementation of the programme will be mainstreamed into the GoK system, both at

national and county levels. Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture.

Programme Coordination and Management Unit (PCMU) will be established comprising a team of officers recruited through a competitive process and responsible for the procurement function. For faster start-up, INReMP will be coordinated by the KCEP-CRAL PMU on an interim basis until the PCMU is fully set up.

A County Programme Implementation Team (CPIT), headed by a dedicated County Programme Coordinator, will be established and will be responsible for the day-to-day implementation of Programme activities. The CPIT will comprise staff seconded from the County Government on a fulltime basis and mirroring the PCMU for technical positions; this will enable the staff to fully focus on implementing INReMP activities

1. Experience

The PCMU of INReMP will be directly responsible for project procurement activities as LIA, and will require to hire experienced Procurement Specialist, with a Procurement Officer being seconded from MoALD to assist and augment the capacities. In addition, the procurement capacity assessment found that KALRO and the Counties have well established procurement units experienced in implementing projects under multilateral financing. These will be required to second dedicated procurement staff to their respective implementation units. The procurement staff of PCMU, KALRO and the Counties will require training on IFAD's BUILDPROC, OPEN system, and periodic capacity building activities on IFAD project procurement.

2. Need for hands-on support

MoALD is a government ministry with departments that operates based on set regulations and procedures under the procurement framework. The Project may seek IFAD's guidance on complex procurement processes, but hands-on support is not required. IFAD will also undertake Implementation Support missions to assess and guide implementation progress. IFAD's prior review processes will also provide support to the project to incorporate the required standards.

3. Contract management capability and capacity

The PCMU will be responsible for overall implementation and management of awarded contracts in accordance with the agreed contractual obligations. The practice is that contracts are managed by User departments. Implementing Counties and KALRO will also be charged with overseeing their contracts implementation. Past IFAD reviews during supervision missions have found gaps in contract management especially deliveries that exceed their contracted completion periods. It is also expected that there could be a challenge in timely updates to the IFAD online CMT due to multiple procurement entities for the project. This will be mitigated by close coordination of the PCMU. A simplified Contract management Plan (in Annex to the PPS) is prepared to enhance the efficacy of contract administration and management, and will be reviewed from time-to-time.

4. Complaints management and dispute resolution systems

Any complaints or dispute between procuring entities and tenderers which arise in respect of procurement proceedings shall be reviewed and decided upon in accordance with the provisions of the national framework. Only the borrower/recipient can review and decide about a protest. IFAD may provide an opinion about the protest and decision. For priorreview procurements, all protests must be communicated to IFAD before a decision is

issued. IFAD reserves the right to provide inputs or comments to the borrower/ recipient to help it reach the decision. A copy of the decision must also be provided to IFAD.

Table 4: SWOT Analysis

STRENGTHS:

- a) The Lead Executing Entity, MoALF, and other implementing partners (KALRO, Counties) have Procurement and Technical specialists experienced in the local procurement framework.
- b) Procurement framework that is consistent with IFAD procurement guidelines.

WEAKNESSES:

- Limited experience in development of technical specifications and Terms of Reference for key requirements in the procurement profile.
- d) Limited capability, knowledge, and skills in contract management.
- e) There is no established programme to train internal and external auditors to ensure that they are qualified to conduct high-quality procurement audits.

OPPPORTUNITIES:

- f) IFAD' new Online end-to-end procurement system OPEN will be applied for the new operation and provide a platform for actionable analytical data on performance of the procurement system and future improvements.
- g) Leveraging on the capacities of the KCEP during start-up.
- h) Dynamic and competitive local supplier market.

THREATS:

- i) Instability of input prices driven by global supply dynamics and unpredictability of currencies.
- j) Lengthy period before start-up of INReMP could delay implementation and result in rushed procurement programme.
- k) Increased procurement workload to the PCMU from the large procurement profile could result in processing delays.
- Insufficient contract administration data on physical and financial progress due to multiple procuring entities.

Results of the SWOT Analysis. The project will require to have timely INReMP start-up requirements and hiring of procurement and technical staff to ensure effective implementation of the procurement programme. All key and strategic activities should be backed by a detailed market research before their commencement.

5. Conclusions on Client Capability and PIU Assessment to be addressed

INReMP will require hiring competent procurement and technical staff at PCMU. A suitably qualified procurement specialist will be hired competitively from the market. Wherever necessary, the project will also hire technical consultants to augment existing capacities and assist with defining and specifying project requirements. Project procurement will be carried out as per the approved Procurement Plans processed in OPEN and contract management be steered by User departments using simplified contract management plans. Results from self-assessments of KALRO and sampled participating Counties found them to have procurement units that are experienced under the local framework and IFI funded activities. The PCMU will undertake procurement whenever the project and its implementing partners are approaching the international market, and facilitate procurement of consolidated common Goods across the programme.

c) MARKET ANALYSIS

a) Market sector dynamics

The envisaged procurement transactions comprise of various consultancies to support the project implementation and supply of various equipment / goods. As per the National

Construction Authority (NCA), adequate number of contractors are available in the Kenya market. For equipment, motorcycles, and ICT hardware & software, bidders import the equipment / goods and provide the after sales support. The country has a large market of qualified and experienced local and foreign consultancy firms and individual consultants in all sectors, and association between local and foreign firms is a common feature in situations where firms come together to enhance their capacity through consortia.

b) Procurement trends

Experiences from recent IFAD funded projects in Kenya show that most of procurement packages attracted both local and foreign participation. The tabulations below represent self-assessment procurement trends and lead-times of KALRO and sampled INReMP participating Counties.

N	Assessment attribute	Procuring Entity					
0		KALRO	Elgeyo Marakwet County	Kakameg a County	Kisumu County	Migori County	Trans Nzoia County
1	% of the total annual IA contracts that are awarded in open and restricted bidding	70%	90%	Open tender – 60% Restricted - 0.1%	Since the beginning of this FY, we've only done One open tender	96%	<5%
2	Percentage and value of IA's annual contracts that are awarded under direct contracting (single source)	Euro 32, 124, 20 USD 41,117.66	10%	Percentage 1.7% Value Ksh17 million Safaricom Ksh 2 million Total Kenya - Ksh 10 million Conference facilities - Ksh 3 million Garages - Ksh 2 million	Only two tenders done under Direct Procureme nt	4%	<5%
3	IA's Efficiency in completing the bidding process (open and restricted) for Goods (measured in time from advertisement to contract award and signature)	100%	majority of the contracts are completed on time challenge comes when IFMIS network fails	119 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the	14 days

				rules and regulations and how fast the requisition s and Bill of Quantities are generated from the user.	PPADA, 2015	
4	IA's Efficiency in completing the bidding process (open and restricted) for Works (measured in time from advertisement to contract award and signature)	100%	119 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are generated from the user.	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the PPADA, 2015	45 days
5	IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature)	100%	90 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the PPADA, 2015	45 days

					generated		
					from the user.		
6	% of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued	None	10%	1%	None	0	<5%
7	% of RFPs for consulting services where more than one amendment to the RFP was issued	None	0%	0.01 %	None	0	<2%
8	% of procurement competitions in Goods /Non-Consulting Services, Works and Consulting Services that failed or were cancelled	10%	10%	2%	None	1%	<2%
9	Average number of responsive bids in Goods/Non-consulting Services, Works and Consulting Services competitions	NCB 9 Bids, Shopping 5- 7 Bids	Not provided	4	Three bids per competitio n under RFQs	5	7 responses per bid
1 0	% of procurement competitions for Goods/ Non-Consulting Services, Works and Consulting Services conducted electronically	None	98%	90%	100%	98%	95%
1	% of contracts awarded to SMEs in the previous year	44%	70%	2%	47%	65%	Not provided
1 2	% of procurement competitions and contracts that integrate sustainable procurement considerations (at least 1 social/labour plus 1 environmental criteria)	None	50%	Not provided	Not provided	35%	70%
1 3	Percentage of IA's contracts for Works with cost over-runs above 10% of initial contract price.	4%	8%	+15 %	None	0	<5%
1 4	Percentage of IA's contracts for Works with time over-runs above 10% of initial contractual duration	10%	40%	80%	None	0	<2%
1 5	Average number of complaints received	None	10%	0	None	1%	0.001%

		T	I		Ī	I	
	from bidders as to the fairness of biding						
	documents or contract						
	award		201				0.10/
1 6	% of bidders' appeal decisions that were	None	2%	0	None	0	0.1%
	accepted and enforced						
	(with ruling against the						
_	IA)	000/	700/	100/	A		200/
1 7	% of Vendors Invoices paid on time in	88%	70%	10%	Not provided	0	20%
′	Goods/Non-Consulting				provided		
	Services, works and						
	Consulting Services contracts.						
1	Is the general quality of	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately
8	documents produced by	satisfactory	unsatisfact	unsatisfact	unsatisfact	unsatisfact	unsatisfact
	the IA's Procurement		ory	ory	ory	ory	ory
	Department in line with IFAD's expected quality						
	levels:						
	i. Quality of Bidding						
	Documents for Goods/NCS and						
	Works						
	ii. Quality of RFP for						
	Consulting Services						
	iii. Quality of Bid Evaluation Reports						
	iv. Quality and adequacy						
	of responses to						
1	bidders' qualifications Management /						
9	Procurement Audit:						
	. % of IA contracts	None	40%	i.None	None	0	90%
	subjected to		The county	:: F00/		NI / A	650/
	specialized procurement audit		The county always	ii. 50%		N/A	65%
	i. the IA timely		implement				
	implements		s all				
	recommendations		recommen dation				
			from audit				
			report				

c) Indicative list of major procurement activities

Project procurement of INReMP and DaIMA will be by the same PCMU, and a procurement profile combining both projects is tabulated hereunder to provide an indication of the procurement workload in the first 18 months. Over that period, the PCMU will be responsible for an estimated 17No Goods activities, 1No Works activities, and 45No Consulting activities.

Table 5: Goods

Ref.	Description	Estimated	Project
No.		Cost	
		(US\$)	

G1	Supply of ECF and Heartwater disease vaccines	486,724	DaIMA
G2	Procurement of kits for demo farms for farmer training in 6No Lots	600,000	DaIMA
G3	Procurement of agro-weather equipment	400,000	DaIMA
G4	Procurement of equipment for demonstrations on highly digestible forage and fodder	100,000	DaIMA
G5	Procurement of equipment for demonstrations on highly digestible forage and fodder (Counties)	140,000	DaIMA
G6	Procurement of Motor Vehicles in 2No lots (3No. 4x4 passenger vehicle and 3No. 4x4 double cabin pickup)	450,000	DaIMA
G7	Procurement of 140No. Motorbikes	600,600	DaIMA
G8	Procurement of Accounting Software	150,000	DaIMA
G9	Procurement of computers, laptops, server, photocopier/printer machines	199,000	DaIMA
G10	Supply of weather stations, river gauges, other equipment	2,700,000	INReMP
G11	Supply of Equipment for water and soil labs	1,000,000	INReMP
G12	Procurement of 14No Double Cabin Vehicles and 3No Utility Vehicles 4WD	1,200,000	INReMP
G13	Procurement of 105No Motor Cycles for Extenstion services	560,000	INReMP
G14	Supply of IT Equipment – 18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets	135,000	INReMP
G15	Supply of 25No smart phones	18,000	INReMP
G16	Supply of 4No safe boxes	6,000	INReMP
G17	Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents	600,000	INReMP

Table 6: Works

Ref. No.	Description	Estimated Cost (US\$)	Project
W1	Office Rehabilitation - National PMCU and Regional PMCU	250,000	INReMP

Table 7: Consulting Services

Re f. No	Contract Description	Estimat ed Cost (US\$)	Project
C1	Consultancy to Review of the Kenya Agricultural Section Extension	54,000	DaIMA
C2	Consultancy to support development of compost and bio-slurry standards	54,000	DaIMA
C3	Consultancy on solar technology standards to improve quality and technical support for sector greening	91,500	DaIMA
C4	Consultancy to mainstream incremental strategies for securing land tenure for fodder production, and participatory land use planning tools	57,000	DaIMA
C5	Consultancy to Develop and operationalise an adaptation tracking tool for the Livestock sub-sector NDC	161,250	DaIMA
C6	Consultancy to Develop guidelines for dairy industry energy audits and reporting and provide training to implement	40,750	DaIMA
C7	Consultancy to Conduct a national baseline on productive use of energy (PUE) in the dairy industry	34,500	DaIMA
C8	ILRI Technical Assistance	1,400,00 0	DaIMA
C9	FAO Technical Assistance	1,700,00 0	DaIMA
C1 0	Development of KM Products	48,000	DaIMA

		T	
C1 1	HR recruitment consultancy	30,000	DaIMA
C1 2	Project baseline survey	180,000	DaIMA
C1 3	Project Coordiantor	479,995	DaIMA
C1 5	Environmental and social safeguards specialist	344,997	DaIMA
C1 6	Monitoring and evaluation specialist	344,997	DaIMA
C1 8	Consulting service to Review of the Dairy Master Plan	54,000	DaIMA
C1 9	Consultancy to Support the finalisation of the draft National Strategy and legal framework for animal Feed and Fodder	54,000	DaIMA
C2 0	Consultancy to Develop National Strategies for breeding incorporating climate change adaptation and mitigation	54,000	DaIMA
C2 1	Consultancy to Review of Dairy Industry Act (1958) and regulations to mainstream climate change adaptation and mitigation	90,000	DaIMA
C2 2	Consultancy to Develop a national system/framework for environmental, social and climate impact assessment that feeds into evidence-based policy making mechanisms	134,000	DaIMA
C2 3	Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc	1,300,00 0	INReMP
C2 4	Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming	85,000	INReMP
C2 5	Consulting service for mapping, registration of community groups	108,000	INReMP
C2 6	Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems	600,000	INReMP
C2 7	Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems	300,000	INReMP
C2 8	Nutrition Specialist/Consultant	33,000	INReMP
C2 9	Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture)	107,000	INReMP
C3 0	Provision of Business development support to MCC	800,000	INReMP
C3 1	Consulting services in support of Processing Equipment	500,000	INReMP
C3 2	Feasibility assessments, ESIA and Design of Climate-Proofed Access Roads	700,000	INReMP
C3 3	Development of Applications and Web based commodity trading platform	500,000	INReMP
C3 4	Development of the programme MIS including related infrastructure, accessories and training of staff	100,000	INReMP
C3 5	Development of a Programme Knowledge Management Portal	70,000	INReMP
C3 6	Consulting service for Development of a Knowledge Management and Communication Strategy	40,000	INReMP
C3 7	Consulting service for Institutional capacity gap assessment and production of a capacity development plan	50,000	INReMP
C3 8	Project Coordinator (36 months)	234,000	INReMP
C3 9	Financial Controller (36 months)	198,000	INReMP
)			

C4 0	Monitoring and Evaluation and KM Specialist (36 months)	180,000	INReMP
C4 1	Procurement Specialist (36 months)	180,000	INReMP
C4 2	NRM Specialist (36 months)	180,000	INReMP
C4 3	Infrastructure Specialist (36 months)	180,000	INReMP
C4 4	Agricultural Livelihood Specialist (36 months)	180,000	INReMP
C4 5	Community Development, Gender, and Youth Specialist (36 months)	180,000	INReMP
C4 6	Nutrition and Social Inclusion Specialist (36 months)	180,000	INReMP
C4 7	Agribusiness Development Specialist (36 months)	180,000	INReMP

d) Supply Position Matrix

Based on the indicative list of major procurement activities envisaged in the project, a supply position matrix has been prepared.

High							Hig h	
		egic Critical			egic Security			
	Ref	Description	Estima	Ref	Description	Estimat		
	1:.		ted	l :		ed Cost		
≝	No.		Cost	No.	T. D. T	(US\$)		
abi	<u>C1</u>	Consultanan ta Daviana af	(US\$)	C8	ILRI Technical	1,400,0		
Risk or Vulnerability	C1	Consultancy to Review of	54,000	C9	Assistance FAO Technical	00		
=		the Kenya Agricultural Section Extension		L9	Assistance	1,700,0 00		
>	C2	Consultancy to support	54,000	C2	Baseline studies on the	1,300,0		
ō	CZ	development of compost	34,000	3	status of deforestation,	00		
\ X		and bio-slurry standards			wetlands, riparian			
<u>~</u>	C3	Consultancy on solar	91,500		ecosystem,			
		technology standards to	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		groundwater potential,			
		improve quality and			environmental audits			
		technical support for sector			etc			
		greening		C3	Provision of Business	800,000		
	C4	Consultancy to mainstream	57,000	0	development support			
		incremental strategies for			to MCC			
		securing land tenure for		C2	Consulting Service for	600,000		
		fodder production, and		6	Feasibility			
		participatory land use			assessments, ESIA,			
	C5	planning tools Consultancy to Develop and	161,250		and Design for Multi- Purpose Community-			
	CS	operationalise an adaptation	101,230		Based Water Supply			
		tracking tool for the			Systems			
		Livestock sub-sector NDC		C2	Consulting Service for	300,000		
	C6	Consultancy to Develop	40,750	7	Feasibility	200,000		
		guidelines for dairy industry			assessments, ESIA,			
		energy audits and reporting			and Design for Small			
		and provide training to			Scale Irrigation			
		implement			Systems			

C7	Consultancy to Conduct a	34,500	G3	Procurement of agro-	400,000
	national baseline on productive use of energy		G1	weather equipment Supply of weather	2,700,0
	(PUE) in the dairy industry		0	stations, river gauges,	00
C1 8	Consulting service to Review of the Dairy Master	54,000		other equipment	
0	Plan				
C1	Consultancy to Support the	54,000			
9	finalisation of the draft National Strategy and legal				
	framework for animal Feed				
C2	and Fodder Consultancy to Develop	54,000			
0	National Strategies for	34,000			
	breeding incorporating				
	climate change adaptation and mitigation				
C2	Consultancy to Review of	90,000			
1	Dairy Industry Act (1958) and regulations to				
	mainstream climate change				
	adaptation and mitigation				
C2 2	Consultancy to Develop a national system/framework	134,000			
2	for environmental, social				
	and climate impact				
	assessment that feeds into evidence-based policy				
	making mechanisms				
C2	Consultancy to Conduct	85,000			
4	needs assessment for integration of Digital				
	technologies to support				
C2	INRM and Precision Farming	100 000			
C2 5	Consulting service for mapping, registration of	108,000			
	community groups				
C2 9	Consulting service for Market opportunity	107,000			
9	assessments (dairy,				
	poultry, avocado,				
C3	horticulture) Consulting services in	500,000			
1	support of Processing	303,000			
60	Equipment	700.000			
C3 2	Feasibility assessments, ESIA and Design of Climate-	700,000			
_	Proofed Access Roads				
C3	Development of Applications	500,000			
3	and Web based commodity trading platform				
C3	Development of the	100,000			
4	programme MIS including				
	related infrastructure, accessories and training of				
	staff				

C3 5	Development of a Programme Knowledge Management Portal	70,000
C3 6	Consulting service for Development of a Knowledge Management and Communication Strategy	40,000
C3 7	Consulting service for Institutional capacity gap assessment and production of a capacity development plan	50,000
C1 0 to C1 7, and C3 8 to C4 7	Individual Consultants	Various

	1	a	<u>cti</u>	cal	Ac	qui	siti	on
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Ref. No.	Description	Estimat ed Cost (US\$)
G4	Procurement of equipment for demonstrations on highly digestible forage and fodder	100,000
G5	Procurement of equipment for demonstrations on highly digestible forage and fodder (Counties)	140,000
G8	Procurement of Accounting Software	150,000
G9	Procurement of computers, laptops, server, photocopier/printer machines	199,000
G14	Supply of IT Equipment - 18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets	135,000
G15	Supply of 25No smart phones	18,000

ıactı	cai Advantage	
Do	Description	

ractical Auvantage								
Re f. No	Description	Estimat ed Cost (US\$)						
G1	Supply of ECF and Heartwater disease vaccines	486,724						
G2	Procurement of kits for demo farms for farmer training in 6No Lots	600,000						
G6	Procurement of Motor Vehicles in 2No lots (3No. 4x4 passenger vehicle and 3No. 4x4 double cabin pickup)	450,000						
G7	Procurement of 140No. Motorbikes	600,600						
G1 1	Supply of Equipment for water and soil labs	1,000,0 00						
G1 2	Procurement of 14No Double Cabin Vehicles and 3No Utility Vehicles 4WD	1,200,0						
G1 3	Procurement of 105No Motor Cycles for Extenstion services	560,000						
G1 7	Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents	600,000						

	G16	Supply of 4No safe boxes	6,000			
Low		Es	timated to	Co	ost / Value	Hig h

e) Supplier Preferencing Matrix

The project will undertake procurement for Goods, Consulting and Non-consultancy services under various project components. It is expected that majority of bidders and suppliers will perceive procurement opportunities as 'Development' business opportunities. The PPS proposes to have warranties and defects liability periods as part of the main contracts to ensure that investments are functional, by time of handover. This minimizes the OEMs utilizing procurement opportunities as exploitable. Similarly for consulting services, a contracting strategy to closely monitor deliverables based on prescribed deliverables will be incorporated as part of the TOR.

Table 8: Supplier preferencing matrix

Supp	Supplier preferencing matrix								
High	gh								
less of Account	Development a) Pool of local and international consultants are available and may likely associate with national consulting firm as their associate to enhance their capacity to win business opportunities	Core b) Pool of National contractors/ suppliers/ consultants are available to carry out the Works and supply of goods and bring on board local experience and the potential to win business opportunities	High						
Attractiveness	Nuisance c) Many suppliers in the domestic market.	Exploitable d) There are many suppliers in the domestic market to participate. Opportunities will be highly competed and relationship adversarial.							
Low	Relative valu	e of account							

f) Conclusions on the Market Analysis to be addressed through the procurement approach

Alignment of the Supply position and Supply Preferencing Matrix. The analysis below will be considered in developing fit-for-purpose procurement approaches and inform the PCMU on instances to make plans to ensure suppliers are the best match for the requirement.

- a) There are 6No Consulting service activities (Firms selection) that are strategic security, and development in nature. They are a good match.
- b) G3 and G10 strategic security and will be sourced through ICB. Suppliers prioritize them as Development. This presents strong potential.
- c) There are 6No Tactical Advantage activities, all of which are Goods. These are of values that will require international market approaches, but are likely to be packaged into lots, and competed by local suppliers. The supplier's priority is assessed as exploitable and is likely to create an adversarial situation.

3. Procurement Risk Analysis for abovementioned contracts/group of similar contracts

The risks identified in the preceding analysis on operational context, borrower capacity and PCMU assessment, and market analysis that could be mitigated through the procurement approaches summarized in Risk Assessment Table below.

Table 9: Risk Assessment Table

	Taui	<u>le 9: Risk A</u>	1556551116	iii iabie	
Risk Description at the	Α	В	Overal	Proposed Mitigation	Net Risk
respective stage of the	Likeliho	Impact	l Risk	Measure/s throughout the	(taking
procurement process	od of	upon	Score	Procurement Process	only fully
per each contract	Occurre	Occurre			implemen
,	nce	nce	$A \times B$		ted and
	7.55		Assess		effective
			ed		mitigation
			Inhere		measures
			nt		into
			Risk		account)
	Goo	ds and Go		ated NCS	account
Implementation	M	S	S	Retention of dedicated	М
arrangement –	1.1	3		procurement and technical	111
Inexperience in				staff.	
•				Stair.	
processing					
procurements under					
IFAD operations.	N 4			Hea of ITAD and the	,
PP stage - Poor	М	S	S	• Use of IFAD online end-to-	L
packaging of				end procurement system	
procurement				OPEN, and detailed	
requirements at				consultations with the	
planning and bidding				Executing Entities at time of	
stages.				Work planning.	
PP stage – Poor cost	M	S	S	Undertaking market	М
estimation resulting in				research and procurement's	
failed procurement				participation in work	
processes.				planning.	
Requisitioning - Limited	М	S	S	Use of technical experts/	М
experience in				consultants as necessary.	
development of				•Use of local and	
specifications and poorly				internationally acceptable	
defined specifications.				standards when specifying	
				Goods.	
Solicitation stage -	М	М	М	BUILDPROC training and	М
Poorly customized				capacity building of PMU	
procurement				and use of technical	
documents.				experts/ consultants as	
				necessary.	
				• Project procurement	
				refresher trainings by IFAD.	
Evaluation stage -	М	М	М	•Use of qualification	М
Unresponsive	1.1	"1	1'1	requirements that match	1*1
competent market				the procurement activities.	
•				·	
players resulting in				Adequate publishing of	
failed procurement				procurement opportunities.	
processes.				• Use of ICB to broaden pool	
				of potential suppliers and	
			_	maximize Value for Money.	
Contract	S	S	S	 Contract monitoring and 	М
implementation stage -				contract management	
Delays in meeting				plans, to include factory	
contractual milestones				inspection, acceptance, and	

Risk Description at the respective stage of the procurement process per each contract	A Likeliho od of Occurre nce	B Impact upon Occurre nce	Overal I Risk Score A x B Assess ed Inhere nt Risk	Proposed Mitigation Measure/s throughout the Procurement Process	Net Risk (taking only fully implemen ted and effective mitigation measures into account)
and low-quality deliveries.				training during manufacture process by OEM. • Administering contracts as set out in executed agreements. • Use of technical experts to manage complex contracts.	
	Woı	rks and W			T
Requisitioning stage - Limited experience in development of BoQs for Works and TORs for design and supervision consultants.	L	S		Use of technical experts/ consultants as necessary.	М
Bidding and Evaluation stage – Low participation due to contractor Limited access to domestic financing, Skilled labor shortages, High cost of construction materials.	М	М	М	 Application of domestic preference as prescribed in the national law 	M
Discussions and contracting stage - SECAP related risks in construction and refurbishment.	М	H	М	 Use of IFAD standard contract terms, development of ESMPs, inclusion of ESS experts in construction supervision, and use of PPEs during construction. 	M
Contract implementation stage - Delays in meeting contractual milestones Extension of Time for completion.	S	S	S	 Contract monitoring and contract management plans, and use of supervision engineers for complex works. 	М
		Consulti			T
Requisitioning stage - Limited experience in development of TORs	S	S	S	 Use of technical experts/ consultants as necessary. 	М
Solicitation stage - Limited experience in use of IFAD project procurement framework and poorly customized procurement documents.	S	S	S	 BUILDPROC training and capacity building of PMU and use of technical experts/ consultants as necessary. To include project procurement refresher 	S

Risk Description at the respective stage of the	A Likeliho	B Impact	Overal I Risk	Proposed Mitigation Measure/s throughout the	Net Risk (taking
procurement process per each contract	od of Occurre	upon Occurre	Score	Procurement Process	only fully implemen
	nce	nce	A x B Assess		ted and effective
			ed		mitigation
			Inhere		measures
			nt Risk		into account)
Delays in processing consulting activities.				trainings by IFAD during ISMs.	
Contract implementation stage - Delays in meeting contractual milestones and contract completion.	М	S	S	 Contract monitoring and contract management plans, and use of design and supervision consultants for complex works. 	М

From the foregoing analysis, there are likely risk events identified at various stage of the procurement process and weighed against their likelihood and impact. Procurement of Consulting services retains a high net risk and there should be emphasis to ensure mitigation measures are in place, especially considering the high number of consulting services in the project.

4. Stakeholder Analysis

The main stakeholders who have an interest or impact on the project or impacted by the project and whether their interest is one of responsibility (R), accountability (A), to be consulted (C), or informed (I) are presented in the tabulation below. The objectives of the various stakeholders are also listed.

The following stakeholders have an interest or will be impacted by the project:

Table 10: Stakeholder Management Plan

Stakeholder (Name and Role)	Interest in the Project (Responsibl e, Accountable , Consult, Inform)	Stakeholder Objectives from the Procurement	Stakeholder management Approach
Government of Republic of Kenya – Borrower/Recipient	C and I	a) Align with development objectives.b) Achieve value for money.c) Compliance with the terms of legal/financing agreement.	Keep informed and comply.
The National Treasury – Borrower/Recipient's representative in charge of public funds	R, A, C and I	 d) Align with development objectives. e) Achieve value for money. f) Compliance with terms of the legal agreement and policies. 	Keep informed and comply.

Stakeholder (Name and	Interest in	Stakeholder Objectives	Stakeholder
Role)	the Project	from the Procurement	management
	(Responsibl		Approach
	e,		
	Accountable		
	, Consult, Inform)		
		g) Proper budget	
		implementation and	
		ensure the funds are	
		available for processing payments within the	
		agreed project	
		milestones.	
Ministry of Agriculture, and		h) Achieve value for	Keep
Livestock Development (MoALD)	R, A, C and	i) Compliance with terms	informed, consult often,
(MOALD)		of the FA and policies	and comply.
		j) Proper budget	aa cop., .
		implementation and	
		ensure the funds are	
		available for processing the payments within	
		the agreed period in the	
		contract (minimize the	
		claim of interest due to	
		delayed payment period)	
Partner Institutions –	R, A, C and	k) Deliveries within	Keep
KALRO, KDB, Participating	I	workplan schedules and	informed,
Counties		proper budget	consult often.
		implementation I) Achieve value for	
		money	
		m) Account for	
		procurements	
		undertaken through project budgets	
PCMU	А	n) Achieve value for	Accomplish
		money	the mandate
		o) Compliance with the	and comply.
		Legal agreement p) Fit-for-purpose	
		procurement	
IFAD - Supervision,	C and I	q) Achieve value for	Communicate
Implementation support,		money	and seek
Financier		r) Compliance with the Legal agreement and	timely advice.
		procurement principles	
Project beneficiaries -	C and I	s) Quality and timely	Keep
stakeholders along the		inputs to meet project	informed.
dairy value chains, with a focus on dairy		objectives.	
smallholders.			
Suppliers/Contractors/Servi	I and A	t) Transparency and	Keep
ce Providers/Consultants		fairness of the process.	communicate
			d.

Stakeholder (Name and	Interest in	Stakeholder Objectives	Stakeholder
Role)	the Project	from the Procurement	management
	(Responsibl		Approach
	e,		
	Accountable		
	, Consult,		
	Inform)		
		u) Efficiency in decision	
		making.	
		v) Timely payments.	
People of Kenya	I	w)Upholding public	Keep
		interest	informed.
		(transparency/disclosur	
		e, fairness, value for	
		money, enhanced	
		ESHS, and so on)	

5. Procurement Objective for abovementioned contract/group of similar contracts (related to the 5 Rs)

a) PROCUREMENT OBJECTIVES

The main objective of procurement under project is to ensure timely and efficient delivery of the required Goods, Works, Consulting and Non-consulting services in line with the approved Procurement Plan and in compliance with IFAD's Project Procurement Framework, while building the project's capacity for procurement and contract management.

The main objective is expressed through the following project procurement objectives:

- a) To achieve the PDO through appropriate fit-for-purpose procurement approaches and deliver the best value for money (VfM).
- b) To develop and implement appropriate specification, requirements, and evaluation criteria to consistently deliver targeted procurement solutions that are sustainable and build local maintenance capabilities.
- c) To attract suitable suppliers for timely and quality deliverables of project procurement requirements.
- d) To select in a timely and cost-effective manner qualified, experienced, and competitive suppliers, contractors, service providers and consulting firms capable of executing the contracts within stated quality, cost, and time.
- e) To develop and implement contract management monitoring and tracking arrangements that ensure applicable standards are fulfilled in the performance of the contracts.
- f) To select the most appropriate procurement approaches to deliver cost targets and manage resulting contracts to ensure that tasks are completed as per agreed contractual conditions and obligations without unnecessary cost overruns.
- g) To conduct need based /refresher procurement trainings on IFAD Project Procurement arrangements.

b) Key Performance Indicators

SMART Key Performance Indicators (KPIs) that will be used to monitor achievement of the procurement objectives are detailed below. The KPIs may be monitored via periodic progress reports and use of analytical data available in the IFAD OPEN and CMT. The project will be required to report on the procurement result indicators during supervision missions of the INReMP.

Key Performance	Areas	KPI Description	- KPI Measurement
1) Publishing	Publishing of	REOIs or RFBs would be	-Shortlisting and Evaluation
	REOI and RFB	published on UN	Reports confirm that all
(Transparency,		Development Business,	SPNs are published and Soft
Competition,		and official websites, as	copies of REOIs & RFBs are
Fairness)		necessary.	accessible by market.
2) Process	Requisition, PPP	Commenced procurement	-95% of commenced
Efficacy	packaging,	proceedings resulting into	procurement proceedings
()/fM 2Fa	Procurement	signed contracts in the	resulting into signed
(VfM, 3Es,	document customization,	first instance, and within the PP planned times and	contracts in the first instance.
Competition, Fairness,	clarification	budget.	-90% of the planned
Accountability, fit-	requests,	budget.	procurements being
for-purpose)	evaluation of		executed without variation
Tor purpose)	bids/proposals,		of the overall planned
	and contract		timeline.
	awards		-All contract award within
			budget.
3) Competition	Open opportunity	Equal opportunity and fair	-Numbers of Consultants who
	and fair	competitions among	expressed their interest,
(fairness and	competitions.	eligible Contractors/	submitted proposals, &
economy)		Suppliers/ Consultants in	Bidders submitted their
		providing works, goods,	bids.
		and consulting services.	-Percentage of
			proposals/bids that pass
4) Delivery	a. On-Time	Provide contractually	preliminary evaluationOn time delivery of
(4) Delivery	Delivery.	obligated deliverables and	contractually obligated
(efficiency and	Delivery.	outcomes on agreed	deliverables as per mutually
VfM)		dates.	agreed plans.
,			-80% of the Contracts being
			completed within original
			stipulated time, 20% of the
			Contracts completed within
			6 months EoT.
		Information is managed	-Supporting/ working
	b. Efficiency,	(shared, stored and	documents submitted and
	records, and	communicated) in line	archived (Templates, weekly
	accountability	with expectations defined in contract or as agreed	status reports, minutes of meetings, training manual,
		between the parties.	project progress etc.)
		between the parties.	-Complete updates to IFAD
			OPEN and CMT systems.
5) Quality	a. Delivery	Product/service meets	-Number of deliveries that
, ,	Quality	quality acceptance	have met acceptance
(effectiveness,		criteria.	criteria (e.g. Number of
VfM)			defects, functionality of
			application, User Interface)
	b. Supplier	Teams are made up of	-Number of experts
	(Consultant)	members with expertise	proposed, rejected, or
	Personnel	as per Terms of Reference	replaced due to performance
			issues or not meeting the expectations.
	c. End User	Level of satisfaction	-Rating received.
	Satisfaction	received from project	
		beneficiaries/ end users.	
			1

6) Financial (transparency, 3Es, and fairness)	a. Invoicing	Contractually compliant with the time and quality for submission of invoices	-On time submission of invoices with supporting documents as agreed -Payments within contracted period
	b. Cost Transparency	Supplier provides transparency into its cost breakdowns	-Cost (invoices, financial proposals) is provided with a detailed breakdown of activities, services, products, quantities, etc.
	c. Change Requests/ Contract Amendments	Number and value of CRs/ Contract Amendments initiated since the previous scorecard or over the reporting period	-Total number of CRs raised/ Contract Amendments, value & scope of each CR / Contract Amendments

6. Recommended Procurement Approach for the Project Procurement Approach:

a) Procurement arrangements for Goods and Non-consulting services

Table 11: Procurement arrangements for Goods and Non-consulting services

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Conformance	Conformance for the requirements that are standard and well-established technical specifications.
Additional Sustainability Requirements	No	Sustainable procurement is not envisaged. Warranty and trainings provided as specified in the bidding documents.
Contract Type	Traditional	
Pricing and costing mechanism	Lump Sum	Based on schedule of requirements
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.
	Adversarial	For easily available, off-the-shelf items and highly competed activities, relationship will be adversarial.
Price Adjustments	None, fixed price	
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable
Selection Method	a) Requests for Bids (RFB)b) Requests for Quotations (RFQ)c) Direct Contracting	Dependent on market approach, and thresholds for selection method of Goods being procured.

Selection Arrangement	None	
Market Approach	Competitive	
Pre / Post Qualification	Post-Qualification	
Evaluation Selection Method	Most Advantageous pricing	
Evaluation of Costs	Life-Cycle Costs	Most advantageous pricing
Domestic Preference	Yes	Based on guidance in PAL
Rated Criteria	No	

b) **PROCUREMENT ARRANGEMENTS FOR WORKS**

Table 12: Procurement arrangements for Works

Table 12: Procurement arrangements for Works			
Attribute	Selected arrangement	Justification Summary/Logic	
Specifications (SECAP compliance)	Conformance	Conformance with provisions of BoQs that will contain ESCMP interventions by the contractor.	
Additional Sustainability Requirements	No	Sustainable procurement is not envisaged.	
Contract Type	Traditional based on Employer's/IA design		
Pricing and costing mechanism	Schedule of Rates/Admeasurement	Based on BoQs	
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.	
Price Adjustments	Percentage	Due to input price volatilities, price adjustment formulae can be considered for Works contracts with less than 18-months completion period.	
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable	
Selection Method	Competitive	There are many capable contractors	
Evaluation of Costs	Adjusted bid price		
Domestic Preference	Yes	Based on guidance in PAL	
Rated Criteria	No		

c) Procurement arrangements for Consulting Services

Table 13: Procurement arrangements for Consulting services

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Performance	Definitive Terms of Reference guided by the objectives.
Sustainability Requirements	No	Sustainable procurement is not envisaged.
Contract Type	Traditional based on TOR	

Pricing and costing mechanism	Lumpsum and time based.	
Supplier Relationship Collaborative		In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.
Price Adjustments	None, fixed price.	
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable
Consultant's Selection and Evaluation Method	a) Quality Cost Based Selection (QCBS) b) Consultant's Qualification based Selection (CQS) c) Least Cost Based Selection (LCS) d) Direct Selection e) Single Source Selection	 Direct approaches require prior justification. Onboarding of ILRI and FAO will be through Direct contracting. One TOR will be consolidated for all interventions and budget lines.
Pre / Post Qualification	Pre-Qualification and Post-Qualification	
Evaluation of Costs	N/A	
Domestic Preference	No	
Rated Criteria	Yes	

The project's Procurement Plan should reflect the analysis presented in the PPS and should be updated periodically to reflect actual needs and changing circumstances. Any updates to the Procurement Plan should be submitted to IFAD for its review and no objection. Any changes to the Procurement Plan should be justified by the project through a revised PPS.

7. Preferred arrangement for low value, low risk activities (as applicable)

Table 14: Procurement arrangements for low value, low risk activities

Contract	Category	Estimated Cost	Procurement Approach and Method
Off-the shelf Goods, Minor Works, and small assignments.	Works /Goods /Consulting services	Not more than USD500, up to an annual cumulative cost of USD5,000 (as defined in the PAL)	Contracts to be procured through local administrative procedures and a file of all such purchases be maintained.

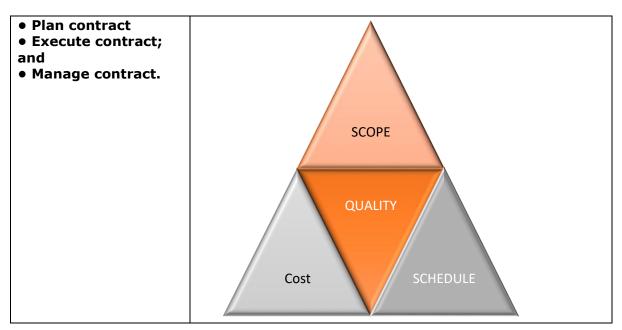
Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, General salaries and allowances for project staff. These expenditures will not be subject to procurement clearance, hence, will not be reflected in the approved procurement plan. Items under this category would be procured using local administrative procedures acceptable to IFAD. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB, and will be subject to external audit.

Training / Capacity Development initiatives through the project are not Procurement Transactions unless a service provider is exclusively hired from Market through agreed Selection Methods of Consultant / Non-consulting services as appropriate to render training or capacity development. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB and will be subject to external audit.

ANNEX 1 OF PPS: SIMPLIFIED CONTRACT MANAGEMENT PLAN and RESPONSIBILITY AND ACCOUNTABILITY MATRIX (RAM)

f) Introduction:

Effective contract management is essential to the delivery of intended outcomes. The contract Management primarily focuses on creating, executing, and managing contracts across three (3) key implementation phases:



The PCMU is responsible for the contract management in coordination with Beneficiary organizations participating in the project. The responsibilities of the Contract Management Team (CMT) include but not limited to: Contract risk management, control changes and variations, contract administration, review and accept reports, acceptance of deliverables and contractual milestones, management and control payments, and monitoring and measuring outputs/outcomes, and record-keeping, monitor compliance with agreed contractual obligations for the successful delivery of the contract.

g) Responsibility and Accountability Matrix - Contract Management

Table 15: Responsibility and Accountability Matrix

	MoALD	Procureme nt Specialist	Technical Dept. or Beneficiar Y	PCMU
1	2	3	4	5
Preparation of procurement-related documents including contract conditions, drawings, and specifications	I, F	R	R	F
Contract management, coordination, and supervision.	F	S	R	М
Review the construction management program submitted by the bidders	I	C, I	R	М
Conduct the site visits periodically and review the physical and financial progress		S	R	F
Accord time extensions, change in quantities, variations, etc.,	А	S	R	R

Description

Ref

	MoALD	Procureme nt Specialist	Technical Dept. or Beneficiar y	PCMU
Monitor the stipulated quality assurance tests are conducted as prescribed in the technical specifications	I	S	R	F, M
Facilitate the recording of work before commencement and after completion as per the specifications	I	M, S	A, R	S
Ensure that the prescribed training is provided as per the contract	I	S	A, R	F
Facilitate handing over the constructed/repaired facilities and/or supplied goods to the concerned officer in charge	I, A	S	R	F
Receive goods, facilitate the process of clearing and forwarding, storage, carry out stock taking, manage the distribution supply chain.	I	R	С	S

R: Responsible; A: Approval; M: Monitor; S: Support; F: Facilitate; I: Inform; C: Consulted

h) **Monitoring Instruments:** The following mechanisms and instruments will be used to implement project management following the above principles and levels of management.

1 Monthly Progress Report					
A monthly report following pre-defined format and designed to highlight key indicators					
and issues:					
a) Bifocal Emphasis – Physical and Financial progress with updates on the IFAD online					
CMT.					
b) Evaluation Techniques like PERT with clearly defined milestones through OPEN.					
c) Monitoring of cost escalations due to:					
(i) Change in scope,					
(ii) Variation of quantities,					
(iii)Change in quantities,					
(iv) Price adjustment					
d) Monitoring of admeasurements/payment schedule					
e) Conduct monthly progress meetings					
f) Principled evaluation of Instructions – Quality Reports					
2 Monthly site meeting					
A meeting held monthly on-site to physically inspect operations.					
3 Quarterly progress report					
A quarterly report which focuses on progress towards overall project objectives and any					
issues encountered.					
4 Half-yearly project appraisal					
A review that seeks to identify any major risks and propose mitigation measures. To					
inform any need for changes in the PPS.					
5 Ad hoc inspection					
An inspection carried out by PCMU and/or Authorised persons.					

ANNEX 2 OF PPS: In-country procurement training programme

Procurement Training Workshop for Members of Programme Coordination and Management Unit (PCMU), MoALD, participating Counties, and All key User Departments implementing INReMP

Venue: TBD - Nairobi

Date: TBD - Within first year of project implementation

The Ministry of Livestock and Fisheries will host a procurement workshop for members of the National Project Coordination Unit and all implementing agencies.

The objective of this workshop is to "enhance skills of participants on procurement processes to ensure procurements and implemented efficiently and contracts are completed in time and within budget."

The following training themes were identified during project design stage:

- 1. Overview of procurement processes
- 2. Use of IFAD Procurement Guidelines and Handbook
- 3. Effective procurement planning and packaging
- 4. Customization of solicitation documents
- 5. Evaluation of bids for Goods and Non-Consulting Services
- 6. Contract management and administration

This workshop is to be held for three (3) days within the first year of Project implementation.

The participants of the workshop will include the members of the PCMU, MoALD, Participating Counties, key beneficiaries under the project, Key User departments.

Training Programme - Procurement Management:

SESSION		TOPIC	DELIVERY		
DAY 1	MORNING	IFAD procurement principles, ethical standards, and prohibited practice issues	POWER POINT SLIDES		
	MID MORNING	 Effective project implementation and the role of procurement: Integrated project and procurement planning and budgeting (AWPB/PP) Key considerations for effective procurement planning. 	 POWER POINT SLIDES PRACTICAL SESSION: Actual project documents ✓ AWPB and PP 		
	AFTERNOO N	Roles and responsibilities in the procurement cycle	POWER POINT SLIDES		
DAY 2	MORNING MID MORNING	Writing precise specifications, terms of reference and bidding documents (including SECAP consideration)	POWER POINT SLIDESCASE STUDY		
	AFTERNOO N	Customization of Solicitation documents	• PRACTICAL SESSION: ✓ SBDs/SPDs		
	<u>, </u>				
DAY 3	MORNING	Evaluating bids and proposals (including SECAP consideration)	POWER POINT SLIDES		
	MID MORNING AFTERNOO N	Effective contract administration, management, and performance monitoring (including SECAP compliance) CMT	POWER POINT SLIDESCASE STUDY		

ANNEX 9: SECAP GUIDANCE FOR PROCUREMENT



Kenya

Integrated Natural Resources Management Programme
Integration of SECAP risks into Procurement plans

Document Date: 03/02/2024 Project No. 2000003938

East and Southern Africa Division Programme Management Department

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				
Biodiversity conservation	Risk Rating	Consequence	Guidances for SPOs	
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Moderate	Minor Poject may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Technical specifications to be included in tender documents for purchase of natural resource materials which include ethically sourced materials	
Resource Efficiency and Pollution Prevention	Risk Rating	Consequence	Guidances for SPOs	
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.	Technical specifications and bid criteria to include a list/reference to list of approved chemical/waste handling facilities and allowable pollutants at discharge points	

Environmental and Social Safeguards				
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?	Low	Negligible The project will not involve engagement of forestry in any form	Contract documents to include ethical procedures on harvesting of natural forest resources	
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 materias, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Procurement of raw materials should follow ethical standards and ensure all contractors have the required approvals and permits for operation on the sites	
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Substantial	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Bidding and contract documents should include lists of approved and certified fertifizers and modifying agents	
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	Minor The project only requires minimal amounts of pesticide.	Bidding and contract documents should include lists of approved and certified pesticides	
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	Moderate	Minor The project involves livestock or fisheries, but not in extensive or intensive systems.	Bidding and contract documents should ensure procurement of animals follows national regulations	
indigenous peoples	Risk Rating	Consequence	Guidances for SPOs	

Environmental and Social Safeguards				
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	Moderate	Minor The project is not sited in an area where indigenous people are present, but associated facilities may impact on indigenous people.	Procurement should consider suppliers within the project areas	
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs	
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?	Moderate	Minor The project does not operate in sectors or value chains where the employment of children has ever been reported.	Procurement contract documents to include clauses that prohibit child labour as per national laws, regulations and Zero tolerance to child labour (as per ILO guidelines)	
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.)	Moderate	Moderate 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 weak or non- existent.	The bidding and contract documents to include clauses that ensure adherence to occupational safety and health	
Community Health, Safety and Security	Risk Rating	Consequence	Guidances for SPOs	
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 waterborne or other vectorborne diseases, or communicable/noncommunicable diseases, but where regulation or containment of these impacts has been shown to be effective.	The bidding and contract documents to include guidelines on the design of waste management facilities	

Environmental and Social Safeguards				
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Moderate	Moderate The project involves the construction/ rehabilitation/upgrade of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - between 5metres and 9 metres high wall, and/or with a reservoir below 100,000 m3.	The bidding and contract documents to follow prudent construction standards at design and during construction process	

PART IV: ANNEXES

ANNEX 1. TERMS OF REFERENCE (TORS) OF PCMU STAFF AND COUNTY PROGRAMME IMPLEMENTATION TEAMS (CPITS)

I. PCMU Staff ToRs

A. Programme Coordinator

The Project Coordinator (PC) will head the PCMU and will provide the overall leadership in the Programme implementation. He/she will: coordinate the day-to-day planning and execution of the project activities and ensure timely achievement of intended results; oversee and ensure timely procurement of works, goods and services (including training), preparation of AWB&P, procurement plans, project supervision and reviews and day to day monitoring of the project implementation; ensure timely project data capture and reporting; provide sound administration of project staff and project finances; promote harmonious and close working relationship between the project, the National and the County Governments; coordinate and ensure timely execution of activities assigned to partners and service providers; and promote good governance and participatory planning. He/she will be Secretary to National Programme Steering Committee (NPSC) and the Programme Technical Advisory Committee (PTAC). The PC will be answerable to the Principal Secretary (PS), State Department for Agriculture. Detailed responsibilities include:

- Overall coordination of the project management in accordance with the policies, procedures, and guidelines set forth in the Financing Agreement, Project design documents and Project Implementation Manual (PIM);
- ii. Coordinate the establishment of the County Programme Steering Teams (CPSTs) and County Programme Technical Teams (CPTTs).
- iii. Oversee work performance of the PCMU staff, undertake their performance appraisals and performance evaluation and submit to PSC for decision making.
- iv. Oversee work performance of the CPTTs and guide the evaluation of county Programme staff performance by the CPSTs.
- v. Coordinate and work with relevant Government ministries and departments, County authorities, implementation partners, service providers, private sector, financing institutions including SACCOs, beneficiaries, Community Based Organizations (CBOs) and local communities to ensure smooth execution of the programme activities.
- vi. Lead the Counties and National Government local administration in developing a robust and objective criterion for selection of the sub-catchments and target programme beneficiaries.
- vii. Ensure the timely preparation, clearance, and approval of consolidated AWP&Bs and Procurement Plans (PPs), and their execution in accordance with the overall Programme objectives, PIM, and IFAD and GoK regulations and guidelines, including fiduciary requirements.
- viii. Facilitate procurement process of all works, goods and services adhering to IFAD and GoK rules, procedures, and regulations.
 - ix. Oversee and facilitate supervision of works contractors, goods suppliers, and service providers for timely and quality execution of their responsibilities.
 - x. Develop parameters to ensure social inclusion of women, youth and vulnerable groups are identified in accordance with the design document and Programme Implementation manual.

- xi. Sensitize implementation teams and partners on the project poverty targeting, youth and gender mainstreaming strategies and their rationale and implementation arrangements.
- xii. Create and promote conducive work environment that promotes knowledge sharing and learning from experiences among members of the Programme staff, County teams and those of the implementing partners and service providers, and participating Government institutions at the National and County levels.
- xiii. Develop synergy between the Programme with other IFAD financed projects as well as other relevant programmes to maximize INReMP's development impact.
- xiv. Develop guidelines to ensure information is disseminated timely and appropriately to the County Coordination Bodies and authorities, the NPSC, and IFAD regarding Project-related activities.
- xv. Control and monitor implementation of all project activities and on quarterly basis prepare and submit progress and performance reports to the GoK, IFAD and the National Project Steering Committee as per the design document.
- xvi. Manage with integrity and transparency the Programme funds, monitor expenditures, submit to IFAD, the GoK, PSC and responsible line agencies quarterly financial reports.
- xvii. Oversee timely preparation of the Programme accounts, and audit in line with the Programme Financing Agreement (PFA).
- xviii. Facilitate and support joint IFAD/GoK supervision and implementation support, follow-up, midterm, and completion missions, and ensure that their recommendations are implemented fully and in a timely manner.
- xix. Build and maintain strong collaborative relationships with all Programme stakeholders (including beneficiaries), local networks and contacts and partner organizations, engaging them on a regular basis to integrate their feedback into the implementation and progress of the Programme.
- xx. Coordinate the scaling up of the technological packages promoted by the Programme in coordination with IFAD, NPSC, the CPSTs, and implementing Programme partners.
- xxi. Ensure that the Programme activities at the county level are fully harmonized with the different Counties Integrated Development Plans (CIDPs).
- xxii. Secretary to the Project Steering Committee (NPSC) and NPTAC
- xxiii. Any other duty and responsibilities that may be assigned by the PSC and PS.

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- i. A master's degree in agriculture, Agricultural Economics, Environment, Development, Project Management, Social Sciences, or any other relevant discipline.
- ii. Relevant professional work experience of at least fifteen (15) five (5) of which should be in a similar position as Programme Manager of Development Partner funded Donor funded project.

Other Requirements:

iii. Post Graduate qualification in project management will be an added advantage.

- iv. Excellent analytical skills, sound judgment, resourcefulness, ability to take initiatives, capacity to self-manage and ability to create a team-based, participatory work environment.
- v. Sound understanding of the Kenya's multi-level government systems (National and County Governments), their governance and administration modalities, their differences, and linkages.
- vi. Skills in process facilitation, strategic planning, and partnership building.
- vii. Excellent understanding of the social, economic, political, and historical trends underpinning poverty alleviation strategies and policy reform processes in Kenya.
- viii. Adequate understanding of Kenya's diverse agro-ecological zones including the gazetted forests, Water Towers, wetlands, river basins, different agricultural systems, and development needs.
 - ix. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
 - x. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
 - xi. Good interpersonal and Communication skills.
- xii. Knowledge of computer packages.

B. Monitoring, Evaluation and Knowledge Management Specialist

Reporting to the Programme Coordinator, the Monitoring, Evaluation and Knowledge Management Specialist will have the overall responsibility for the coordination of the timely establishment, operation, and maintenance of the project M&E and learning system; for the monitoring and evaluation of progress; generation of knowledge and evidence; and for the communication of programme activities, achievements and lessons learned. He/she will be responsible for the following:

- a) Coordinate the baseline, midterm, end-term surveys, and project completion reports.
- b) Set up the M&E system for the Programme:
 - i. Revise the project logframe matrix and include gender sensitive indicators.
 - ii. Assist in developing the results oriented-AWPB.
 - iii. Develop the overall framework for the project M&E.
 - iv. Guide the process of reporting against the project key indicators.
 - v. Prepare M&E matrix.
- c) Set up an MIS system that entails:
 - i.Development of formats (for data collection, analysis, and interpretation) to track project inputs and its results.
 - ii. Coordinate with other programme staff, (especially planning and M&E staff), to ensure MIS system is appropriately designed and implemented such that they enable data-rich knowledge management, captures and analyses disaggregated data on gender and social inclusion parameters.
 - iii. Define requirements for use of software for a web-based online MIS and off-line tablet-based devices.
- d) Provide technical assistance to recruit, guide and supervise organisations or individuals contracted to implement surveys and studies required for evaluating project effects and impacts.
- e) Develop a capacity-building plan on M&E for the project staff and implementing partners, including:
 - i. Development of training modules for different stakeholders and partners.
 - ii. Development of operation manuals/guidelines on M&E processes.
 - iii. Use of software for MIS and GIS required for the functioning of the MIS system.
 - iv. Train M&E staff of partner institutions at national and local levels (Training of Trainers); and
- f) Design, at the start-up, Programme communication strategy, geared towards the target group and stakeholders, programme implementers, and to a wider public, both within Kenya and outside.
- g) Develop a functional approach for prioritising and implementing Knowledge Management activities and for developing and disseminating knowledge tools and products.
- h) Assist the Programme Coordinator in consolidating gender sensitive project progress reports.
- i) Advise the Senior Management by identifying areas of concerns that might justify a review of the programme M&E and KM systems and/or implementation arrangements, including adverse effects on target groups as a result of project implementation, and suggest remedial measures if necessary.

- j) Undertake regular field visits to follow-up recommendations made from previous supervision missions and support the project implementation in other ways as requested by the Project Coordinator.
- k) Take lead in the preparation of periodic M&E reports and the project completion report.
- I) Take lead in the preparation of the Project Annual Work Plan and Budget
- m) Carry out any other relevant duties as may be assigned by the Project Coordinator.

Minimum Requirements

- a) Holder of a Postgraduate Degree in any of the following fields: Monitoring and Evaluation, Demography, Population Studies, Statistics, Economics, rural development or any other related subjects from a reputable University.
- b) The Specialist must have demonstrated experience in designing and implementing M&E systems in a multi- faceted rural development Project.
- c) Demonstrated experience in data processing and management of large-scale surveys.
- d) Demonstrated experience of at least 3 years of application of Computer statistical packages and/ or data analysis software (e.g. SAS, SPSS, and Advanced Excel) and basic computer skills (word-processing, power point, and databases) are a must.
- e) At least (Eight) 8 years direct experience in a position of monitoring and evaluation of rural development and national Projects
- f) Possession of additional training in impact evaluation, familiarity with the operations and use of IT in monitoring and evaluation are added advantages.
- g) Strong experience in conducting research studies including the entire evaluation cycle, from design and formulation to implementation, analysis and presentation of results and recommendations.
- h) Good oral and written communication skills. Should be fluent in English.
- i) Proven high level of integrity in handling public resources and in executing duties.
- j) A high level of interpersonal and management skills and ability to work with teams.
- k) Must be result focused and be able to work under pressure and tight deadlines.
- I) High level of integrity

Other Requirements

- a) Strong knowledge in the development of performance-based indicators.
- b) Demonstrated experience in the techniques of data collection, data entry, data analysis and design of management information systems to facilitate the planning and decision- making processes within the institution/s.
- c) Working knowledge of written and spoken English and Kiswahili
- d) Excellent analytical and report writing skills.
- e) Excellent spoken and written English.
- f) Strong knowledge of computer applications, particularly MS Excel, Word, Access and PowerPoint, STATA and other software packages for data analysis and technical reports.
- g) Data management and analysis and reporting in Rural Finance Projects
- h) Capacity building and training in M&E development and implementation,
- i) Use of Geographic Information Systems technologies, and
- j) Knowledge management strategy development.

Performance indicators

- a) Monitoring & Evaluation system/Strategy for INReMP developed and implemented.
- b) Project Implementation Teams trained in monitoring & evaluation.
- c) Data collection, reporting and learning among all components coordinated.
- d) Quarterly, bi-annual, annual and thematic Reports prepared.

- e) Monitoring the progress of ongoing project activities.
- f) Design the implementation of studies, MTR and end of project evaluation.

C. Financial Controller

The Financial Controller is responsible for financial management of the project and for maintaining all project accounts in good order. As head of the finance unit for the project, the financial controller will take charge of all matters in the project accounting cycle. The project accounting cycle to be overseen by the financial controller starts from financialrelated inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Financial controller will be responsible for expediting all loan management and disbursement activities. He/she will be answerable to the Programme Coordinator for the following duties and responsibilities:

- i. Installation of appropriate accounting software systems to manage the accounting and financial reporting of project and ensure that the PMCU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- ii. Ensure timely capture of project in the GoK budget as required by the GoK budgeting processes and calendars including access to counterpart funding.
- iii. Communicate to all implementing partner institutions, service providers and counties their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing Government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the iν. financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Ensure that all necessary supporting documents, records, and accounts are kept in ٧. respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in vi. accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals. vii.
- viii. Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the National and Local levels.
 - ix. Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Kenya.
 - Coordinate auditing of the project accounts by external auditors and ensure x. submission dates by both GoK and IFAD are met.
 - Manage the project's liquidity by ensuring timely disbursements and in particular xi. support the Designated County Accountants from the Project counties and the lead Project agency in ensuring that SOEs are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the Government and xii. IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time:
- xiii. Any other duty as may be assigned by the Project Coordinator

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- i. Bachelor's Degree in Commerce or Business Administration (Accounting option), or any other relevant degree from a recognized University.
- ii. Master's degree in Commerce or Business Administration (Accounting option), or any other relevant degree from a recognized University.
- iii. CPA Kenya qualification and must be a member of relevant professional body in accounting.
- iv. Minimum of 10 years' experience working in accounting and financial management and 5 years of which must have been in Donor/Government funded project at the level of full Accountant and above.

Other Requirements:

- v. Demonstratable experience with financial management/accounting in a government ministry/department and donor-funded Project.
- vi. Strong computer skills; electronic spreadsheets and other accounting packages.
- vii. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
- viii. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
- ix. Good interpersonal and Communication skills, excellent planning, organizing and recordkeeping skills.
- x. Ability to work as a team player, self-motivated and creative thinker, good analytical skills and report writing and excellent coordination and negotiation skills.

D. Procurement Specialist

The Procurement Specialist will be responsible for the specific procurement activities needed for Programme. He/she will provide leadership and guidance to all PMCU and County level project staff on procurement issues for goods, services and works contracts. He/she will be answerable to the Project Coordinator for the following duties and responsibilities:

- i. Review and provide more detail, where required, on the procurement section of the draft PIM.
- ii. In collaboration with other members of the PCU, Counties and implementing partners, and based on the AWPB update the first 18-month procurement plan and lead the preparation of subsequent procurement plans for works, goods and services required by the project in accordance with IFAD PP Template and submit same for approval by the GOK and IFAD.
- iii. 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.
- iv. 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.
- v. Prepare bidding documents and coordinate the preparation of relevant inputs such as TORs, technical specifications, and bills of quantities by technical staff or consultants.
- vi. Coordinate relevant tender committee meetings and prepare the committee reports.
- vii. Review and provide professional opinion on tender evaluation reports and make necessary follow-up in accordance with IFAD and GoK procurement procedures, and as per other related project documents.
- viii. Ensure timely and prompt implementation of procurement activities considering the approvals required including No Objection request to IFAD.
- ix. Any other duty as may be assigned by the Project Coordinator

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- i. Bachelor's degree in Procurement or Supply chain management or Engineering or Business Administration or Law or any other relevant field.
- ii. Master's degree in Procurement or Supply chain management or any other relevant field.
- iii. Must be a member of professional body in procurement and supplies and must have practice license from Kenya Institute of Supplies and Management (KISM)
- iv. Minimum Ten (10) years relevant working experience, of which Seven (5) years' experience is in procurement management in Donor /Government funded projects in similar position;

Other Requirements:

- v. Comprehensive knowledge of IFAD Procurement Guidelines and the Public Procurement Regulations.
- vi. Familiarity with the World Bank Procurement Guidelines and Templates as well as experience in working within the public sector procurement processes will be an added advantage.
- vii. Experience in training, capacity building and setting up procurement systems in a new organisation will be an added advantage.
- viii. Computer literacy and competence, Microsoft Word, Excel, Access, Power Point.

- ix. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
- x. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
- xi. Good interpersonal and Communication skills, excellent planning, organizing and recordkeeping skills.
- xii. Ability to work as a team player, self-motivated and creative thinker, good analytical skills, and report writing and excellent coordination and negotiation skills.

E. Community Empowerment, Gender & Youth Specialist

Reporting to the Programme Coordinator, and working very closely with the other technical Specialists, the Community Empowerment Coordinator (CEC) will be responsible for coordinating the implementation of sub-component 1.1. Community Empowerment, Youth and Gender Transformative Approaches. Detailed responsibilities are as follows:

- Facilitate the planning, management, and implementation of the community-based mobilization activities of the Programme.
- In collaboration with other relevant technical officers at the National and County levels, coordinate the awareness creation to stakeholders and beneficiaries on Programme objectives and implementation arrangements.
- In collaboration with the counties teams and National Administration Officer at the counties, identify community-based institutions such as the Focal Development Areas (FDAs) along the river basins, and assist in the formation of the Focal Development Area Committees (FDACs).
- Organize training for the county implementing teams on PRA/PLA and other participatory community mobilization techniques and backstop the training of the community-based institutions by the county teams.
- Facilitate the Community Action Plan (CAP) development process by the county and sub-county teams and the conversion of the plans into interventions and work plans.
- Coordinate training in group management, organization, and governance in collaboration with the county Gender and Social Development Officers.
- Develop a strategy for awareness creation and capacity building on gender equality, participation of women, youth and vulnerable groups in project-supported activities, HIV/AIDS prevention and mitigation, environmental management, and other cross-cutting issues.
- In collaboration with other technical Officer, coordinate implementation of nutrition related interventions.
- Coordinate the preparation of the work plans and budgets, and progress reports for the component.
- Undertake any other duty assigned by the PC.

Qualifications

- Master's Degree in in Sociology, Social Work, Community Development, or Public Administration from a recognized university.
- Have at least 10 years' experience in Community Development, five (5) of which must be in a senior management position in a donor funded project.
- Have experience in participatory methodologies such as Participatory Rural Appraisal (PRA),
- Participatory Planning, Participatory Learning and Action etc.
- Have experience in project planning, implementation, management, monitoring and evaluation.
- Excellent proposal and report writing skills.
- Excellent communication and facilitation skills.
- (j) Have strong leadership skills.

F. Infrastructure Specialist

Reporting to the Programme Coordinator, the Infrastructure Specialist will be responsible for coordinating the implementation of all infrastructure related activities under subcomponents 1.2 and 2.2. Specific responsibilities include:

- Coordinate with the Water Resource Management Authority (WRMA) and Water Services Trust Fund (WSTF) the preparation and implementation of sub-catchment management plans (SCMPs) by the WRUAs.
- Monitor the implementation of SCMPs and facilitate joint action by the relevant implementing parties when such plans cut across sub-counties and counties.
- Coordinate with relevant parties such as KFS and KWS the preparation and implementation of remedial actions for environmental hotspots that impact on point sources of water.
- Coordinate the assessment of water resources in the sub-basins, and the development of the water resources management plan for each sub-basin.
- Coordinate the implementation of water and irrigation related interventions.
- In collaboration with the Agronomist, Livestock Specialist and Agribusiness Development Specialist, coordinate the implementation of market and road infrastructure and related interventions.
- Ensure compliance with high professional and technical standards by implementers in the design and implementation of water and market infrastructure development activities.
- Coordinate the preparation of the work plans and budgets, and progress reports for the relevant sub-component/ activities.
- Facilitate sensitization and training of communities with respect to their roles and responsibilities as regards operations and management of the developed infrastructures under the present and planned legislative framework
- Support implementing County Departmental Heads and other technical personnel, to determine practical interventions for protection and optimal use of the developed infrastructure.
- Undertake any other duties assigned by the PC.

Qualifications

- Have a Master's degree in Natural Sciences, Water Engineering, Agricultural Engineering, Civil Engineering, or a related field from a recognized university
- Have 10 years continuous experience, five (5) of which must be in senior position related to rural infrastructure especially water resource planning, development and management.
- Have experience in planning, design and implementation of infrastructure schemes especially related to water, energy, and markets.

G. Natural Resources Management and Social Safeguard Specialist

Reporting to the Project Coordinator, the NRM Specialist will be responsible for coordinating the implementation of the NRM related activities under sub-component 1.2 Improve Environmental Sustainability, INRM, and Ecosystem Services. The following are specific responsibilities:

- In collaboration with other project implementers, undertake or update inventories of natural and environmental resources in the Programme area.
- In collaboration with other implementing partners, raise awareness and level of education on environment issues among the communities, including through the school Programme.
- Coordinate the conduct of environmental impact assessments of project activities and ensure the integration of environmental aspects in all project activities.
- Coordinate the project-assisted environmental, off-farm soil and water conservation interventions undertaken by communities with support from Programme partners such as KFS, KWS and other national agencies, NGOs and donor partners, including:
 - establishment of tree nurseries for rehabilitation of gazetted forests, community
 - o hilltops and roadside planting including hotspots,
 - o rehabilitation of other degraded areas, and
 - promotion of energy saving technologies.
- Initiate participatory forest management of gazetted forest and community hilltops, and preparation of management plans for natural forests and hilltops.
- In collaboration with the M&E Specialist, develop a system of monitoring and evaluation of project supported and environmental related activities.
- Coordinate the preparation of the work plans and budgets, and progress reports for the NRM sub-component.
- Continuously review and update the developed project SECAP risk management instruments in line with current SECAP developments.
- Support the INReMP in the co-ordination, management and implementation of the project SECAP risk management instruments in compliance with the SECAP Policies and the Government of Kenya' Environmental standards.
- Support the INReMP in the development and rolling out of a SECAP risk management monitoring and reporting system against the Environmental and Social Management Framework (ESCMF) provisions.
- Support the line ministries to achieve the maximum SECAP risk management efficiency in their assigned tasks.
- Support the project to ensure that safety and health concerns of the workers and the general public are addressed during design, setting up/construction and implementation phases of the project.
- Provide assistance to INReMP and applicant communities in screening of proposed sub-projects and assigning environmental categories.
- Visit proposed sub-project sites to assess baseline conditions and potential sitespecific impacts.
- Advise on anticipated environmental impacts and possible mitigation measures, and on the relevant type of environmental review to be undertaken and documentation to be prepared (e.g., sub-project specific Environmental Assessment and/or Environmental Management Plan).
- review sub-project specific environmental documentation and give recommendations as needed, to applicant communities and designers, for finalizing the documents.
- Participate in evaluation of sub-project proposals and advise on environmental eligibility and acceptability of proposals, based on guidance provided in the ESCMF and on personal experience.

- Working with INReMP Procurement staff, ensure that environmental compliance is incorporated as appropriate in contracts for goods and services (mainly civil works contracts) and ensure that contractors are fully aware of their responsibilities in this regard.
- During implementation of the approved sub-projects, undertake regular environmental monitoring and supervision in order to verify whether and how provisions of the project ESCMF and sub-project specific ESMPs are followed by all relevant stakeholders (designers, contractors, beneficiaries).
- Report regularly to the INReMP Coordinator in writing on the results of monitoring visits, promptly identify any environmental issues or cases of non-compliance, and make recommendations for dealing with those issues. In conjunction with the INReMP Coordinator, discuss compliance status and measures to re-establish compliance with contractors and/or beneficiaries as appropriate, including agreeing on specific steps and timing for any remediation/corrective actions.
- Closely collaborate with technical staff and engineers to ensure that environmental measures are incorporated at all stages of sub-project preparation and implementation, including site selection, sub-project design, preparation and evaluation of bidding documents and bids, preparation and supervision of contracts.
- Provide contribution to the INReMP's regular progress reports on the project implementation.
- Undertake any other duties assigned by the PC.

- Have a Master's degree in Environment, Natural Resources Management, Forestry or a related field.
- Have a minimum of 10 years technical and managerial experience in natural resources management and rural community development, five (5) of which must be in a senior management position in a donor funded project.
- Have experience in community forestry and environmental conservation strategies, and practices of natural forest management.
- Be able to work closely with other stakeholders including communities, KFS, NEMA, KWS and other government agencies.
- Have proposal and report writing skills.
- Have strong leadership and communication skills.
- At least seven years of experience related to social and environmental standards and impact assessment in an international development context.
- Technical background and experience in developing safeguards for agriculture, livestock production, land use and management projects.
- Knowledge of Human rights (including human rights-based approaches and human rights impact assessment); gender equality and women's empowerment (including gender mainstreaming and gender analysis).
- Demonstrated knowledge of cultural heritage (including chance find procedures, physical and intangible cultural resources).

H. Agribusiness Development Specialist

Reporting to the Programme Coordinator (PC), and working closely with the Community Development Specialist, Agronomist, NRM Specialist and Livestock Specialist, the Agribusiness Development Coordinator (ABDC) will be responsible for promotion and coordination of Agribusiness activities in the Programme. Specific responsibilities include:

- Capacity building project beneficiaries on agribusiness issues and other businessrelated aspects.
- Guiding service providers in provision of value chain support activities to target beneficiaries including the promotion of entrepreneurial skills in farmer organizations and other stakeholders.
- Facilitating in identification of capacity needs of the target beneficiaries and relevant value chain actors and designing training modules to address the gaps.
- Coordinating the development of marketing strategies for commodities promoted by the Programme and monitoring the implementation of these strategies.
- Facilitating linkages and contracts between farmers/ groups and business development service providers (stakeholders) including distributors, local promoters etc.,
- Ensuring adequate synergies and linkages between providers of post-harvest management services, market support services and financial services of the Programme, in collaboration with the Programme Specialists.
- Championing the formation of apex organizations including cooperatives, user groups etc. among the project beneficiaries for the various enterprises promoted by the Programme.
- Facilitating the linkage of income generating activity (IGA) groups with financial service providers, in liaison with the other Programme Specialists.
- In liaison with Knowledge Management and Learning Officer, identifying and supporting innovative business models to ensure systematic documentation of the same for learning, adaptation and sharing through the project knowledge management system.
- In liaison with other Specialists, review business plans of the common interest groups, Community Forest Association/Water Resource User Associations and other project groups and advising them on how to develop bankable business proposals for their enterprises.
- In liaison with M&E Officer, develop appropriate monitoring and evaluation tools and initiate appropriate impact surveys/studies.
- Support and train beneficiaries in effective enterprise organization and management with emphasis on farming as a business and good governance.
- Guiding the preparation and implementation of the various value chain related activities /studies.
- Participating in preparation of the Annual Work Plan &Budgets and periodic progress reports; and
- Undertake any other relevant duties assigned by the Project Coordinator.

- A Master's degree in Agriculture, Agribusiness, Agricultural Economics, Finance, Business Administration or any other related /equivalent qualification from a recognized institution.
- Ten (10) years of working experience in a similar field, five (5) of which must have been at a senior Management position in donor funded projects,
- Demonstrated experience in facilitating agribusiness development, value chain analysis and building capacities of value chain actors.

- Demonstrated experience in working with communities in similar engagement.
- Team player and can work with minimum supervision.
- Knowledge of technologies and issues in value chain development, inclusive finance, business development and rural livelihoods.
- Strong computer skills; and
- Strong leadership and communication skills (oral and written).

I. Agronomist

Reporting to the Programme Coordinator, and working very closely with the other Technical Specialists, the Agronomist will be responsible for coordinating the implementation of crops value chain related interventions in the Programme. Specifically, the Agronomist will be responsible for:

- Coordinating the implementation of crops value chain (fruits trees and horticulture) related interventions in the Programme.
- In collaboration with the counties, sub-counties and service providers, coordinate all on-farm, soil and water management activities supported by the Programme.
- Work closely with the implementing partners such as KARLO in the implementation of productivity and production enhancement interventions for the fruit trees and horticulture value chains.
- Regularly review and refine the guidelines and procedures for the implementation of the matching grants for sustainable soil and water conservation and income generating activities, drawing on emerging experience;
- Develop and maintain the partnerships with public, private sector and civil society organizations required for effective implementation of production and productivity enhancement activities for the crops value chains for sustainability.
- Coordinate all agricultural extension activities related to production, sustainable soil and water conservation, irrigation development, and processing.
- Coordinate all activities related to input subsidies for the supported crops value chain.
- In collaboration with the Agribusiness Development Specialist, coordinate the development of marketing strategies for crops commodities produced under the Programme and monitor the implementation of these strategies.
- In collaboration with the Agribusiness Development Specialist, promote a market orientation among project beneficiaries under the crops value chains.
- Coordinate the preparation of the work plans and budgets, and progress reports for the relevant activities
- Undertake any other duties assigned by the PC.

- Have a first Masters in Agriculture, Agri-business, or a related discipline
- from a recognized university.
- Have at least 10 years working experience in a similar field, five (5) of which should be in senior management position in a donor funded project.
- Be familiar with technologies and issues in agricultural development, rural livelihoods, soil and water conservation, irrigation and extension services.
- Have strong leadership and communication skills;
- Be able to communicate in Kiswahili and English.

J. Livestock Specialist

Under the supervision of Programme Coordinator, the Livestock Specialist will be in charge of the technical coordination and oversight of Programme's activities with related to the livestock value chains (Dairy, Poultry and Apiculture). The specific tasks of Livestock are:

- Provide expertise and support the implementation of the Programme activities in livestock production and productivity enhancement (dairy, poultry, and honey).
- Contribute to the production of technical training manuals and related capacity building materials, coaching and mentoring on livestock production.
- Coordinate with relevant project partners, service providers, NGOs and other stakeholders on the plan and implementation of livestock support activities.
- Evaluate the technical soundness of activities on livestock designed to improve production and productivity.
- Establish strategic partnership with pertinent public institutions, implementing partners, private sector, national and regional civil society organizations for enhancing effectiveness, and efficiency in delivery of livestock related extension and support services such as veterinary service delivery and disease control.
- Ensure that the livestock production activities are aligned with the activities in different Counties Integrated Development Plans (CIDPs).
- Coordinate all activities related to input subsidies for the supported livestock value chain.
- In collaboration with the Agribusiness Development Specialist, coordinate the development of marketing strategies for livestock commodities produced under the Programme and monitor the implementation of these strategies.
- In collaboration with the Agribusiness Development Specialist, promote a market orientation among project beneficiaries under the livestock value chains.
- Coordinate the preparation of the work plans and budgets, and progress reports for the relevant activities.
- Undertake any other duties assigned by the PC.

- Master's Degree in Animal Sciences, Animal Production and Veterinary sciences or related field with complementary knowledge in rural development.
- At least ten (10) years practical experiences in animal resource management and good livestock sector in Kenya, five (5) of which should be in donor funded project at a technical Specialist level.
- Excellent communication skills and proven writing ability.

II. CPIT Staff ToRs

To be developed.

III. Other Terms of Reference (ToRs)

a) Terms of Reference (TOR) for Mapping of Key Natural Resources:

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Conducting comprehensive mapping of key natural resources, including forests, water bodies, land, and wetlands, using GIS and remote sensing technologies.
- 2. Developing detailed maps and datasets to support planning interventions for water management, erosion control, and sustainable land management.
- 3. Integrating data from various sources and stakeholders to ensure accuracy and completeness of the mapped resources.
- 4. Collaborating with stakeholders to identify priority areas for intervention based on mapped data and stakeholder input.
- 5. Providing technical expertise and support to stakeholders for the interpretation and utilization of mapped data for decision-making and planning.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Comprehensive maps and datasets of key natural resources, including forests, water bodies, land, and wetlands, in designated areas.
- 2. Documentation of mapping methodologies, data sources, and accuracy assessments.
- 3. Training materials and capacity-building initiatives for stakeholders involved in natural resource management and planning.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimizing mapping activities.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in geographic information systems (GIS), remote sensing, and spatial analysis, preferably in the context of natural resource management.
- 2. Expertise in mapping key natural resources and conducting spatial analysis to support decision-making and planning.
- 3. Knowledge of relevant software tools and technologies for GIS and remote sensing data processing and analysis.
- 4. Strong communication and collaboration skills, with the ability to work effectively with diverse stakeholders and institutions involved in NRM.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to mapping key natural resources, particularly in using GIS and remote sensing technologies.
- 2. Quality and accuracy of proposed mapping methodologies and data collection techniques.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on supporting sustainable NRM interventions.
- 4. Cost-effectiveness and value for money in the implementation of mapping activities.

b) Terms of Reference (TOR) for Improving key INRM support infrastructure:

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Assessing key INRM support infrastructure, including meteorological stations, river gauging systems, soil and water quality assessment laboratories, and NRM stations.
- 2. Identifying areas for improvements, upgrades, or new installations based on the assessment findings and project requirements.
- 3. Making necessary improvements and upgrades to existing infrastructure, including repairs, calibration, and installation of new sensors or equipment.
- 4. Installing new infrastructure, such as additional meteorological stations or river gauging systems, to fill gaps in data collection and monitoring.
- 5. Establishing linkages with MNOs to enhance the dissemination of data, forecasts, and information generated through the improved infrastructure.
- 6. Developing API access, metadata, and integration capabilities for sharing data with relevant stakeholders/partners.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Assessment report detailing the state of existing infrastructure, areas for improvements, and recommendations for upgrades or new installations.
- 2. Documentation of improvements, upgrades, and new installations made to key INRM support infrastructure.
- 3. Establishment of linkages with MNOs for knowledge dissemination and resilience/sustainability enhancement.
- 4. Development of API access, metadata, and integration capabilities for sharing data with stakeholders/partners.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

1. Extensive experience in assessing, improving, and installing infrastructure related to natural resource management and environmental monitoring.

- 2. Expertise in project management, particularly in coordinating infrastructure improvements and installations in remote or challenging environments.
- 3. Knowledge of meteorology, hydrology, soil science, and environmental monitoring principles.
- 4. Experience in collaborating with MNOs and implementing data dissemination strategies through mobile platforms.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to improving key INRM support infrastructure.
- 2. Quality and feasibility of proposed methodologies and strategies for infrastructure assessment, improvement, and installation.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing data collection, monitoring, and decision-making processes for natural resource management.
- 4. Cost-effectiveness and value for money in the assessment and improvement of key INRM support infrastructure.

c) Terms of Reference for rehabilitation of smallholder irrigation schemes

Scope of Work:

The selected contractor/service provider will undertake the following tasks:

- 1. Rehabilitation of smallholder irrigation schemes
- 2. Collaboration with relevant stakeholders, including government bodies and local communities, to identify suitable locations and ensure community participation in the project.
- 3. Development of detailed plans for the construction and management of smallholder irrigation schemes, adhering to industry standards and environmental regulations.
- 4. Provision of technical assistance and capacity building activities to empower farmers in the sustainable management of the smallholder irrigation schemes
- 6. Implementation of monitoring and evaluation mechanisms to assess the performance and impact of the rehabilitated smallholder irrigation schemes.

Deliverables:

The contractor/service provider is expected to deliver the following outputs:

- 1. Rehabilitated smallholder irrigation schemes
- 2. Regular progress reports documenting achievements, challenges, and recommended actions.
- 3. Detailed plans outlining the design, construction, and management of smallholder irrigation schemes

Qualifications and Expertise:

The contractor/service provider should possess the following qualifications and expertise:

- 1. Demonstrated experience in civil engineering and infrastructure development, particularly in agricultural water management projects.
- 2. Proven track record in managing similar projects, with an emphasis on community engagement and sustainability.
- 3. Expertise in aquaculture water management practices and environmental sustainability principles.
- 4. Knowledge of relevant regulations and standards governing irrigation infrastructure projects.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience in agricultural water management and infrastructure development.
- 2. Feasibility and effectiveness of proposed methodologies for constructing and managing smallholder irrigation schemes
- 3. Understanding of project objectives and commitment to promoting sustainability and community involvement.
- 4. Cost-effectiveness and value for money in implementing the project.

d) Terms of Reference for multi-purpose water supply community systems

Scope of Work:

The selected contractor/service provider will undertake the following tasks:

- 1. Design and construction of multi-purpose water supply community systems
- 2. Collaboration with relevant stakeholders, including government bodies and local communities, to identify suitable locations and ensure community participation in the project.
- 3. Development of detailed plans for the construction and management of multi-purpose water supply community systems, adhering to industry standards and environmental regulations.
- 4. Integration of water quality management measures into the design and operation of multi-purpose water supply community systems, particularly for the domestic use element.
- 5. Provision of technical assistance and capacity building activities to empower community groups in the sustainable management of the multi-purpose water supply community systems.
- 6. Implementation of monitoring and evaluation mechanisms to assess the performance and impact of the constructed multi-purpose water supply community systems.

Deliverables:

The contractor/service provider is expected to deliver the following outputs:

- 1. Construction and establishment of multi-purpose water supply community systems
- 2. Regular progress reports documenting achievements, challenges, and recommended actions.
- 3. Detailed plans outlining the design, construction, and management of multi-purpose water supply community systems

Qualifications and Expertise:

The contractor/service provider should possess the following qualifications and expertise:

- 1. Demonstrated experience in civil engineering and infrastructure development, particularly in water management projects.
- 2. Proven track record in managing similar projects, with an emphasis on community engagement and sustainability.
- 3. Expertise in aquaculture water management practices and environmental sustainability principles.
- 4. Knowledge of relevant regulations and standards governing water supply infrastructure projects.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience in water management and infrastructure development.
- 2. Feasibility and effectiveness of proposed methodologies for constructing and managing multi-purpose water supply community systems
- 3. Understanding of project objectives and commitment to promoting sustainability and community involvement.
- 4. Cost-effectiveness and value for money in implementing the project.

Terms of Reference (TOR) for Climate proofed feeder road rehabilitation

Objectives:

The primary objective of this assignment is to oversee the rehabilitation of feeder roads to link agricultural production sites of selected value chains to markets. Rehabilitation will need integration of climate resilience measures to enhance road durability and use during all weather conditions.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- Implement the rehabilitation, upgrading, and maintenance of all-weather feeder roads, in collaboration with the county governments, and following the government standards
- Develop detailed plans for road rehabilitation, ensuring alignment with project objectives and budgetary constraints.
- Conduct regular site visits to monitor progress, identify challenges, and provide necessary guidance for successful implementation.
- Coordinate with relevant stakeholders, including farmers and market representatives, to ensure the effective connectivity of roads.
- Provide technical expertise on climate resilience measures and ensure their incorporation into road rehabilitation activities.
- Prepare comprehensive reports documenting project progress, challenges encountered, and recommendations for improvement.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Implementation and rehabilitation of all-weather access roads
- Detailed plans for the construction and upgrading of the roads
- Regular progress reports outlining achievements, challenges, and recommended actions.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Extensive experience in civil engineering, with a focus on road construction and infrastructure development.
- Proven track record in managing similar projects, preferably in the context of rural development and market access enhancement.
- Strong understanding of climate resilience measures and their integration into road infrastructure projects.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to the assignment.
- Quality and feasibility of proposed methodologies and work plans.
- Demonstrated understanding of project objectives and stakeholder needs.
- Cost-effectiveness and value for money.

Terms of Reference (TOR) for Produce Storage Facilities, Aggregation Centres, Warehousing:

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- Designing and constructing produce storage facilities, aggregation centers, and warehouses according to industry standards and regulatory requirements.
- Identifying suitable locations for the establishment of storage facilities and aggregation centers in consultation with relevant stakeholders.
- Developing detailed plans for the construction and equipping of storage facilities, aggregation centers, and warehouses, ensuring adherence to quality and safety standards.
- Implementing temperature-controlled storage solutions to maintain optimal storage conditions and preserve product quality.
- Installing modern handling and packaging equipment in warehouses to facilitate efficient distribution and marketing of agricultural produce.
- Providing technical expertise and support to ensure the effective operation and management of storage facilities, aggregation centers, and warehouses.
- Conducting capacity-building activities to enhance the skills and knowledge of stakeholders involved in produce management and distribution.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Establishment of produce storage facilities, aggregation centers, and warehouses at designated locations.
- Documentation of construction activities, including detailed plans, progress reports, and quality assurance measures.
- Installation of temperature-controlled storage infrastructure and modern handling equipment in warehouses.
- Training materials and capacity-building initiatives for stakeholders engaged in produce management and distribution.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Extensive experience in infrastructure development, with a focus on storage facilities and warehousing.
- Proven track record in managing similar projects, preferably in NRM and rural agricultural settings.
- Expertise in designing and implementing temperature-controlled storage solutions and modern handling equipment.
- Knowledge of regulatory requirements and industry standards related to produce storage and distribution.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to infrastructure development and agricultural produce management.
- Quality and feasibility of proposed methodologies and work plans for establishing storage facilities, aggregation centers, and warehouses.
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on optimizing storage and distribution of agricultural produce.
- Cost-effectiveness and value for money in the construction and equipping of storage facilities, aggregation centers, and warehouses.

Terms of Reference for Smart Kiosks and Smart Markets Integration Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Designing and implementing Smart Kiosks and Smart Markets integrated with renewable energy and sustainable infrastructure.
- 2. Establishing temperature-controlled storage facilities using solar energy to preserve quality and reduce post-harvest losses.
- 3. Collaborating with stakeholders to identify suitable locations for the construction of Smart Kiosks and Smart Markets.
- 4. Developing detailed plans for the construction and equipping of the Smart Markets, ensuring compliance with quality standards and sustainability principles.
- 5. Integrating water and renewable energy sources into the design and operation of Smart Kiosks and Smart Markets to enhance sustainability and minimize environmental impact.
- 6. Providing technical expertise and support to facilitate the efficient management of Smart Kiosks and Smart Markets.
- 7. Conducting regular monitoring visits to assess progress, address challenges, and ensure the successful implementation of the project.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation and construction of Smart Kiosks and Smart Markets infrastructure.
- 2. Regular progress reports documenting achievements, challenges, and recommended actions.
- 3. Detailed plans for the construction

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in smart infrastructure and engineering, with a focus on infrastructure development and renewable energy integration.
- 2. Proven track record in managing similar projects, preferably in rural development and market access enhancement.
- 3. Expertise in project management, stakeholder engagement, and infrastructure development within the NRM sector.
- 4. Knowledge of environmental sustainability principles and experience in integrating renewable energy sources into infrastructure design and operations.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to the assignment, particularly in infrastructure development and renewable energy integration.
- 2. Quality and feasibility of proposed methodologies and work plans for the establishment of Smart Kiosks and Smart Markets.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing post-harvest efficiency and profitability in the NRM sector.
- 4. Cost-effectiveness and value for money in the construction and equipping of Smart Kiosks and Smart Markets.

Terms of Reference (TOR) for Micro-Mobility Solutions

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Conducting a needs assessment to identify transportation challenges and requirements within agricultural areas.
- 2. Designing and implementing electric and non-electric micro-mobility solutions, including bicycles, tricycles, electric scooters, and other appropriate vehicles.
- 3. Collaborating with local communities, agricultural cooperatives, and relevant stakeholders to ensure the effective implementation and utilization of micro-mobility solutions.
- 4. Providing training and capacity-building initiatives for users and operators of micromobility vehicles to promote safe and efficient/maintenance transportation practices.
- 5. Conducting monitoring and evaluation activities to assess the impact of micro-mobility solutions on accessibility, transportation efficiency, and environmental sustainability.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation of electric and non-electric micro-mobility solutions within agricultural areas.
- 2. Establishment of infrastructure and support systems to facilitate the adoption and usage of micro-mobility solutions.
- 3. Documentation of training materials and capacity-building initiatives for users and operators of micro-mobility vehicles.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimizing micro-mobility solutions.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in implementing transportation solutions, preferably in rural or agricultural settings.
- 2. Expertise in electric and non-electric micro-mobility technologies and infrastructure development.
- 3. Knowledge of sustainable transportation practices and experience in promoting environmentally friendly mobility solutions.
- 4. Strong communication and stakeholder engagement skills, with the ability to collaborate effectively with diverse groups and organizations.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to micro-mobility solutions, particularly in rural or NRM/agricultural contexts.
- 2. Quality and feasibility of proposed methodologies and strategies for implementing micro-mobility solutions.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on enhancing accessibility and transportation efficiency within NRM/agricultural areas.
- 4. Cost-effectiveness and value for money in the implementation of micro-mobility solutions.

Terms of Reference (TOR) for Commodity Platforms

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Establishing commodity platforms within target value chains, including agriculture, livestock, forestry and other identified value chain, based on identified priority areas and stakeholder needs.
- 2. Organizing regular meetings, workshops, and events to facilitate dialogue, networking, and collaboration among stakeholders within commodity platforms.

- 3. Providing technical assistance and capacity-building support to strengthen the organizational capacity and effectiveness of commodity platforms in addressing value chain challenges.
- 4. Developing advocacy strategies and engaging with policymakers, government agencies, and other relevant stakeholders to advocate for policy reforms and investments that support the sustainable development of target value chains.
- 5. Monitoring and evaluating the performance and impact of commodity platforms, including their contribution to resolving value chain challenges, promoting business linkages, and influencing policy decisions.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Establishment of commodity platforms within target value chains, including documented terms of reference, governance structures, and membership profiles.
- 2. Regular reports on the activities, achievements, and challenges of commodity platforms, including recommendations for improvement and sustainability.
- 3. Documentation of best practices, lessons learned, and successful interventions within target value chains, shared through knowledge-sharing platforms and communication channels.
- 4. Advocacy materials, policy briefs, and recommendations for policy reforms and investments to support the sustainable development of target value chains.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in facilitating multi-stakeholder platforms, partnerships, and networks within the agricultural sector or related fields.
- 2. Expertise in value chain analysis, market development, and policy advocacy, with a focus on sustainable agriculture and rural development.
- 3. Strong communication, facilitation, and networking skills, with the ability to engage effectively with diverse stakeholders, including government agencies, private sector actors, civil society organizations, and research institutions.
- 4. Knowledge of local contexts, institutions, and dynamics within target value chains, including experience working in rural or marginalized communities.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to establishing commodity platforms and facilitating multi-stakeholder collaboration within target value chains.
- 2. Quality and feasibility of proposed methodologies and work plans for establishing commodity platforms, including clear objectives, activities, and expected outputs.

- 3. Demonstrated understanding of value chain dynamics, stakeholder needs, and systemic challenges affecting the target sectors.
- 4. Cost-effectiveness and value for money in the implementation of activities related to establishing and operationalizing commodity platforms within target value chains.

Terms of Reference (TOR) for Implementation of Waste Management Solutions: Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- Design and implementation of waste management solutions at smart markets, processing facilities, and other relevant sites within the agric sector.
- Incorporation of green, blue, and grey bin waste collection techniques for organic and non-biodegradable waste.
- Establishment of mechanisms for the collection, segregation, and utilization of organic waste for fish feed manufacturing and biogas generation.
- Collaboration with relevant stakeholders, including government agencies, cooperatives, and local communities, to ensure the successful implementation of waste management solutions and sourcing wastes from the smart kiosks and other sources.
- Provision of technical expertise and support to facilitate the adoption and maintenance of waste management practices by stakeholders.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Implementation of waste management solutions at smart markets, processing facilities, and other identified sites within the agric sector.
- Documentation of waste management processes, including collection techniques, segregation methods, and utilization strategies.
- Training materials and capacity-building initiatives for stakeholders involved in waste management activities.
- Regular progress reports detailing achievements, challenges, and recommended actions for optimizing waste management practices.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Demonstrated experience in implementing waste management solutions, preferably in the context of the agric sector or similar industries.
 - Expertise in waste collection, segregation, and utilization techniques, with a focus on environmental sustainability and resource efficiency.
 - Knowledge of circular economy principles and experience in integrating waste management practices into value chains.
 - Strong communication and stakeholder engagement, with the ability to collaborate effectively with diverse groups and organizations.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to waste management solutions, particularly in the Agric sector.
- Quality and feasibility of proposed methodologies and strategies for waste collection, segregation, and utilization.
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting environmental sustainability and resource efficiency.
- Cost-effectiveness and value for money in the implementation of waste management solutions within the agric sector.

Terms of Reference (TOR) for Afforestation and Reforestation:

Scope of Work:

The contractor/supplier will be responsible for the following tasks:

- 1. Implementing afforestation, reforestation, and bio-energy projects to restore forest ecosystems and promote sustainable resource management.
- 2. Prioritizing the planting of indigenous/native tree species and neglected underutilized species to enhance biodiversity and ecosystem services.
- 3. Advocating for the replacement of invasive tree species with indigenous alternatives to mitigate deforestation and promote sustainable fuelwood sources.
- 4. Developing waste-to-energy solutions for converting organic waste into biogas or bioenergy as an alternative to deforestation and indigenous tree cutting.
- 5. Promoting the production and distribution of briquettes and energy-efficient cookstoves to reduce reliance on traditional cooking methods and minimize deforestation.
- 6. Collaborating with relevant stakeholders, including local communities, government agencies, and environmental organizations, to ensure the successful implementation of forest interventions.
- 7. Conducting regular monitoring and evaluation to assess the impact of forest interventions on biodiversity conservation, carbon sequestration, and community livelihoods.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation of afforestation, reforestation, and bio-energy projects in targeted forest areas.
- 2. Documentation of tree planting activities, including species selection, planting techniques, and monitoring protocols.
- 3. Development of waste-to-energy solutions for organic waste management and alternative energy production.
- 4. Distribution of briquettes and energy-efficient cookstoves to targeted communities to reduce reliance on fuelwood and minimize deforestation.

5. Regular progress reports documenting achievements, challenges, and recommended actions for optimizing forest interventions.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Extensive experience in forest management, afforestation, and reforestation projects.
- 2. Expertise in agroforestry, biodiversity conservation, and ecosystem services restoration.
- 3. Knowledge of waste-to-energy technologies and alternative energy solutions for sustainable forest management.
- 4. Strong communication and stakeholder engagement skills, with experience working with local communities and government agencies.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to forest management and sustainable resource management.
- 2. Quality and feasibility of proposed methodologies and work plans for forest interventions.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on biodiversity conservation and community livelihoods.
- 4. Cost-effectiveness and value for money in the implementation of forest interventions under the INReMP.

Terms of Reference (TOR) for Improved Cookstove Promotion Initiative:

Scope of Work:

The contractor/supplier will undertake the following tasks:

- Designing and manufacturing 100,000 high-efficiency cookstoves meeting quality and sustainability standards.
- Establishing distribution networks and dissemination strategies to ensure equitable access to cookstoves across every county, with a focus on women-led households.
- Conducting awareness campaigns to educate communities about the benefits of highefficiency cookstoves and promote behavior change.
- Collaborating with local communities, government agencies, and NGOs to identify suitable placement locations for cookstoves.
- Providing training and capacity-building initiatives for women and youth engaged in cookstove manufacturing and trading.
- Monitoring and evaluating the impact of the initiative, including environmental, social, and economic outcomes.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- Production and dissemination of 100,000 high-efficiency cookstoves across every county.
- Distribution networks and dissemination strategies established to ensure equitable access to cookstoves.
- Awareness campaigns conducted to educate communities about the benefits of highefficiency cookstoves.
- Placement locations identified and cookstoves installed in landscapes to combat deforestation and promote sustainable resource use.
- Training and capacity-building initiatives provided for women and youth engaged in cookstove manufacturing and trading.
- Monitoring and evaluation reports documenting the impact of the initiative on environmental, social, and economic outcomes.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- Experience in designing and manufacturing high-efficiency cookstoves meeting quality and sustainability standards.
- Demonstrated ability to establish distribution networks and conduct awareness campaigns targeting diverse communities.
- Expertise in working with local communities, government agencies, and NGOs to implement sustainable development initiatives.
- Knowledge of environmental sustainability principles and experience in promoting behavior change for sustainable resource use.
- Strong monitoring and evaluation skills to assess the impact of the initiative on environmental, social, and economic outcomes.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- Technical expertise and experience relevant to the assignment, particularly in cookstove design, manufacturing, and dissemination.
- Quality and feasibility of proposed strategies for distributing cookstoves and conducting awareness campaigns.
- Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting environmental sustainability, gender equality, and economic empowerment.
- Cost-effectiveness and value for money in the production and dissemination of high-efficiency cookstoves across every county.

Terms of Reference (TOR) for Erosion Control Measures, Conservation Agriculture Techniques & Climate-Smart Livestock Farming Practices

Objectives:

The primary objective of this assignment is to implement erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across 39,000 hectares of land within the framework of INReMP. Specific objectives include:

- 1. Introducing erosion control measures, including vegetative cover and physical structures, to prevent soil erosion and sedimentation in water bodies.
- 2. Implementing conservation agriculture techniques such as minimal tillage, cover cropping, and crop rotation to reduce soil disturbance, improve water retention, and enhance carbon sequestration in the soil.
- 3. Promoting climate-smart livestock farming practices, including rotational grazing and improved feeding practices, to optimize land use, reduce emissions, and enhance soil health.
- 4. Encouraging organic farming methods that avoid synthetic fertilizers and pesticides to enhance soil health, promote biodiversity, and contribute to carbon sequestration in the soil.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Designing and implementing erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across designated areas within the INReMP framework.
- 2. Collaborating with relevant stakeholders, including farmers, agricultural extension workers, and local communities, to identify suitable locations and prioritize interventions.
- 3. Developing detailed plans for the implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices, ensuring alignment with project objectives and sustainability principles.
- 4. Providing technical expertise and support to farmers and livestock keepers for the adoption and implementation of sustainable land management practices.
- 5. Conducting training sessions and capacity-building initiatives to enhance awareness and knowledge of erosion control, conservation agriculture, and climate-smart livestock farming practices among stakeholders.
- 6. Monitoring and evaluating the effectiveness of implemented interventions, identifying challenges, and recommending adjustments as necessary to ensure successful outcomes.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Implementation of erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices across 39,000 hectares of land.
- 2. Documentation of implemented interventions, including maps, reports, and monitoring data.
- 3. Training materials and capacity-building resources for stakeholders involved in sustainable land management practices.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimization.

Qualifications and Expertise:

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The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in implementing sustainable land management practices, preferably in agricultural and livestock farming contexts.
- 2. Expertise in erosion control, conservation agriculture, and climate-smart livestock farming techniques, with a focus on environmental sustainability and productivity enhancement.
- 3. Strong communication and facilitation skills, with the ability to engage effectively with diverse stakeholders and communities.
- 4. Knowledge of local agroecological conditions and socio-economic dynamics, with experience working in similar contexts.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to erosion control measures, conservation agriculture techniques, and climate-smart livestock farming practices.
- 2. Quality and feasibility of proposed methodologies and work plans for implementation within the INReMP framework.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on sustainable land management and livelihood improvement.
- 4. Cost-effectiveness and value for money in the implementation of interventions across 39,000 hectares of land.

Terms of Reference (TOR) for Wetlands:

Background:

Wetlands play a crucial role in maintaining ecological balance, biodiversity, and water resource management. However, many wetlands face degradation due to various anthropogenic activities. Implementing wetland rehabilitation and conservation measures aligned with national strategies is essential for sustainable ecosystem management. This TOR aims to outline the requirements for the successful rehabilitation and development of wetlands, including riparian areas, to promote conservation and productive use of water resources.

Objectives:

The primary objective of this assignment is to support the rehabilitation and development of identified wetlands/riparian areas to enhance water resource management and promote agricultural productivity. Specific objectives include:

- 1. Rehabilitating a minimum of 10 meters buffer zone around fenced wetlands/riparian areas to prevent encroachment and promote conservation.
- 2. Establishing water collection or access points at designated locations to facilitate agricultural use and productive utilization of water resources.
- 3. Implementing measures aligned with the national Wetlands Restoration Strategy, including planting bamboo and appropriate trees to protect riparian areas and enhance biodiversity.
- 4. Rehabilitating 14,900 hectares of wetlands within the program area to restore ecosystem functions and services.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Conducting site assessments to identify degraded wetlands/riparian areas requiring rehabilitation and conservation measures.
- 2. Developing rehabilitation plans for identified wetlands/riparian areas, incorporating measures such as buffer zone establishment and water access point construction.
- 3. Collaborating with relevant stakeholders, including local communities, government agencies, and environmental organizations, to implement wetland rehabilitation activities.
- 4. Procuring necessary materials and resources for the implementation of wetland rehabilitation projects, including bamboo and tree seedlings.
- 5. Monitoring and evaluating the progress of wetland rehabilitation activities, assessing ecological impacts, and adjusting strategies as necessary.
- 6. Providing technical expertise and support to local communities and stakeholders involved in wetland rehabilitation and conservation efforts.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Rehabilitation plans for identified wetlands/riparian areas, including maps, design drawings, and implementation schedules.
- 2. Establishment of buffer zones around fenced wetlands/riparian areas to prevent encroachment and promote conservation.
- 3. Construction of water collection or access points at designated locations to facilitate agricultural use and productive utilization of water resources.

- 4. Documentation of wetland rehabilitation activities, including progress reports, monitoring data, and success stories.
- 5. Capacity-building initiatives for local communities and stakeholders on wetland conservation and management.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Experience in wetland rehabilitation and conservation projects, with a focus on ecological restoration and biodiversity conservation.
- 2. Knowledge of national Wetlands Restoration Strategy and experience in implementing measures aligned with conservation goals.
- 3. Expertise in community engagement and stakeholder coordination, with the ability to work collaboratively with diverse groups and organizations.
- 4. Strong project management skills, including planning, implementation, monitoring, and evaluation of wetland rehabilitation activities.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to wetland rehabilitation and conservation, particularly in the context of ecological restoration and biodiversity conservation.
- 2. Quality and feasibility of proposed methodologies and strategies for implementing wetland rehabilitation activities.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting sustainable ecosystem management and water resource utilization.
- 4. Cost-effectiveness and value for money in the implementation of wetland rehabilitation projects.

Terms of Reference (TOR) for Payment for Ecosystem Services (PES), Carbon Credit and Tax Credit Schemes:

Background: In the pursuit of sustainable natural resource management (NRM), Payment for Ecosystem Services (PES), Carbon Credit, and Tax Credit schemes play crucial roles in incentivizing conservation efforts and mitigating environmental degradation. Building upon successful models such as the Rewards for Biomass and Soil Carbon (REDD) Mechanism, this TOR aims to establish robust mechanisms for implementing and overseeing PES, Carbon Credit, and Tax Credit schemes within the context of the Integrated Natural Resource Management Project (INReMP). These schemes will not only ensure equitable compensation for conservation activities but also stimulate private sector engagement in NRM initiatives.

Objectives: The primary objective of this assignment is to develop and implement effective PES, Carbon Credit, and Tax Credit schemes to incentivize conservation activities and promote sustainable NRM practices. Specific objectives include:

- 1. Establishment of a digital platform for implementing and overseeing PES, Carbon Credit, and Tax Credit schemes, ensuring transparency and accountability in compensation mechanisms.
- 2. Development of strategies for PES, Carbon Credit, and Tax Credit mechanisms focusing on water catchment protection, forest cover protection, and preservation of water sources, rivers, and wetlands.
- 3. Integration of conservation incentives with climate finance to provide opportunities for tax credits and carbon credit rebates, thereby actively engaging the private sector in NRM activities.
- 4. Facilitation of sustained private sector involvement in NRM activities by linking conservation incentives to critical natural resource opportunities.

Scope of Work:

The contractor/supplier will undertake the following tasks:

- 1. Design and implementation of a digital platform for PES, Carbon Credit, and Tax Credit schemes, ensuring robust monitoring, reporting, and verification (MRV) processes.
- 2. Conduct baseline assessments for carbon and biodiversity to measure and incentivize impactful conservation efforts.
- 3. Development of transparent measures and grading schemes to determine the level and value of rebates/benefits, as well as penalties for defaults or non-conformities.
- 4. Exploration of avenues for the private sector to adopt identified critical natural resource opportunities and offer ecosystem payment services to relevant stakeholders.
- 5. Collaboration with relevant stakeholders, including government agencies, local communities, and private sector entities, to ensure the successful implementation of PES, Carbon Credit, and Tax Credit schemes.

Deliverables:

The contractor/supplier is expected to deliver the following outputs:

- 1. Establishment and operationalization of a digital platform for PES, Carbon Credit, and Tax Credit schemes.
- 2. Documentation of baseline assessments, methodologies, and grading schemes for conservation incentives.
- 3. Training materials and capacity-building initiatives for stakeholders involved in PES, Carbon Credit, and Tax Credit schemes.
- 4. Regular progress reports outlining achievements, challenges, and recommended actions for optimizing the schemes.

Qualifications and Expertise:

The contractor/supplier should possess the following qualifications and expertise:

- 1. Demonstrated experience in implementing PES, Carbon Credit, and Tax Credit schemes, preferably in the context of natural resource management or conservation.
- 2. Expertise in MRV processes, baseline assessments, and incentive mechanisms related to ecosystem services and carbon sequestration.
- 3. Strong communication and stakeholder engagement skills, with the ability to collaborate effectively with diverse groups and organizations.
- 4. Knowledge of climate finance mechanisms and experience in integrating conservation incentives with private sector initiatives.

Evaluation Criteria:

Proposals will be evaluated based on the following criteria:

- 1. Technical expertise and experience relevant to PES, Carbon Credit, and Tax Credit schemes, particularly in the context of natural resource management.
- 2. Quality and feasibility of proposed methodologies and strategies for implementing and overseeing the schemes.
- 3. Demonstrated understanding of project objectives and stakeholder needs, with a focus on promoting sustainable NRM practices.
- 4. Cost-effectiveness and value for money in the establishment and operation of PES, Carbon Credit, and Tax Credit mechanisms.

Terms of Reference for the Baseline Survey

Consulting services for conducting baseline survey for the INReMP

Prior to issuing the ToRs, the Project Team should submit the ToRs to IFAD's review and clearance.

Indicative table of Content:

- 1. BACKGROUND AND CONTEXT
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- 3. PURPOSE AND OBJECTIVES OF THE CONSULTANCY
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- 1. DETAILED TARGETING STRATEGY
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BACKGROUND AND CONTEXT

General presentation of the project

The Integrated Natural Resource Management Project (INREMP) was designed in 2023. INREMP is implemented by the State Department for Agriculture INReMP's goal is to 'contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem'. Its Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'. INREMP was ratified in ...2024 and the financing agreement was signed in

1.2 Institutional framework:

The INREMP) Project is a collaboration following an agreement between the International Fund for Agriculture Development (IFAD) and the Government of the Republic of Kenya (GOK). The implementation is led by the State Department for Agriculture in the Ministry of Agriculture and Livestock.

2.0 DESCRIPTION OF THE PROJECT

The Integrated Natural Resource Management Project (INREMP) is an 8-year project whose implementation commenced in xxx, 2025. The goal of INREMP is 'contribute to improved rural households', food, nutrition, and income security in a sustainable and resilient ecosystem'. Its Development Objective is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'.

- **2.1 Programme Outcomes** INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes: a) Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action; b) Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and c) Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.
- **2.2 Implementation Arrangements** Programme implementation will be mainstreamed into the GoK system, both at national and county levels. The State Department for Agriculture of the Ministry of Agriculture and Livestock Development will be the lead implementing agency. The Department will delegate the day-to-day operation of the Programme to a Programme Coordination and Management Unit (PCMU) reporting

directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer. A National Programme Steering Committee (NPSC) will be set up to provide overall policy and strategic guidance to the Programme.

2.3 Project Area – INReMP implementation will follow a programmatic approach done in phases across different water towers in Kenya. In the first phase, INReMP will be implemented in the Cherangany Hills and Mau West water towers focusing on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. The second phase focal areas will be decided, with guidance from the Government, as and when additional funding is accessed.

2.4 Target Group – INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households (2,035,880 million people). These will be selected from the following target groups: a) food insecure and vulnerable rural farmer households (20% of project target); b) Moderately food insecure rural farmer households (40% of project target); c) Food secure, semi-structured and structured medium farmer households (30% of project target); and d) Micro, small and medium scale enterprises (10% of project target).

2.5 Theory of change:

Rural households living within Cherangany Hills and Mau West Water towers face several challenges that make them highly vulnerable to the ever-increasing adverse impacts of climate change. This is amplified by: a)high levels of pollution, degradation, and depletion of natural resources (land, water, forests); b) over reliance on unsustainable economic and livelihood options that are destructive to the environment; c) cross boundary conflicts that limit their sustainable exploration of the natural resources; d) limited crop and livestock diversification; e) limited access to water for production and irrigation infrastructure; and f) inefficient water management and production systems. In addition, these communities are faced with: a) limited and poor market systems; b) limited access to markets and weak private sector involvement in conservation activities as well as some value chains; c) weak institutional capacity and regulatory framework for policy development, harmonization, coordination, and enforcement; and d) weak capacities of community institutions to support community level INRM and livelihood improvement. To compound their challenges, the households experience high levels of malnutrition due to low access, availability to and consumption of nutritious foods. Also, the communities, especially youth, women, and indigenous people (where they exist), have limited access to incentives for participation in conservation activities and their livelihoods are equally threatened by high prevalence of gender-based violence, HIV/AIDS, early marriages.

Lessons learnt from implementation of of similar interventions have shown that empowering communities through: a) promotion of energy saving and renewable energy technologies; b) adaptation and promotion of inclusive community-based climate-smart

and INRM technologies and practices; c) development of climate resilient water and irrigation infrastructure; d) promotion and use of digital technologies and improving production and productivity of diverse value chains and nature-based enterprises based on different agroecological zones can lead to enhanced environment and INRM, ecosystem services, and climate action.

In addition, developing climate proofed and nutrition sensitive market and post-harvest infrastructure and developing diverse value chain options can lead to improved inclusive and sustainable rural livelihoods. Also, enforcing relevant climate action, environment and INRM policies and regulations can lead to stronger policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

Against the above background, and within the framework of gender transformative programming, and community led planning and development, INReMP will thus: a) combat climate change, promote environment, natural resources and ecosystem restoration; b) manage climate and agricultural risks; c) facilitate social behaviour change and community-led INRM planning and development; d) enhance inclusive efficient climate-smart production and productivity of selected value chains; e) enhance inclusive agribusiness, climate and nutrition sensitive Market access and development; f) promote social inclusion and cohesion; and g) build institutional, organizational and policy capacity.

The successful implementation of these interventions will lead to: a) better integrated NRM, and enhanced resilience of poor rural people; b) sustainable food and nutrition security for rural households; and c) equitable social, economic empowerment, reduced empowerment, reduced poverty and enhanced social cohesion among the rural communities.

The accomplishment of these interventions presupposes hinges on: a) inclusive activities to ensure full participation of the youth, women and indigenous people, including affording them access to incentives for economic and livelihood diversification; b) acceptance of alternative livelihood interventions by the potential beneficiaries; c) private sector willingness to partner with communities and smallholder farmers on ecosystem restoration; d) households' willingness to change their nutrition behaviours; and e) efficient and effective devolved government structures whose leaders are willing to embrace gender transformative programming approaches and leveraging data to support tracking progress of interventions of natural resources and ecosystem restoration and lead conservation efforts. Such efforts are already being made in Elgeyo-Marakwet County

and Bomet County where county governments are championing conservation efforts to protect the water tower and the ecosystems within it

2.6 Components and main activities

The Project has 3 inter-linked Components namely;

- Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action – This component will support the target beneficiaries to sustainably manage key natural resources within their communities. It will focus on the following five key natural resources identified across all the ten counties during the INReMP design Mission: a) forests; b) rangelands; c) arable land; d) wetlands; and e) water resources (groundwater, springs, rivers/streams and lakes);
- ii. Component 2: Improved, Inclusive and Sustainable Rural Livelihoods - This component is essential for the success of component 1 (Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action). It seeks to support communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. These activities will serve as incentives for the communities to sustainably conserve the environment in which they live;
- Component 3: Institutional Strengthening, Policy Support and Programme iii. Coordination - This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of INReMP interventions. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for natural resources management. Interventions for strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

3. PURPOSE AND OBJECTIVES OF THE CONSULTANCY

3.1. **Purpose**

The consultancy aims at carrying out a baseline survey which will identify household characteristics before project interventions and generate benchmark information for logframe indicators. The baseline study will provide qualitative and quantitative information on the current socio-economic situation of households and will produce information that will be used to direct and guide project implementation processes.

3.2. **Objectives**

The main objective of the survey is to develop the sample design, conduct the data collection and analysis and report writing of the baseline survey to be used for the INReMP evaluation process. The survey will use a quasi-experimental approach where data will be collected on both a control group and treatment group (potential project beneficiaries). The survey will measure the baseline values of project outcome and impact indicators and individual/household characteristics at project start. The objective of this study is to conduct a baseline survey that will benchmark the targets and indicators for the Project including but not limited to those which are explicit in the log frame, a comprehensive survey that can be used by the Project and its implementation partners. In order to be useful for targeting and evaluation, the socio-economic baseline survey will rank households according to wealth, sex and age of the household-head. Moreover, the survey will cover the position of women and of youth in INRM and agricultural activities, and also mapping existing stakeholders, and socio-economic status of sub-catchments in the ten counties. The baseline survey will be conducted on a sample of the targeted beneficiaries. Baseline data provide information on beneficiaries and comparison groups before the programme is implemented and are important for measuring pre-intervention outcomes and establish benchmark information for selected indicators. The analysis of baseline data will also be used to assess targeting effectiveness, that is, whether or not the INREMP Project is going to reach its intended beneficiaries. The survey will combine the use of secondary and primary data collection methods and use both quantitative and qualitative methods. The tools to be used therefore in collecting and analysing the data will be a mixture of quantitative and qualitative tools. The process should be as participatory as possible involving rural communities, farmers and all the relevant stakeholders The survey will capture the GIS coordinates of the respondent households to facilitate assessments on the same households for the subsequent surveys.

4. METHODOLOGICAL REQUIREMENTS

The Programme intends to conduct the baseline survey to obtain quantitative data that will enable monitoring and evaluation of the Project's results. The scope of the services required under this Terms of Reference include the collection of data at the appropriate levels of implementation for analysis of: Individual Households, sub-catchments, and Rural Enterprises performance. In selected value chains. The research methods will be a systematic analysis of data and information from surveys, analytical reports, policies, standards, desk review, principles, and other literature on the state of integrated natural resource management in Kenya and specifically in the target areas. The set of indicators to be collected will be based on the Project's log-frame indicators. Qualitative in-depth interviews will be conducted with open-ended questions meant to stimulate discussion, focus group discussions with a wide range of stakeholders who have first-hand knowledge about community development, natural resource management, value chain development, access to finance and markets among others. Expert Panels, implementing partners, key Ministries, relevant state departments, peer reviews or external experts from Stakeholder groups will provide input on technical or other substance topics under Integrated Natural

Resources Management and Livelihood development. A sample of the target groups will be extracted from the selected counties in the Project development area disaggregated by age and gender at the different levels of implementation; household/homestead, subcatchment level. The survey will follow a quasi-experimental approach. The Consultant shall draw-up and compile a list of existing instruments which facilitate data collection at national, county, subcounty, ward, sub-catchment and household level and contribute to the regular monitoring, evaluation and reporting system of the Project. In addition, the Consultant shall ensure that the **Women's Empowerment in Agriculture Index** (WEAI) is fully incorporated into the survey exercise. The baseline surveys will include separate questionnaires which will be administered to establish a women's empowerment index. The WEAI is a comprehensive and standardized measure that directly captures women's empowerment and inclusion levels in the agricultural sector. There is consistent and credible evidence that when the status of women is improved, agricultural productivity increases, poverty is reduced, and nutrition improves. The WEAI is a tool for monitoring progress towards these objectives. (www.ifpri.org/book9075/ourwork/program/weai-<u>resource-center</u>).

4.1. Questionnaire and variables

The draft COI survey questionnaire adopted and adapted to the INReMP log frame outcomes indicators, when relevant will be prepared and included as part of the ToR.

4.2. Sampling method

The sample frame is the list of all the units in the desired population, from which random samples of units are selected to build the survey samples. The baseline survey shall as far as possible, use the same sample (GIS coordinates of the sample should be taken at baseline to facilitate midline and end line surveys). It is necessary that the contracted party maintains an accurate register of households sampled in both the treatment and comparison groups for future reference. INREMP will strive to reach 60% of men and 40% of women in the sample frame. Women will be targeted as individuals or in households constituted by couples as well as in women headed households (aiming for 30% of the total pool of beneficiaries to belong to this later group). Thirty per cent (30%) are expected to be youth (people aged 18-35). Among these target groups, people with disabilities, Indigenous persons and people living with HIV/AIDS will be considered as potential beneficiaries in their own right, in so far as they comply with entry requirements. This latter category of vulnerable people will represent 5% of the whole INREMP beneficiaries. A second strategy to be employed will be to raise the awareness of households with a person with disability the possibility of considering becoming project beneficiaries; people

with disabilities in this case will be targeted indirectly, through those that they largely rely on.

4.3. Probability sampling:

Probability sampling refers to the sampling method in which all the members of the population has an equal chance to be a part of the sample and it uses random selection to select the sample within the desired population. The sample should be stratified in order to reflect the different geographical regions and target sub-groups (women, youth, etc.) described above in the 'project characteristics and targeting' section.

4.4. Data quality control

As data is collected and entered into a storage mechanism (tablet), checking for errors and data quality is an important step and sufficient time should be allocated to review the data and assure its quality.

The following strategies shall be used:

- Double data entry.
- Spot checking.
- Sort data to find missing data, outliers, high, or low values.
- Use automation, such as drop-down menus.
- Format a database to accept only numbers.
- Review data for anomalies.
- Discuss data discrepancies and/or findings with the Project team.

Data-quality checks will be implemented while collecting the data rather than ex-post as in the case of paper -based surveys by using electronic devices for the data collection.

4.5. Computer entry

Data will be captured through an electronic system; the use of electronic devices and georeferencing is recommended.

4.6. Analysis and report

Analysis

Findings shall be analyzed both at global level (all data combined) and also using the stratification laid out above for the sampling methodology (e.g. specific findings for women, youth, for the specific counties, sub-counties, wards, sub-catchments or households). The survey reports will be structured around the programme outcome and impact indicators. The quantitative data shall be presented in detailed and summarized tables for each indicator, which should be accompanied by text and analytical comments

in addition to the study process, the meaning of the data and the statistical significance. The qualitative data will be presented in a separate chapter.

Report

While writing the report, the firm will work in close collaboration with the Project Teams (PCMU and CPITs) and other implementing partners, to enable a learning process and to maximize transparency and accountability.

Once the survey has been conducted and its quality controlled, the analysis of the results shall be presented in a report. The report summarizes the conclusions emerging from the analysis and includes the following elements:

- the description of the methodology used
- the questionnaire
- the list of units surveyed
- the results of the survey
- the updated log frame
- the ToC and its description based on the results of the survey
- the analysis and interpretation of the results (detailed analysis with statistical significance and summarized tables for each indicator) The survey database should also be provided to project.

4.7. List of activities

Phase 1 - Inception phase

Initial situational analysis - review of project materials and data: The Project Team shall be responsible for providing key background documentation to the firm (financing agreements, Log frame, ToC, start-up reports, Project Design report, List of beneficiaries if any or preliminary listing of potential beneficiaries, secondary data, etc.)

Phase 2 –Sampling strategy and survey instrument development

- Development of the survey questionnaire based on the draft provided by the Project.
 - Development of the sampling design
- Clearance by Project Team and IFAD of pilot sampling design and the questionnaire.
 - Develop interview manuals and instructions for field staff
 - Training of interviewers for the pilot study.
 - Pilot study fieldwork.
 - Revision of the pilot study questionnaires.

- Analysis of pilot study results, introducing adjustments to the draft questionnaire.
 - Development of the Final Questionnaire.
- Development of an appropriate data management system with adequate quality controls.
- Clearance of the final questionnaire and sampling design by Project Team and IFAD.

Phase 3 – Fieldwork Activities

- Preparation for field work (recruitment of interviewers, uploading of questionnaires not the data collection app and other fieldwork documents).
 - Staffing and Enumerator training
 - Administrative approval from necessary authorities
 - Quantitative data collection at the appropriate level of analysis
 - Data quality control
- Qualitative data collection (focus group discussion/semi structured in-depth interviews

Phase 4 - Data Processing, Analysis and Final Report Preparation

- Database formation.
- Data entry and cleaning.
- Statistical analysis of the data.
- Preparation of the final report.
- Translation of the final report.
- Clearance of the report.

4.8. Deliverables

Once selected, the firm will produce the following deliverables for the survey

- **Deliverable 1:** Updated working calendar and delivery schedule
- **Deliverable 2:** Survey design describing the sampling strategy, data collection instruments and data entry methodology
- **Deliverable 3:** Final questionnaire including electronic format (Stata, SPSS or SAS).
- **Deliverable 4:** List of households to be interviewed and list of communities/villages surveyed
 - **Deliverable 5:** Training manual for field staff and enumerators
 - **Deliverable 6:** Training of field staff and enumerators
 - **Deliverable 7:** Inception Report

- Deliverable 8: Final Survey Report Analysis and Reporting
- **Deliverable 9:** Clean dataset
- Deliverable 10: GIS coordinates of respondent households
- **Deliverable 11:** Compendium of photos of major scenes visited during the study
- Deliverable 12: An updated project logframe with survey results incorporated

The firm should deliver all the material in electronic format.

The expected tasks for the firm shall be performed in accordance with a mutually agreed schedule. Final deliverables should be submitted according to this schedule and within the limits of the contract duration.

Deliverables are subject to agreement by the Project Team and IFAD and preliminary versions should therefore be submitted by the firm in time allowing for comments to be shared and if required changes to be introduced by the firm.

5. COMPETENCIES REQUIRED

5.1. Firm/Consultant expertise and required qualifications

The selected firm shall possess the following qualifications:

- Previous experience in carrying out evaluation surveys is a compulsory requirement, including demonstrated experience in designing and conducting evaluations and of organizing surveys on the scale of this project (including survey and sampling design)
 - Strong capacity and experience in planning and organizing survey logistics
 - Good network of experienced enumerators, supervisors and data entry clerks
 - Strong capacity in data management and statistics
 - Strong capacity in survey analysis and reporting of results
 - Strong interpersonal skills and a team-oriented spirit
 - Experience doing household survey work and carrying out evaluations in [country].
 - Strong background in statistics and econometrics.

5.2. Key staff/ required staff

The proposed team should consist of reasonable number of qualified and experienced professionals having proven track record in designing and implementing socio-economic and baseline studies and/ or evaluation studies and having good depth of understanding of rural development, integrated natural resource management, livelihood development as well as gender and social inclusion. The bidders are

expected to propose a study coordinator/Team Leader and an appropriate number of experts, field supervisors, enumerators and support staff.

Minimum **key professional staff positions** (recommended):

- One study coordinator/team leader: Advanced degree in economics, statistics, agribusiness, agricultural economics, or related field. At least five years relevant experience in conducting impact evaluations, large quantitative survey implementation and analysis, experience in household and agricultural data collection and analysis required, ability to coordinate teams and ensure timely reporting. The study coordinator/Team Leader will be in charge of coordinating the planning and implementation of the survey and ensuring that the work is conducted following the highest professional standards. The individual will be in charge of ensuring that the quality control and supervision mechanism in place for the survey is effective, manage the data collection team and ensure that each member performs their specific scope of work.
- One expert in survey implementation and field supervision: Minimum five years' experience with large survey implementation, experience in implementing household and agricultural surveys required. Preferably with previous experiences in conducting surveys in Eswatini.
- One socio-economic researcher: Advanced degree in Sociology, Statistics, Economics, Agricultural Economics, Agribusiness or related fields, at least five years' experience in analyzing survey data using STATA or equivalent software. Strong background and experience in statistics and econometrics is required. Ability to write clearly and concisely in English. Previous experience in impact evaluation is preferred.
- One Agribusiness and livelihoods Specialist: Minimum of an Advanced Degree in Agribusiness Management, with proven experience in value chain development and management of agro-enterprises. Experience in benchmarking agri-business development indicators is desirable
- One Environment and natural resources management: An advanced university degree in environmental and NRM studies, Climate Change, or related field, at least 5 years' experience in the NRM and Climate Change sub-sectors. Should have a thorough understanding of the rural finance and micro finance with a particular focus on agricultural finance and knowledge of the cooperative sector
- One computer specialist in data entry and databases: Minimum experience of three years with large survey data sets and data entry software required. The data specialist will develop an appropriate data management system with adequate quality controls and finalize the data management system before the data collection

team moves to the field. The data management system would also be organized in such a way as to deliver partial datasets on a regular basis to the Project Team.

Minimum **key support staff positions** (recommended):

- Field supervisors: Minimum of 2-3 field supervisors should be hired (best ratio would be 1 supervisor every 4 enumerators). They should be chosen based on the firm's best practices. Some degree of knowledge of local languages is expected at least from a sufficient number of the supervisors. At least two years' experience in conducting or managing household surveys is required.
- Survey enumerators: Minimum of 8-10 enumerators should be hired. Minimum qualifications include knowledge of local language. Preference should be given to candidates with experience in quantitative data collection in rural Eswatini, namely, on the themes of the questionnaire.
- Data entry technicians: Minimum qualifications include knowledge of local language and advanced computer skills. Preference should be given to candidates with experience in quantitative data entry and/or previous experience in survey work.
- GIS field officers: The firm should provide 1GIS officer. The specialist should also be responsible for organizing the GIS information and its linkage to the overall database

6. ADMINISTRATIVE AND OTHER ASPECTS

6.1. **Proposal content**

Interested consulting companies should submit their applications consisting of the following documents/information to demonstrate their qualifications: in accordance with ITT of ITB no...

- **Technical Proposal** will include: the profile of the company, relevant experience for the assignments, staffing (CV of each team member), proposed methodology to perform the assessment, the size of the sample to be analyzed, the work plan and schedule (activities) and resources (including number of person-day).
- Financial proposal will obligatory include the consulting fee and operational expenditures related to the assignment. The survey company will provide a break-down of the budget by the activities mentioned in the Activities section above and by phase of study i.e. Baseline, Midline and End line/completion survey.

Conditions for offer's submission

To be considered interested companies should submit their proposal (technical and financial offer) in original and a copy in separate sealed envelopes. Each envelope will consist of the technical and financial offer sealed in separate envelopes as well (a total of 2 envelopes, each with 2 envelopes inside) as detailed in the ITT or ITB no ...of the RFP.

6.3. Selection Process

The consulting company will be selected using Quality and Cost based selection method in accordance with **GOK's and IFAD procurement policies and procedures** and as detailed in section....of the data sheet under the Instruction to Consultants of the RFP

The final score obtained by each firm being composed of **[75%]** of the score for the parameter "Quality" (evaluated based on technical bid) and **[100-25%]** - score obtained for the parameter "Cost" (established based on financial bid). The financial offer will be opened only if the provided technical offer will pass the minimum technical score of **[75%]** points.

6.4. Budget and mode of payment

The Budget should cover all costs for remuneration of experts/staff including their travel and miscellaneous cost. For firms Value-added tax certificate is a must as per the GoK rules on taxes on provision of services.

According to the estimated timeframe and schedule of execution, payments for the services provided will be made, after the products/deliverables are submitted in a timely manner and cleared by the Project Team and IFAD.

Mode of payment: payments for each of the three assignments (baseline; midline; end-line) will be made in the following three instalments:

- 20% of the agreed budget as an advance upon signing of the agreement and upon receiving the inception report
- 30 % of the agreed amount one week after the submission of the 1st draft report.
- Remaining 50 % after satisfactory quality check by the project team after submitting the final report after incorporating the feedback and comments.

6.5. Conditions of the contract

The project will issue a performance-based contract to the successful firm for conducting the survey, that is to say, based on the quality and timeliness of the report. The assessment on the performance of the contract will be conducted by the PCMU M & E Specialist in consultation with IFAD, using the criteria presented here below:

- A) Quality of report (80 points)
- Implementation of methodology as proposed in the Technical Proposal: (50%)
- Completeness of data (all indicators agreed to in the inception report are included): (50%)
- B) Timeliness of final report submission: 20 points (20%)
- C) Total Score = A+B = 100

Performance ratings of 75 and above will be considered adequate for confirmation of deliverable.

6.6. Future Use of the Data

The clean dataset as well as the resulting reports will be property of INREMP. The availability and use of technological data collection equipment (Tablets) is a one of the prerequisites for carrying out the study. INREMP team will assess the adequacy and availability of the equipment subject to confirmation of the contract award to the successful team.

6.7 Reporting Arrangements

An inception report and confirmation or adjustment to the proposed work plan shall be submitted two weeks after commencement of each assignment and approval by the Project Management Team.

The Principal Secretary of the State Department for Agriculture has the overall responsibility for the assignment. The consulting firm will be answerable to the PCMU Coordinator for all coordination and operational aspects of the assignment. During the execution of the survey, the consultant(s)/ Firm will work closely with the Monitoring & Evaluation Specialist for the Project, in collaboration with implementing partners, other Project staff, primary stakeholder groups to enable a learning process and inclusive decision making and to maximise transparency and accountability.

The Project team shall be responsible for providing key background documentation to the consulting firm (financing agreements, start-up reports, Gender, Youth and Targeting strategy, Theory of Change, Logframe, supervision reports, etc.) as well as letters of introduction and liaison teams where necessary.

6.8 Time Frame

The consultant(s)/firm is expected to carry out the survey and submit a report in 90 Calendar days from the date commencement of each survey

ANNEXES of the TORs:

- 1. Detailed targeting strategy
- 2. Log frame
- 3. Theory of Change (ToC)
- 4. Project's data:

Data points within the survey tools should at minimum reflect the data on the key components to measure Project implementation. These should include but not limited to the following categories and modules:

Socio-economic Status

Household Level;

- Demographics
- Education
- Nutrition
- Health
- Food security
- Income, expenditure, and consumption
- Social safety nets
- Household enterprises
- Shocks and coping strategies
- Asset ownership

Chiefdom activities and stakeholder mapping

- Basic information
- Community needs, actions & achievements
- Access to basic services
- Communal resource management
- Economic activities
- Agriculture activities
- Communal organization
- Map stakeholders that are present in the target areas and that engage with the

same target group in the selected chiefdoms. Stakeholders include but are not limited to: non-profit or for-profit providers of services in adult/youth education and enterprise development, mobilization, business training, savings mobilization, access to credit, value addition, and/or market linkages micro-finance providers.

Agricultural Production

Farm Level

- Average plot size
- Land ownership
- Land usage
- Land allocation
- Plot details
- Labour details
- Market details
- Farm inputs
- Details on other farm inputs
- Agricultural activities
- Agricultural production Stats
- Sales and storage
- Livestock and crops
- Machinery
- Details on farmer groups and associations
- Insurance and other services available
- Access to extension services

Business Capacity

- Registration of business
- Record keeping
- Financial management
- Cash flow analysis
- Availability of collateral
- Access to financial services
- Availability and use of bank accounts

- Use of credit
- Capacity to save
- Understanding and use of insurance
- 5. Draft questionnaire: Adopted and adapted from the COI questionnaire template

ANNEX 2: GUIDELINES FOR PREPARATION OF ANNUAL WORK PLAN AND BUDGET AND PROGRESS REPORTS

Attached as a separate file.



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LEAD IMPLEMENTING AGENCY AND WITH FIDUCIARY RESPONSIBILITIES

- 1. The Lead Implementing Agency of the INREMP programme will be the Ministry of Agriculture and Livestock Development (MoALD) of Republic of Kenya. The Programme Coordination and Management Unit (PCMU) will be responsible for overall fiduciary management of the Programme under MoALD will be the overall accounting hub for the Programme. The PCMU will be responsible for ensuring the implementation of Programme activities and will have the following fiduciary responsibilities:
 - a) the preparation of Annual Work plans and Budgets ensuring a bottom-up approach and timely submissions for inclusions in government overall approved budget estimates;
 - b) Procurement planning, execution and support service;
 - c) Disbursement of funds to other implementing agencies as per funds flow structure,
 - d) Management of withdrawal applications from IFAD;
 - e) Financial management of the Programme, including supervising and ensuring compliance with government regulations.
 - f) Financial reporting and preparation of annual of financial statements for audits.
 - g) Any requests for No Objection to IFAD will emanate from the PCMU.

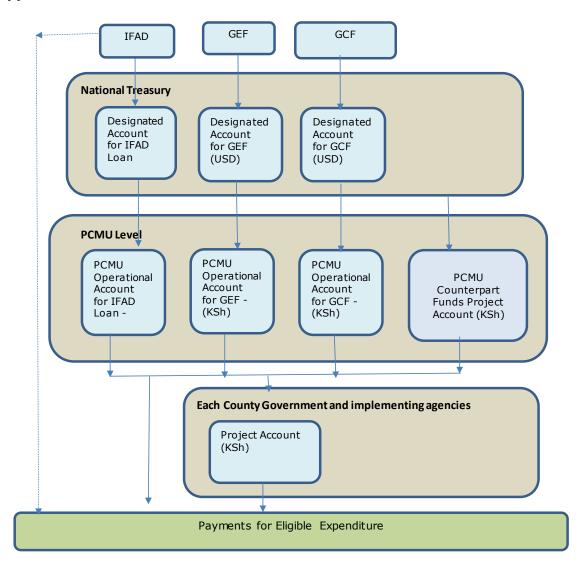
PLANNING & BUDGETING

- 2. The Programme is funded by various sources of funds namely IFAD, GCF, GEF, Beneficiaries contributions and Government of Kenya counterpart funds and shall therefore be subject to specific procedures. Budgeting of expenses and planning of operations in implementation areas shall be strictly related. The programme design report, Financing Agreements and any amendments thereof shall constitute the general framework of any annual or activity budgeting process within the course of the Programme.
- 3. Annual budgeting is a contractual obligation of the Financing Agreement. The Programme budgeting will be done in accordance with existing Government of Kenya procedures. The Annual Work Plan and Budget (AWPB) shall be approved by Programme Steering Committee and receive a no-objection from IFAD. The AWPB will be prepared and submitted early on time to IFAD, at least two months before the start of financial year in accordance with IFAD requirements. The AWPB will form the basis for defining the Programme activities and ensuring that sufficient funds are allocated to achieve the agreed results.
- 4. The purpose of the AWPB is to provide the Programme's management team with specific time and activity schedules, as well as detailed budgets for the impending year, thus facilitating the mobilisation of staff and resources when they are needed. The Annual Work Plan of activities serves as the instrument for emphasising and integrating management priorities for implementation, forecasting main procurement requirements and assigning detailed work responsibilities between implementing agencies and staff.
- 5. Cost estimates and budget allocations established during the development of the AWPB provide the basis for cost control and facilitate the release of funds by IFAD. The AWPB is the final document against which Programme performance shall be measured each year and the benchmark for monitoring physical and financial progress made by the Programme. The AWPB may be revised after half a year if significant changes occurred. It shall be the basis for reporting the Programme financial performance as per the required frequency (3 months). Non-compliance with budget / Cost Category may lead to cost ineligibility and a request for refund of already expensed cost to IFAD.

FLOWS OF FUNDS, BANK & CASH MANAGEMENT

- 6. IFAD disbursement procedures are outlined in detail in the Financial Management and Financial Control Letter (FMFCL). This part summarises the flows of funds and guides on cash and bank management.
- 7. There would be designated accounts for various sources of financing as per the funds flow diagram below to avoid commingling of funds. Each designated account will have a corresponding operational bank account in local currency. The project implementation is in-line with Government of Kenya administrative system; hence, funds are disbursed to activities to done in the counties. The PCMU may also pay for most project activities directly. However, it is envisaged for funds to disburse further to implementing counties for the payment of activities. The PCMU will also maintain a separate bank account in local currency for receiving funds from Government and processing counterpart costs. Below is a diagram summarising the flow of funds:

Appendix 1: Flow of Funds Chart



Direct payments would only be applicable under exceptional circumstances as will be described in the disbursements and Financial Management and Financial Control Letter. All major procurements activities and will be processed and paid from the PCMU that will be anchored within the MoALD. However, counties would be able to request funds to undertake procurement activities in their areas of operations to increase efficient and effectiveness of the programme. Counties will receive quarterly funding for planned activities and provide monthly financial and technical returns. Counties and the implementing agencies would each have one dedicated project account for receiving and processing these payments. The reporting template will be customized for each co-financier to provide clear financial reports by component, categories, and source of funds.

- 8. The PCMU would use an accounting system for recoding financial transactions and reporting to both IFAD and GoK. IFAD requires a financial system capable of (i) reporting expenditure per category and comparing budget vs actual for the current year and cumulatively since the start of project, (ii) reporting expenditure per component and comparing budget vs actual for the current year and cumulatively, (iii) reporting of expenditure per financier and (iv) extracting detailed listing of expenditure in required format. The accounting system must be capable of multiple analysis code for reporting on component, categories, and financiers, for reporting quarter, cumulative for the year and cumulative since start including in-kind contribution will be acquired at the start of the project. The selection of project finance staff will also consider the competence of the candidates to use computerised systems.
- 9. Programme financial statements: and any unspent balance by the end of the reporting period shall be consolidated as part of the overall Programme cash and bank balances. All bank accounts in the Programme shall follow a double signatory arrangement and have at least three authorised signatories, out of whom two signatures shall be required to authorise any payment by bank transfer or check.
- 10. IFAD requires the borrower's representative, as designated in the Financing Agreement, to provide satisfactory evidence of the authority, as well as authenticated specimen signatures of the individuals assigned to approve a Withdrawal Application (or 'WA') on behalf of the borrower. A sample template of WA Form is provided in the FMFCL. Each WA shall be signed by the authorised individuals and IFAD shall be notified of any change in the list of signatories authorised to withdraw funds from the loan or grant account.
- 11. IFAD shall also be notified of the designated authorised signatories for operating any Programme-related account, including changes thereto, whether or not these authorised signatories are included in the Financing Agreement. Such changes, as effected during the life of the Programme, shall be communicated promptly to IFAD. The borrower, guided by the sample provided with the FMFCL, shall 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 IFAD.
- 12. It is the Programme Finance Manager's responsibility to ensure that all WAs are correctly prepared, that the documentation is complete and submitted to IFAD in a timely manner. The necessary forms and supporting documentation to be attached to each WA are outlined in detail in the Project Financial Management and Financial Control Handbook.
- 13. The following staff positions have been provided for to ensure adequate coordination of payments for Programme expenditure, making appropriate accounting entries and financial reporting.

Implementation	Programme	Remarks
level	Staff position	
and numbers		
PCMU	 Finance manager. Project Accountant Two Accounts Assistant 	 The staffing is based on a similar IFAD funded Programme which has similar types of activities and implementation arrangement. These staff will be hired on two years contract, renewable based on
Counties	4. Seconded Project Accountants	performance which is expected to enhance performance.The staff will be hired as part of start-up activities.

14. The Programme Accounting team duties and responsibilities shall include:

- Installation of accounting systems to ensure that the PCMU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Kenya budget as required by the GoK budgeting processes and calendars including access to counterpart funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Communicate to all implementing partner institutions/ counties and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Assess compliance with Government of Kenya laws and regulations governing public financial management including adherence to international accounting standards, audits, and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with the prevailing standards.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Kenya and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Liaise with the other project implementing agencies/counties to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project

- implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
- Review eligibility of expenditure in accordance with the financing agreement.
- Report on the operation of internal control including budget controls and report any deviations.
- Assist the Project Coordinator with the Resource Mobilization of the Project.
- Deputize the Project Coordinator in matters project administration
- Any other duty as may be assigned by the Project Coordinator.

ACCOUNTING & FINANCIAL REPORTING

- 15. The PCMU under the MOALD will use a financial and accounting system for financial transactions recording and reporting. IFAD requires a financial system capable of (i) reporting expenditure per category and comparing budget vs actual for the current year and cumulatively since the start of project, (ii) reporting expenditure per component and comparing budget vs actual for the current year and cumulatively, (iii) reporting of expenditure per financier and (iv) extracting detailed listing of expenditure in required format. The accounting system should be capable of multiple analysis code for reporting on component, categories, financiers, for reporting quarter, cumulative for the year and cumulative since start including in-kind contribution will be acquired at the start of the project.
- 16. Programme activities are mainly in the form of receipt (income), legal commitment and expenditure of funds. The accounting system shall record, process, classify and organise essential data in order to produce useful financial information in the form of Withdrawal Applications (WAs), financial reports or budget vs. actual analyses that are needed by the Programme Financiers (i.e. donors and Government) as well as by the Programme management itself. The accounting system shall reflect the Programme's needs and be designed to provide the financial information required by all stakeholders (PCMU, IFAD, GCF, GoK and other parties). It shall also fulfil all the legal and regulatory requirements of the borrower. The accounting system is a critical part of the Programme's financial management system and design.
- 17. Recording transactions in the accounting system shall be governed by the privileged codes defining the levels of access for different users, that is: active use for inputting / editing data; read-only access; or no access. This shall allow a separated and controlled access to the accounting module (i.e. journal recording, posting to general ledger). Each accounting transaction shall record the user's ID, thus preventing unauthorised access to the system and an adequate level of protection against the input of false data, or even the destruction of records. At the same time, the data-sharing nature of the system shall involve strict coordination and active data exchange among various users. In this respect the system shall ensure the reliability in information storage and fast data processing.
- 18. The accounting system user's manual shall be an integral part of the financial management systems of the Programme and shall be completed by more detailed guidelines or instructions if necessary.
- 19. INREMP accounting policies shall notably take into consideration the national legislation as well as IFAD minimum reporting requirements. The Programme's main accounting policies shall be as follows:
 - Financial statements shall be drawn in accordance with IPSAS cash basis of accounting as by the recognition of receipt (income) and payment (expenditure) respectively;
 - Financial statements shall be prepared under historical cost convention;
 - Transactions in local currency shall be converted into the currency of the Designated Account using a 'FIFO' (i.e. 'First In, First Out') approach, i.e. the actual

rate arising from the latest transfer from the DA to the Birr denominated Operational Account thus avoiding currency exchange losses or gains.

- 20. The Programme chart of accounts shall: (i) be based on the Programme budget and Cost Categories; (ii) capture financial data under the appropriate headings / INREMP Components and Sub-Components; (iii) classify and group financial data for various financial reports; and (iv) record the sources of funding for each expenditure. The "cost centre" functionality, which is standard for many accounting software, shall be used, so as to draw analytical reports separately. Disbursement to the partners and counties will be made as advances. Recording of expenditure to the Programme accounting system will be done by PCMU based on expenditure reports submitted by the implementing agencies and counties.
- 21. The Programme expenditure initiation, authorization and payments will be in line with INREMP organisational structure. The Programme Coordinator at PCMU or the Principal Secretary at MoALD shall approve all payments requests before they are forwarded for authorisation. The Finance Manager at the PCMU will be responsible for proper recording in the accounting system and all financial reporting for the Programme and will produce a consolidated financial statement for all the components. The Finance Manager will check to ensure there are appropriate expenditure supporting documents as per IFAD requirements. The Programme will not use external funds to pay for taxes within the country and to this effect, the Government will provide counterpart funds for payments of local taxes and levies.

Recording and processing of transactions

- 22. Transaction recording under the Programme follows the cash basis of accounting, which requires recognition of cash inflows in the period they are received and reporting of expenses in the period those expenditure is paid. Individual records of transactions are treated as source documents. For the Programme accounting purposes, the following source documents shall be considered: signed purchase orders / contracts, invoices and deliverables / delivery notes / goods received notes / completion certificates.
- 23. All transactions incurred shall be registered in the accounting software in accordance with the date of payment and under the form of journals. Journal shall contain sufficient and detailed information about the type of transaction, its amount and a reference to the source document. All transactions shall be entered into the accounting software using the principle of double-entry, meaning that each transaction shall be recorded twice: once on the debit side and once on its credit side. The accounting software shall automatically process those transactions and post them to the ledger where all transactions of similar type are recorded. Timely recording shall allow the production of timely reports.
- 24. The Finance Manager shall verify the Programme accounts on a monthly basis. In case significant adjustment of accounting entries has to be made, the Accountant shall produce an annotation for the file in which the reasons and the way in which the adjustment has been made is explained. This note for the file shall be cleared by the Programme Finance Manager and communicated to the Programme Coordinator.

Financial reporting

25. Finance Manager at PCMU will be responsible for all financial reporting for the Programme and will produce a consolidated financial statement for the Programme. The financial reporting will comply with International Public-Sector Accounting Standards (IPSAS) -Cash basis.

- 26. There shall be segregation of duties between staff members in the finance Team. Finance Manager shall not only be in charge of recording financial transactions on a daily basis but also of summing up expenditure made under each Component / Sub-Component / activity and posting these totals on financial reports on a periodic basis during the reporting periods specified in the FMFC and the Grant Agreement. Periodic progress financial reports, shall include the following:
 - Statement of cash receipts and payments by Cost Category: this report summarizes
 all sources of Programme financing as well as the uses of funds in accordance with
 the disbursement Cost Categories foreseen in the Financing Agreement with IFAD.
 This report also states the cumulative expenditure from the start of the Programme
 until the date of the report and the cash flow forecast for the following semi-annual
 period;
 - Uses of funds by Programme category: this report details INREMP's expenditure by IFAD cost expenditure category / subcategory and by Financier.
 - Uses of funds by Programme activity: this report details the Programme expenditure for each Component / Sub-Component / activity consistent with those foreseen in the EU budget. The total planned, actual and cumulative expenditure in this report shall correspond to those mentioned in the statement of sources and uses of funds, as presented above;
 - Cash flow forecast: this report summarizes cash inflows and outflows for the following semi-annual period (see below for more details);
 - DA reconciliation statement please refer to Project Financial Management and Financial Control Handbook.
 - WA statements for the period: this report summarizes the claimed and received WA amounts from IFAD during the reporting period; and
 - Contract expenditure: this report details all contracts signed and amounts paid during the quarterly / semi-annual reporting period by Cost Category.
 - Interim Financial Reports (IFRs)
 - Interim Financial Report(s) (IFR) are required both for reporting and disbursement purposes.
 - IFRs for reporting purposes must be submitted in accordance with the frequency and submission deadlines detailed in FMFCL. When submitted as a component of Withdrawal Applications, IFRs must be submitted in a form and quality acceptable to IFAD.

Cash flow forecast

- 27. Preparing periodic cash flow forecasts is essential to ensure the Programme has sufficient funds to meet its legal or contractual commitments, i.e. planned expenditure to beneficiaries, lead implementing agency, contractors, service providers, suppliers of goods, salaries, operating costs of offices as they fall due. It is the Programme Finance Manager's responsibility to prepare periodic cash flow forecasts by undertaking the following steps:
 - Report the past reporting period's closing balance as opening balance for the coming period;
 - Calculate as accurately as possible and report all the cash inflows already secured from different sources for the coming period and break them down on a monthly basis;
 - Determine as accurately as possible and report all the cash outflows (i.e. payments) due in the coming period and break them down on a monthly basis; and
 - Based on the above computations, determine the estimated cash needed for the coming period, in consultation with the Programme Coordinator and the Component Managers.

28. When preparing cash flow analyses, key sources of information shall include: the updated AWPB and procurement plan, the disbursement timetable of all signed contracts, and historic expenditure reports of the Programme as these some aspects assumed to stay relatively constant over the INREMP implementation period. Based on estimated cash flow needs, the Programme Finance Manager shall submit for approval of the Programme Coordinator the required WAs in a timely manner, so as to ensure sufficient liquidity and avoid any delay in Programme implementation.

29. In-Kind Contribution

Domestic contribution is the monetary and in-kind contribution (IKC) provided by governments, beneficiaries, implementing partners, other project participants.

It relates to direct provision of asset/services (benefits) to the project or expenditure incurred expenditure by Government, beneficiaries or other implementing partners which otherwise would need to be paid for by the project meet its objectives. In-kind contributions are crucial as they will translate the real contribution of Borrower to the project in addition to the contribution in cash and tax exemptions.

It is critical to capture in-kind contributions from all sources: Government, beneficiaries, and other domestic co-financiers. Process must be regular and systematic. Below is a Simplified process for IKC: -

Development of Project's IKC Data collection, Disclosure in Identification framework tool Preparation of recording and financial areas of IKC as IKC AWPB statements for documents filing per PDR/FA audit (identified IKC, (Monthly, quarterly (For ease of basis of valuation. (Ideally per monitoring) etc as per the (As a disclosure and component) notes) framework) responsibilities

The IKC should meet the following criteria for recognition: -

1. IKC should directly be related to achievements of PDO

- 2. IKC framework/tool should highlight IKC activities (per component/Sub-component), definition and measurement, monitoring tools, responsibilities and frequency and minimum supporting documents
- 3. IKC shall be recognized at the fair market value and must be duly justified by supporting documents
- 4. IKC recording, documentation and filing should be adequate to enable independent verification/ audit. Recording should be done regularly, at least monthly or as may be applicable
- 5. IKC should be reflected in the Financial Statement (as a disclosure note) and be audited. It is also an additional schedule/report required for submission to IFAD as part of IFR

Asset management

- 30. Fixed asset management aims at tracking any equipment / furniture / material (or intangible assets) for safeguarding e.g. to ensure preventive maintenance and theft deterrence and financial accounting purposes. Adequate fixed asset maintenance shall also increase the sustainability of the Programme. There are three elements in fixed asset management that require the attention of the Admin. Officer:
 - Purchase of equipment (not detailed here see the procurement section of the PIM);
 - Recording fixed assets through maintaining labelling system and asset register; and
 - Physical inventory and disposal / handover of assets once the Programme is completed.

Recording fixed assets:

- 31. The Programme shall assign a unique, sequential asset tag number to all furniture and equipment items purchased for INREMP (excluding supplies / inventories such as stationeries); this shall be clearly labelled on each item. And every asset shall be recorded in the asset register (see below).
- 32. The Admin. Officer shall maintain a register of all (material) equipment of the Programme this shall also be recorded on the asset management module of the accounting software, when operational. The asset register shall record the following information for each individual piece of asset: 1) description; 2) tag number; 3) serial number; 4) officer responsible (i.e. custodian); 5) source of funding; 6) location; 7) date of purchase; 8) estimated life; 9) purchase value and other additional fields that may be required. The Programme fixed assets shall also be subject to proper visibility of the primary contribution to project funding: this involves putting donor logos / stickers on vehicles, laptops and other assets.

Physical inventory:

33. The Finance Manager shall ensure that an independent verification of all project assets is performed at least once a year. Any discrepancy identified between the physical inventory (verification exercise) and the fixed asset register to be investigated, documented and formally reported to management.

RECORDS KEEPING, FILING & ARCHIVING

34. Financial records shall be created and maintained for every transaction effected under the Programme. They shall be defined as any financial information kept in a writing (hard copy) or electronic way (soft copy); 'external evidences or documentary evidence' such IFAD Financing Agreement, signed purchase orders / contracts, invoices, cash receipts, delivery notes or bank statements, as well as internal forms, journal vouchers, computer data and other form of information storage shall all be included under the 'financial record' terminology for the purpose of this PIM.

- 35. The objective of this procedure is to preserve the financial records and files for further official use by Programme staff, IFAD reviews during supervision missions, as well as for internal / external audit purposes. The Programme financial records are the property of the INREMP and may not be removed or destroyed during Programme implementation and up to 10 years after completion.
- 36. The Programme staff, in particular the Finance and Admin. team (accounting and administrative staff), shall make sure to keep minimum original supporting documentation for stated key processes, as follows:

37. Procurement costs:

- Purchase request / procurement requisition: approved form or workflow signature in system;
- Tender file or procurement file: bidding documents / technical specifications / bill of quantities / consultants' ToR; published advert of call for tenders / proposals / invitation to bid / request for quotation form; original (technical and financial) bids / offers / quotations; bid register or bid analysis schedule; bid opening and evaluation report / procurement selection memo;
- Contract / purchase order signed with supplier / service provider / consultant / contractor;
- Proof of existence, i.e. performance (consultant report / deliverable), progress (completion certificate), delivery (goods received / delivery note / bill of lading) and beneficiary distribution;
- Invoice(s) and payment evidences (cash receipt, cheque copy or, better, bank statement);
- Evidence of link to AWPB / procurement plan and INREMP use (vehicle logbook / mission order);
- For works, contractual bank guarantees for advance payment and performance; and
- Communications from IFAD to evidence no-objection to the contract award (if applicable).

38. Staff remuneration costs:

- Terms of reference / job description with clear link to the Programme;
- Recruitment file: published advert of job vacancy; long-list of all candidates; CVs, written tests and interview forms / scoring sheets of short-listed candidates and final selection report;
- Employment contract and any approved policy mentioning additional benefits;
- Approved salary scale (corresponding to the Grade and Step mentioned in the contract);
- Approved payroll statement (detailing the calculations of total cost, gross and net salaries);
- Payment evidence (of both net salary and social insurance charge / other tax deductions); and
- Cost allocation / timesheet / monthly report / staff appraisal form

39. Transportation costs:

- Formal trip authorisation such as mission order (purpose, duration, destination, etc.);
- Trip commitment (ticket) and travel evidence (boarding pass / stamped passport, etc.); and
- Mission / trip / activity report or any other contractual deliverable.

40. Workshop / training / seminar costs:

- Annual training plan approved by IFAD and procurement file for the selected training centre;
- Formal invitation (letter / email) to all selected staff (duration, destination, costs covered, etc.);
- Agenda, handouts, signed list of participants, certificate, back-to-office report, photo, etc.; and
- Signed receipts of per diem / daily subsistence allowance.

41. Shared or apportioned costs if any:

- Clear evidence of link to the Programme (mission order, ToR, activity report, etc.);
- Cost allocation method (timesheet, logbook, square meter, head count, etc.); and
- Detailed calculations of apportionment / allocation percentages to both Programmes.
- 42. The Programme shall file original records in a well organised way and maintain them for at least 10 years after Programme completion, in accordance with IFAD general conditions. Filing of financial records shall be chronological, e.g. documentation shall be filed on a daily basis in separate folders clearly mentioning the concerned month and year (with separators). Records shall have a code / reference following a sequential order.
- 43. Appropriate (lockable) filing cabinets shall be used to keep all folders. Besides and in order to prevent unnecessary pile-up of files in a limited office space, the Programme Finance Manager shall make sure that the financial records are archived on a regularly basis. They shall be kept in appropriate storage areas, safe from water and fire, to which access shall be controlled and limited. The Programme Finance Manager shall also classify certain financial records as "Confidential", while other would be defined as "General". Any important correspondence (e.g. with IFAD, Government or GCF) shall be filed. Once a year, the Programme Finance Manager shall verify that archives allow for easy and prompt retrieval of files if required.

RISKS & INTERNAL CONTROL SYSTEMS

- 44. Internal control systems are defined as "processes applicable at all levels of management designed to provide reasonable assurance of achieving the following objectives:
 - a) effectiveness, efficiency and economy of operations;
 - b) reliability of reporting;
 - c) safeguarding of assets and information;
 - d) prevention, detection, correction and follow-up of fraud and irregularities;
 - e) adequate management of the risks relating to the legality and regularity of the financial operations, considering the measures designed to reduce the likelihood and / or potential impact of pre-identified risks."
 - This part exclusively focuses on fiduciary-related risks, which may arise at Programme design stage or all along the implementation period. Internal controls

- is the collective duty and responsibility of the Programme Coordination and Management Unit (PCMU). There are four layers of control as follows:
- First layer of controls: self-control or "double check" at lower operator level, for instance while preparing a purchase requisition / bank reconciliation or while counting fixed assets / cash;
- Second layer of controls: direct supervision, such as reviews and validation of first layer tasks;
- Third layer of controls: final authorisations / approvals, e.g. of expenditure payment; and
- Fourth layer of controls: independent checks or post-reviews of the above processes this last layer of controls is described below in part 8 of the present section of the PIM.

Anticorruption policies

- 45. The management of the Programme funds shall be sufficiently rigorous to safeguard INREMP against the risks of fraud and corruption. Fraud and corruption include, but are not limited to:
 - Corrupt practice, which may be defined as offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - Fraudulent practice, i.e. any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation – such as submitting fair and true financial statements for an action;
 - Collusive practice, i.e. an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party; and
 - Coercive practice, i.e. impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.
- 46. IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in Programmes financed through its grants. 'Zero tolerance' means that IFAD shall pursue all allegations falling under the scope of this policy and that appropriate sanctions shall be applied where the allegations are substantiated. IFAD takes all possible actions to protect individuals who submit allegations of fraudulent or corrupt practices in its activities from reprisal. The IFAD anticorruption policy is available on IFAD website at https://www.ifad.org/en/anti-corruption: it provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight.
- 47. It is the Programme Coordinator and the Programme Finance Manager's responsibilities to make sure that all Programme staff, including the finance and administrative teams, are aware of these anticorruption policy and IFAD whistle blowing procedures (https://www.ifad.org/en/document-detail/asset/39629358).

General internal controls

48. Designing, implementing and maintaining a system of financial internal controls is an integral part of the financial management function, although not exclusive to it. In order to achieve stated objectives (such efficiency and economy of operations, reliability of reporting, safeguarding of assets, prevention and detection of fraud and irregularities or general risk management and compliance with applicable laws and regulations), key features of an adequate internal control system usually include:

- Segregation of duties;
- Authorisations;
- Reconciliations and checks;
- Restricted access; and
- Monitoring and review.

Segregation of duties:

49. An important element in any internal control system is the separation of those duties which would, if combined, enable one individual to approve and / or process / record / pay a complete transaction. It is the Programme Finance Manager's responsibility to ensure that the following duties are segregated under the Programme: preparation, authorisation, execution, custody, treasury management and bookkeeping.

Authorisations:

50. Approvals / authorisations require the certification that an activity / event or transaction is acceptable for further processing. Several types of authorisations shall be in effect at the Programme, mainly in the procurement, payroll and bank and cash management cycles. The Programme Finance Manager shall verify that authorisations of PCMU staff ensure efficient implementation while keeping major risks as low as possible. Authorisations from Programme staff shall be in line with their respective job descriptions and approval limits.

Reconciliations and checks:

- 51. Reconciliations between independent, corresponding sources of data are a key control for identifying errors or discrepancies. The Programme Finance Manager shall verify the following reconciliations each month:
 - Bank reconciliations (between accounting ledgers / Programme expenditure listing and bank statements): any reconciling or balancing amount shall be promptly cleared or explained. Unusual / long outstanding reconciling items shall be brought to the attention of the Programme Finance Manager, who shall review and sign all bank reconciliations as evidence of review;
 - Reconciliations between system and special account receipts and payments statement;
 - Physical checks (both schedule and on the spot) of assets and petty cash held.

Restricted access:

52. All data, records and assets shall be kept in a physically secure environment. This shall cover safe keeping of financial records such as personnel files and bank details. In addition, any petty cash shall be kept securely. Financial data and other records shall also be protected in the form of back up procedures. All work shall be regularly saved and copy records stored securely off site.

SUPERVISIONS & AUDITS

53. IFAD supervision missions, INREMP internal and external audits constitute the added layers of controls, which shall remain independent from Programme implementation.

IFAD supervision missions

- 54. INREMP shall be subject to extensive supervision from IFAD during the whole implementation period to ensure that the PCMU fiduciary requirements are completed on time and to minimise the Programme's fiduciary risks. If financial arrangements of the PCMU are deemed acceptable, IFAD shall rely on them to provide assurance that the financing proceeds are being used for the intended purposes. In the case that IFAD identifies significant weaknesses in financial arrangements in place, it shall require the PCMU to take appropriate measures to mitigate those risks such as changing the design of internal controls or making sure their frequency or effectiveness improves or modifying the disbursement arrangements.
- 55. IFAD financial management supervision missions shall usually involve the following tasks:
 - Monitoring the timely submission of audit reports and reviewing them in details;
 - Verifying the implementation of audit recommendations made by past supervision missions;
 - Monitoring the submission of timely periodic financial reports and reviewing of these reports; and
 - Monitoring disbursement rates and quality of the received Withdrawal Applications.
- 56. Throughout Programme implementation, IFAD shall conduct annual or semi-annual financial management supervision (and implementation support) missions. Such missions shall determine ratings on compliance with IFAD overall financial management requirements. During supervisory missions, IFAD shall assess and monitor the adequacy of PCMU financial management arrangements for the following processes: accounting, budgeting, internal controls, flows of funds, financial reporting and auditing practices. The key findings and recommendations of the mission shall be captured in an "aide-mémoire" document.
- 57. When preparing for and during an IFAD financial management supervision mission, necessary supporting actions by the Programme Programme Finance Manager and his / her team shall include the following:
 - Update and make available INREMP financial information, i.e. AWPB and reports
 e.g. expenditure incurred by Component / category / Financier as of the last day
 of the preceding month;
 - Update and make available reports on the status of Counterpart funding has the Recipient / lead Programme implementation agency made available financing proceeds to the Programme as planned?
 - Provide a walkthrough of the existing accounting system including its main modules for budgeting, accounting, financial reports, fixed asset register as well as the security settings in use;
 - Facilitate checking of internal controls by way of system walkthroughs, in order to ensure that approved procedures are consistently being followed;
 - Make available recent Withdrawal Applications, Statements of Expenditure and all supporting documentation regarding expenditure claimed under applicable SoE thresholds to facilitate the verification of the adequacy, completeness and validity of claims;
 - Make available evidence of qualifications and educational background of the financial staff including organogram of the PCMU, CVs, ToR of each position and INREMP training plan;
 - Update and make available the central fixed asset register and facilitate sample test checks of the physical existence and tagging / labelling of assets;
 - Make available all written procedures regarding financial and administrative operations such as transaction processing, accounting manual, fixed asset maintenance and records management as well as the lead Programme agency's anticorruption policy and whistle blowing procedures;

- Avail the updated bank reconciliation statements, accompanied by the corresponding accounting ledgers and bank statements for all designated and Programme accounts;
- Arrange meeting with auditors and any other selected party requested by the mission;
- Make available all necessary documentation regarding procurement not subject to prior review;
- Provide an update on the actions taken regarding the past audit recommendations as well as action points outlined in the past aide-mémoire documents;
- Participate in report writing if necessary.

PCMU internal audits

- 58. Internal audits will be conducted to provide assurance that the Programme is being implemented in accordance with the PIM, complies with Government regulations and is complying with Programme financing covenants. The Programme will utilize the internal audit function at MoALD to carry out internal audit. The internal Auditors will be required to carry out the audit of the Programme at least twice annually.
- 59. The Internal Auditor shall plan his work much in advance and transparently. A risk-based annual audit plan for the following year shall prepared at least one month before the end of the current year this shall be planned by month / quarter and contain:
 - Routine financial tasks to be completed all year long, such as reviewing vouchers following a "full audit" approach, or on a sample basis if risks have been assessed as low: this may be done in the field or as a "desk review" provided that adequate archiving of electronic documents is in place;
 - Compliance audits to verify the Programme complies with its commitments towards the Financiers: this includes reviewing quarterly financial reports submitted to IFAD and annual reports to GCF and GEF.
 - Geographical audits focused on given Programme areas: this may involve interviewing all staff of the concerned office, starting with the National/District Coordinator ideally, each district shall be visited at least twice in a year, however priority may be given to high risk areas.
 - Process audits focused on key processes at PCMU: this may include Programme management (i.e. internal controls and tools designed to mitigate various operational risks for each Programme Component), as well as procurement, fixed asset and stock management, etc.
- 60. The annual audit plan shall be flexible in case new risks would arise during Programme implementation: it may therefore be revised as per the needs, but always formally, for instance 6 months after the year start.
- 61. Missions of the Internal Auditor, shall usually involve the following tasks:
 - Reviewing vouchers, contracts and procurement files for all or sampled transactions;
 - Verifying that Programme activities were conducted as per the plan and as described in reports;
 - Inspecting the policies and documentation prepared to manage specific Component activities:
 - Meeting a sample of beneficiaries in different localities and villages to obtain their feedback;
 - Reviewing quarterly financial reports, including Withdrawal Applications per Financier;

- Reviewing monthly trial balances, bank reconciliations, calculations of exchange rate, updated contract register, leave follow-up, fixed asset register, fuel consumption report; and
- Following-up imprest amounts, reviewing monthly cash counts and performing surprise counts.
- 62. Internal audit reports for each specific mission, as well as annual (and semi-annual) reports summarising all activities conducted against the annual audit plan, shall be made available to the PCMU and the Project Steering Committee. They shall be available for review during supervision missions and external audits. Financial procedures (including procedures required at community level) shall be documented in a Financial Implementation Manual, which shall be a condition for disbursement. Training of all staff on financial management and fiduciary controls shall be provided once before implementation begins; once after implementation has commenced and once two years after implementation.

External audits

- 63. The project will be audited by the Office of the Auditor General, which is the Supreme Audit Institution of Kenya. The auditor will prepare a work plan to ensure adequate coverage of the various counties/ implementing agencies that receive Programme funds and cover all the major risk areas. The audit terms of reference will be approved by IFAD in advance in line with the guidance provided in the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed projects. The audited financial statements for the project will be submitted to IFAD within six months after the period end in accordance with IFAD guidelines.
- 64. The Auditor in drawing up his audit Programmes incorporates review of the implementation of the previous period's recommendations. If those recommendations have not been followed this will be stated in the current audit report. The audited financial statements will be submitted to IFAD within 6 months after financial end as required by IFAD.
- 65. Nature of Programme eligible expenditures Programme expenditure categories have been allocated in accordance with the standard expenditure categories. Detailed cost tables are presented in this document. Transaction-based disbursement procedures will be used. The eligibility of expenditure should require:
 - a) The expenditure shall meet the reasonable cost of goods, works and services required for the Programme and covered by the relevant AWPB and procured in conformity with the procurement guidelines
 - b) The expenditure shall be incurred during the Programme implementation period, except that expenditures to meet the costs of winding up the Programme that may be incurred after the Programme completion date and before the closing date
 - c) The expenditure shall be incurred by a Programme party
 - d) If the agreement allocates the amount of the financing to categories of eligible expenditures and specifies the percentages of such eligible expenditures to be financed, the expenditure must relate to a category whose allocation has not been depleted, and shall be eligible only up to the percentage applicable to such category.
 - e) The expenditure shall be otherwise eligible in accordance with the terms of the financing agreement
 - f) Sub-grantees advances to sub-grantees will only be recognized as eligible expenditures once justified. The recipient will be accountable for the use of sub-grant funds. Recipient and sub-grantees' expenditure (if applicable) should be consolidated for inclusion in the SOF

- g) Income generated from advance withdrawals (if any) should be disclosed in the IFRs.
- h) Transaction Lists should provide a breakdown of individual transactions by expenditure category and should be easily reconcilable to the IFRs.
- i) Transaction Lists should include and integrate detail transaction lists from the Sub-Recipients, when applicable.
- j) IFRs should be prepared in the same currency as the denomination currency of the FA/GA. If Programmes incur expenditure in currencies other than that of the FA/GA, the exchange rate used for reporting expenditure should be the rate applied when funds were received, on a first in, first out (FIFO) basis.
- 66. The GCF handbook will be provided which provide guidelines on the utilisation of GCF funds.
- 67. All payment vouchers will be examined to ascertain the following requirements:
 - That the expenditure has been incurred on proper authority and is a charge to properly voted funds.
 - That payment vouchers are supported by original documents or certified photocopies of the original documents (such copies must be certified by the appropriate officer that he has taken all possible steps to ensure that no payment has been made on the original document).
 - That rates charged are according to regulations/contracts, fair and reasonable.
 - That appropriate authority has been obtained and a copy of the minutes attached to the payment vouchers for reference purposes.
 - That the allocation of account codes is correct.
 - That appropriate certificates have been signed by the officer authorized.
 - That the vote book control certificate has been duly signed to confirm availability
 of funds.
 - That the computations and costing have been verified and are arithmetically correct.
 - That the persons named in the payment vouchers are those entitled to receive the payment.
 - Any alterations of payment voucher should be counter signed by the head in charge of the unit.
 - That the signatories to the certificates are as per those indicated in the specimen signature document
 - That payments are supported by duly certified invoices, receipted bills (for direct cash payments), LPOs, LSOs, copies of supplier's delivery note, and the certificate at the reverse of the payment voucher signed to confirm stores entry into the relevant inventory ledgers.
- 68. External audits shall be ex-post reviews of INREMP financial statements, also looking at internal controls and compliance with all applicable rules, laws and regulations; they shall examine the adequacy of accounting systems and procedures, the capacity to maintain appropriate accounts and supporting documentation of the Programme expenditure. External audits aim at providing credibility and assurance of accountability to Financiers, Programme staff and other stakeholders such as the Government. Detailed instructions regarding external audits are outlined in IFAD Handbook for Financial Reporting and Auditing of Programmes available at https://www.ifad.org/en/document-detail/asset/39641638, which is updated from time to time.

PROGRAMME COMPLETION & CLOSING

69. The Programme Closing Date shall be six months after INREMP official Completion Date or as would be advised in the grant agreement. Both deadlines have direct financial implications on Programme management such as: development and submission of a recovery plan, ensuring eligibility of expenditure and submission of the necessary documents outlined below. Please also refer to section 1.3 of the Disbursement Handbook.

Recovery plan:

70. To ensure that INREMP Designated Account is completely and timely justified, the Programme Finance Manager is to develop a "recovery plan" outlining the percentages per Withdrawal Application that shall be recovered and paid respectively. This shall be submitted to IFAD 6 months before the Completion Date or when the outstanding balance (amount still undisbursed by IFAD) is less than double of the authorised allocation.

Grant completion:

71. As defined in the Financing Agreement, by then all the Programme activities shall have been finalized. Payments may also be done also after the Completion Date provided that commitments / contracts / purchase orders are signed and expenditure incurred (i.e. services rendered or goods delivered) prior to the Completion Date. Activities that have continued after the Completion Date are not considered eligible types of expenditure and may therefore not be financed by IFAD. Exceptions to the rule: after the Completion Date but no later than the Closing Date, the PCMU may still incur expenditure related to the "winding-up" process, e.g. final audit, Programme completion report, salaries of staff involved in winding up activities, PCMU maintenance cost or Programme completion workshop.

Progamme closure:

- 72. IFAD requires the following to be provided by the PCMU in order to close the Programme:
 - Confirmation of last Withdrawal Application;
 - Submission of final audit report; and
 - Submission of Programme completion report.
- 73. The final audit report shall cover the final Programme year and winding-up expenditure and may be paid from the funds available balance by using direct payment or reimbursement of pre-financed expenditure.

Terms of reference: Internal Audit Services Borrower: Government of Kenya

Contract Internal audit services.

Project INREMP

Location Republic of Kenya, various locations in the Country

Duration 2 month per annum

Starting Date [insert] **Languages required** English

1. Background:

[INSERT]

2. Reporting System:

The objective of the Internal Auditor is to add value and improve the Project's operations and assist Project's steering committee and management by independently reviewing all activities, processes and systems with particular regard to risk and control aspects and bringing a systematic and disciplined approach to the effectiveness of risk management, control, and governance processes.

The internal auditor will possess a thorough knowledge of internal auditing procedures, accounting procedures and have sound judgment on risk identification and management.

The internal auditor will produce a quarterly/semi-annual internal audit report presented to the Project Coordinator.

Internal Auditor shall monitor the appropriate follow-up on audit findings and recommendations. All significant findings will remain in an open issues file until cleared.

3. Independence:

The internal auditor reports to the Project Steering Committee, who appoints and terminates the internal auditor upon recommendation of the IFAD/Government. The internal auditor will work under the overall supervision of the Project's Steering Committee.

All internal audit activities shall remain free of influence by any element in the organisation, including matters of audit selection, scope, procedures, frequency, timing, or report content to permit maintenance of an independent and objective mental attitude necessary in performing the function.

Internal Audit shall have no direct operational responsibility or authority over any of the activities it reviews. Accordingly, it shall not develop nor install systems or procedures, prepare records, or engage in any other activity which would normally be considered management or staff's responsibility.

4. Authority and confidentiality:

Authority is granted for full and unrestricted access to all **THE PROJECT** records, physical properties, and staff relevant to any area under review. All employees are requested to assist the internal audit in fulfilling its function.

Documents and information obtained by the internal audit firm will be handled in the same prudent and confidential manner as by those employees normally accountable for them.

5. Duties and Responsibilities:

Within the framework, as described above, the internal audit auditor will carry out the following tasks:

 Conduct a post-audit procedure on the INREMP PCMU with respect to their functions and activities within the project. Make recommendations on possible improvements of the procedures to enhance control mechanisms, financial performance and produce quality reports for senior management and Project Steering committee, to enhance decision making, on monthly basis.

- Audit all contracts signed between INREMP PCMU and/or implementing agencies /counties with service providers, suppliers, and contractors to verify that (i) compliance with terms and conditions of grant / loan agreements and procurement regulations and donor guidelines; and (ii) the contract is in line with best practice with respect to compliance with terms of reference, request for proposal, tender documents etc.
- Develop professional and constructive working relationships with key managers and be able to challenge when necessary.
- Lead development of specific innovative ways of working and new ideas for reviewing risk and control issues.
- Assess risk and control related policies and procedures, provide input to updates in existing procedural documents with respect to controls as necessary
- Apply internal audit procedures to audit the financial statements, accounting records and other financial and non-financial registries applying accepted internal audit standards.
- Undertake special assignments and investigations and in particular undertake more complex and high-level audit investigations under advisement of the Project Steering Committee.
- Reviewing the means of safeguarding assets and, as appropriate, verifying their existence.
- Reviewing and appraising the economy and efficiency with which resources are employed.
- Reviewing operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned, including verify the adherence of INREMP PCMU staff to AWPBs, policies, plans, procedures, laws, and fund regulations that are influential on Fund works as well as donors accounting procedures.
- Asses the efficiency, effectiveness and economy of the usage of resources and reports of any deviations in case they are existed.
- Reviewing the adequacy, implementation and operation of donors' transparency and accountability policies and of other anti-corruption, fraud and related misuse policies and procedures.
- Confirming adherence to the Financial Manual (as approved by IFAD).

6. Audit Planning:

- Internal Audit firm shall regularly submit to the Project Steering Committee an up-todate summary of the audit work schedule.
- The audit work schedule is developed based on a prioritisation of the audit universe using a risk-based methodology. Any significant deviation from the formally approved work schedule shall be communicated to the Project Steering Committee through periodic activity reports.
- The audit planning shall pay specific attention to the activities of the implementing agencies which report to PCMU.

7. Qualification criteria:

- Internal auditor should be member of recognized professional international Accountancy/ Audit body
- The internal auditor shall adhere to The Institute of Internal Auditors' Code of Ethics and The Institute's International Standards for the Professional Practice of Internal Auditing.
- Assigned employees to have:
 - o Proven relevant working experience in Internal Audit.

- o Proven experience of risk management frameworks and approaches.
- Experience of operational auditing & risk-based approach to review.
- Excellent negotiating and high-level influencing skills and the ability to challenge at a senior level when necessary.
- Ability to work in challenging environments.
- Ability to work and deliver to tight deadlines.
- Logical and systematic in analytical thinking.
- o Facilitation and presentational skills.
- Full Working knowledge of English, including excellent drafting and presentation skills.
- Excellent computer skills, including full working knowledge of standard word processing, spreadsheets and presentation packages.

Terms of reference: External Auditor

Borrower: Government of Kenya

Project: Integrated Natural Resources Management Programme (INREMP)

Financing Agreements:

IFAD: Loan xxx;
GCF: Grant xxx

GoK: Counterpart Funds

Background

- The International Fund for Agricultural Development (IFAD) is aiding the Borrower in the form of a loan and grants.
- IFAD requires the Borrower to appoint an independent auditor to audit the accounts related to the Project, in accordance with the IFAD Handbook on Financial Reporting and Auditing.
- The Auditor for INREMP project shall be the Auditor General of Kenya.
- The entity prepares its financial statements in accordance with the IPSAS Cash Basis of Financial Reporting.
- (insert other relevant info)

Objective

The objective of this audit is to enable the auditor to express an opinion on whether the financial statements (including additional disclosures as outlined in section 5) fairly present, in all material respects, the financial position of the reporting entity as at [insert

year-end date], and/or the results of its operations and cash flows for the years then ended, in conformity with the [applicable accounting standards].

3. Responsibilities of the [borrower/recipient]

I. General

- Provide financial statements for the activities financed by the loan/[grant] that are reconcilable with its records and accounts.
- Provide the auditor with access to all legal documents and correspondence with consultants, contractors and other persons or firms engaged by the project and any other information associated with the project that the auditor deems necessary.
- Ensure that accounting policies are consistently applied and disclosed.
- Ensure that appropriate internal controls are implemented to prevent misstatements and susceptibility to fraud.
- Ensure compliance with all relevant laws and regulations that pertain to the entity, as well as with the financing agreement between the [borrower/recipient] and IFAD.
- Provide the financial statements to the auditor within a reasonable time and be available for any queries that the auditor may have.

II. Financial Statements

The [borrower/recipient] shall:

- Prepare financial statements covering the reporting period [date] to [date], in accordance
- with acceptable accounting standards that will be identified in the Notes to the Financial Statements.

In addition, the following specific disclosures will be included in the financial statements:

- Withdrawal application statement appendix 1 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects.
- Sources and uses of funds statement appendix 2 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects.
- Designated account statement and reconciliation appendix 3(a) and 3(b) to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects.
- [Statements of expenditures appendix 4 to the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects] applicable to grants.
- Expenditure transaction list online, provided in <u>IFAD Grant Forms</u> repository; see document C.2 "Transaction List"] applicable to grants.
- Where the amount transferred to the Implementing Partners (IPs) is substantial, the IPs should transmit a copy of the audited financial statement to the PMU/PCU.

4. Responsibilities of the auditor

I. Auditing standards

• The auditor is responsible for issuing an opinion on the financial statements in accordance with [ISA/ISSAI/national auditing standards].

II. General Principles

By agreeing to these terms, the auditor confirms that:

• The firm is independent of the project, its staff and its activities, consistent with international best practices.

- The firm is not currently providing consulting services to the project or preparing its project financial statements (nor has it done so in the previous two years).
- The auditor is suitably qualified and a member of a professional body affiliated with the International Federation of Accountants.
- [The office of [public auditors] is a member of the International Organization of Supreme Audit Institutions (INTOSAI)].
- The auditor is able to conduct the audit in accordance with auditing standards acceptable to IFAD, pursuant to paragraph 4 (I).
- The firm can assign an audit team with the necessary competence and skills to the audit.
- The firm has a proven track record in conducting audits of a similar nature and complexity.

III. Reporting

The auditor is required to deliver an audit package in compliance with ISA 700 and include:

- The audited financial statements, including additional disclosures as outlined in paragraph 3 (II).
- A report on factual findings, within the scope of agreed-upon procedures, as outlined in paragraph 6. Any ineligible expenditure identified should be clearly mentioned.
- A Management Letter, including the information outlined in paragraph 4 (IV).

IV. Management Letter

The Management Letter is an integral part of the audit package that documents accounting and internal control issues identified by the auditors. The format of the management letter should classify the findings by risk priority. The management letter should:

- Provide comments and observations on the accounting records, systems and internal controls examined during the course of the audit, identify specific deficiencies and areas of weakness in systems and controls and make recommendations for their improvement;
- Include project management's responses to the identified control issues and its proposal to address the issues identified within a specific time.
- Where applicable, follow up on the issues identified in the previous year's management letter.
- Provide comments on economy, efficiency, and effectiveness in project management's use of resources.
- Report on the degree of compliance with each financial covenant in the financing agreement and provide comments, if any, on internal and external matters affecting such compliance.
- Communicate matters that have come to the auditor's attention during the audit that might have a significant impact on the implementation of the project.
- Review results and findings on IFR reliability for the reporting period.
- Any other matters that the auditors deem pertinent.
- List additional procedures, if applicable.

The audit report should provide sufficient detail as to the nature and extent of the procedures performed by the auditor. The auditor is required to provide the audit package by no later than [insert date]. Reports are to be delivered in the official language of the financing agreement.

5. Scope of the financial audit

In performing the audit, the auditor shall, at a minimum:

- Confirm whether the financial statements have been prepared following international (IPSAS, GAAP, IFRS), regional or national accounting standards; in the latter case, identify elements of difference with the international standards.
- Confirm the auditing standards used for the audit.
- Obtain audit evidence that the financial statements are fairly presented and free of material misstatements, in accordance with the applicable accounting framework
- Assess internal controls related to the financial reporting process, and identify any weakness that might result in misstatements, whether due to fraud or error.
- Verify the reliability of the SOEs or IFRs, as the case may be, used to support
 withdrawal applications and ensure that they are reliable and accurately reflect
 expenditures incurred and activities carried out during the reporting period.
- Verify whether expenditure incurred in the name of the project is consistent with the terms of the financing agreement(s) (appendix xx) and incurred for the purposes intended in this agreement. Both IFAD and third-party funding should be considered.
- Verify whether counterpart funds provided by the Government of [Country] have been provided and used in accordance with the relevant financing agreement; verify that the amount of in-kind contribution is reported according to the agreed accounting principles and that the reported fair-market value for all in-kind contribution items is reasonable and fully and accurately disclosed in the financial statements.
- Verify that the inventory and fixed assets held by the entity exist, are complete, are properly accounted and are used for project purposes; at project closure, confirm that the project assets are transferred to the borrower/recipient or the entity identified in the financing agreement.
- Verify the project's recurrent costs (salaries and operating costs) claimed under WAs and ensure they are reasonable, congruent with the implementation needs of the project and within the acceptable threshold (FA schedule II and its revisions).
- The audit should cover selected project regional/provincial implementing units as per the audit plan agreed with the PMU/PCU

6. Scope of the agreed-upon procedures

The auditor is required to perform the following specific procedures and report on factual findings, as required in paragraph 4.3.

I. Withdrawal application statement

The auditor is requested to obtain the individual withdrawal applications (WAs) submitted to IFAD, as summarized in the withdrawal application statement, and develop test procedures to:

- Confirm that the withdrawal application statement is reconciled with the amounts disbursed by the Fund and deposited to the designated account (DA).
- Confirm that the withdrawal application statement is reconciled with the IFRs submitted to the Fund.
- Ascertain whether the designated account currency equivalent was determined using the historical exchange rate of transfers to the operating account or the accounting rules used.
- [List additional procedures, if applicable]⁵⁸

II. Designated account statement

The auditor is requested to review the activities of the designated account(s) associated with the project, including the initial advance, replenishments, interest that may accrue on the outstanding and year-end balances. The auditor is requested to develop test procedures to:

- Check the accuracy of the DA reconciliation(s).
- Confirm that the DA(s) has/have been maintained in accordance with the
 provisions of the financing agreement and that transactions from the DA(s)
 are accurately and correctly recorded in the financial accounts and
 statements of the project.
- Check that expenditures as reported in the project's financial statements are reconciled with the amounts withdrawn from the DA and that the amounts deposited to the DA are reconciled with the amounts disbursed by the Fund.
- Reconciliation should also be made with the amounts paid from the prefinancing account and direct payments (if any).
- [List additional procedures, if applicable]

III. Interim Financial Reports (IFRs) and Certified Statements of Expenditure (SOEs)

The auditor is requested to obtain the certified SOEs or IFRs as submitted to IFAD and apply such tests and control as the auditor deems necessary under the circumstances, to:

- Ascertain that the financial management system is reliable to produce the IFRs and has met Fund requirement during the year.
- Determine whether the expenditures incurred are related to activities outlined in the AWPB and consistent with the grant agreement.
- Determine whether the funds have been utilized for the intended purposes, with due regard to economy, efficiency and social equity.
- Determine whether the SOE threshold was set for the financing instrument and the IFRs prepared accordingly.
- Determine whether the expenditures claimed through IFRs or SOEs were properly and appropriately authorized, classified⁵⁹ and supported by adequate documentation.
- Identify any ineligible expenditures, including the nature of the ineligible expenditures, the date incurred, and the IFR period.
- [List additional procedures, if applicable]

IV. Agreed-upon procedures for donor-funded projects

- In the case of projects financed by the Green Climate Fund (GCF), the auditors will assess the compliance of the project accounting records and the GCF Annual Progress Report (APR) with the applicable GCF requirements (e.g. expenditure eligibility, categorization vis-à-vis the GCF budget categories; etc.).
- Include specific requirements for other donors, as needed.
- [List additional procedures, if applicable]

V. Other

• [List additional procedures, if applicable]

7. Public disclosure

IFAD promotes public disclosure of project financial information to enhance the level of transparency and accountability. IFAD will disclose project audit reports, as appropriate, in line with the Fund's disclosure policy. Management letters issued by auditors are not subject to public disclosure by IFAD. In agreeing to the terms of reference, the auditor explicitly acknowledges IFAD's right to publicly disclose audit reports (audited financial statements and audit opinion) and will issue reports without a limitation-of-use clause.

To facilitate the public disclosure process, the auditor is requested to submit two separate files as follows:

- Audited financial statements, audit opinion and report on factual findings (the latter where applicable).
- Management Letter.

8. Appendices

Appendix: Financing/grant agreement(s)

Appendix: Financial Management and Financial Control Letter

Appendix: IFAD Handbook on Financial Reporting and Auditing of IFAD-

financed Projects

Appendix: IFAD General Conditions for Agricultural Develop Financing

Signed by:

Date:

List of key expert positions whose CV and experience would be evaluated.

Key Expert Position	Area of Specific Expertise required	Minimum Qualification and Professional Experience Required	Likely Staff inputs required in person Days for Audit
Audit Director	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations; general coordination and management of the project, preparation and signing of audit report	Minimum 7 years of relevant project experience	10
Audit Manager	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations; Primary management, client communication and review.	Minimum 7 years of relevant project experience	15
Audit Senior	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations. Performance of	Minimum 5 years of relevant project experience	20

	detailed audit procedures.		
Audit Assistants (2)	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations. Primary review of working papers, financial statements and performance of detailed audit procedures.	Minimum 3 years of relevant project experience	20 day each

. Useful links

Document	Link
IFAD financial management e- learning	https://www.ifad.org/elearning_cfs_a/index.html
Revised IFAD policy on preventing fraud and corruption in its activities and operations (December 2018)	https://www.ifad.org/en/document- detail/asset/40189695
Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)	http://www.intosai.org/issai-executive-summaries/detail/intosai-gov-9100-guidelines-for-internal-control-standards-for-the-public-sector.html
IFAD General Conditions for Agricultural Development Financing	https://www.ifad.org/documents/38711624/394210 24/general_e.pdf/47c5f14b-2903-4285-b0b0- 62c67cd650b8
IFAD Handbook for Financial Reporting and Auditing of IFAD -financed projects (English)	https://www.ifad.org/documents/38711624/394210 09/IFAD+Handbook+for+Financial+Reporting+and +Auditing+of+IFAD-Financed+Projects/133b165d- 15c7-4f79-8217-aef95b79dd67
IFAD Loan Disbursement Handbook	https://www.ifad.org/web/guest/document-detail/asset/39635782
IFAD Financial Management and Financial Control (FMFCL)	https://www.ifad.org/web/guest/document-detail/asset/39637251
IPSAS Cash Standard	https://www.ifac.org/publications- resources/revised-cash-basis-ipsas

ICP page	https://icp.ifad.org/
ICP support email	icpsupport@ifad.org

TOR of INREMP Finance Staff

Terms of reference: Financial Manager

Post title:Financial Manager of INREMPOrganisation:INREMP PCMU Under MoALDLocation:Nairobi or Eldoret, Kenya

Name of Project: INREMP

Duration: Two-year renewable

Type of contract: short term Closing date: insert

1. Background

The Ministry of Agriculture and Livestock Development (MoALD) is responsible for the implementation and administration of agricultural projects financed by the Government of Kenya and other international donors.

MoALD has established Programme Coordination and Management Unit (PCMU) to implement Integrated Natural Resources Management Programme (INREMP) in the country.

The Overall Scope of Work for INREMP Financial Management Unit

The Finance Manager reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Finance Manager also supports the Project Coordinator in the resource mobilization of the Project. The Finance Manager will be responsible for expediting all loan management and disbursement activities through the Ministry of Finance.

Main tasks and Responsibilities

Specific responsibilities of the Finance Manager include but are not limited to the following:

- Installation of accounting systems to ensure that the PCMU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Kenya budget as required by the GoK budgeting processes and calendars including access to counterpart

- funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Communicate to all implementing partner institutions and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Assess compliance with Government of Kenya laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with the prevailing standards.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Kenya and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Liaise with the other project implementing agencies to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
- Review eligibility of expenditure in accordance with the financing agreement.
- Report on the operation of internal control including budget controls and report any deviations.
- Assist the Project Coordinator with the Resource Mobilization of the Project.
- Deputize the Project Coordinator in matters project administration
- Any other duty as may be assigned by the Project Coordinator.

2. Institutional Organization

The Financial Manager will work closely with INREMP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

3. Reporting and Aapproval

The Financial Manager will report to PCMU Coordinator who will evaluate performance of his/her responsibilities every year.

4. Qualifications and Experience

The Finance Manager should satisfy the following qualifications and criteria:

- An Advance Degree in Business Administration, Finance, Accounting, Economics or related with a relevant Bachelor's Degree from a recognized University.
- Professional Qualification in ACCA or CPA qualification.
- At least a minimum of 7 years' experience working in a similar field and level, 5 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

5. Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Terms of reference: Project Accountant

Post title:Project Accountant of INREMPOrganisation:INREMP PCMU Under MoALDLocation:Nairobi or Eldoret, Kenya

Name of Project: INREMP

Duration: Two-year renewable

Type of contract: short term **Closing date:** insert

1. Background

The Ministry of Agriculture and Livestock Development (MoALD) is responsible for the implementation and administration of agricultural projects financed by the Government of Kenya and other international donors.

MOALD has established Programme Coordination and Management Unit (PCMU) to implement Integrated Natural Resources Management Programme (INREMP) in the country.

The Overall Scope of Work for INREMP Financial Management Unit

The Finance manager reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Finance Manager also supports the Project Coordinator in the resource mobilization of the Project. The Finance Manager will be responsible for expediting all loan management and disbursement activities. The Finance Manager is assisted by Project Accountant and Assistant Accountant.

Main tasks and Responsibilities of Accountant

Specific responsibilities of the Accountant include but are not limited to the following:

- Manage the financial reporting systems to ensure that the accounting records and information is update to date at any given time.
- Support the finance manager and component heads to prepare the annual work plan and budgets for approval by GoK and IFAD.
- Assist to manage approved budget to ensure AWPB procedures and controls are applied to monitor expenditures to avoid commitments beyond available resources.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Ensure compliance with Government of Kenya laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.

- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Assist the finance manager to prepare interim financial reports and financial statements in accordance with the prevailing standards.
- Assist the finance manager in the prepare and make the books of the project available for both internal and external audits to meet the dates set by both Government of Kenya and IFAD.
- Assist the finance manager to implement audit recommendations in a timely manner.
- Review eligibility of expenditure in accordance with the financing agreement.
- Any other duty as may be assigned by the Project Finance Manager.

6. Institutional Organization

The project Accountant will work closely with INREMP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

7. Reporting and Approval

The Project Accountant will report to Finance Manager who will evaluate performance of his/her responsibilities every year.

8. Qualifications and Experience

The Project Accountant should satisfy the following qualifications and criteria:

- An Advance Degree in Business Administration, Finance, Accounting, Economics or related with a relevant Bachelor's Degree from a recognized University.
- Professional Qualification in ACCA or CPA qualification.
- At least a minimum of 5 years' experience working in a similar field and level, 3 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

9. Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Terms of reference: Assistant Accountant

Post title: Assistant Accountant of INREMP
Organisation: INREMP PCMU Under MOALD
Location: Nairobi or Eldoret, Kenya

Name of Project: INREMP

Duration: Two-year renewable

Type of contract: short term **Closing date:** insert

1. Background

The Ministry of Agriculture and Livestock Development (MoALD) is responsible for the implementation and administration of agricultural projects financed by the Government of Kenya and other international donors.

MoALD has established Programme Coordination and Management Unit (PCMU) to implement Integrated Natural Resources Management Programme (INREMP) in the country.

The Overall Scope of Work for INREMP Financial Management Unit

The Financial Controller reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Finance Manager also supports the Project Coordinator in the resource mobilization of the Project. The Finance Manager will be responsible for expediting all loan management and disbursement activities. The Finance Manager is assisted by an Accountant and Assistant Accountant.

Main tasks and Responsibilities of Assistant Accountant

Specific responsibilities of the Assistant Accountant include but are not limited to the following:

- Disbursements for advancing the project components' costs according to applications, payment of the PCMU costs from the project designated accounts;
- Preparation of monthly cash flow reports for all available project accounts;
- Inventory of fixed assets, assets procured under the projects, monitoring and the like;
- Accounting, ensuring proper control over the project financial resources, flow of funds and disbursements following the adopted procedures and accounting standards and complying with the requirements of IFAD and other donors;
- Processing the reports by components and primary documents, keeping the entire entries and daily banking operations in the accounting software according to bank statements;
- Processing the advance reports of both the PCMU staff and the components' staff;
- Keeping the electronic cash book and control over bank statements;
- Control over the fuel consumption and keeping the SOE;

- Cash payments and advances from the project cash for operating and other project (projects) costs;
- Preparation of all supporting documents on the project costs accompanying the withdrawal application;
- Preparation of monthly cash flow reports for all available project accounts;
- Participation in preparation of various reports, information materials at the request of the MoFPED, IFAD other donors;
- Perform other relevant duties at the request of the Finance Manager.

10.Institutional Organization

The Assistant Accountant will work closely with INREMP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

11.Reporting and Aapproval

The Assistant Accountant will report to Finance Manager who will evaluate performance of his/her responsibilities every year.

12. Qualifications and Experience

The Finance Manager should satisfy the following qualifications and criteria:

- A Bachelor's Degree in Business Administration, Finance, Accounting, Economics from a recognized University.
- Professional Qualification in ACCA or CPA qualification.
- At least a minimum of 5 years' experience working in a similar field and level, 3 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

13.Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Illustrative financial statements

Interim Financial Report (IFRs) Templates:

Interim Financial Report User Guide:

INTERIM FINANCIAL REPORT USER GUIDE

Protection Password: 1234

Tips:

Provide information in cells highlighted with this color

The cells containing sums and analysis shall be updated automatically.

Cash Forecast:

Provide project information in the highlighted Cells of the Sheet. The "Descriptions" of Categories and Components in this sheet are linked with other sheets. Once provided in this statement will automatically update the "Descriptions in all other statements.

Provide funds forecast for the subsequent two quarters along with anticipated direct payments, in line Provide funds forecast for the subsequent two quarters along with anticipated direct payments, in line with approved AWPB for current year. In case the Cash Forecast for subsequent two quarters include fourth quarter of the approved AWPB and the first quarter of the subsequent year (for which the approved of AWPB is awaited), provide forecast of the fourth quarter of approved AWPB in "Next Reporting Quarter" column and forecast of the first quarter as per the draft AWPB of subsequent financial year in "Following Reporting Quarter". Once the AWPB of the subsequent year is approved, the information is to be aligned as per the approved AWPB in subsequent WA.

Summary of Sources and Uses of Funds-DA Account:

Provide actual data in cells highlighted with this color.
It should only include the information related to the receipts and payments from DA only.

Designated Account Activity:

Provide required information in the cells highlighted with this color. Information in the other cells is linked with relevant statements/formulas and it shall be updated automatically. Relevant necessary instruction are provided in the last column for compliance.

"WA Submitted but not yet credited"; to include any pending WA that was submitted in ICP but was not credited to DA as of the relevant application date

"WA received after the end of the quarter (for emergency advances only)"; this line to be filled when project is submitting an emergency advance. It must include any WA received after the end of the directly preceding quarter.

Variance Analysis - Reporting Quarter:

Provide information in cells highlighted with this color.

Provide forecasted figures in the "Planned" column for the reporting quarter. The Planned figures for the Quarter are to be aligned with "Cash Forecast" of the resepctive quarter submitted in last WA.

Provide figures for any Direct Payments or Reimbursements in "Direct Payments/ Reimbursements" column that were made directly by IFAD to any other account during the reporting quarter.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement and shall be updated automatically

The formulas for variances are incorporated in "Variance" columns and the information shall be updated

Variance Analysis - Financial Year:

Provide information in cells highlighted with this color.

Provide approved AWPB figures in the "Planned" column for the respective year.

Provide year to-date figures for any Direct Payments or Reimbursements in "Direct Payments/ Reimbursements" column which were made directly by IFAD to any other account during the

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.

The Columns for Cash Forecast are linked with relevant columns of "Cash Forecast" statement.

The formulas for calculating "Balance", "Variance" and "Performance" are incorporated in relevant columns and the information shall be updated automatically

Variance Analysis - Cumulative:

Provide information in cells highlighted with this color.

Provide overall project allocations as per Project Design/Revisions (if any) in the "Planned"

Provide cumulative since inception to-date figures for any Direct Payments or Reimbursements in "Direct Payments," Reimbursements" column which were made directly by IFAD to any other account since the inception of the Project.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.

The formulas for calculating "Balance" and "Performance" are incorporated in relevant columns and the information shall be updated automatically.

Report I: Cash Forecast for Next 2 Quarters

Project Name: SAPEMP Finance Instruments Numbers

For the Period: Starting Date To End Date

				IFAD Loan	
	Disbursement Category	Ref	Next Reporting Quarter	Following Reporting Quarter	Total for 2 Subsequent Quarters
			Α	В	С
			DA D	enominated Curr	ency
Forec	ast by Category:				
1	Category 1 (As per the FA)		-	-	-
2	Category 2 (As per the FA)		-	-	-
3	Category 3 (As per the FA)		-	-	-
4	Category 4 (As per the FA)		-	-	-
5	Category 5 (As per the FA)		-	-	-
Total		I	-	-	-
Forec	ast by Component:				
1	Component 1 (As per the FA)		-	-	-
2	Component 2 (As per the FA)		-	-	-
3	Component 3 (As per the FA)		-	-	-
Total	(must be equal to I)	II	-	-	-
Total	Cash Forecast Expenditure	III	-	-	-
Less:	Planned Direct Payments/Reimburse	IV	-	-	-
Net pr	ojected expenditure from DA	V=III-IV			_

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Report II: Summary of Sources and Uses of Funds - DA Account

Project Name: SAPEMP Finance Instruments Numbers For the Period: Starting Date End Date IFAD Loan Quarter Year Inception Description REF To-Date To-Date **DA Denominated Currency** Sources of Funds: DA Opening Balances Operating account opening balance Petty cash opening balance Funds received Total Cash Available 1 Actual since Uses of Funds by Category: Actual for Qtr Actual for FY inception 1 Category 1 (As per the FA) 2 Category 2 (As per the FA) 3 Category 3 (As per the FA) 4 Category 4 (As per the FA) 5 Category 5 (As per the FA) Total Funds Used by Categories П Uses of Funds by Component: 1 Component 1 (As per the FA) 2 Component 2 (As per the FA) 3 Component 3 (As per the FA) Total Funds Used by Component (must be equal to II) Ш Category not yet identified/adjustments/advance, if any ١٧ Closing Cash Balances: Represented by: V=I-II-IV DA Closing Balance Operating account Closing Balance Petty cash Closing Balance

Total Closing Balance (must equal V): ۷I

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Name

Designation

Organization/Project

Report III: Designated Account Activity Statement

Project Name: SAPEMP Finance Instruments Numbers For the Period:

For the Period: <u>Starting Date</u> <u>End Date</u>

PART I		
	IFAD Loan	Remarks
	DA Denominated Currency	
PART I (Advances and Expenditure)		
Cumulative Advances into the DA by IFAD to the end of Reporting Quarter	-	
Cumulative Expenditure justified by IFAD until the end of previous reporting Quarter		This should match with IFAD records. In case of any differences between project figures and justifie figures as per IFAD records, it has to be explained in Line 11 below.
3. Outstanding Advances to be accounted for (Line 1 minus Line 2)	-	This should match with IFAD records.
DADTH (DA A et la)		
PART II (DA Activity)		
4. DA balance at beginning of Reporing Quarter	-	
Advances by IFAD during the Quarter		
Add/Substract - Cumulative Adjustments (if any)		If not zero, please provide explanation
7. Sub total of Advances and Adjustments (Line 5 plus Line 6)		
8. Outstanding Advances to be accounted for (Line 4 plus Line 7)	-	
9. DA balance at end of Quarter		
10. Expenditure incurred during the Reporting Quarter		
11. Add/Less - Adjustments (if any)		If not zero, please provide explanation
12. Total expenditure reported (net of adjustments) (Line 10 plus Line 11)		
13. Total Advance accounted for: Add Line 9 and Line 12	-	
14. Difference if any (Line 8 minus Line 13)	-	If not zero, please provide explanation
PART III (CASH FORECASTS)		
15. Total Forecasted amount for subsequent 2 Quarters	-	
Planned Direct Payments, Reimbursements, if any Net Forecasted Expenditures from Designated Account (Line 15 less)	-	
Line 16)		
18. Closing DA balance at the end of reporting Quarter after adjustments	-	
19. WA Submitted but not yet credited	-	
20. WA received after the end of the quarter (for emergency advances only)	-	Only to be filled in case of emergency advance
21. Replenishment Requirement for Subsequent 2 Reporting Quarters (Line 17 minus Line 18 to 20)	-	
PART IV (SUMMARY OF WITHDRAWAL APPLICATION)		
PART IV (SUMMART OF WITHDRAWAL APPLICATION)		
22. Amounts to be justified against the expenditure incurred during current quarter	-	This amount is to be submitted as justification through the "WA for justification" "his line could be not considered for emergency advances applications I his amount is to be submitted through a separate
23. DA Additional Advance - Cash requirement for Subsequent 2 Reporting Quarters, if required.*	-	"WA for advance" to request this additional advance
Explanation for Line 6 (if not zero):	FMR & AW Ref.	
Explanation for Line 11 (if not zero):	FMR & AW Ref.	
Explanation for item 14 (if not zero):	FMR & AW Ref.	I
	1	
Explanation for item 19 (if not zero):	FA4D 8 A14/ Def	
Expranation 101 Italii 19 (II 101 2010).	FMR & AW Ref.	I
	1	
		Authorized Signatory

Report IV: Variance Analysis of Use of Funds by Quarter

Project Name: SAPEMP Finance Instruments Numbers

For the Period: <u>Starting Date</u> TO <u>End Date</u>

			IFAD Loan		
	Planned	Actual Expenditure from DA	Direct Payment/ Reimbursement s		ance*
	Α	В	С	D	E
	Ref: AWP/ Forecast	Actual for the Quarter	Actual for the Quarter	A-B-C	D/A
		DA Denomir	nated Currency		%age
Expenditure by Categories:					
1 Category 1 (As per the FA)	-	-	-		
2 Category 2 (As per the FA)	-	-	-		
3 Category 3 (As per the FA)	-	-	-		
4 Category 4 (As per the FA)	-	-	-		
5 Category 5 (As per the FA)	-	-	-		
TOTAL I	-	-	-		
Expenditure by Components:					
1 Component 1 (As per the FA)	-	-	-		
2 Component 2 (As per the FA)	-	-	-		
3 Component 3 (As per the FA)	-	-	-		
TOTAL II (must be equal to I)	-	-	-		

^{*} Note: Provide reasons if the quarterly variances are equal to or more than 10%

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Report V: Variance Analysis of Use of Funds - FY

FY Start Date

Project Name: SAPEMP Finance Instruments Numbers For the Period:

1 Component 1 (As per the FA)
2 Component 2 (As per the FA)
3 Component 3 (As per the FA)
L II (must be equal to I)

IFAD Loan Actual Direct Payment/ Variance* Planned Expenditure Balance Forecast Reimbursements from DA D=A-B-C F=D-E G=(B+C)/A В Variance b/w Actual Actual Cumulative year todate AWPB Available Balance Cash Forecast for next 2 quarters Ref: AWP/ Forecast AWPB Balance and Cash Forecast Progress against AWPB year todate **DA Denominated Currency** %age Expenditure by Categories: 1 Category 1 (As per the FA) 2 Category 2 (As per the FA) 3 Category 3 (As per the FA) 4 Category 4 (As per the FA) 5 Category 5 (As per the FA) Expenditure by Components:

End Date

<u>To</u>

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^{*} Note: Provide reasons if the Cash Forecast is over and above AWPB Balance (i.e. the Forecast includes the Quarter 1 of the Subsequent AWPB)

Report VI: Variance Analysis of Use of Funds - Cumulative

Project Name: SAPEMP Finance Instruments Numbers

For the Period: Since Inception TO End Date

	IFAD Loan									
	Planned	Actual Expenditure from DA	Direct Payment/ Reimbursements	Progre	ess					
	Α	В	С	D	Е					
	As per Project Design	Actual Cumulative todate	Actual Cumulative todate	A-B-C	D/A					
		DA Denomir	ated Currency		%age					
Expenditure by Categories:										
1 Category 1 (As per the FA)	-	-	-							
2 Category 2 (As per the FA)	-	-	-							
3 Category 3 (As per the FA)	-	-	-							
4 Category 4 (As per the FA)	-	-	-							
5 Category 5 (As per the FA)	-	-	-							
TOTAL I	-	-	-							
Expenditure by Components:										
1 Component 1 (As per the FA)	-	-	-							
2 Component 2 (As per the FA)	-	-	-							
3 Component 3 (As per the FA)	-	-	-							
TOTAL II (must be equal to I)	-	-	-							

Authorized Signatory

Section 3 -Annual Performance Report Financial Information

Detailed financial information requirements established in the Funded Activity Agreement related to this project should be provided in this template. This document should be submitted together with the Annual Performance Report within 60 days after the end of the calendar year, unless otherwise specified in the AMA. Please fill the sections applicable to the Funded Activity.

Accredited Entity
Funded Activity Number and Title
Target Country(ies) of the Project
Project Implementation Period
Reporting Period covered in this report
Date of submission of this report
Reporting Currency¹

(Full name of the Accredited Entity)
(As per the approved Funding Proposal)

From: dd/mm/yyyy To: dd/mm/yyyy From: dd/mm/yyyy To: dd/mm/yyyy

dd/mm/yyyy

(EUR/USD/JPY/GBP)

Footnotes:

1/ Specify the reporting currency

3.1 GCF FUND BALANCE

			GCF Proc	eeds Only
			CUMULATIVE THROUGH TO THE END OF THIS REPORTING PERIOD (EUR/USD/JPY/GBP)	FOR THE CURRENT REPORTING PERIOD (EUR/USD/JPY/GBP)
3.1.1	Opening Fund balance		(2011/002/)1 1/ 021)	(2011) 002/31 1/ 021)
01212		Opening balance ¹		
3.1.2	Funded Activity Inflows			
a		Funded Activity Proceeds from GCF to AE:		
i.		Grant Instrument		
ii.		Loan Instrument		
iii.		Equity Instrument		
iv.		Guarantee Instrument		
b		Reflowed funds received by AE	-	1
С		Investment & Other Income	-	-
T	otal Inflows		-	•
3.1.3	Funded Activity Outflows			
a		Grant expenditure	-	-
b	Amount used for the Funded	Loan disbursed or used ²	-	
С	Activity	Equity paid	-	
d		Guarantees exercised	-	
Sı	ub-total Funded Activity Outflows		-	-
e	Reflowed Funds	Reflowed funds paid to GCF	-	-
Sı	ub-total Reflowed Funds		-	-
	otal Outflows		-	
3.1.4	Closing Balance			

Footnotes:

Note: Fill out cells without formula only. The rest of the cells will populate automatically based on the information presented in the subsequent sheets.

 $^{1/\}operatorname{Opening}\,balance\,should\,correspond\,to\,the\,closing\,balance\,of\,the\,prior\,reporting\,period$

 $^{2/}Loan\ disbursed\ or\ used\ by\ the\ AE\ out\ of\ GCF\ Proceeds$

					3.2 FINANCIAL	PROGRESS DETAI	LS- GRANT INSTRUMEN	VΤ				
OUTPUT/ COMPONENT ¹	SUB-OUTPUT / SUB- COMPONENT ¹	FINANCING SOURCE	BUDGET CATEGORIES ¹	APPROVED BUDGET FOR ENTIRE PROJECT PERIOD AS PER FAA	CUMULATIVE BUDGET THROUGH TO THE END OF THIS REPORTING PERIOD	BUDGET FOR THIS REPORTING PERIOD	CUMULATIVE EXPENDITURE THROUGH TO THE END OF THIS REPORTING PERIOD	EXPENDITURE FOR THIS REPORTING PERIOD	COMMITMENTS ²	TOTAL	BUDGET UTILIZATION RATE %	EXPLANATION OF VARIANCES FROM BUDGET ²
			Staff Cost							(#DIV/0!	
			Local Consultants							(#DIV/0!	
			International Consultant								#DIV/0!	
		GCF	Equipment								#DIV/0!	
			Construction Cost							(#DIV/0!	
	Sub-component 1.1		Training, Workshop & Conferences							(#DIV/0!	
			Travel Cost							(#DIV/0!	
		Co-financier 1. etc.									#DIV/0!	
		Co-financier 2, etc.									#DIV/0!	
		Sub-Total									#DIV/0!	
Component 1, etc.**			Staff Cost							(#DIV/0!	
		GCF	Local Consultants							(#DIV/0!	
			International Consultant								#DIV/0!	
			Equipment								#DIV/0!	
	Sub-component 1.2.		Construction Cost								#DIV/0!	
	etc.		Training, Workshop & Conferences							(#DIV/0!	
			Travel Cost								#DIV/0!	
		Co-financier 1. etc.									#DIV/0!	
		Co-financier 2.etc.									#DIV/0!	
		Sub-Total									#DIV/0!	
	TOTAL COMPO	NENT LETC									#DIV/0!	
			Staff Cost								#DIV/0!	
		l	Local Consultants								#DIV/0!	
		l	International Consultant								#DIV/0!	
		GCF	Equipment							(#DIV/0!	
Component			Construction Cost								#DIV/0!	
Project Management Co.	sits	l	Training, Workshop & Conferences								#DIV/0!	
.,		l	Travel Cost								#DIV/0!	
		Co-financier 1									#DIV/0!	
		Co-financier 2. etc.									#DIV/0!	
		Sub-total									#DIV/0!	
	TOTAL COMPO										#DIV/0!	
		PROIECT TOTAL:									#DIV/0!	
	P	ROIECT TOTAL: GCF:									#DIV/0!	
		Co-Finance 1&2 etc:									#DIV/0!	
	- The place To TAL	- Interest										

3.3.1 Loan Breakdown

Component/Output ²	FINANCING SOURCE	Borrower Name	Loan Agreement Signing Date (DD/MM/YYYY)	Loan Amount Committed	Tenor (and Grace Period) ²	out of GCF Proceeds	Interest and Fees Earned (incl. Service Fee and Commitment Fees)	Amount	Cumulative Repayment of Principal by Borrower	Cumulative Payment of Interest by Borrower	Loan Loss Provisions	Loan Write-off	Book Value of Loan	Comments ⁴
		A											0	
Component 1	GCF	00											0	
Component 2	OC.	C, etc											0	
		Sub-total		0		0	0	0	0	0	0	0	0	
		A											0	
Component 2, etc.	GCF	8											0	
Component 2, etc.	oc.	C, etc											0	
				0		0	0	0	0	0	0	0	0	
		A											0	
Component 1,2, etc.	Co-financers	8											0	
Component 1,2, etc.	CO-IIII ancers	C, etc											0	
		Sub-total		0		0	0	0	0	0	0	0	0	
Project Total GCF														
Project Total Co-finan	icers			0		0	0	0	0	0	0	0	0	

Component/Output ²	Name of Investor	Shareholder Agreement Signing Date (DD/MM/YYYY)	Total Number of Shares Subscribed To	Total Value of Shares Subscribed To	Cumulative Number of Shares Paid For	Cumulative Value of Shares Paid For	Percentage of Shareholding (based on Committed Amount)
	SCF						#DIV/01
Component 1	Co-financer 1						#DIV/01
Component 1	Co-financer 2						#DIV/01
	Sub-total		0	0	0	0	
	GCF						#DIV/01
Component 2, etc	Co-financer 1						#DIV/01
Component 2, etc.	Co-financer 2						#DIV/01
	Sub-total		0	0	0	0	
Project Total GCF							#DIV/0!
Project Total Co-finar	icers				0	0	#DIV/0!

3.3.3 Guarantee Breakdown

Component/Output ²	Name of Guarantor	Gurantee Agreement Signing Date (DD/MM/YYYY)	Amount of Maximum Guarantee ⁵	Cumulative Amount Exercised/Called
	GCF			
Component 1	Co-financer 1			
Component 2	Co-financer 2			
	Sub-total		0	0
	GCF			
Component 2, etc	Co-financer 1			
Component 2, etc.	Co-financer 2			
	Sub-total		0	0
Project Total GCF				
Project Total Co-fina	ncers			

3.4 INVESTMENT & OTHER INCOME STATEMENT¹ (if applicable)

Please provide a statement of Investment & Other Income earned on GCF Proceeds

Date (DD-MM-YYYY)	TYPE OF INCOME ²	Amount for the reporting period (EUR/USD/JPY/GBP)	Cumulative Amount to the end of reporting period (EUR/USD/JPY/GBP)
	Total amount	0	0

Is the reported Investment & Other Income for the Consolidated GCF Account or for this Funded Activity only? 1
This Funded Activity Only
Consolidated GCF Account

Footnotes:

1/ For agencies with more than one project, where all GCF Funds are held in a consolidated GCF Special Account, provide only one investment income statement for all funds held for GCF projects including investment income from the Executing Entity(ies). Please tick box as appropriate.

2/ Indicate type of other income, such as bank interest, investment income, proceeds from disposal of assets, etc.

Date (DD-MM-YYYY)				
	Total amount	0		

3.5 REFLOWED FUNDS							
		REFLOWED FUNDS F	AID TO THE GCF				
Planned Date (DD-MM-YYYY)	Actual Date (DD-MM-YYYY)	Amount for the reporting period	Cumulative Amount to the end of reporting period	Comments (Provide explanations of variances in the amount, date, prepayments, delinquent payments and others relevant information)			
	Total amount	0	0				

Footnotes:

3.6 REPORT ON AE FEES

Report on Accredited Entity fees ¹	USED AMOUNT (for the reporting period)	USED AMOUNT (Cumulative)	As percentage (% of Cumulative amount)
BY COST CATEGORIES			
Staff and consultant costs			#DIV/0!
Travel			#DIV/0!
Rent and common costs			#DIV/0!
Equipment supplies and other costs			#DIV/0!
Procurement and legal/Contractual services			#DIV/0!
Reimbursement of central services for core unit staff			#DIV/0!
Other, etc			#DIV/0!
Total:	0	0	#DIV/0!

Amount of AE fees disbursed (Cumulative):	
Amount of unused AE fees (Cumulative):	0

Footnotes:

1/ To be submitted on an annual basis

3.7 FINANCIAL CLOSE

FINANCIAL CLOSE ¹ (if applicable)			
Date of Financial Closing	(DD-MM-YYYY)		
Amount Disbursed from GCF to AE:	(EUR/USD/JPY/GBP)		
Total amount of GCF Funding used for the Funded Activity	(EUR/USD/JPY/GBP)		
Amount committed as at the date of Financial Closing ²	(EUR/USD/JPY/GBP)		
Unused Amount	(EUR/USD/JPY/GBP)		
Unused Amount paid to GCF	(EUR/USD/JPY/GBP)		

Please provide an explanation in the case of unused amounts not paid back to GCF at the date of Financial Closing (if any).

Footnotes:

1/ This section is only applicable to projects that have financially closed, per the terms of the Funded Activity Agreement. Closing Date refers to the date on which the Accredited Entity's right to receive disbursements in respect of the Funded Activity will terminate, as defined in the relevant Funded Activity Agreement.

2/ Refers only to the items as of the closing date where the AE has signed binding contracts, against which expenditure will be incurred after the closing date.

N.B. This sheet is designed for GCF to automatically e	xtract data from the other sheets in the financial performance report Excel template. No action is required by AEs on this sheet as all the below values are get	nerated with formulas.
Sources	Data fields	Values
Cover sheet (from Section 3 Financial Information)	Reporting currency	(EUR/USD/JPY/GBP)
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Grant	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Loan	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Equity	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative inflows: funded activity proceeds from GCF to AE - Guarantee	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative reflowed funds received by AE	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative Investment & Other Income	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative total inflows	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Grant	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Loan	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Equity	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Inflows for reporting period: funded activity proceeds from GCF to AE - Guarantee	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Reflowed funds received by AE	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Investment & Other Income	
SCF proceeds only (from Section 3.1)	GCF proceeds For reporting period: Total inflows	
GCF proceeds only (from Section 3.1)	GCF proceeds Cumulative outflows: Amount used for the funded activity - Grant expenditure	İ
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid	
CF proceeds only (from Section 3.1)	GCF proceeds Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised	
GCF proceeds only (from Section 3.1)	GCF proceeds Cumulative Reflowed funds paid to GCF	
GCF proceeds only (from Section 3.1)	GCF proceeds Cumulative total outflows	
SCF proceeds only (from Section 3.1)	GCF proceeds Outflows for reporting period: Amount used for the funded activity - Grant expenditure	
GCF proceeds only (from Section 3.1)	GCF proceeds Outflows for reporting period: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds	
GCF proceeds only (from Section 3.1)	GCF proceeds Outflows for reporting period: Amount used for the funded activity - Equity paid	
GCF proceeds only (from Section 3.1)	[GCF proceeds] Outflows for reporting period: Amount usedf for the funded activity - Guarantees exercised	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Reflowed funds paid to GCF	
GCF proceeds only (from Section 3.1)	[GCF proceeds] For reporting period: Total outflows	
GCF proceeds only (from Section 3.2)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual+Committed)	
GCF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual+Committed)	
I/A	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid (Committed)	N/A
I/A	[GCF proceeds] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Committed)	N/A
GCF proceeds only (from Section 3.2)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual)	
CF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual)	
CF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid (Actual)	
CF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Actual)	
o-financing (from Section 3.2)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual+Committed)	
o-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual+Committed)	
I/A	[Co-financing] Cumulative outflows: Amount used for the funded activity - Equity paid (Committed)	N/A
I/A	[Co-financing] Cumulative outflows: Amount usedf for the funded activity - Guarantees exercised (Committed)	N/A
o-financing (from Section 3.2)	Co-financing Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual)	
o-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Loan disbursed or used by AE out of GCF Proceeds (Actual)	
Co-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Equity paid (Actual)	
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1 Applicable Procurement Rules

IFAD General Conditions (Section 7.05. Procurement) lay emphasis on use of Borrower/ Recipient's procurement regulations, provided they are found to be consistent with IFAD's procurement guidelines. Procurement under INReMP will be carried out in accordance with GoK's Public Procurement and Asset Disposal Act (PPADA 2015) which sets out the rules and procedures of public procurement by Ministries, Departments and Agencies (MDAs) and County Governments, and provides mechanisms for enforcement of the law. The national framework will apply for procurements to the extent that they are consistent with IFAD Project Procurement Guidelines. National Standard Bidding Documents (SBDs) will be used and will be amended for consistency with IFAD Guidelines. International procurements and consulting services will use IFAD SBDs. All project procurement activities will be made in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) will apply to INReMP to ensure compliance with the highest ethical standards. Other provisions stipulated in the Procurement Arrangement Letter (PAL) will be applied for all procurement activities.

Under the PPADA, the Public Procurement Regulatory Authority (PPRA) has been established. The PPRA has oversight and regulatory functions, including undertaking procurement reviews and audits.

2 Procurement Methods, Thresholds and Prior Review

2.1 Procurement Plans (PP)

The PP should reflect the analysis presented in the PPS. It is the responsibility of the Project to prepare a consolidated Procurement Plan covering all the activities funded by the project. The Procurement Plan should include all procurement packages expected to be implemented within a period of at least 12 months. The PP should be updated at least annually to reflect actual needs and changing circumstances.

The initial Procurement Plan prepared for the project should be for a period of 18 months, with successive 12-month plans to be prepared for the following period of implementation. The plan should be realistic and shall be consistent with the Project Annual Work Plan and Budget (AWPB) and shall form part of it. NPCU and County level PPs will be developed as soon as the AWPB are ready.

Any updates to the Procurement Plan should be submitted to IFAD for its review and no objection. Any changes to the Procurement Pan should be justified through a revised PPS. The Plan shall include description of the procurement packages to be implemented, funding source, methods of Procurement, type of review (prior or post), quantities, estimated costs, time schedule for the different steps involved in the procurement process and the responsible procuring entity. The Procurement Plan is a "live" document that should be updated regularly. It is recommended to review the plan at least once quarterly. Any major adjustments or amendments to the plan would require IFAD no-objection. The plan should be ready and updated for review by supervision missions.

2.2 OPEN

IFAD OPEN (Online Project Procurement End-to-End System) supports borrowers maximize value for money and increases transparency and efficiency over the procurement processes in IFAD-financed operations. The system provides support to borrowers with built in guidance from procurement planning stages to contract completion,

tracking key stages of the procurement process. The system also generates analytics that supports evidence-based management.

Project procurement will be carried out as per the approved Procurement Plan (PP) processed in IFAD's OPEN. No activity will be implemented prior to receipt of a no objection through OPEN.

2.3 Contract Register (CR) and Contract Monitoring Tool (CMT)

All contracts, Memorandums of Agreements, purchase orders and related payments must be recorded in the Contract Monitoring Tool (CMT) of the IFAD Client Portal. The contract register in use by the project will be in form of entries to the CMT. All contracts by the project will be captured in the CMT in a timely manner. The project procurement officer will ensure regular updates to the CMT to reflect accurate physical and financial progress of contract entries.

2.4 Tabular Summary of Applicable Methods and Thresholds

Method Selection Currency: US\$	Prior Review Thresholds				
	GOODS	/NCS			
Shopping	NCB	ICB			
≤ 100,000	< 200,000	≥ 200,000	≥ 70,000		
WORKS/NCS					
Shopping					
≤ 250,000	< 1,000,000	≥ 1,000,000	≥ 150,000		
	CONSULTING SERVICES/NCS				
cqs	LCS and FBS	QCBS and QBS			
≤ 70,000	< 150,000	≥ 150,000	≥ 60,000		
ICS Prior Revie	w Threshold		≥ 30,000		

2.5 Special Procurement Arrangements

a) The table below represents procurement arrangements for low value items:

Contract	Category	Estimated Cost	Procurement Approach and Method
Off-the shelf Goods, Minor Works, and small assignments.	Works /Goods /Consulting services	Not more than USD500, up to an annual cumulative cost of USD5,000 (as defined in the PAL)	Contracts to be procured through local administrative procedures and a file of all such purchases be maintained.

- b) Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, salaries, and allowances for project staff. These expenditures will not be subject to procurement clearance, hence, will not be reflected in the approved procurement plan. Items under this category would be procured using local administrative procedures acceptable to IFAD. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB, and will be subject to external audit.
- c) Training / Capacity Development initiatives through the project are not Procurement Transactions unless a service provider is exclusively hired from Market

through agreed Selection Methods of Consultant / Non-consulting services as appropriate to render training or capacity development. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB and will be subject to external audit.

2.6 Standard Procurement Documents (SPD) to be used

National SBDs will be used and will be amended for consistency with IFAD Guidelines. The SBDs will include porvisions on IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering the Financing of Terrorism Policy, and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), and IFAD right to audit. International procurements will use IFAD SBDs and provisions. A complete list of SPD templates is available for download and can be accessed on https://www.ifad.org/en/project-procurement/guidelines-and-documents

2.7 Guidance Offered in the IFAD Procurement Handbook

The IFAD procurement handbook will be referenced for consistency to any procurement activity undertaken by the project when procuring goods, works or services under INReMP, and consistent with the Financing Agreement and PAL. Consistent application of the handbook's provisions and procedures is essential for ensuring greater efficiency, transparency, uniformity of documents and decisions and lower procurement costs.

2.8 Prior Review Documentation

In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

2.7.1 Procurement Plan (PP)

Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans shall be subject to prior review.

2.7.2 The General Procurement Notice(s) (GPN)

General Procurement Notices that are drafted prior to their publication shall be subject to IFAD prior review.

2.7.3 Goods, Works, Consulting and Non-Consulting Services

The procurement process for Goods/Works/Services shall require IFAD's No Objection (NO) for contracts designated for "**prior review**" in the project's procurement plan. No downstream procurement action by the project 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	IFAD "NO" is required
1	Call/Request for Prequalification document and related advertisement	Yes
2	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes
3	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)
4	Technical Specifications for Goods/Works/NCS	Yes, usually as part of NO request for issue of the bid docs (step 9 below)
5	Composition of evaluation committees	Yes, usually as part of 9, 13 or 15

6 Pregualification report for Goods/Works/NCS Yes 7 Shortlisting report for consultants' selection Yes 8 The use of "prior lists" for shortlisting consultants Yes 9 Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable 10 Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee 11 Amendments to the Bidding Documents and RFPs, CfPs Yes 12 Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS) 13 Technical evaluation report (in two envelope procedures) 14 The combined evaluation report (in two envelope procedures) 15 The single evaluation report (in one envelope procedures) For Goods/Works/NCS/Consulting Services (SSS) 16 Decisions concerning abnormally low bids Yes 17 Draft contract Yes 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of cross-debarment 23 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. 24 Extension of time to contract value is a new procurement subject to Single Source/DC conditions. 25 Termination of a contract in Goods/Works/NC Yes			
The use of "prior lists" for shortlisting consultants Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee Amendments to the Bidding Documents and RFPs, CfPs Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS) Technical evaluation report (in two envelope procedures) The combined evaluation report (in one envelope procedures) The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS) Decisions concerning abnormally low bids Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS Rejection of all bids/proposals and cancellation of the procurement procedure Rejection of all bids/proposals and cancellation of the procurement procedure Determination to reject a bid/proposal because of crossdebarment 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.	6		
Complete Bidding Documents and RFPs and CfPs and related advertisement if applicable 10 Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee 11 Amendments to the Bidding Documents and RFPs, CfPs 12 Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS) 13 Technical evaluation report (in two envelope procedures) 14 The combined evaluation report (in two envelope procedures) 15 The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS) 16 Decisions concerning abnormally low bids Yes 17 Draft contract Yes 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of crossdebarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	7	Shortlisting report for consultants' selection	Yes
related advertisement if applicable 10 Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee 11 Amendments to the Bidding Documents and RFPs, CfPs 12 Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS) 13 Technical evaluation report (in two envelope procedures) 14 The combined evaluation report (in two envelope procedures) 15 The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS) 16 Decisions concerning abnormally low bids 17 Draft contract 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of crossdearment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services		The use of "prior lists" for shortlisting consultants	Yes
Use of a Performance Guarantee template if other than unconditional, irrevocable and on-demand guarantee	9		Yes
11 Amendments to the Bidding Documents and RFPs, CfPs 12 Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS) 13 Technical evaluation report (in two envelope procedures) 14 The combined evaluation report (in two envelope procedures) 15 The single evaluation report (in one envelope procedures) 16 Decisions concerning abnormally low bids	10	Use of a Performance Guarantee template if other than	Yes
12 Opening bids/quotes/proposals that are less than 3 (excluding DC/SSS) 13 Technical evaluation report (in two envelope procedures) 14 The combined evaluation report (in two envelope procedures) 15 The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS) 16 Decisions concerning abnormally low bids Yes 17 Draft contract Yes 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of crossdebarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	11		Yes
13 Technical evaluation report (in two envelope procedures) 14 The combined evaluation report (in two envelope procedures) 15 The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS) 16 Decisions concerning abnormally low bids 17 Draft contract 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of cross-debarment steps 13, 14 or 15 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	12	Opening bids/quotes/proposals that are less than 3	Yes
procedures) The single evaluation report (in one envelope procedures) for Goods/Works/NCS/Consulting Services (SSS) Decisions concerning abnormally low bids Toraft contract Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS Rejection of all bids/proposals and cancellation of the procurement procedure Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS Determination to reject a bid/proposal because of crossign the contract in Goods/Works/NCS 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. Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	13	Technical evaluation report (in two envelope	Yes
procedures) for Goods/Works/NCS/Consulting Services (SSS) 16 Decisions concerning abnormally low bids 17 Draft contract 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of cross-debarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	14		Yes
17 Draft contract 18 Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of cross-debarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	15	procedures) for Goods/Works/NCS/Consulting Services	Yes
Minutes of negotiation at award for consultancy services (where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of crossdebarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	16	Decisions concerning abnormally low bids	Yes
(where applicable) or when using DC for Goods/Works/NCS 19 Rejection of all bids/proposals and cancellation of the procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of crossdebarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	17	Draft contract	Yes
procurement procedure 20 Failure of negotiations and proceeding to next ranked consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of cross-debarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	18	(where applicable) or when using DC for	Yes
consultant 21 Proceeding to next ranked bidder if top ranked fails to sign the contract in Goods/Works/NCS 22 Determination to reject a bid/proposal because of crossdebarment 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	19		Yes
sign the contract in Goods/Works/NCS Determination to reject a bid/proposal because of cross-debarment 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. Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	20		Yes
debarment steps 13, 14 or 15 23 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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	21		Yes
(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. 24 Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC Services/Consulting Services	22		Yes, usually as part of steps 13, 14 or 15
original contractual duration in Goods/Works/NC Services/Consulting Services	23	(increase/decrease in quantities as a result of evolutionary changes). Additional unforeseen new items exceeding 10% of the contract value is a new	
	24	Extension of time to contracts exceeding 25% of the original contractual duration in Goods/Works/NC	Yes
Services/Consulting Services	25	Termination of a contract in Goods/Works/NC	Yes
26 The use of Force Account Yes	26		Yes

2.7.4 Other specific Prior Review requirements
In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

1	Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans;		
2	General Procurement Notices (GPNs);		
3	The first 5 procurement activities using ICB and NCB;		
4	Any use of Force Account;		
5	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;		

Award of any Memorandum of Agreement irrespective of its value; Award of any contract for goods and goods-related non-consulting services estimated to cost US\$ 70,000 or more; Award of any contract for works and works-related non-consulting services estimated to cost US\$ 150,000 or more; Award of any contract for consulting services provided by firms estimated to cost US\$ Award of any contract for individual consulting services estimated to cost US\$ 30,000 or 10 Award of any contract via Direct Contracting for Goods and related Non-Consulting 11 Services above the low-value threshold specified in PAL paragraph 6 b) iv). Any contract below this low-value threshold does not need NO if the cumulative value of such lowvalue contracts does not exceed the cumulative threshold stated in PAL paragraph 6 b) iv) in the current fiscal year; Award of any contract via Direct Contracting for Works above the low-value threshold specified in paragraph PAL 6 a) iv). Any contract below this threshold does not need NO if the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph; Award of any contract via Single/Sole Source Selection of Consulting Services to firms above the threshold specified in PAL paragraph 6 c) vi). Any contract below this threshold does not need NO if the cumulative value of such low-value contracts does not exceed the cumulative threshold stated in the same paragraph; Award of any contract via Single/Sole Source Selection to individuals above the threshold specified in PAL paragraph 6 c) vii). Any contract below this threshold does not need NO if the cumulative threshold stated in the same paragraph is not exceeded and the contract duration is three months or less.

2.8 Other procurement-related coordination with IFAD

It is not intended that the procurement manual will foresee all possible situations that could arise in processing of procurement activities and decisions. Where in doubt, the project will seek guidance from IFAD from time to time during INReMP's implementation. A proactive approach will be required to ensure procurement best practices are retained throughout project implementation.

3 Critical Procurement Issues

3.1 Areas of Inconsistency between National Law and IFAD Project Procurement Guidelines

3.1.1 Comparison between National and IFAD Procurement

The National Procurement framework has been assessed and compared to IFAD procurement framework. The areas of possible non-compliance to IFAD project procurement framework:

- a) PPADA Provision 118 provides for request for proposal through advertisement without REOI.
- b) Provision 131 sets a condition for BAFO procedures where the lowest evaluated price is in excess of available budget, but without a probity Auditor for BAFO procedures.
- c) Minimum period for International tender advertising provided as seven days in Regulation 83.
- d) PPADA provision 157 provides for participation of candidates in preference and reservation. It requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents a mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating

- in international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender.
- e) PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.
- f) There are no ICB documents for Works/Goods, though documents can be customized for international competition.
- g) There is no procurement manual.
- h) No Social/Labour or Environmental considerations of SPP. The same is not a requirement in the prequalification and bidding processes.
- i) Regional agreements are not specifically reflected in procurement policy.

3.1.2 Extent of Application of the National Procurement rules under the Project

The National Procurement rules will apply for procurement processes subject to IFAD project procurement framework and consistency with IFAD procurement guidelines and PAL.

3.2 Cost and Schedule Estimate

The Programme's costs and procurement estimates of the first 18 months are tabulated below.

N	Component and Outputs	Cost (US\$)	Perc e nt	Key procurement activities (First 18 months)
1	Component 1. Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action: 1) Output 1.1 Community Empowerment, Youth and Gender Transformative Approaches 2) Output 1.2 Improve Environmental Sustainability, INRM, and Ecosystem Services	85,700 8,449 77,251	34%	Supply of weather stations, river gauges, other equipment, Supply of Equipment for water and soil labs, Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc., Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming, Consulting service for mapping, registration of community groups.
2.	Component 2. Improved, Inclusive and Sustainable Rural Livelihoods: 3) Output 2.1 Improve Production and Productivity of Selected Nutrition-Sensitive Value Chains and Nature-based Enterprises 4) Output 2.2 Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises	123,646 74,132 49,515	49%	Procurement of 12No motor vehicles (for Extension), Procurement of 105No Motor Cycles for Extension services, Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems, Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems, Nutrition Specialist/Consultant, Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture), Provision of Business development support to

Communication Strategy,	3.	Component 3. Institutional Strengthening, Policy Support and Programme Coordination: 5) Output 3.1 Institutional Strengthening and Policy Support 6) Output 3.2 Programme Coordination and Implementation Support Services	43,654 5,229 38,425	17%	Consulting service for Institutional capacity gap assessment and production of a capacity development plan, PMU staff
Total 253,000 100 %		Total	253,000		(consultants).

3.3 Publication of Notices

3.3.1 General Procurement Notice (GPN)

The GPN is a publication that will be made at the beginning of each planning period to achieve the following:

- Notify bidders of the existence of the INReMP
- Notify bidders of upcoming procurement opportunities
- Enable the INReMP to create or improve its supplier database

IFAD's NO is required prior to publication of the GPN.

3.3.2 Pre-qualification (goods, works and non-consulting services)

In this process, information on the qualifications of potential bidders will be obtained and evaluated in order to compile a list of qualified bidders who will receive solicitations for closed procedures. This will be done through publication of a pre-qualification notice, the receipt of submissions and the evaluation of submissions against predetermined criteria.

3.3.3 Notices for Open Bidding Processes

For open bidding processes, publication of the advertisement will be made for open competitive bidding. This shall be done – at a minimum – via publication on the IFAD website and in national newspapers. International Competitive approaches shall require additional publication on the United Nations Development Business portal - UNDB online.

3.3.4 Request for Expressions of Interest (REOI)

For openly competitive procurement activities through Request for Proposals, Publication/issuance of an REOI containing a briefing on the assignment and the shortlist assessment criteria will be made. The evaluation criteria in the RFP stage will be more robust and not be used in the shortlist.

3.3.5 Publication of Contract Awards

The publication of contract awards will follow the same advertisement method used for the announcement of the procurement activity.

3.4 Award of Grants/Loans

Grant schemes awards will be subject to IFAD review and No Objection.

3.5 Procurement Principles and Ethics

3.5.1 Procurement Principles

In accordance with the IFAD Project Procurement Guidelines, the IFAD Anticorruption Policy and the IFAD Code of Conduct, project procurement staff are expected to:

- a) maintain and enhance the reputation of the Government of Kenya by:
 - (i) maintaining the highest standards of honesty and integrity in all professional relationships;
 - (ii) developing the highest standards of professional ethics;
 - (iii) maximizing use of IFAD funds and other resources for which they are responsible for the purposes for which they were provided to the borrower/recipient country;
 - (iv) providing information in the course of their duties that is true, fair and not designed to mislead;
 - (v) complying with both the letter and the spirit of:
 - · the financing agreement;
 - · the laws and regulations of the Republic of Kenya;
 - professional ethics;
 - contractual obligations.
- b) declare any actual, perceived, or potential personal interest that might affect, or reasonably be perceived by others to affect, impartiality in any matter relevant to their duties (conflict of interest). In such a situation, the respective official should not participate in the procurement process in any way to avoid adverse measures, including the declaration of misprocurement;
- c) respect the confidentiality of information obtained in the course of duty and not use such information for personal gain or for the unfair benefit of any bidder, supplier, or contractor.
- d) Two of the most common sources of concern are conflicts of interest and the acceptance of gifts and hospitality by officials. The complete guidelines can be found in IFAD's Anticorruption Policy.

3.5.2 Gifts and hospitality

Any public official of the borrower/recipient involved in an IFAD-funded procurement activity:

 is not permitted to accept any gifts from current or potential suppliers, contractors, or consultants, unless such gifts are of very low intrinsic value, such as a calendar or business agenda;

- (ii) must refrain from accepting any business hospitality that might be viewed by others as influencing a business decision;
- (iii) has a duty to promptly report any case of prohibited practices, including but are not limited to fraud and corruption, as defined in IFAD's Anticorruption Policy, by a colleague, bidder, supplier, contractor or consultant, to IFAD and the national authorities, as required.

3.5.3 Conflicts of interest

- (i) The IFAD Project Procurement Guidelines require that any public official of the borrower/ recipient involved in an IFAD-funded procurement activity shall declare any personal interest that may affect, or might reasonably be deemed by others to affect, impartiality in any matter relevant to their duties (conflict of interest).
- (ii) On becoming aware of a situation of this nature or the potential for such a situation, the official(s) concerned should immediately recuse themselves from any aspect of the procurement process to avoid being placed in the position of having a conflict of interest.
- (iii) When IFAD becomes aware of a situation in which a conflict of interest may have existed but was not declared, it is sufficient grounds to declare misprocurement, in keeping with the IFAD Project Procurement Guidelines.
- (iv) Where there is a question about the existence of a conflict of interest, or potential conflict of interest, IFAD may be consulted for advice or guidance. However, IFAD operates under the general principle that if there is any uncertainty, it is safer to recuse oneself from the process rather than risk a negative perception of the process and a (potential) declaration of misprocurement.

3.6 Combatting Corruption and Sexual Harassment

All contracts signed by vendors (suppliers, consultants/consulting firms or contractors) shall contain material demonstrating that the vendor is compliant with the regulations of IFAD's Revised Policy on Preventing Fraud and Corruption in its Activities and Operations and the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse (SH/SEA) by the use of self-certification forms. To this end, all vendors shall sign a self-certifying declaration annexed to the contract, certifying that they have not and – for the duration of the contract – will not engage in fraud and corruption and SH/SEA, as defined in the respective policies indicated above. This self-declaration is part of the contract forms of the standard procurement documents provided by IFAD.

The SH/SEA Policy is available at: https://www.ifad.org/en/document-detail/asset/40738506

The Anticorruption Policy at: https://www.ifad.org/en/document-detail/asset/40189695

3.7 Record Keeping

Each procurement activity will have its own separate file, folder, or dossier where records related only to the procurement in question are kept in properly coded chronological order. Documents related to other procurement projects must not be included in the procurement record. It should be possible to review the entire historical record of the procurement in a logical and sequential manner at any time. The list of complete records to be retained in a file is referenced in the IFAD procurement handbook and as contained in Annex 2.

4 Procurement Transactions – Institutional Setup and RACI

4.1 Delegated Procurement Responsibilities to local entities

Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-

to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture who will also be INReMP's accounting officer.

The PCMU will be directly responsible for project procurement. In addition, the Head of procurement at each of the partner organizations will be responsible to support procurement of the low value limited to activities within the RFQ/shopping threshold, and consistent with project's PAL.

KALRO and County Governments, will be implement National Competitive procedures for their respective procurement activities and within the defined thresholds. All other procurement activities are to be undertaken by the PCMU.

4.2 Implementing Partners

The Programme will collaborate and enter into Memoranda of Understanding (MoUs) with Programme partners drawn from the private sector and relevant Government Agencies, such as the Kenya Agricultural and Livestock Research Organization (KALRO), Lake Basin Development Authority (LBDA), National Environmental Management Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), Kenya Forest Research Institute (KEFRI), Kenya Water Towers Agency (KWTA), National Environment Trust Fund (NETFUND), Water Sector Trust Fund, Water Resources Authority, National Irrigation Authority, Kenya Meteorological Department, Kenya Marine & Fisheries Research Institute (KMFRI) and The Nature Conservancy. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.

4.3 Accounting for Procurement by Implementing Partners

Any small value procurements and procurements of operational expenditures undertaken by implementing entities will be subject to periodic reporting before replenishment of funding by the PCMU and in and line with the Financing covenants.

4.4 Institutional Setup, Roles and Responsibilities

4.4.1 Evaluation Committees

Each competitive procurement package will have an *ad hoc* Evaluation Committee comprising of members skilled in the subject matter at hand. Evaluation committee members should not be restricted to only PCMU members, to ensure sufficient skill mix; independent external members may also be used.

For all items above the prior review threshold, IFAD's No Objection on the solicitation documents will be required.

4.4.2 Roles & Responsibilities, including TOR

A. Procurement Specialist

1. **Procurement Specialist** – Reporting directly to the Programme Coordinator, the Procurement Specialist will be responsible for all procurement-related aspects under the Programme and for maintaining all procurement documentation in good order. The Procurement Specialist will be part of the Project Team working on the implementation of the project's activities. The specialist will be responsible for the specific procurement activities needed for project implementation and will provide leadership and guidance to all PCMU. The Procurement Specialist will oversee the overarching role of PCMU for programme-wide procurement of consolidated Goods and be responsible for all procurements that approach the international market.

- 2. **Duties and Responsibilities** Under the direct supervision of the Programme Coordinator, the Procurement Specialist will have the following duties and responsibilities:
 - Coordination of procurement of project requirements at national level and guidance to decentralized procurement at county, and partner institutions level as appropriate.
 - Review and update the procurement section of the project PIM and initial 18-month procurement plan. The reviewed PIM should adequately provide for all internal procedures and milestones.
 - Installation of appropriate procurement systems and procedures for effective planning and monitoring of procurements under the Programme.
 - Communicate to all implementing entities and service providers their responsibilities and requirements with respect to procurement in keeping with prevailing Government practices which are acceptable to IFAD.
 - Oversee preparation and consolidation of inputs to the Annual Procurement Plan.
 - 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.
 - Maintain all procurement records in a form appropriate for regular auditing.
 - Coordinate preparation of TORs for consultancy services and technical specifications for goods procurement, in conjunction with the relevant user Departments/Divisions.
 - Undertake local shopping for goods and services where this falls within the procurement guidelines.
 - Prepare request for bids in the required format and advertising or inviting bids from qualified (or pre-qualified) suppliers.
 - Advise selection of Evaluation Committees to have people with appropriate expertise, and support bid evaluation committees to undertake technical evaluation of bids or proposals for supply of goods and services.
 - Monitor implementation of contracts: report status and problems to the Programme Coordinator and intervene to address any problems upon request by the Programme Coordinator.
 - Initiate approval processes for progressive payments to contractors against the agreed milestones or outputs.
 - Maintain a register of approved suppliers for smaller items procured locally.
 - Prepare quarterly and annual reports of progress with implementation of the Procurement Plan, and regularly inform the Programme Coordinator of problems and make proposals to overcome bottlenecks; and
 - Carry out any other activities that are assigned by the Programme Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a Masters degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and Projects in Kenya;
 - He/she would have at least 10 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and
- 4. **Competencies** The following are desirable competencies:

- Ability to work well in teams and to interact with a wide range of partners, including private sector and government representatives.
- Knowledge of work planning and reporting.
- Excellent analytical skills.
- Honest and Integrity.
- Strong written and oral communication skills in English; and
- Ability to work independently, with limited supervision.

B. Procurement Officer

- 1. **Procurement Officer** Reporting directly to the Programme Coordinator, the Procurement Officer will ensure achievement of results-oriented outcomes in the procurement function.
- 2. **Duties and Responsibilities** Under the direct supervision of the Programme Coordinator, the Procurement Officer will have the following duties and responsibilities:
 - Support the Procurement Specialist in execution of procurement related tasks.
 - Put in place a system that would allow for appropriate planning with regard to the
 consolidation of a list of all needed procurement items for the effective
 implementation of the a given Programme Year's work plan. The list should be
 exhaustive including the appropriate specifications, quantity, the preferred delivery
 time period, etc.
 - Support in guidance and capacity building of participating counties, and partner institutions on procurement policies and procedures of the project.
 - Work closely with the Procurement Specialist and PCMU to ensure that an informative and detailed project work plan and budget is timely prepared.
 - During the course of AWPB implementation, monitor implementation of the different contracts, report status and problems to the Programme Coordinator and intervene to address any problems upon request by the Programme Coordinator.
 - Keep an appropriate contract register for all contract entered during INReMP implementation. The register must be continuously updated to reflect the physical and financial progress.
 - Preparation of regular procurement progress reports.
 - Maintain all procurement records in a form appropriate for regular auditing.
 - Prepare quarterly and annual reports of progress with implementation of the Procurement Plan, and regularly inform the Programme Coordinator of problems and make proposals to overcome bottlenecks; and
 - Carry out any other activities that are assigned by the Programme Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Kenya;
 - He/she would have at least 5 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

C. County Procurement Officer

- 1. **County Procurement Officer** Reporting directly to the PIU Coordinator and functionally to the Head of Procurement at the County, the County Procurement Officer will ensure achievement of results-oriented outcomes in the procurement function.
- 2. **Duties and Responsibilities** Under the direct supervision of the County Programme Coordinator, the Procurement Officer will have the following duties and responsibilities:
 - Support the PIU in execution of procurement related tasks.
 - Put in place a system that would allow for appropriate planning with regard to the
 consolidation of a list of all needed procurement items for the effective
 implementation of the a given Programme Year's work plan. The list should be
 exhaustive including the appropriate specifications, quantity, the preferred delivery
 time period, etc.
 - Preparation of annual county project procurement plans in collaboration with other members of the PIU, in accordance with the Project Procurement Manual.
 - Support in guidance and capacity building of participating communities, SPs and partner institutions within the county on procurement policies and procedures of the project.
 - Procurement of project works, goods and services at county level.
 - Preparation and advertisement of TORs, tender and contract documents for county specific procurements according to GOK and IFAD guidelines.
 - Participation in relevant county tender and quotation evaluation committee meetings and assisting with the preparation of reports.
 - Maintenance of high-quality county procurement files and contract registers for review by supervision missions and auditors.
 - Preparation of regular county procurement progress and contracts management reports.
 - Undertake any other duties assigned by the County Project Coordinator.
- 3. **Qualifications and Experience** The ideal candidate must have a degree in purchasing and supply, economics, finance, or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:
 - He/she will have a sound understanding of GoK procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Kenya;
 - He/she would have at least 5 years of work experience in procurement and contracting, preferably including the donor-funded Projects/Programmes.
 - Must possess advanced working knowledge and skills of MS Office (MS Word, MS Excel and MS Access); and

Annex 1: Procurement Records and Files

Docu	<u>iment</u>	Preferred Format
(i)	a copy of the published REOI advertisement or shortlist (if applicable) *	Hard copy
(ii)	a copy of the published pre-qualification and bidding documents and any amendments, extensions or clarifications requested and issued *	Hard copy
(iii)	a record of the tender opening, signed by all TEC members and the bidders present	Hard copy
(iv)	a full copy of each bid received and evaluated, plus clarifications requested and responses received	Hard copy
(v)	a copy of the evaluation report*	Hard copy
(vi)	signed minutes of all meetings related to the procurement, including pre-bid and negotiation meetings, when held	Hard or soft copy
(vii)	a contract award notice*	Hard copy
(viii)	any letter of tender acceptance to the supplier, contractor or consultant*	Hard copy
(ix)	the signed contract document and contract acceptance*	Hard copy
(x)	any contract amendments*	Hard copy
(xi)	all contractual correspondence between the procuring entity and a supplier, contractor or consultant	Hard or soft copy
(xii)	post-contract documents related to the fulfilment of contract obligations, especially photocopies of bank guarantees or payment guarantees	Hard copy
(xiii)	signed minutes of any meetings related to contract management, including contract progress or review meetings	Hard copy
(xiv)	signed delivery documents evidencing delivery of supplies, or signed completion certificates related to a contract for services or works under the contract, including any contract delivery records	Hard copy
(xv)	a copy of all invoices for works, services or supplies, including working papers verifying the accuracy of payments claimed and details of the actual payment authorized	Hard copy
(xvi)	a copy of cumulative payment worksheets/records evidencing management of all payments made	Soft copy
(xvii)	all decisions of the concerned borrower's approval authority related to the procurement, including the approval of the bidding documents, the approval of the evaluation report(s), the contract award, the approval of contract documents and contract amendments and any decision to suspend or cancel procurement proceedings	Hard copy
(xviii)	a copy of any claims made by the procuring entity with respect to any warranty, non- warranty, short supply, damage and other claims against the contracted vendor or the procuring entity	Hard or soft copy
(xix)	in the case of IFAD prior review, all submissions and correspondence related to the seeking of IFAD's no objection (NO) and a copy of the respective IFAD NO letter	Hard or soft copy
(xx)	any other communications related to the procurement in question, including internal entity correspondence	Hard or soft copy

^{*} Ideally, drafts of these published documents and reports should also be retained for completeness and to provide a full picture of how the published document evolved. It is accepted, however, that in the case of space limitations, this is not always feasible in practice.

Annex 2: Guidance on using the Procurement Plan

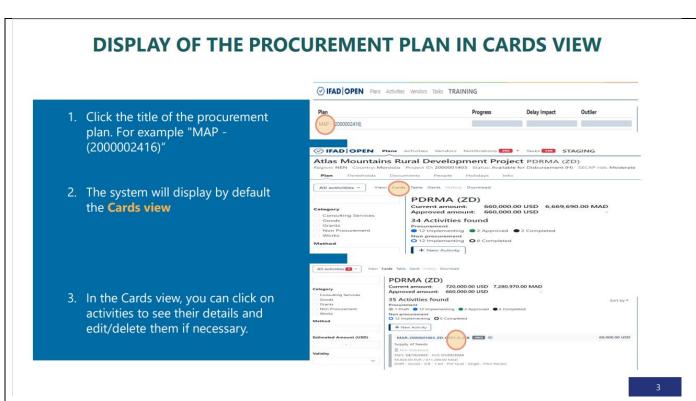


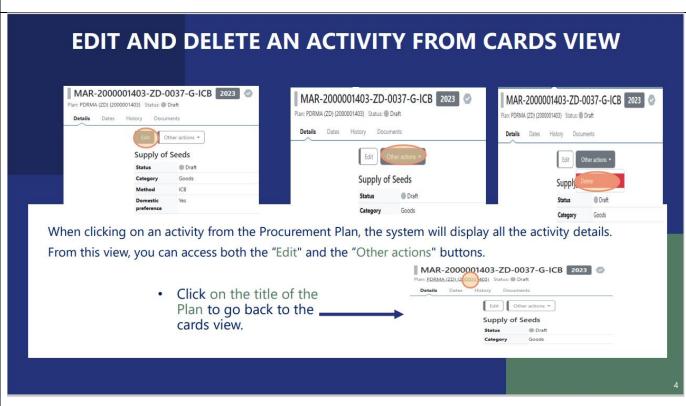


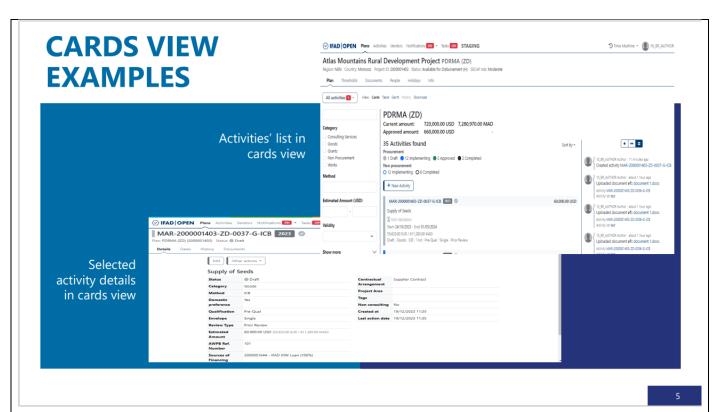
WHAT DOES THIS QUICK CARD COVER?

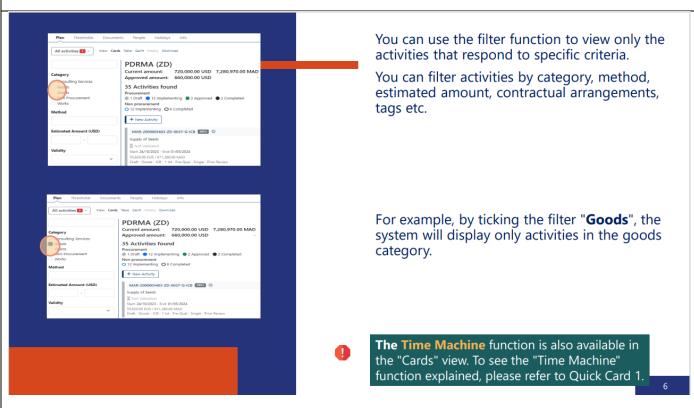
- Card view of the PP
- · Table view of the PP
- · Gantt chart view of the PP
- Download a Procurement Plan
- Thresholds views
- People
- Holidays
- Info

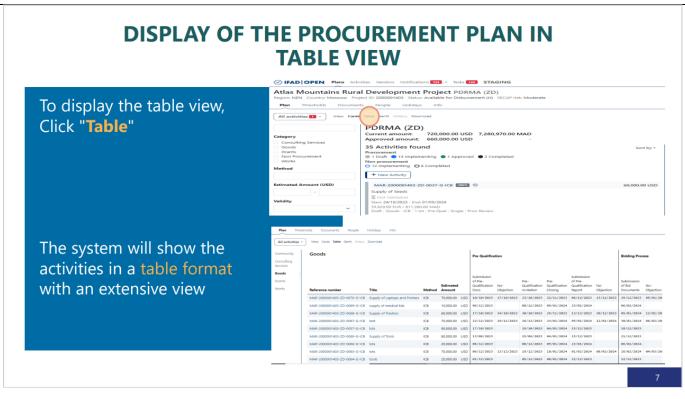
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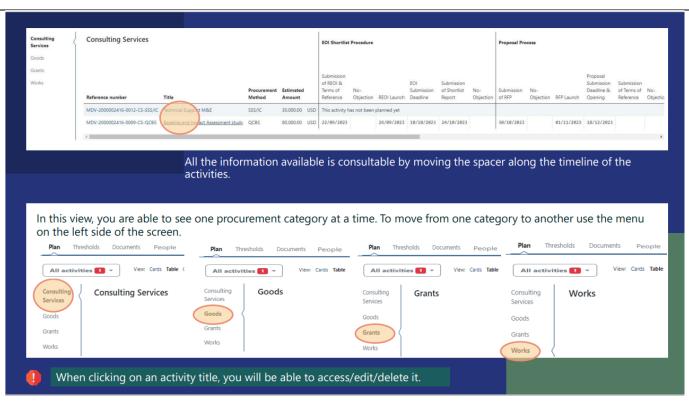


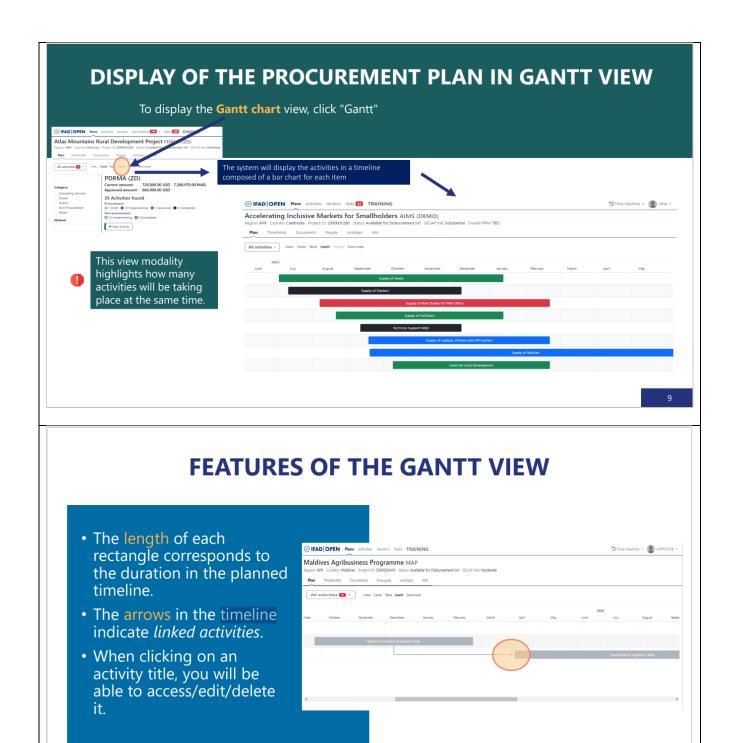




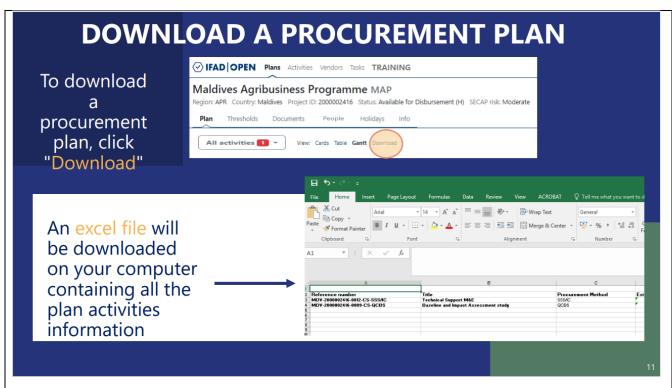


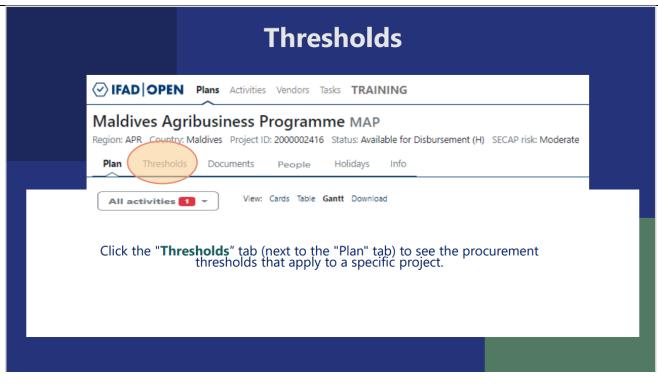


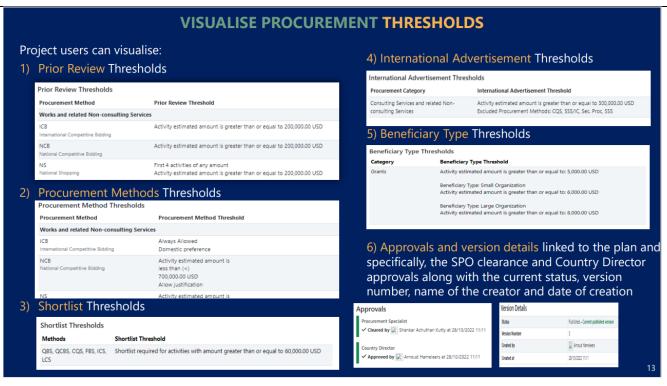


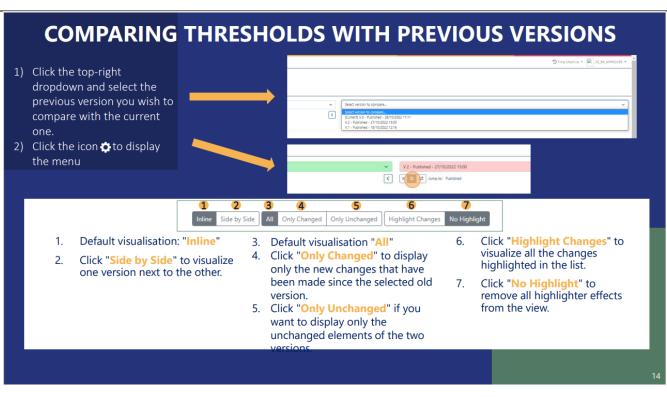


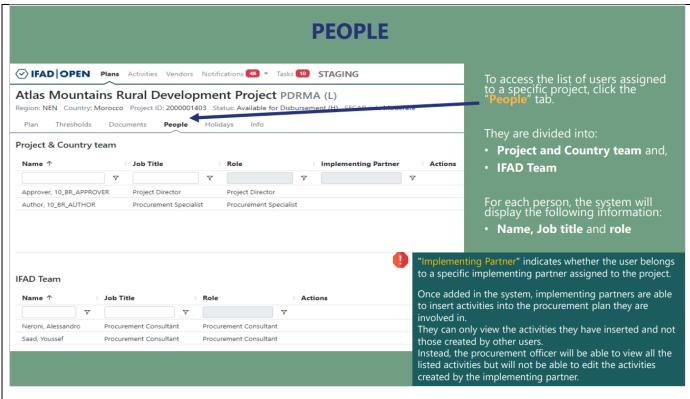
*Refresh the process of linking activities in Quick Card N.2

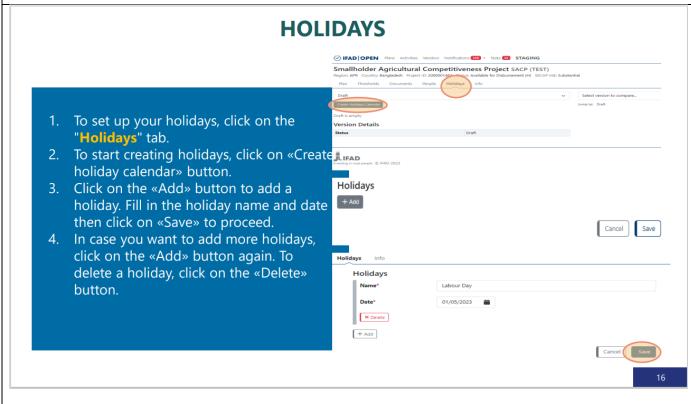


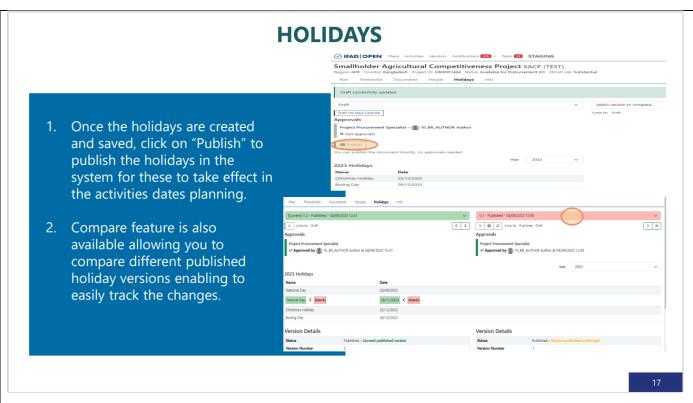














IFAD Client Portal Project Procurement Contract Monitoring Tool

Overview

The contract monitoring area is where you can enter contract data, update and amend it. You can also access the Report section to have an overview of the overall implementation of contracts and to identify any issues with project implementation.

Enter a contract and then, as it progresses through implementation, update the key information of the contract:

- Status of the contract;
- Percentage of physical implementation
- How much has been paid against the contract
- How much has been claimed on WAs for the contract
- An evaluation of the quality of the performance of the contractor.

The data inserted in the contracts have to be confirmed at the end of each quarter, then quarter is closed off and it enables comparison progress reports to be generated.





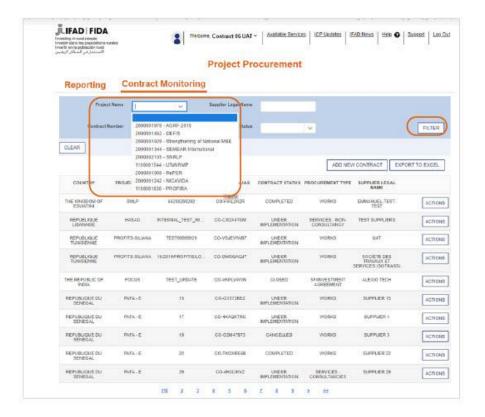
Accessing Contract Monitoring

Access the ICP Home Page, expand the sidebar menu and click on "Operations", then on Project Procurement Contract Monitoring Tool. By default the page will open on Reporting, click on Contract Monitoring in order to enter a new contract or view an existing contract.



If you only have access to one project this will be defaulted in the different parameters. If you have access to more than one project you can select it directly in the **Project name** field. Alternatively, you can look for a contract number, supplier name or contract status.

The clear button is used to remove all the filters and the list produced can be exported to excel to review the information on contracts.





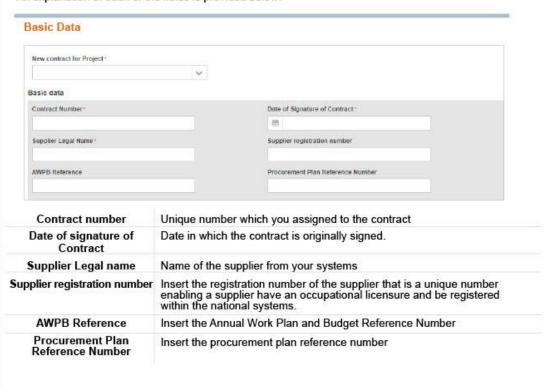
1. Enter New Contract

If you want to create a New Contract click on Add New Contract, and the page below will open up. Select the Project that you are working on and enter the data. All of the mandatory data fields (marked with an asterisk) have to be updated. To complete your action cilck on Save.

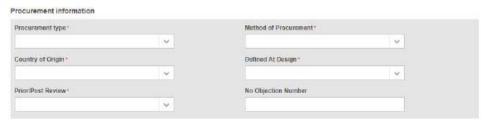
Any contract or Purchase Order (POs) that is a product of a procurement process should be entered in the CMT independent of its value.

All contracts with a new start date, signature and end date, should be entered in the system as new contracts.

An explanation of each of the fields is provided below:



Procurement Information





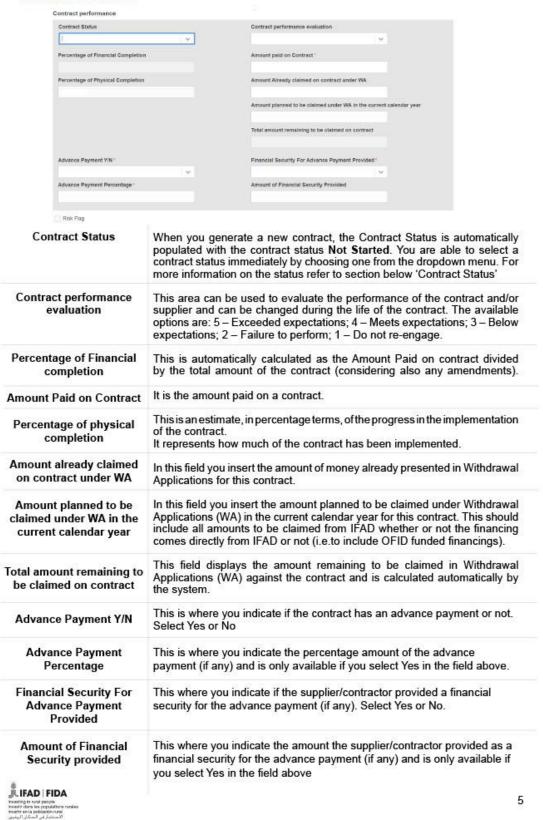
Procurement Type	A drop down list of the main procurement categories used by IFAD project. Not all contracts are procured or sourced using standard procurement methods, as such several broad categories based on common practices have been established. For more information, refer to the glossary of terms.		
Method of Procurement	This is dependent on the Procurement Type and thus can only be completed once		
Country of origin	Country in which the supplier is registered		
Defined at Design	Select yes if the method of procurement was defined at design and No if not.		
Prior/Post review	Select "Prior Review" if the activity was subject to IFAD's No Objection. Select "Post Review" if the activity was not subject of IFAD's No Objection. To be indicated for all contracts even if not financed by IFAD		
No objection number	If a no-objection has been issued through NOTUS for the contract you are inserting, a number will have been allocated to the NO from NOTUS.		

Individual Contract Data



Start date of the Contract	The first time you enter contract data, insert the date that the contract is expected to start. Once it has commenced, you can update this field with the correct date.			
End date of Contract	This is when a contract is expected to be concluded. The contract may include a date beyond which implementation should be completed. Alternately the contract may have a duration. Make sure that the end date of the contract is in line with the start date. Please note: In case the end date of contract is officially revised (e.g. in case of an extension to the contract), please use the amendment section to register this information.			
Currency of Contract	Select the currency of the contract			
Contract Amount	Include the full amount of the contract			
For IFAD financing	Select Yes or No			
Add Source of financing	Select the source of financing from a drop down list and indicate the percentage that the contract is funded by the financing. You can select more than one source and you do not need to only include IFAD financings. Please note the percentage of different sources of financing must add up to 100%. Please note that you cannot enter percentages with decimals: kindly round up the total amounts so that decimals are not included in the split and ensure that the total adds up to 100%.			
Contract Description	Provide a description of the contract you are inserting			

Contract Performance



Contract Status

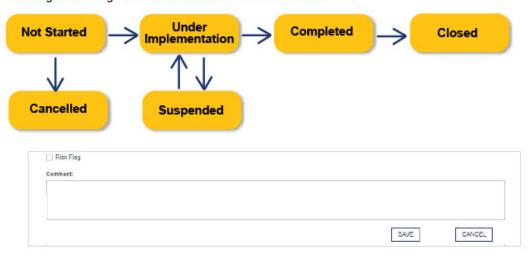
Not started	
der Implementati	on
Suspended	
Cancelled	
Completed	
Closed	

If contract implementation has not begun, you will need to select **Not Started**. Once the contract implementation commences or has already started, you will need to select the contract status **Under Implementation**. If there is a problem with the contract and it is cancelled, you select the contract status **Cancelled**. Please note that this status should only be used where there has been no implementation and no payments made under the contract.

Whilst a contract is **Under implementation** it may be necessary to suspend the implementation of the contract, for example due to force majeure. Where this happens, the status can be changed to **Suspended** and back to **Under Implementation** once the suspension has been lifted.

Once the contract has been implemented and all goods have been delivered or services rendered, the contract status can be moved to Completed. Change the status to Closed once all the final payments have been made, any performance bonds or guarantees have been paid and when all amounts have been claimed on WAs

The diagram below gives an overview of the contract statuses:



Risk Flag

Tick the **Risk Flag** box in case you identify high risk in the contract project. The aspects that define a high risk contract can be the following:

- A complex contract, with many deliverables.
- The contract implementation is to be developed in a low-security geographical area.
- In the past the project didn't succeed, there was a negative experience, the implementation didn't go as previously planned.

Remember: After ticking the box, you must enter a comment in the comments field. Please note, every time you change the contract you have to justify the Risk Flag, by writing in the comment box.

Once the above data has been entered you can save the contract.

All information entered can be updated at any point if you notice the presence of inaccuracies.

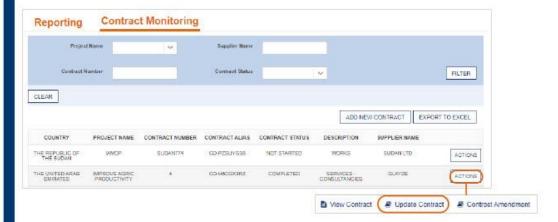
Click on Save to save your new contract, or click on Cancel to exit without changes.

IFAD | FIDA Investing in rural people Investir dama les populations rurales Investir en la población rural

6

2. Update a Contract

You can update the data of your contract at any point. In the Contract Monitoring page insert the details of the contract you are looking for (you can also leave them blank) then click on Filter. Click on the Actions button of the contract you intend to update, then click on Update Contract.



The contract is open, you can modify all the fields in the following sections: Basic Data, Procurement Information, Individual contract data and also Contract Performance, whose fields are explained above.

3. Delete a contract

Whenever a contract is erroneously entered and saved in the list of your contracts, it is possible to delete it. By clicking on the **Update Contract** function seen above and scrolling to the bottom of the page, it will be possible to click on **delete**.

The contract will be permanently deleted and will no longer appear in the contract list.





4. Confirm Quarter End Data

As your contract progresses through its life-cycle and at least once per quarter, you should review the contract and make sure the contract performance information is up to date.

You will need to change the status of the contract, insert the percentage of physical completion, the amount paid on the contract and the amount on the contract claimed in Withdrawal Applications. You can also rate the overall performance of the supplier on the contract.

You can see an explanation of each field above, in the Contract Performance paragraph above.

There is no approval required of the data.

One week before the end of the quarter, the user will receive a notification inviting them to confirm that the data is up to date:

"There is one week to the end of the quarter. Please review the contract data and make sure it is up to date for the quarterly close. Once you have made all changes, you can confirm the validity of the data".

The user will have the option to update or amend the data or confirm that it is correct. Once the user confirms, the information is date-stamped as being data valid for the end of the quarter. It will also be possible to confirm the information until one week after the end of the quarter.

If the data is not confirmed for the quarterly close, the user will receive reminder notifications every week:

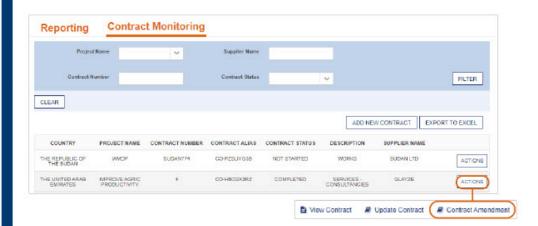
"Please note that the contract data for the quarter ending {month-year} has not been confirmed.

Please review the contract data and confirm the validity for the quarter close"

It is not necessary to go through every contract, but make sure to review the most significant ones.

5. Contract Amendment

A Contract Amendment is a formal record of changes into the contract. You can make as many amendments as you want, and the system will keep track of the date the amendment was made, the original data and the new data.

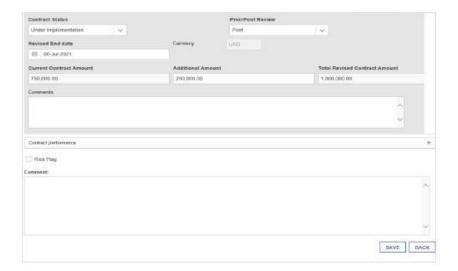


From the contract list, click on Actions then click on Contract Amendment.



The amendment page is now open. The fields which can be amended are: End date of contract and Amount, Pre/Post Review and Currency. Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.

The current contract amount will already be pre-populated with the original contract amount. In the additional amount you will need to insert the additional contract amount and the system will automatically calculate the Total Revised Contract Amount. You will also need to select a Revised End Date



Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.



Annex 4: Guidance on using OPEN

IFAD has developed a new online system that would automate and manage procurement reporting throughout the procurement cycle ("from end to end") – that is, from procurement planning to contract management. The new Online Procurement End-to-End System - or IFAD OPEN - has been launched.

IFAD 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 the transparency and efficiency over the procurement processes of IFAD-financed projects.

IFAD will provide periodic training and hands-on engagements to enhance the use of the IFAD OPEN during implementation stage.

IFAD OPEN guidelines consist of the following documents that are available in the IFAD Client Portal (ICP):

- Online Procurement End-to-End QC1 System Overview
- Online Procurement End-to-End QC2 Managing activities
- Online Procurement End-to-End QC3 Procurement Plan Views
- Online Procurement End-to-End QC4 Managing Documents
- Online Procurement End-to-End QC6 Managing Activities and Submission of PP for NO
- Online Procurement End-to-End QC8 Consulting Services Implementation
- Online Procurement End-to-End QC10 Goods Implementation
- Online Procurement End-to-End QC12 Works Implementation
- Online Procurement End-to-End QC14 Grants Implementation

SUPPLIER EVALUATION FORM

Use this form to evaluate the overall performance of vendors you are currently working with or plan to work with. Include all information associated with the vendor. Then, apply a strength factor, 5 being the strongest, to each item you evaluate. Total each column once you conclude the evaluation. Add up the columns to arrive at a total. Compare that total against the totals of similar vendors to gauge the vendor's performance.

A. SUPPLIER INFORMATION:

NAME:	SUPPLIER ID:	
BUSINESS CATEGORY:	CONTACT PERSON:	
REVIEW DATE:	ADDRESS:	

B. SUPPLY CONTRACT DESCRIPTION:

TITLE AND REF. No:		CONTRACT DATE:	
CATEGORY:		DURATION:	
USER DEPARTMENT:		ACTUAL DELIVERY DATE:	

C. EVALUATION

Vendor Evaluation	1	2	3	4	5
Timeliness of Deliveries					
Quality of Parts/Products/Material Upon Delivery					
Overall Quality of Parts/Products/Material					
Competitiveness of Price					
Quality of Service Provided					
Competitiveness of Terms and Conditions					
Credit Rating					
Overall Financial Condition					
Reputation of Company					
Quality of Design Compared to Specifications					
Level of Assistance in Research & Development					
Expertise of Sales Staff					
Technical Support Staff's Level of Expertise					
Column Totals					
			Gr	and Total	

D. EVALUATION REPORT:

FINAL COMMENT:		
REVIEWER SIGNATURE:	DATE:	

Annex 6: Debrief, Protest and Appeal Timeline

1) Debrief timelines:

- a) Any bidder that wishes to learn why its bid or proposal was not selected may request an explanation from MoALD/INReMP. This explanation is known as the debrief. INReMP will first have sent a notice that the evaluation is completed. After receiving this information, the unsuccessful bidder may request a debrief.
- b) INReMP shall promptly provide an explanation in writing of why the bid was not selected. The bidder may then request a meeting. If INReMP agrees to a meeting after providing the debrief, the bidder shall bear all the costs of attending the meeting. INReMP shall provide the written debrief within periods required in procurement framework.

2) Protest timelines:

- a) The protest is the first level (Level 1), while the appeal is the same complaint filed at the second level (Level 2). The entity that receives, assesses, and decides on the protest (i.e. the Level 1 authority) is the MoALD/INReMP. The entity that receives, assesses, and decides on the appeal (i.e. the Level 2 authority) is defined in the national procurement framework.
- b) All protests must be filed by the protest deadline, which is the **close of the tenth business day** after the notice of intent to award has been received or could reasonably expected to be received by the bidder. Procurement actions using shopping cannot be protested.
- c) Once a protest is filed, the procurement process will automatically be suspended until a final decision about the protest is issued. The automatic suspension will be lifted as defined in the national procurement framework.
- d) MoALD/INReMP will issue its decision <u>no later than periods prescribed in</u> <u>national framework, and in absence of such period within 10 working days</u> after receipt of the protest. MoALD/INReMP will extend this period <u>an additional five business days</u> if sufficient reasons are provided.

MINISTRY OF AGRICULTURE AND LIVESTOCK DEVELOPMENT (MoALD) REPUBLIC OF KENYA

Project Procurement Strategy (PPS)

For

Integrated Natural Resources Management Programme (INReMP)

KENYA

Dated: 15 March 2024

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	ex 1: Simplified Contract Management Plan and Responsibility and buntability Matrix (RAM)
Anne	ex 2: In-country procurement training programme

Abbreviations and Acronyms

AfDB	African Development Bank	
AWPB	Annual Work Plan and Budget	
BoQ	Bills of Quantity	
DaIMA	Dairy Interventions for Mitigation and Adaptation	
DLP	Defects Liability Period	
EOI	Expression of Interest	
ESHS		
	Environmental, Safety and Health Safeguards	
ESS	Environmental and Social Safeguards	
ESCMP	Environmental Social and Climate Management Plan	
FAO	Food and Agriculture Organization of the United Nations	
FfP	Fit for Purpose	
GCF	Green Climate Fund	
GEF	Global Environment Facility	
GRM	Grievance Redress Mechanism	
IA	Implementing Agency	
ICB	International Competitive Bidding	
ICT	Information and Communication Technology	
IFAD	International Fund for Agriculture Development	
ILRI	International Livestock Research Institute	
INReMP	Integrated Natural Resources Management Programme	
KALRO	Kenya Agricultural and Livestock Research Organization	
MOALD	Ministry of Agriculture and Livestock Development	
OPEN	Online Procurement End-to-end system	
PADNET	Pathways to Dairy Net Zero	
PAL	Procurement Arrangement Letter	
PCMU	Programme Coordination and Management Unit	
PCT	Project Coordination Team	
PDO	Project Development Objective	
PIM	Programme Implementation Manual	
PP	Procurement Plan	
PPS	Project Procurement Strategy	
QCBS	Quality and Cost-Based Selection	
RFB	Request for Bids	
RFP	Request for Proposal	
RFQ	Request for Quotations	
SECAP	Social, Environmental and Climate Assessment Procedures	
SBD	Standard Bidding Document	
SDG	Sustainable Development Goals	
SPD	Standard Procurement Document	
SWOT	Strengths, Weaknesses, Opportunities, and Threats	
UTaNRMP	Upper Tana Natural Resources Management Project	
USD	United States Dollars	
VfM	Value for Money	
VIII	, value to thome,	

1. Project Overview

Table 1: Project components and allocations

Country:	Kenya
Full Project Name and Number:	Integrated Natural Resources Management
	Programme (INReMP)
Programme Cost (US\$):	253,000,000
Loan/Grant Number:	
Name of Procurement contract or	Goods, Works, Consulting and Non-consulting
group of similar contracts	Services
Estimated Contract Cost (US\$)	13,673,000

a) Project Description

The Integrated Natural Resources Management Programme (INReMP) will scale-up UTaNRMP's results to the Cherangany Hills and Mau West water towers to further enhance the sustainable use and management of natural resources. This will be done by supporting integrated natural resources management (NRM), access to payment for environmental services and improved nutrition-sensitive production and sustainable rural livelihoods. The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture and livestock Development.

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support the implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem.

INReMP's direct beneficiaries are estimated at 845,487 vulnerable rural households, equivalent to 4.2 million people.

INReMP will be aligned with DaIMA, the Dairy Interventions for Mitigation and Adaptation project funded by the GCF. The implementation of the two projects will be coordinated by the same team.

b) Summary of Programme Objective

Programme Development Objective (PDO) - The PDO is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'.

INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes:

- Outcome 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action:
- Outcome 2: Improved, Inclusive and Sustainable Rural Livelihoods; and Outcome 3: Institutional Strengthening, Policy Support and Programme Coordination.

c) Project Components and Costs

The total cost for INReMP is estimated at US\$ 250 million over an 8-year implementation period. This is to be financed as follows: IFAD 12 loan of US\$127 million. The Programme is being designed with a financing gap of US\$44 million to be covered from the IFAD-13 cycle. That brings the total IFAD contribution to US\$171 million; representing about 68% of the total cost. Co-financing from GCF and GEF is estimated at US\$40 million and US\$8 million respectively; equivalent to 16% and 3% of the total cost. Domestic co-financing from Government of Kenya is estimated at US\$12.8 million in form of in-kind contribution, including duties and taxes; representing 5% of the total cost. Contribution from beneficiaries is estimated at US\$8 million (3%). Co-financing from the private sector is estimated at US\$10 million (4 % of the total costs).

Table 2: Project components and allocations

- NI	Components and Outputs			
N	Component and Outputs	Cost	Perc	Key procurement activities
		(US\$)	е	(First 18 months)
			nt	
1	Component 1. Community-led	85,700	34%	Supply of weather stations, river
	Enhanced Environment and			gauges, other equipment, Supply of
	INRM, Ecosystem Services, and			Equipment for water and soil labs,
	Climate Action:			Baseline studies on the status of
		8,449		deforestation, wetlands, riparian
	7) Output 1.1 Community	,		ecosystem, groundwater potential,
	Empowerment, Youth and Gender	77,251		environmental audits etc.,
	Transformative Approaches	'		Consultancy to Conduct needs
	8) Output 1.2 Improve			assessment for integration of Digital
	Environmental Sustainability, INRM,			technologies to support INRM and
	and Ecosystem Services			Precision Farming, Consulting
	and Leosystem Services			service for mapping, registration of
				community groups.
2.	Component 2. Improved,	123,646	49%	Procurement of 12No motor vehicles
Z .	Inclusive and Sustainable Rural	123,040	4370	(for Extension), Procurement of
	Livelihoods:			105No Motor Cycles for Extension
	Liveimoods:	74 122		
	O) Output 2.1 Images	74,132		services, Consulting Service for
	9) Output 2.1 Improve			Feasibility assessments, ESIA, and
	Production and Productivity of	40 515		Design for Multi-Purpose
	Selected Nutrition-Sensitive Value	49,515		Community-Based Water Supply
	Chains and Nature-based			Systems, Consulting Service for
	Enterprises			Feasibility assessments, ESIA, and
	10) Output 2.2 Improve Value			Design for Small Scale Irrigation
	Addition and Market Linkages of			Systems, Nutrition
	Selected Value Chains and Nature-			Specialist/Consultant, Consulting
	based Enterprises			service for Market opportunity
				assessments (dairy, poultry,
				avocado, horticulture), Provision of
				Business development support to
				MCC, Consulting services in support
				of Processing Equipment, Feasibility
				assessments, ESIA and Design of
				Climate-Proofed Access Roads,
				Development of Applications and
				Web based commodity trading
				platform.

3.	Component 3. Institutional Strengthening, Policy Support	43,654	17%	Procurement of 3No Utility Vehicles 4WD, Procurement of 2No Double
	and Programme Coordination: 11) Output 3.1 Institutional Strengthening and Policy Support 12) Output 3.2 Programme Coordination and Implementation Support Services	5,229 38,425	100	Cabin Vehicles, Supply of IT Equipment (18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment, 1No server, Network equipment, 10No Tablets), Supply of 25No smart phones, Supply of 4No safe boxes, Supply of 500No Mobile Tablets to support delivery of advisory Services by Extension Agents, Office Rehabilitation - National PMCU and Regional PMCU, Development of the programme MIS including related infrastructure, accessories and training of staff, Development of a Programme Knowledge Management Portal, Consulting service for Development of a Knowledge Management and Communication Strategy, Consulting service for Institutional capacity gap assessment and production of a capacity development plan, PMU staff (consultants).
	Total	253,000	100 %	

d) Project Procurement Profile

The procurement profile is mix of high value / risk as well as small value procurement activities to be undertaken by the PCMU. The project procurement will involve Goods, Works and Consulting and Non-consulting Services.

e) Spend per category

Procurement activity commitments for the first 18 months amount to US\$ 13,673,000 (\sim 5.4% of the project envelope).

Table 3: Project Spend Profile per category

Procurement Category	Amount in US\$
Goods	6,258,000
Works	250,000
Consultancy services – Firms and Individuals	7,165,000
TOTAL	13,673,000

2. Overview of Country, Recipient and Marketplace

a) Operational Context

1. Governance aspects¹

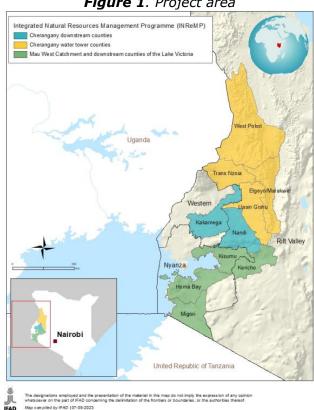


Figure 1. Project area

Kenya is an important anchor for regional stability in East Africa. However, its borders remain exposed to spillover risks of extremism, piracy, human trafficking, and refugee flows. Kenya has held two successive peaceful elections since 2017, which have contributed to a stable and predictable political environment. The general elections of August 9th, 2022 were relatively peaceful and resulted in the election of Dr. William Ruto as the 5th President of the country. The political stability and improvement in social and governance indicators have contributed to Kenya becoming a top investment destination in the region. Kenya was ranked 13/54 on governance by the Mo Ibrahim index in the 2022 edition from 14/54 in 2021. The improved ranking was supported by upward movements in the scores of 'participation, rights and inclusion' and human development'.

Similarly, according to various editions of Transparency International's Corruption Perception Index (CPI), Kenya slightly improved its score to 32/100 (with global ranking 123/180) in 2022 from score of 30/100 (128/180) in 20216. The score is at par with Sub-Saharan average of 32 for 2022 and remains far below best performers in the region i.e., Seychelles (70/100) and Botswana (60/100)7. Kenya has put in place policies to combat corruption. However, challenges remain. Kenya improved its ranking by two places to 6 in 2021 against 8 in 2020 out of 54. This improved ranking can be attributed to its high standing on the continent in the following dimensions: Infrastructure and Regional Integration (3rd on the continent), Policies for Social Inclusion/Equity (4th), and Structural Policies (6th). However, the 2022 edition of the CRFA shows that Kenya has high pressures in corruption and bribery; presence of armed conflict; access to justice; insecurity in neighboring countries (e.g., civil war in the Sudan); poverty and inequality; and vulnerability to natural disasters.

¹ SOURCE: AfDB-REPUBLIC OF KENYA COUNTRY STRATEGY PAPER 2024 – 2028 https://www.afdb.org/en/documents/kenya-country-strategy-paper-2024-2028

Agriculture is a devolved function in Kenya, and devolution has progressively shaped the way resources are allocated to meet priorities of communities within the jurisdiction of the 47 county governments. Similarly, administrative processes at the county level have progressively improved since promulgation of the 2010 constitution, enabling the establishment of systems and processes that seek to govern in the long-term the realization of the objectives of devolution at the national as well as the county levels and below.

2. Economic Aspects²

Recent macroeconomic and financial developments: Kenya attained a lower middle-income status in 2015. Since then, GDP growth averaged 4.5%, lower than Vision 2030 and the MTP-III growth targets of 10.0% and 7.0%, respectively. Growth has not yet been appreciably inclusive especially in job creation except in other dimensions such as health and education. This is attributable to the minimal contribution of structural transformation to growth. Labor is moving out of agriculture to a less labor-intensive services sector than industry. The status quo implies that growth remains vulnerable to shocks and a more than 7% a year growth in GDP is required to absorb new entrants into the labor market. In general, structural transformation, infrastructure, human capital, and improved governance are key for a rapid, sustainable and inclusive growth and to avoid the middle-income trap. Structural transformation is constrained, among other things, by: (i) macroeconomic instability; (ii) weak private sector participation (e.g., in industry 15); (iii) low agricultural productivity; (iv) shortage of skilled labor and skills mismatch; (v) weak governance; (vi) inadequate access to finance; and (vii) deficiency in enablers of structural transformation (e.g., infrastructure - energy, transport, water, etc.).

Economic and Financial Governance: Since the publication of the Public Finance Management (PFM) Act of 2012, changes which, among others, promote transparency and accountability have been introduced. Positive developments include harmonization of accounting standards across all Ministries, Department and Agencies (MDAs); linking IFMIS to the CBK to allow online processing of payments to suppliers; over 90% of the Government bank accounts are now opened and operated at the CBK; connecting the National Government and the Counties with the e-procurement; introduction of the Treasury Single Account (TSA) and availability of consolidated GoK financial statements due to up-to-date financial reporting with the MDAs and county governments. The PFM Reform Strategy (PFMR) 2019-2023 is anchored on the findings and recommendations of 2017 Public Expenditure and Financial Accountability (PEFA) report. The 2022 PEFA report has highlighted some areas in which there has been improvement with other indicators remaining unchanged. As noted earlier, Bank's updated 2023 Country Fiduciary Risk Assessment (CFRA) identified improvements on the transparency of public finances, but still indicated areas on accountability and external audit which require improvements especially the 100% coverage of audit of all public funds. Governance and corruption still remain a challenge, hindering performance in the public sector. A review of the country procurement system through the Methodology for Assessment of Procurement Systems is being undertaken and is expected to improve governance performance.

3. Sustainability Aspects

Kenya's long-term development blueprint Vision 2030 is implemented through five-year Medium Term Plans (MTPs). The current and third MTP 2018 -2022 that aim to achieve accelerated, high, inclusive, broad based, sustainable economic growth, social economic transformation and development mainstreamed the SDGs and Africa Union Agenda 2063.

² SOURCE – AfDB-REPUBLIC OF KENYA COUNTRY STRATEGY PAPER 2024 – 2028 https://www.afdb.org/en/documents/kenya-country-strategy-paper-2024-2028

Further, mainstreaming of SDGs in performance contracting, actions plans and subnational County Integrated Development Plans, 2018 -2022, position Kenya to better implement the SDGs and Agenda 2063.³

The Programme has been screened in line with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) and deemed to fall under the Moderate category for both Environmental & Social as well as Climate Risk categorization. There are sustainability, environmental and social aspects that have a procurement impact during project implementation. During implementation the impacts and risks could be vegetation clearance at construction sites, temporary visual intrusion (marred landscape), impairment on Soil quality and solid waste nuisance at Construction Sites.

4. Technological Aspects

One of the objectives of the National Treasury is to ensure Ministries, Departments, Agencies and Counties (MDACs) are using an end to end e-procurement system that is in compliance with the PPADA 2015 and attendant Regulations for a full fiscal year and that procurement data generated by the system is disclosed in the Public Procurement Information Portal (PPIP) following Open Contracting Data Standards (OCDS). The National Treasury with technical support of the World Bank, reviewed the current Procure-to-Pay module in (IFMIS) in order to identify its functionalities and deficiencies with a view to developing an end-to-end e-procurement system, and further develop an e-Government Procurement (eGP) Implementation Strategy. It is expected that the system will be in use at the early stages of project implementation.

5. Legal Aspects

The Procurement framework in use is the Public Procurement and Asset Disposal Act, 2015; Public Procurement and Asset Disposal Regulations 2020. Some of the shortcomings of the framework include (1) PPADA Provision 118 provides for request for proposal through advertisement without REOI; (2) Provision 131 sets a condition for BAFO procedures to include the lowest evaluated price is in excess of available budget. (3) Minimum period for International tender advertising provided as seven days in Regulation 83. (4) PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.

6. Conclusions on Operational context to be addressed through the procurement approach.

The national framework will apply for procurements undertaken by INReMP, to the extent that they are consistent with IFAD Project Procurement Guidelines. Procurement will follow the Kenya procurement framework rules where these are aligned to and consistent with the IFAD Procurement Guidelines. All procurements will be implemented through the implementing agency procurement units. INReMP will take into consideration that agriculture is a deveolved funtion and there are structures to undertake procurement within county governments.

National SBDs will be used and will be amended for consistency with IFAD Guidelines. All project procurement activities will be made in compliance with the procurement principles, ethical standards, and rules outlined in the IFAD Procurement Handbook. IFAD's Policy on Preventing Fraud and Corruption, the IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse, the Anti-Money Laundering and Countering

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³ https://sustainabledevelopment.un.org/memberstates/kenya

the Financing of Terrorism Policy and IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) will apply to the project to ensure compliance with the highest ethical standards.

b) IA Capability Assessment

Implementation of the programme will be mainstreamed into the GoK system, both at national and county levels. Lead Implementing Agency (LIA) will be the State Department for Agriculture of the Ministry of Agriculture and Livestock Development. The Department will delegate the day-to-day operation of the Programme to a PCMU reporting directly to the Principal Secretary, State Department for Agriculture.

Programme Coordination and Management Unit (PCMU) will be established comprising a team of officers recruited through a competitive process and responsible for the procurement function. For faster start-up, INReMP will be coordinated by the KCEP-CRAL PMU on an interim basis until the PCMU is fully set up.

A County Programme Implementation Team (CPIT), headed by a dedicated County Programme Coordinator, will be established and will be responsible for the day-to-day implementation of Programme activities. The CPIT will comprise staff seconded from the County Government on a fulltime basis and mirroring the PCMU for technical positions; this will enable the staff to fully focus on implementing INReMP activities

1. Experience

The PCMU of INReMP will be directly responsible for project procurement activities as LIA, and will require to hire experienced Procurement Specialist, with a Procurement Officer being seconded from MoALD to assist and augment the capacities. In addition, the procurement capacity assessment found that KALRO and the Counties have well established procurement units experienced in implementing projects under multilateral financing. These will be required to second dedicated procurement staff to their respective implementation units. The procurement staff of PCMU, KALRO and the Counties will require training on IFAD's BUILDPROC, OPEN system, and periodic capacity building activities on IFAD project procurement.

2. Need for hands-on support

MoALD is a government ministry with departments that operates based on set regulations and procedures under the procurement framework. The Project may seek IFAD's guidance on complex procurement processes, but hands-on support is not required. IFAD will also undertake Implementation Support missions to assess and guide implementation progress. IFAD's prior review processes will also provide support to the project to incorporate the required standards.

3. Contract management capability and capacity

The PCMU will be responsible for overall implementation and management of awarded contracts in accordance with the agreed contractual obligations. The practice is that contracts are managed by User departments. Implementing Counties and KALRO will also be charged with overseeing their contracts implementation. Past IFAD reviews during supervision missions have found gaps in contract management especially deliveries that exceed their contracted completion periods. It is also expected that there could be a challenge in timely updates to the IFAD online CMT due to multiple procurement entities for the project. This will be mitigated by close coordination of the PCMU. A simplified Contract management Plan (in Annex to the PPS) is prepared to enhance the efficacy of contract administration and management, and will be reviewed from time-to-time.

4. Complaints management and dispute resolution systems

Any complaints or dispute between procuring entities and tenderers which arise in respect of procurement proceedings shall be reviewed and decided upon in accordance with the provisions of the national framework. Only the borrower/recipient can review and decide about a protest. IFAD may provide an opinion about the protest and decision. For priorreview procurements, all protests must be communicated to IFAD before a decision is issued. IFAD reserves the right to provide inputs or comments to the borrower/ recipient to help it reach the decision. A copy of the decision must also be provided to IFAD.

Table 4: SWOT Analysis

STRENGTHS:

- a) The Lead Executing Entity, MoALF, and other implementing partners (KALRO, Counties) have Procurement and Technical specialists experienced in the local procurement framework.
- b) Procurement framework that is consistent with IFAD procurement guidelines.

WEAKNESSES:

- c) Limited experience in development of technical specifications and Terms of Reference for key requirements in the procurement profile.
- d) Limited capability, knowledge, and skills in contract management.
- e) There is no established programme to train internal and external auditors to ensure that they are qualified to conduct high-quality procurement audits.

OPPPORTUNITIES:

- f) IFAD' new Online end-to-end procurement system OPEN will be applied for the new operation and provide a platform for actionable analytical data on performance of the procurement system and future improvements.
- g) Leveraging on the capacities of the KCEP during start-up.
- h) Dynamic and competitive local supplier market.

THREATS:

- i) Instability of input prices driven by global supply dynamics and unpredictability of currencies.
- j) Lengthy period before start-up of INReMP could delay implementation and result in rushed procurement programme.
- k) Increased procurement workload to the PCMU from the large procurement profile could result in processing delays.
- Insufficient contract administration data on physical and financial progress due to multiple procuring entities.

Results of the SWOT Analysis. The project will require to have timely INReMP start-up requirements and hiring of procurement and technical staff to ensure effective implementation of the procurement programme. All key and strategic activities should be backed by a detailed market research before their commencement.

5. Conclusions on Client Capability and PIU Assessment to be addressed

INReMP will require hiring competent procurement and technical staff at PCMU. A suitably qualified procurement specialist will be hired competitively from the market. Wherever necessary, the project will also hire technical consultants to augment existing capacities and assist with defining and specifying project requirements. Project procurement will be carried out as per the approved Procurement Plans processed in OPEN and contract management be steered by User departments using simplified contract management plans. Results from self-assessments of KALRO and sampled participating Counties found them to have procurement units that are experienced under the local framework and IFI funded activities. The PCMU will undertake procurement whenever the project and its

implementing partners are approaching the international market, and facilitate procurement of consolidated common Goods across the programme.

c) Market Analysis

a) Market sector dynamics

The envisaged procurement transactions comprise of various consultancies to support the project implementation and supply of various equipment / goods. As per the National Construction Authority (NCA), adequate number of contractors are available in the Kenya market. For equipment, motorcycles, and ICT hardware & software, bidders import the equipment / goods and provide the after sales support. The country has a large market of qualified and experienced local and foreign consultancy firms and individual consultants in all sectors, and association between local and foreign firms is a common feature in situations where firms come together to enhance their capacity through consortia.

b) Procurement trends

Experiences from recent IFAD funded projects in Kenya show that most of procurement packages attracted both local and foreign participation. The tabulations below represent self-assessment procurement trends and lead-times of KALRO and sampled INReMP participating Counties.

N	Assessment attribute			Procuring	g Entity		
0		KALRO	Elgeyo Marakwet County	Kakameg a County	Kisumu County	Migori County	Trans Nzoia County
1	% of the total annual IA contracts that are awarded in open and restricted bidding	70%	90%	Open tender – 60% Restricted - 0.1%	Since the beginning of this FY, we've only done One open tender	96%	<5%
2	Percentage and value of IA's annual contracts that are awarded under direct contracting (single source)	Euro 32, 124, 20 USD 41,117.66	10%	Percentage 1.7% Value Ksh17 million Safaricom Ksh 2 million Total Kenya - Ksh 10 million Conference facilities - Ksh 3 million Garages - Ksh 2 million	Only two tenders done under Direct Procureme nt	4%	<5%

3	IA's Efficiency in completing the bidding process (open and restricted) for Goods (measured in time from advertisement to contract award and signature)	100%	majority of the contracts are completed on time challenge comes when IFMIS network fails	119 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are generated from the user.	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the PPADA, 2015	14 days
4	IA's Efficiency in completing the bidding process (open and restricted) for Works (measured in time from advertisement to contract award and signature)	100%		119 days	The entire process takes one month from advertisem ent to contract signature in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are generated from the user.	36days for NOP 27days for RFQ and other alternative methods of procureme nt As guided by the PPADA, 2015	45 days
5	IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award	100%		90 days	The entire process takes one month from advertisem ent to contract	36days for NOP 27days for RFQ and other alternative methods of	45 days

	negotiations and				signature	procureme	
	signature)				in adherence to PPRA rules and regulations and how fast the requisition s and Bill of Quantities are generated from the	nt As guided by the PPADA, 2015	
6	% of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued	None	10%	1%	user. None	0	<5%
7	% of RFPs for consulting services where more than one amendment to the RFP was issued	None	0%	0.01 %	None	0	<2%
8	% of procurement competitions in Goods /Non-Consulting Services, Works and Consulting Services that failed or were cancelled	10%	10%	2%	None	1%	<2%
9	Average number of responsive bids in Goods/Non-consulting Services, Works and Consulting Services competitions	NCB 9 Bids, Shopping 5- 7 Bids	Not provided	4	Three bids per competitio n under RFQs	5	7 responses per bid
1 0	% of procurement competitions for Goods/ Non-Consulting Services, Works and Consulting Services conducted electronically	None	98%	90%	100%	98%	95%
1 1	% of contracts awarded to SMEs in the previous year	44%	70%	2%	47%	65%	Not provided
1 2	% of procurement competitions and contracts that integrate sustainable procurement considerations (at least	None	50%	Not provided	Not provided	35%	70%

			T	T	T	T	T
	1 social/labour plus 1						
	environmental criteria)						
1	Percentage of IA's	4%	8%	+15 %	None	0	<5%
3	contracts for Works with						
	cost over-runs above						
	10% of initial contract						
	price.						
1	Percentage of IA's	10%	40%	80%	None	0	<2%
4	contracts for Works with						
	time over-runs above						
	10% of initial						
	contractual duration						
1	Average number of	None	10%	0	None	1%	0.001%
5	complaints received						
	from bidders as to the						
	fairness of biding						
	documents or contract						
	award						
1	% of bidders' appeal	None	2%	0	None	0	0.1%
6	decisions that were						0.1
	accepted and enforced						
	(with ruling against the						
	IA)						
1	% of Vendors Invoices	88%	70%	10%	Not	0	20%
7	paid on time in	30 70	7070	10 / 0	provided		2070
′	Goods/Non-Consulting				provided		
	Services, works and						
	Consulting Services						
	contracts.						
1	Is the general quality of	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately
8	documents produced by	satisfactory	unsatisfact	unsatisfact	unsatisfact	unsatisfact	unsatisfact
	the IA's Procurement	Satisfactor y	ory	ory	ory	ory	ory
	Department in line with		Ol y	Oi y	Ol y	Ol y	Ol y
	IFAD's expected quality						
	levels:						
	i. Quality of Bidding						
	Documents for						
	Goods/NCS and						
	Works						
	ii. Quality of RFP for						
	Consulting Services						
	iii. Quality of Bid						
	Evaluation Reports						
	iv. Quality and adequacy						
	of responses to						
4	bidders' qualifications						
1	Management /						
9	Procurement Audit:	NI =	400/	: NI	Na:		000/
	. % of IA contracts	None	40%	i.None	None	0	90%
	subjected to		The second	:: 500/		BI / A	650/
	specialized		The county	ii. 50%		N/A	65%
	procurement audit		always				
	i. the IA timely		implement				
	implements		s all				
	recommendations		recommen dation				
1				i company and a second a second and a second a second and	•		

	from	audit		
	re	port		

c) Indicative list of major procurement activities

Project procurement of INReMP and DaIMA will be by the same PCMU, and a procurement profile combining both projects is tabulated hereunder to provide an indication of the procurement workload in the first 18 months. Over that period, the PCMU will be responsible for an estimated 17No Goods activities, 1No Works activities, and 45No Consulting activities.

Table 5: Goods

Ref.	Description	Estimated	Project
No.		Cost	
		(US\$)	
G1	Supply of ECF and Heartwater disease vaccines	486,724	DaIMA
G2	Procurement of kits for demo farms for farmer training in 6No Lots	600,000	DaIMA
G3	Procurement of agro-weather equipment	400,000	DaIMA
G4	Procurement of equipment for demonstrations on highly digestible forage and fodder	100,000	DaIMA
G5	Procurement of equipment for demonstrations on highly digestible forage and fodder (Counties)	140,000	DaIMA
G6	Procurement of Motor Vehicles in 2No lots (3No. 4x4 passenger vehicle and 3No. 4x4 double cabin pickup)	450,000	DaIMA
G7	Procurement of 140No. Motorbikes	600,600	DaIMA
G8	Procurement of Accounting Software	150,000	DaIMA
G9	Procurement of computers, laptops, server, photocopier/printer	199,000	DaIMA
	machines		
G10	Supply of weather stations, river gauges, other equipment	2,700,000	INReMP
G11	Supply of Equipment for water and soil labs	1,000,000	INReMP
G12	Procurement of 14No Double Cabin Vehicles and 3No Utility Vehicles 4WD	1,200,000	INReMP
G13	Procurement of 105No Motor Cycles for Extenstion services	560,000	INReMP
G14	Supply of IT Equipment – 18No laptops, 3No printers, 1No	135,000	INReMP
	printer/photocopier, 1No projector, 1No Video conference		
	equipment, 1No server, Network equipment, 10No Tablets		
G15	Supply of 25No smart phones	18,000	INReMP
G16	Supply of 4No safe boxes	6,000	INReMP
G17	Supply of 500No Mobile Tablets to support delivery of advisory	600,000	INReMP
	Services by Extension Agents		

Table 6: Works

	Ref. No.	Description	Estimated Cost	Project
			(US\$)	
_	W1	Office Rehabilitation - National PMCU and Regional PMCU	250,000	INReMP

Table 7: Consulting Services

Re f. No	Contract Description	Estimat ed Cost (US\$)	Project
C1	Consultancy to Review of the Kenya Agricultural Section Extension	54,000	DaIMA
C2	Consultancy to support development of compost and bio-slurry standards	54,000	DaIMA
C3	Consultancy on solar technology standards to improve quality and technical support for sector greening	91,500	DaIMA

C4	Consultancy to mainstream incremental strategies for securing land tenure for fodder production, and participatory land use planning tools	57,000	DaIMA
C5	Consultancy to Develop and operationalise an adaptation tracking tool for the Livestock sub-sector NDC	161,250	DaIMA
C6	Consultancy to Develop guidelines for dairy industry energy audits and reporting and provide training to implement	40,750	DaIMA
C7	Consultancy to Conduct a national baseline on productive use of energy (PUE) in the dairy industry	34,500	DaIMA
C8	ILRI Technical Assistance	1,400,00 0	DaIMA
C9	FAO Technical Assistance	1,700,00	DaIMA
C1 0	Development of KM Products	48,000	DaIMA
C1 1	HR recruitment consultancy	30,000	DaIMA
C1 2	Project baseline survey	180,000	DaIMA
C1 3	Project Coordiantor	479,995	DaIMA
C1 5	Environmental and social safeguards specialist	344,997	DaIMA
C1 6	Monitoring and evaluation specialist	344,997	DaIMA
C1 8	Consulting service to Review of the Dairy Master Plan	54,000	DaIMA
C1 9	Consultancy to Support the finalisation of the draft National Strategy and legal framework for animal Feed and Fodder	54,000	DaIMA
C2 0	Consultancy to Develop National Strategies for breeding incorporating climate change adaptation and mitigation	54,000	DaIMA
C2 1	Consultancy to Review of Dairy Industry Act (1958) and regulations to mainstream climate change adaptation and mitigation	90,000	DaIMA
C2 2	Consultancy to Develop a national system/framework for environmental, social and climate impact assessment that feeds into evidence-based policy making mechanisms	134,000	DaIMA
C2 3	Baseline studies on the status of deforestation, wetlands, riparian ecosystem, groundwater potential, environmental audits etc	1,300,00 0	INReMP
C2 4	Consultancy to Conduct needs assessment for integration of Digital technologies to support INRM and Precision Farming	85,000	INReMP
C2 5	Consulting service for mapping, registration of community groups	108,000	INReMP
C2 6	Consulting Service for Feasibility assessments, ESIA, and Design for Multi-Purpose Community-Based Water Supply Systems	600,000	INReMP
C2 7	Consulting Service for Feasibility assessments, ESIA, and Design for Small Scale Irrigation Systems	300,000	INReMP
C2 8	Nutrition Specialist/Consultant	33,000	INReMP
C2 9	Consulting service for Market opportunity assessments (dairy, poultry, avocado, horticulture)	107,000	INReMP
C3 0	Provision of Business development support to MCC	800,000	INReMP
C3 1	Consulting services in support of Processing Equipment	500,000	INReMP
C3 2	Feasibility assessments, ESIA and Design of Climate-Proofed Access Roads	700,000	INReMP

C3 3	Development of Applications and Web based commodity trading platform	500,000	INReMP
C3 4	Development of the programme MIS including related infrastructure, accessories and training of staff	100,000	INReMP
C3 5	Development of a Programme Knowledge Management Portal	70,000	INReMP
C3 6	Consulting service for Development of a Knowledge Management and Communication Strategy	40,000	INReMP
C3 7	Consulting service for Institutional capacity gap assessment and production of a capacity development plan	50,000	INReMP
C3 8	Project Coordinator (36 months)	234,000	INReMP
C3 9	Financial Controller (36 months)	198,000	INReMP
C4 0	Monitoring and Evaluation and KM Specialist (36 months)	180,000	INReMP
C4 1	Procurement Specialist (36 months)	180,000	INReMP
C4 2	NRM Specialist (36 months)	180,000	INReMP
C4 3	Infrastructure Specialist (36 months)	180,000	INReMP
C4 4	Agricultural Livelihood Specialist (36 months)	180,000	INReMP
C4 5	Community Development, Gender, and Youth Specialist (36 months)	180,000	INReMP
C4 6	Nutrition and Social Inclusion Specialist (36 months)	180,000	INReMP
C4 7	Agribusiness Development Specialist (36 months)	180,000	INReMP

d) Supply Position Matrix

Based on the indicative list of major procurement activities envisaged in the project, a supply position matrix has been prepared.

High	Strate	egic Critical		_			Hig h
£	Ref No.	Description	Estima ted Cost (US\$)	Ref No.	•	Estimat ed Cost (US\$)	
Risk or Vulnerability	C1	Consultancy to Review of the Kenya Agricultural Section Extension	54,000	C8	ILRI Technical Assistance FAO Technical	1,400,0 00 1,700,0	
sk or vu	C2	Consultancy to support development of compost and bio-slurry standards	54,000	C2 3	Assistance Baseline studies on the status of deforestation,	1,300,0 00	
~	СЗ	Consultancy on solar technology standards to improve quality and technical support for sector greening	91,500		wetlands, riparian ecosystem, groundwater potential, environmental audits etc		

C4	Consultancy to mainstream	57,000	C3	Provision of Business	800,000	
	incremental strategies for	37,000	0	development support	000,000	
	securing land tenure for			to MCC		
	fodder production, and		C2	Consulting Service for	600,000	
	participatory land use		6	Feasibility		
	planning tools			assessments, ESIA,		
C5	Consultancy to Develop and	161,250		and Design for Multi-		
	operationalise an adaptation			Purpose Community-		
	tracking tool for the Livestock sub-sector NDC			Based Water Supply Systems		
C6	Consultancy to Develop	40,750	C2	Consulting Service for	300,000	
	guidelines for dairy industry	10,730	7	Feasibility	300,000	
	energy audits and reporting			assessments, ESIA,		
	and provide training to			and Design for Small		
	implement			Scale Irrigation		
C7	Consultancy to Conduct a	34,500		Systems		
	national baseline on		G3	Procurement of agro-	400,000	
	productive use of energy		<u></u>	weather equipment	2.700.0	
C1	(PUE) in the dairy industry Consulting service to	54,000	G1 0	Supply of weather stations, river gauges,	2,700,0	
8	Review of the Dairy Master	34,000	0	other equipment	00	
	Plan		<u> </u>	other equipment		
C1	Consultancy to Support the	54,000				
9	finalisation of the draft					
	National Strategy and legal					
	framework for animal Feed					
62	and Fodder	E4.000				
C2	Consultancy to Develop	54,000				
0	National Strategies for breeding incorporating					
	climate change adaptation					
	and mitigation					
C2	Consultancy to Review of	90,000				
1	Dairy Industry Act (1958)					
	and regulations to					
	mainstream climate change					
62	adaptation and mitigation	124.000				
C2 2	Consultancy to Develop a	134,000				
2	national system/framework					
	for environmental, social and climate impact					
	assessment that feeds into					
	evidence-based policy					
	making mechanisms					
C2	Consultancy to Conduct	85,000				
4	needs assessment for					
	integration of Digital					
	technologies to support					
C2	INRM and Precision Farming Consulting service for	108,000				
5	mapping, registration of	100,000				
	community groups					
C2	Consulting service for	107,000				
9	Market opportunity					
	assessments (dairy,					

	poultry, avocado,				
	horticulture)				
C3	Consulting services in	500,000			
1	support of Processing				
62	Equipment	700.000			
C3	Feasibility assessments,	700,000			
2	ESIA and Design of Climate	-			
	Proofed Access Roads	500.000			
C3	Development of Applications	s 500,000			
3	and Web based commodity				
	trading platform	100.000			
C3	Development of the	100,000			
4	programme MIS including				
	related infrastructure,				
	accessories and training of				
C3	staff Dovolonment of a	70,000			
5	Development of a	70,000			
5	Programme Knowledge				
C3	Management Portal Consulting service for	40,000			
6	Development of a	40,000			
3	Knowledge Management				
	and Communication				
	Strategy				
C3	Consulting service for	50,000			
7	Institutional capacity gap	30,000			
	assessment and production				
	of a capacity development				
	plan				
C1	Individual Consultants	Various			
0					
to					
C1					
7,					
and					
C3					
8					
to					
C4					
7	1.2				
	cal Acquisition	Estimat		cal Advantage	Estimant
Ref. No.	Description	ed Cost	Re f.	Description	Estimat ed Cost
140.		(US\$)	No		(US\$)
G4	Procurement of		140		(03\$)
G4	equipment for	100,000	G1	Supply of ECF and	486,724
	demonstrations on			Heartwater disease	400,724
	highly digestible forage				
	and fodder		62	Vaccines Procurement of kits for	600,000
	Land loadel		G2	Procurement of kits for demo farms for farmer	600,000
GE		140 000			
G5	Procurement of	140,000			
G5	Procurement of equipment for	140,000	C6	training in 6No Lots	450,000
G5	Procurement of equipment for demonstrations on	140,000	G6	training in 6No Lots Procurement of Motor	450,000
G5	Procurement of equipment for	140,000	G6	training in 6No Lots	450,000

	G8 G9	Procurement of Accounting Software Procurement of computers, laptops, server, photocopier/printer	150,000		G7 G1	vehicle and 3No. 4x4 double cabin pickup) Procurement of 140No. Motorbikes Supply of Equipment for water and soil labs	600,600 1,000,0 00	
	G14	machines Supply of IT Equipment - 18No laptops, 3No printers, 1No printer/photocopier, 1No projector, 1No Video conference equipment,	135,000		G1 2 G1 3	Procurement of 14No Double Cabin Vehicles and 3No Utility Vehicles 4WD Procurement of 105No Motor Cycles for Extenstion services	1,200,0 00 560,000	
		1No server, Network equipment, 10No Tablets			G1 7	Supply of 500No Mobile Tablets to support delivery of advisory	600,000	
	G15	Supply of 25No smart phones	18,000			Services by Extension Agents		
	G16	Supply of 4No safe boxes	6,000					
Low						Hig h		

e) Supplier Preferencing Matrix

The project will undertake procurement for Goods, Consulting and Non-consultancy services under various project components. It is expected that majority of bidders and suppliers will perceive procurement opportunities as 'Development' business opportunities. The PPS proposes to have warranties and defects liability periods as part of the main contracts to ensure that investments are functional, by time of handover. This minimizes the OEMs utilizing procurement opportunities as exploitable. Similarly for consulting services, a contracting strategy to closely monitor deliverables based on prescribed deliverables will be incorporated as part of the TOR.

Table 8: Supplier preferencing matrix

Supp	upplier preferencing matrix				
High					
less of Account	Development a) Pool of local and international consultants are available and may likely associate with national consulting firm as their associate to enhance their capacity to win business opportunities	Core b) Pool of National contractors/ suppliers/ consultants are available to carry out the Works and supply of goods and bring on board local experience and the potential to win business opportunities	High		
Attractiveness	Nuisance c) Many suppliers in the domestic market.	Exploitable d) There are many suppliers in the domestic market to participate. Opportunities will be highly competed and relationship adversarial.			
Low	Relative valu	ie of account			

f) Conclusions on the Market Analysis to be addressed through the

procurement approach

Alignment of the Supply position and Supply Preferencing Matrix. The analysis below will be considered in developing fit-for-purpose procurement approaches and inform the PCMU on instances to make plans to ensure suppliers are the best match for the requirement.

- a) There are 6No Consulting service activities (Firms selection) that are strategic security, and development in nature. They are a good match.
- b) G3 and G10 strategic security and will be sourced through ICB. Suppliers prioritize them as Development. This presents strong potential.
- c) There are 6No Tactical Advantage activities, all of which are Goods. These are of values that will require international market approaches, but are likely to be packaged into lots, and competed by local suppliers. The supplier's priority is assessed as exploitable and is likely to create an adversarial situation.

3. Procurement Risk Analysis for abovementioned contracts/group of similar contracts

The risks identified in the preceding analysis on operational context, borrower capacity and PCMU assessment, and market analysis that could be mitigated through the procurement approaches summarized in Risk Assessment Table below.

Table 9: Risk Assessment Table

Risk Description at the respective stage of the procurement process per each contract	A Likeliho od of Occurre nce	B Impact upon Occurre nce	Overal I Risk Score A x B Assess ed Inhere nt		Net Risk (taking only fully implemen ted and effective mitigation measures into
			Risk		account)
	Goo	ds and Go	oods rela	ated NCS	
Implementation arrangement – Inexperience in processing procurements under IFAD operations.	М	S	S	 Retention of dedicated procurement and technical staff. 	М
PP stage - Poor packaging of procurement requirements at planning and bidding stages.	М	S	S	 Use of IFAD online end-to- end procurement system OPEN, and detailed consultations with the Executing Entities at time of Work planning. 	L
PP stage – Poor cost estimation resulting in failed procurement processes.	М	S		 Undertaking market research and procurement's participation in work planning. 	М
Requisitioning - Limited experience in development of specifications and poorly defined specifications.	М	S		 Use of technical experts/ consultants as necessary. Use of local and internationally acceptable standards when specifying Goods. 	М

Risk Description at the	Α	В	Overal	Proposed Mitigation	Net Risk
respective stage of the	Likeliho	Impact	l Risk	Measure/s throughout the	(taking
procurement process	od of	upon	Score	Procurement Process	only fully
per each contract	Occurre	Occurre	20070	, rocarement rocess	implemen
	nce	nce	$A \times B$		ted and
			Assess		effective
			ed		mitigation
			Inhere		measures
			nt		into
			Risk		account)
Solicitation stage -	M	M	M	 BUILDPROC training and 	М
Poorly customized				capacity building of PMU	
procurement				and use of technical	
documents.				experts/ consultants as	
				necessary.	
				Project procurement	
				refresher trainings by IFAD.	
Evaluation stage -	М	М	M	•Use of qualification	М
Unresponsive				requirements that match	
competent market				the procurement activities.	
players resulting in				Adequate publishing of	
failed procurement				procurement opportunities.	
processes.				• Use of ICB to broaden pool	
				of potential suppliers and	
Contract	S	S	S	maximize Value for Money. Contract monitoring and	М
implementation stage -	3	3	3	contract management	1*1
Delays in meeting				plans, to include factory	
contractual milestones				inspection, acceptance, and	
and low-quality				training during manufacture	
deliveries.				process by OEM.	
				• Administering contracts as	
				set out in executed	
				agreements.	
				•Use of technical experts to	
				manage complex contracts.	
	Woı	rks and W	orks rela	ated NCS	
Requisitioning stage -	L	S	M	Use of technical experts/	M
Limited experience in				consultants as necessary.	
development of BoQs					
for Works and TORs for					
design and supervision					
consultants.	N 4	N //	N 4	Application of dogs ti-	N.A.
Bidding and Evaluation	M	М	М	• Application of domestic	М
stage - Low				preference as prescribed in the national law	
participation due to contractor Limited				the Hational law	
access to domestic					
financing, Skilled labor					
shortages, High cost of					
construction materials.					
Discussions and	М	Н	М	•Use of IFAD standard	М
contracting stage -]	contract terms,	
SECAP related risks in				development of ESMPs,	
construction and				inclusion of	
refurbishment.					

Risk Description at the respective stage of the procurement process per each contract Risk Description at the respective stage of the procurement process per each contract Itilialian of Occurre nce A x B Assess ed Inhere nt Risk	D: 1 D : 1: 11			10 /	D / / / / / /	N / D: /
procurement process per each contract Od of Occurre nce New A x B Assess ed Inhere nt Risk ESS experts in construction supervision, and use of PPEs during construction. Contract implementation stage - Delays in meeting contractual milestones Extension of Time for completion. Consulting Services Requisitioning stage - Limited experience in development of TORs Solicitation stage - S S S S S S S S S S S S S S S S S S S	Risk Description at the	A	В	Overal	Proposed Mitigation	Net Risk
per each contract Occurre nce nce Nce Nce Nce Nce Nce Nce						
nce nce nce nce nce nce nce nce nce nce			•	Score	Procurement Process	
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Inhere nt Risk						
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completion.					let somplex morner	

From the foregoing analysis, there are likely risk events identified at various stage of the procurement process and weighed against their likelihood and impact. Procurement of Consulting services retains a high net risk and there should be emphasis to ensure mitigation measures are in place, especially considering the high number of consulting services in the project.

4. Stakeholder Analysis

The main stakeholders who have an interest or impact on the project or impacted by the project and whether their interest is one of responsibility (R), accountability (A), to be consulted (C), or informed (I) are presented in the tabulation below. The objectives of the various stakeholders are also listed.

The following stakeholders have an interest or will be impacted by the project:

Table 10: Stakeholder Management Plan

Stakeholder (Name and Role) Government of Republic of Kenya – Borrower/Recipient	Interest in the Project (Responsible, Accountable, Consult, Inform)	a) Align with development objectives. b) Achieve value for money. c) Compliance with the terms of legal/financing agreement.	Stakeholder management Approach Keep informed and comply.
The National Treasury – Borrower/Recipient's representative in charge of public funds	R, A, C and I	d) Align with development objectives. e) Achieve value for money. f) Compliance with terms of the legal agreement and policies. g) Proper budget implementation and ensure the funds are available for processing payments within the agreed project milestones.	Keep informed and comply.
Ministry of Agriculture, and Livestock Development (MoALD)	R, A, C and I	h) Achieve value for money i) Compliance with terms of the FA and policies j) Proper budget implementation and ensure the funds are available for processing the payments within the agreed period in the contract (minimize the claim of interest due to delayed payment period)	Keep informed, consult often, and comply.
Partner Institutions – KALRO, KDB, Participating Counties	R, A, C and I	k) Deliveries within workplan schedules and proper budget implementation I) Achieve value for money m) Account for procurements undertaken through project budgets	Keep informed, consult often.
PCMU	A	n) Achieve value for money o) Compliance with the Legal agreement	Accomplish the mandate and comply.

Stakeholder (Name and Role)	Interest in the Project (Responsibl e, Accountable , Consult, Inform)	Stakeholder Objectives from the Procurement	Stakeholder management Approach
		p) Fit-for-purpose procurement	
IFAD – Supervision, Implementation support, Financier	C and I	q) Achieve value for moneyr) Compliance with the Legal agreement and procurement principles	Communicate and seek timely advice.
Project beneficiaries - stakeholders along the dairy value chains, with a focus on dairy smallholders.	C and I	s) Quality and timely inputs to meet project objectives.	Keep informed.
Suppliers/Contractors/Servi ce Providers/Consultants	I and A	t) Transparency and fairness of the process.u) Efficiency in decision making.v) Timely payments.	Keep communicate d.
People of Kenya	I	w)Upholding public interest (transparency/disclosur e, fairness, value for money, enhanced ESHS, and so on)	Keep informed.

5. Procurement Objective for abovementioned contract/group of similar contracts (related to the 5 Rs)

a) **Procurement Objectives**

The main objective of procurement under project is to ensure timely and efficient delivery of the required Goods, Works, Consulting and Non-consulting services in line with the approved Procurement Plan and in compliance with IFAD's Project Procurement Framework, while building the project's capacity for procurement and contract management.

The main objective is expressed through the following project procurement objectives:

- a) To achieve the PDO through appropriate fit-for-purpose procurement approaches and deliver the best value for money (VfM).
- b) To develop and implement appropriate specification, requirements, and evaluation criteria to consistently deliver targeted procurement solutions that are sustainable and build local maintenance capabilities.
- c) To attract suitable suppliers for timely and quality deliverables of project procurement requirements.
- d) To select in a timely and cost-effective manner qualified, experienced, and competitive suppliers, contractors, service providers and consulting firms capable of executing the contracts within stated quality, cost, and time.

- e) To develop and implement contract management monitoring and tracking arrangements that ensure applicable standards are fulfilled in the performance of the contracts.
- f) To select the most appropriate procurement approaches to deliver cost targets and manage resulting contracts to ensure that tasks are completed as per agreed contractual conditions and obligations without unnecessary cost overruns.
- g) To conduct need based /refresher procurement trainings on IFAD Project Procurement arrangements.

b) Key Performance Indicators

SMART Key Performance Indicators (KPIs) that will be used to monitor achievement of the procurement objectives are detailed below. The KPIs may be monitored via periodic progress reports and use of analytical data available in the IFAD OPEN and CMT. The project will be required to report on the procurement result indicators during supervision missions of the INReMP.

Key Performance	Areas	KPI Description	- KPI Measurement
1) Publishing (Transparency, Competition, Fairness)	Publishing of REOI and RFB	REOIs or RFBs would be published on UN Development Business, and official websites, as necessary.	-Shortlisting and Evaluation Reports confirm that all SPNs are published and Soft copies of REOIs & RFBs are accessible by market.
2) Process Efficacy (VfM, 3Es, Competition, Fairness, Accountability, fit- for-purpose)	Requisition, PPP packaging, Procurement document customization, clarification requests, evaluation of bids/proposals, and contract awards	Commenced procurement proceedings resulting into signed contracts in the first instance, and within the PP planned times and budget.	-95% of commenced procurement proceedings resulting into signed contracts in the first instance90% of the planned procurements being executed without variation of the overall planned timelineAll contract award within budget.
3) Competition (fairness and economy)	Open opportunity and fair competitions.	Equal opportunity and fair competitions among eligible Contractors/ Suppliers/ Consultants in providing works, goods, and consulting services.	-Numbers of Consultants who expressed their interest, submitted proposals, & Bidders submitted their bidsPercentage of proposals/bids that pass preliminary evaluation.
4) Delivery (efficiency and VfM)	a. On-Time Delivery.	Provide contractually obligated deliverables and outcomes on agreed dates.	 On time delivery of contractually obligated deliverables as per mutually agreed plans. 80% of the Contracts being completed within original stipulated time, 20% of the Contracts completed within 6 months EoT.
		Information is managed (shared, stored and communicated) in line	-Supporting/ working documents submitted and archived (Templates, weekly

	b. Efficiency, records, and accountability	with expectations defined in contract or as agreed between the parties.	status reports, minutes of meetings, training manual, project progress etc.) -Complete updates to IFAD OPEN and CMT systems.
5) Quality (effectiveness, VfM)	a. Delivery Quality	Product/service meets quality acceptance criteria.	- Number of deliveries that have met acceptance criteria (e.g. Number of defects, functionality of application, User Interface)
	b. Supplier (Consultant) Personnel	Teams are made up of members with expertise as per Terms of Reference	-Number of experts proposed, rejected, or replaced due to performance issues or not meeting the expectations.
	c. End User Satisfaction	Level of satisfaction received from project beneficiaries/ end users.	-Rating received.
6) Financial (transparency, 3Es, and fairness)	a. Invoicing	Contractually compliant with the time and quality for submission of invoices	-On time submission of invoices with supporting documents as agreed -Payments within contracted period
	b. Cost Transparency	Supplier provides transparency into its cost breakdowns	-Cost (invoices, financial proposals) is provided with a detailed breakdown of activities, services, products, quantities, etc.
	c. Change Requests/ Contract Amendments	Number and value of CRs/ Contract Amendments initiated since the previous scorecard or over the reporting period	-Total number of CRs raised/ Contract Amendments, value & scope of each CR / Contract Amendments

6. Recommended Procurement Approach for the Project Procurement Approach:

a) Procurement arrangements for Goods and Non-consulting services

Table 11: Procurement arrangements for Goods and Non-consulting services

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Conformance	Conformance for the requirements that are standard and well-established technical specifications.
Additional Sustainability Requirements	No	Sustainable procurement is not envisaged. Warranty and trainings provided as specified in the bidding documents.
Contract Type	Traditional	
Pricing and costing mechanism	Lump Sum	Based on schedule of requirements
Supplier Relationship	Collaborative	In all the categories of procurement under the project it

		would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.
	Adversarial	For easily available, off-the-shelf items and highly competed activities, relationship will be adversarial.
Price Adjustments	None, fixed price	
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable
Selection Method	a) Requests for Bids (RFB)b) Requests for Quotations (RFQ)c) Direct Contracting	Dependent on market approach, and thresholds for selection method of Goods being procured.
Selection Arrangement	None	
Market Approach	Competitive	
Pre / Post Qualification	Post-Qualification	
Evaluation Selection Method	Most Advantageous pricing	
Evaluation of Costs	Life-Cycle Costs	Most advantageous pricing
Domestic Preference	Yes	Based on guidance in PAL
Rated Criteria	No	

b) Procurement arrangements for Works

Table 12: Procurement arrangements for Works

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Conformance	Conformance with provisions of BoQs that will contain ESCMP interventions by the contractor.
Additional Sustainability Requirements	No	Sustainable procurement is not envisaged.
Contract Type	Traditional based on Employer's/IA design	
Pricing and costing mechanism	Schedule of Rates/Admeasurement	Based on BoQs
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.
Price Adjustments	Percentage	Due to input price volatilities, price adjustment formulae can be considered for Works contracts with less than 18-months completion period.

Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable
Selection Method	Competitive	There are many capable contractors
Evaluation of Costs	Adjusted bid price	
Domestic Preference	Yes	Based on guidance in PAL
Rated Criteria	No	

c) Procurement arrangements for Consulting services

Table 13: Procurement arrangements for Consulting services

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Performance	Definitive Terms of Reference guided by the objectives.
Sustainability Requirements	No	Sustainable procurement is not envisaged.
Contract Type	Traditional based on TOR	
Pricing and costing mechanism	Lumpsum and time based.	
Supplier Relationship	Collaborative	In all the categories of procurement under the project it would be necessary to attain collaborative relationship to ensure the success of the implementation and mitigate key risks such as security of staff and investments.
Price Adjustments	None, fixed price.	
Form of Contract (Terms and Conditions)	Any special conditions of contract	Not applicable
Consultant's Selection and Evaluation Method	a) Quality Cost Based Selection (QCBS) b) Consultant's Qualification based Selection (CQS) c) Least Cost Based Selection (LCS) d) Direct Selection e) Single Source Selection	 Direct approaches require prior justification. Onboarding of ILRI and FAO will be through Direct contracting. One TOR will be consolidated for all interventions and budget lines.
Pre / Post Qualification	Pre-Qualification and Post-Qualification	
Evaluation of Costs	N/A	
Domestic Preference	No	
Rated Criteria	Yes	

The project's Procurement Plan should reflect the analysis presented in the PPS and should be updated periodically to reflect actual needs and changing circumstances. Any updates to the Procurement Plan should be submitted to IFAD for its review and no objection. Any changes to the Procurement Plan should be justified by the project through a revised PPS.

7. Preferred arrangement for low value, low risk activities (as applicable)

Table 14: Procurement arrangements for low value, low risk activities

Contract	Category	Estimated Cost	Procurement Approach and Method
Off-the shelf Goods, Minor Works, and small assignments.	Works /Goods /Consulting services	Not more than USD500, up to an annual cumulative cost of USD5,000 (as defined in the PAL)	Contracts to be procured through local administrative procedures and a file of all such purchases be maintained.

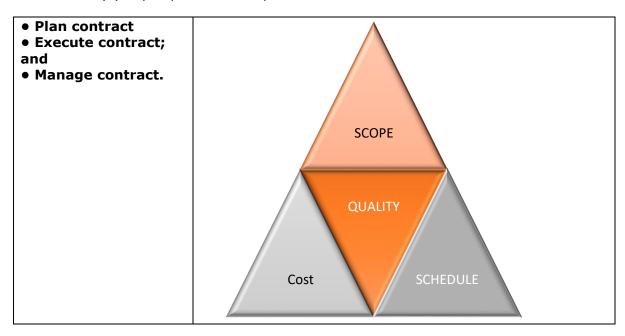
Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, General salaries and allowances for project staff. These expenditures will not be subject to procurement clearance, hence, will not be reflected in the approved procurement plan. Items under this category would be procured using local administrative procedures acceptable to IFAD. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB, and will be subject to external audit.

Training / Capacity Development initiatives through the project are not Procurement Transactions unless a service provider is exclusively hired from Market through agreed Selection Methods of Consultant / Non-consulting services as appropriate to render training or capacity development. The expenditure plan under this category will be submitted annually to IFAD for review and no objection through the AWPB and will be subject to external audit.

Annex 1 of PPS: Simplified Contract Management Plan and Responsibility and Accountability Matrix (RAM)

f) Introduction:

Effective contract management is essential to the delivery of intended outcomes. The contract Management primarily focuses on creating, executing, and managing contracts across three (3) key implementation phases:



The PCMU is responsible for the contract management in coordination with Beneficiary organizations participating in the project. The responsibilities of the Contract Management Team (CMT) include but not limited to: Contract risk management, control changes and variations, contract administration, review and accept reports, acceptance of deliverables and contractual milestones, management and control payments, and monitoring and measuring outputs/outcomes, and record-keeping, monitor compliance with agreed contractual obligations for the successful delivery of the contract.

g) Responsibility and Accountability Matrix - Contract Management

Table 15: Responsibility and Accountability Matrix

	MoALD	Procureme nt Specialist	Technical Dept. or Beneficiar y	PCMU
1	2	3	4	5
Preparation of procurement-related documents including contract conditions, drawings, and specifications	I, F	R	R	F
Contract management, coordination, and supervision.	F	S	R	М
Review the construction management program submitted by the bidders	I	C, I	R	М
Conduct the site visits periodically and review the physical and financial progress		S	R	F
Accord time extensions, change in quantities, variations, etc.,	А	S	R	R

	MoALD	Procureme nt Specialist	Technical Dept. or Beneficiar Y	PCMU
Monitor the stipulated quality assurance tests are conducted as prescribed in the technical specifications	I	S	R	F, M
Facilitate the recording of work before commencement and after completion as per the specifications	I	M, S	A, R	S
Ensure that the prescribed training is provided as per the contract	I	S	A, R	F
Facilitate handing over the constructed/repaired facilities and/or supplied goods to the concerned officer in charge	I, A	S	R	F
Receive goods, facilitate the process of clearing and forwarding, storage, carry out stock taking, manage the distribution supply chain.	I	R	С	S

R: Responsible; A: Approval; M: Monitor; S: Support; F: Facilitate; I: Inform; C: Consulted

h) **Monitoring Instruments:** The following mechanisms and instruments will be used to implement project management following the above principles and levels of management.

Ref Description

ite: Description
1 Monthly Progress Report
A monthly report following pre-defined format and designed to highlight key indicators
and issues:
a) Bifocal Emphasis – Physical and Financial progress with updates on the IFAD online
CMT.
b) Evaluation Techniques like PERT with clearly defined milestones through OPEN.
c) Monitoring of cost escalations due to:
(i) Change in scope,
(ii) Variation of quantities,
(iii)Change in quantities,
(iv) Price adjustment
d) Monitoring of admeasurements/payment schedule
e) Conduct monthly progress meetings
f) Principled evaluation of Instructions – Quality Reports
2 Monthly site meeting
A meeting held monthly on-site to physically inspect operations.
3 Quarterly progress report
A quarterly report which focuses on progress towards overall project objectives and any
issues encountered.
4 Half-yearly project appraisal
A review that seeks to identify any major risks and propose mitigation measures. To
inform any need for changes in the PPS.
5 Ad hoc inspection
An inspection carried out by PCMU and/or Authorised persons.
· · · · · · · · · · · · · · · · · · ·

Annex 2 of PPS: In-country procurement training programme

Procurement Training Workshop for Members of Programme Coordination and Management Unit (PCMU), MoALD, participating Counties, and All key User Departments implementing INReMP

Venue: TBD - Nairobi

Date: TBD - Within first year of project implementation

The Ministry of Livestock and Fisheries will host a procurement workshop for members of the National Project Coordination Unit and all implementing agencies.

The objective of this workshop is to "enhance skills of participants on procurement processes to ensure procurements and implemented efficiently and contracts are completed in time and within budget."

The following training themes were identified during project design stage:

- 1. Overview of procurement processes
- 2. Use of IFAD Procurement Guidelines and Handbook
- 3. Effective procurement planning and packaging
- 4. Customization of solicitation documents
- 5. Evaluation of bids for Goods and Non-Consulting Services
- 6. Contract management and administration

This workshop is to be held for three (3) days within the first year of Project implementation.

The participants of the workshop will include the members of the PCMU, MoALD, Participating Counties, key beneficiaries under the project, Key User departments.

Training Programme – Procurement Management:

SESSION		TOPIC	DELIVERY
DAY 1	MORNING	IFAD procurement principles, ethical standards, and prohibited practice issues	POWER POINT SLIDES
	MID MORNING	 Effective project implementation and the role of procurement: Integrated project and procurement planning and budgeting (AWPB/PP) Key considerations for effective procurement planning. 	 POWER POINT SLIDES PRACTICAL SESSION: Actual project documents AWPB and PP
	AFTERNOO N	Roles and responsibilities in the procurement cycle	POWER POINT SLIDES
DAY	MORNING	Writing precise specifications, terms of reference	POWER POINT SLIDES
2	MID MORNING	and bidding documents (including SECAP consideration)	CASE STUDY
	AFTERNOO N	Customization of Solicitation documents	• PRACTICAL SESSION: ✓ SBDs/SPDs
DAY 3	MORNING	Evaluating bids and proposals (including SECAP consideration)	POWER POINT SLIDES
	MID MORNING AFTERNOO N	 Effective contract administration, management, and performance monitoring (including SECAP compliance) CMT 	POWER POINT SLIDESCASE STUDY

Annex 9: SECAP Risks and Procurement Actions

Integration of SECAP risks into procurement This section provides indication to the PCMU on the SECAP risks to be incorporated into procurement. 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 and SPO/Procurement specialist have identified, through the SECAP environmental & social screening checklist, the issues in the table below that need to be mitigated through procurement.

Environmental and Social Safeguards Matrix

Environmental and Social Safeguards				
Biodiversity conservation	Risk Rating	Consequence	Guidances for SPOs	
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Moderate	Minor Poject may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Technical specifications to be included in tender documents for purchase of natural resource materials which include ethically sourced materials	
Resource Efficiency and Pollution Prevention	Risk Rating	Consequence	Guidances for SPOs	
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.	Technical specifications and bid criteria to include a list/reference to list of approved chemical/waste handling facilities and allowable pollutants at discharge points	

Environmental and Social Safeguards				
Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	Low	Negligible The project will not involve engagement of forestry in any form	Contract documents to include ethical procedures on harvesting of natural forest resources	
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 materias, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Procurement of raw materials should follow ethical standards and ensure all contractors have the required approvals and permits for operation on the sites	
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Substantial	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Bidding and contract documents should include lists of approved and certified fertilizers and modifying agents	
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	Minor The project only requires minimal amounts of pesticide.	Bidding and contract documents should include lists of approved and certified pesticides	
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	Moderate	Minor The project involves livestock or fisheries, but not in extensive or intensive systems.	Bidding and contract documents should ensure procurement of animals follows national regulations	
indigenous peoples	Risk Rating	Consequence	Guidances for SPOs	

Environmental and Social Safe	guards		
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	Moderate	Minor The project is not sited in an area where indigenous people are present, but associated facilities may impact on indigenous people.	Procurement should consider suppliers within the project areas
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs
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?	Moderate	Minor The project does not operate in sectors or value chains where the employment of children has ever been reported.	Procurement contract documents to include clauses that prohibit child labour as per national laws, regulations and Zero tolerance to child labour (as per ILO guidelines)
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.)	Moderate	Moderate 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 weak or non- existent.	The bidding and contract documents to include clauses that ensure adherence to occupational safety and health
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/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective.	The bidding and contract documents to include guidelines on the design of waste management facilities
Environmental and Social Safe	guards		
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Moderate	Moderate The project involves the construction/ rehabilitation/upgrade of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - between 5metres and 9 metres high wall, and/or with a reservoir below 100,000 m3.	The bidding and contract documents to follow prudent construction standards at design and during construction process



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 9: Integrated Project Risk Matrix (IPRM)

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Substantial	Substantial
Fragility and Security	Substantial	Substantial
Macroeconomic	Substantial	Substantial
Governance	Substantial	Substantial
Political Commitment	Moderate	Moderate
Sector Strategies and Policies	Moderate	Moderate
Policy Development and Implementation	Moderate	Moderate
Policy alignment	Low	Low
Environment and Climate Context	Substantial	Substantial
Project vulnerability to climate change impacts	Substantial	Substantial
Project vulnerability to environmental conditions	Substantial	Substantial
Project Scope	Moderate	Moderate
Technical Soundness	Moderate	Moderate
Project Relevance	Low	Low
Institutional Capacity for Implementation and Sustainability	Moderate	Moderate
Monitoring and Evaluation Arrangements	Moderate	Moderate
Implementation Arrangements	Low	Low
Project Financial Management	Substantial	Substantial
Project External Audit	Substantial	Moderate
Project Accounting and Financial Reporting	Substantial	Substantial
Project Internal Controls	Substantial	Substantial
Project Funds Flow/Disbursement Arrangements	Substantial	Substantial
Project Budgeting	Substantial	Substantial
Project Organization and Staffing	Moderate	Moderate
Project Procurement	Moderate	Moderate
A.1 Legal, Regulatory and Policy Framework	Moderate	Moderate
A.2 Institutional Framework and Management Capacity	Moderate	Moderate
A.3 Accountability, Integrity and Transparency of the Public Procurement System	Moderate	Moderate
A.4 Public Procurement Operations and Market Practices.	Moderate	Moderate
B.1 Assessment of Project Complexity	Moderate	Moderate
B.2 Assesment of Implementing Agency Capacity	Moderate	Moderate
Project Procurement Overall	Moderate	Moderate
Environment, Social and Climate Impact	Substantial	Moderate
Vulnerability of target populations and ecosystems to climate variability and hazards	Substantial	Substantial
Greenhouse Gas Emissions	Moderate	Moderate
Physical and Economic Resettlement	Low	Low
Community health, safety and security	Moderate	Moderate
Labour and Working Conditions	Moderate	Low

Risk Category / Subcategory	Inherent risk	Residual risk
Indigenous People	Moderate	Moderate
Cultural Heritage	Low	Low
Resource Efficiency and Pollution Prevention	Substantial	Moderate
Biodiversity Conservation	Moderate	Moderate
Stakeholders	Low	Low
Stakeholder Grievances	Low	Low
Stakeholder Engagement/Coordination	Low	Low
Overall	Moderate	Moderate

Country Context	Substantial	Substantial
Fragility and Security	Substantial	Substantial
Risk:	Substantial	Substantial
Security threats, ethnic clashes, social conflicts, and cattle rustling/attacks in some of the proposed counties.		
Mitigations:		
Efforts will be made to select Wards that are secure for project implementation. Adequate stakeholder engagements to reduce the risk of social conflicts especially over natural resources.		
Macroeconomic	Substantial	Substantial
Risk:	Substantial	Substantial
Kenya's economic recovery has been dampened by the recent drought and price shocks. GDP is expected to grow by 5.5% on average in 2023–24 on the assumption of robust growth of credit to the private sector, recovery in agricultural production, and high commodity prices favourable to Kenyan exports.		
Mitigations:		
Proposed Programme has a strong focus on private sector led growth in the selected counties and value chains including promoting access to finance by value chain actors through on-going RK-FINFA and the proposed ARCAFIM projects.		
Governance	Substantial	Substantial
Risk:	Substantial	Substantial
National and county Governments have limited resources. They do not have adequate financial and personnel capacity to fully undertake their mandates especially in respect to extension services and ecosystem restoration.		
Mitigations:		
The proposed an implementation arrangement involves a number of key institutions including the private sector for complementarity of roles.		
Political Commitment	Moderate	Moderate

Risk:	Moderate	Moderate
In the recent past, the Government has reiterated its commitment to macroeconomic policies, aimed at maintaining public debt at a sustainable level, containing inflation within the target range, and preserving external stability. The Debt-to-GDP ratio stood at 63% in 2022 and while planned fiscal consolidation will help address debt, the risk of debt distress continues to be assessed as high. As a result, the Government has adopted a more robust and cautious approach in negotiations regarding external debt, sometimes resulting in delays in signing of financing agreements.		
Mitigations:		
ICO will continue to support government's efforts to mobilize co-financing in the form of grants from other development partners. In addition, partnership with FAO is being explored to provide parallel financing through a proposed GCF investment. These efforts are geared towards reducing overall cost of finance of the project to the Government. Besides, proposed programme is well aligned to the Government priorities e.g. the Presidential directive of accelerating to 30% National Tree cover by 2032 and improving access to water for irrigation		
Sector Strategies and Policies	Moderate	Moderate
Policy Development and Implementation	Moderate	Moderate
Risk:	Moderate	Moderate
Certain policy gaps exist such as inadequate and weak Water resources utilization policies, fragmentation of water resources regulation and management in different government agencies and overlaps of mandates and functions on certain activities across government agencies or with county governments.		
Mitigations:		
Programme will support policy (under Subcomponent 3.1) to address identified gaps as well as support coordination between different government agencies identified and potential implementing partners and county governments. In addition, MoUs will be signed with the identified agencies clarifying scope and roles		
Policy alignment	Low	Low
Risk:	Low	Low
Supportive sector policies exist. Besides proposed project aligns with Government priorities, such as the Presidential directive of accelerating to 30% National Tree cover by 2032 and improving access to water for irrigation.		
Mitigations:		
Proposed interventions will be aligned to the various sector strategies and Government priorities.		
Environment and Climate Context	Substantial	Substantial
Project vulnerability to climate change impacts	Substantial	Substantial
Risk:	Substantial	Substantial
Kenya is highly vulnerable to climate change and extreme weather events such as unpredictable rainfall patterns, droughts, heat waves, floods, and landslides. Future climate projections show that the country will continue to experience increases in temperatures, unreliable rainfall patterns and more frequent and intense extreme events, such as droughts and floods.		

Mitigations:		
Promotion of improved and resilient crop and livestock varieties and breeds, climate insurance, irrigation and water harvesting, climate-smart agriculture (CSA), agroforestry and reforestation, nature-based solutions, climate-proofing of infrastructure, access to climate financing, nature-based enterprises, renewable energy, manure management, efficient feed, fodder conservation, carbon markets, and payment for ecoservices (PES). The project will undertake an Ex-ante and Expost EXACT analysis to show the reduction in GHG emissions among others		
Project vulnerability to environmental conditions	Substantial	Substantial
Risk:	Substantial	Substantial
Kenya experiences environmental and land degradation in most parts of the country. Catchments within and around the project areas have over the years experienced severe land degradation resulting from deforestation, unsustainable farming practices, pollution, soil erosion, water abstraction and forest fires.		
Mitigations:		
INReMP will invest in catchment rehabilitation efforts, sustainable land management practices, agroforestry, and sustainable water management, soil erosion control, riparian conservation, wetland conservation and operationalisation of a payment for ecosystems services, e.g., establishment of water funds, among other interventions.		
Project Scope	Moderate	Moderate
Technical Soundness	Moderate	Moderate
Risk:	Moderate	Moderate
The likelihood that INReMP ends up being a complex project that seeks to do too many things and ending up not doing any of them well. It could also be a risk of being overambitious (or lack sufficient ambition), limited or no innovativeness, inadequate incorporation of lessons learned and best practices.		
Mitigations:		
INReMP is a second/follow-on phase of a very successfully executed project – UTaNRMP. There are other projects (KCEP/CRAL and UTNWF) whose implementation has also been quite successful. Accordingly, INReMP's design and implementation will make use of all the lessons of experience (good and bad) generated by all these projects. The design has also ensured to limit the number of subcomponents to minimize the likelihood for complexity. Also, the design has developed a flexible framework that is not very prescriptive to allow adaptation, where needed, during the course of implementation.		
Project Relevance	Low	Low
Risk:	Low	Low
The likelihood that INReMP's objectives and activities are not well aligned with national development or IFAD priorities, and/or are not sufficiently relevant or responsive to the needs and priorities of the intended target group throughout the project's lifespan.		
Mitigations:		
The process of conceptualization and design is being very consultative of the key stakeholders – IFAD, GoK (national and counties) and the target beneficiaries; this ensures that INReMP is relevant with IFAD and the Government's policies, strategies, and acts. It also ensures that INReMP is consistent with the socio-politico-economic conditions of the target beneficiaries. At the mid-term review, steps will be undertaken to establish and ensure INReMP's continued relevance with the requirements of the three key stakeholders.		
Institutional Capacity for Implementation and Sustainability	Moderate	Moderate

	Γ	
Monitoring and Evaluation Arrangements	Moderate	Moderate
Risk:	Moderate	Moderate
The following are potential risks: a) lack of personnel at county level to support M&E for the project. INReMP would need different specialists to guide appropriate implementation of different activities; b) limited staff capacity at county level that may undermine the quality of M&E of the project; and c) newly recruited project staff who may not be conversant with the IFAD ORMS requirements.		
Mitigations:		
a) INReMP will use seconded staff at the county level that will dedicate their fulltime attention the Programme to ensure a sound and timely implementation. For sustainability, efforts will be made to use existing structures; b) roles and responsibilities of staff will be defined in the PIM; and c) all staff will be exposed to IFAD-specific procedures at start up and during implementation. Implementation support missions will also be planned and fielded.		
Implementation Arrangements	Low	Low
Risk:	Low	Low
The risk that the project executing agency does not have adequate resources, processes and/or systems to manage the project effectively (in accordance with the Financing Agreement and all relevant IFAD basic legal documents) towards achievement of the envisaged project development objective. This includes the project executing agency's lack of experience with IFAD (or other multilateral development bank) projects/procedures and lack of capacity to coordinate/support implementation arrangements that may involve several government agencies, different levels of government (or non-government entities), or multiple donor/financing agencies with different procedures and/or reporting requirements.		
Mitigations:		
The project will have a dedicated Project Management Unit at the central level and County teams at the County levels. Programme implementation structures have been aligned with the existing Government structures to ensure continuity. As and when needed, capacity building activities will be provided to the project staff to ensure compliance with IFAD (or other involved multilateral development partners) projects/procedures. In addition, implementation support missions will ensure proactiveness in resolving any implementation challenges that may develop.		
Project Financial Management	Substantial	Substantial
Project External Audit	Substantial	Moderate
Risk:	Substantial	Moderate
There is a risks of inadequate audit coverage of the project audit considering there are various governments situated in a broad geographic location across the country. There is also the possibility that some high-risk expenditure categories may not be covered during audits.		
Mitigations:		
The auditor will prepare a work plan to ensure adequate coverage of the all the counties that receive project funds and cover all the major risk areas and adequate coverage as per coverage plan. IFAD finance Officer would share the IFAD audit terms of reference with the external auditors in advance to ensure all key elements are included in the audit TOR of the OAG. The details of audit requirements as stipulated in the IFAD Financial Management and Financial Control (FMFCL) Handbook would be shared with project finance staff and external auditors.		
Project Accounting and Financial Reporting	Substantial	Substantial
	1	

Risk:	Substantial	Substantial
There is a risk of delays in consolidation of project financial reports at PCMU which will be preparing consolidated financial reports for the project and inaccurate financial reporting due to the complex nature of the project which has multiple financiers, categories, components and multiple county governments as implementing partners. There is the risk of delays in receiving reports and support documentation from the implementing agencies and semi-autonomous government departments. There are also possibility of delays and inaccuracies in financial reporting due to improper coding of transactions and the multiple currencies that may be involved.		
Mitigations:		
To mitigate on risks on financial reporting, accounting software will be set-up and enhanced to have analysis code for reporting on component, categories, financiers, for reporting quarter, cumulative for the year and cumulative since start of the project. The project finance team would prepare a reporting calendar and train the accounting staff in the implementing agencies and government department on IFAD processes and expected reporting timeliness. The project would prepare quarterly interim financial reports (IFRs) and annual financial statements.		
Project Internal Controls	Substantial	Substantial
Risk:	Substantial	Substantial
There may be a risk that appropriate controls over Programme funds are not in place, leading to the inefficient or inappropriate use of Project resources. There is also the risk that where controls exist, they are not enforced strictly or are circumvented by staff by staff charged to keep the controls.		
Mitigations:		
Internal controls have been instituted in the whole framework of financial and administrative procedures. The identified controls range from; proper record keeping and posting, authorization of accounting, procurement and administrative documents, physical security of assets, double signing (approval) arrangements, to financial reporting and monitoring. There will be internal audit function to check overall compliance to internal controls and provide support towards improving systems, procedures, and processes. The control environment will be monitored using both internal and external audit and oversight.		
Project Funds Flow/Disbursement Arrangements	Substantial	Substantial
Risk:	Substantial	Substantial
There is a risk of commingling of funds at the county government level which will be provided with advances for implementation of project activities. These includes National Treasury which will receive advances from IFAD, and transfer to PCMU under MoALD. The county governments would also receive funding from the National Treasury and report to IFAD through the PCMU. The flow of funds to the counties may delay implementation of activities because national government funding to project are often late and not according to approved budget. The government is expected to contribute both cash and in-kind to the project while beneficiaries are expected to contribute in-kind.		
Mitigations:		
To mitigate on risks of commingled funds and ease of accounting of any advance provided, funds will be held in Project dedicated accounts at the Central Bank of Kenya for which there will be monthly bank accounts reconciliation and financial reports. All counties receiving project funds would be required to have sub-project accounts for segregating the funds received. There will be monthly financial reports to PCMU for monitoring operations of sub-accounts and consolidation. All counties will sign MoUs clearly highlighting the requirements for a separate bank account and financial reporting requirements.		
Project Budgeting	Substantial	Substantial

Risk:	Substantial	Substantial
The project has multiple financiers namely IFAD, GCF, GEF, Government and Beneficiaries contribution. There is a risk of co-mingling of funds in budgeting and expenditure allocations to these multiple financiers. There may also be a risk that annual work plans and budgets are not prepared with sufficient details or revised timely, and not executed in a coherent manner, resulting in funds not being available when needed, ineligible costs and reallocation of Project funds and slow implementation progress. According to the public financial management laws of Kenya, annual programme budgets of donor projects are required to be approved into the national budget every year following a strict calendar. There is the risk the project may not submit annual work planning and budget on time due to long administrative procedures and the many counties involved in the project.		
Mitigations:		
The Cost-tables and PIM have adequate details on key activities are to be implemented and sources of finances to use. Subsequently, the AWPB will be prepared with adequate details by component, categories and financiers to ensure adequate guidance to the accounting team in recording and summarizing financial expenditures. The IFAD AWPB budget template is sufficiently detailed budget by category, component, and financiers. The PCMU will coordinate the budget preparation processes by preparing a budget calendar that strictly follows the national budget timely lines and key deliverables. Budget monitoring will be carried out quarterly, semi-annually, and annually and any significant deviations discussed within the PCMU and project steering committee for remedial actions. Approved budget will be codified in the accounting system for ease of monitoring and control of expenditures during the year.		
Project Organization and Staffing	Moderate	Moderate
Risk:	Moderate	Moderate
There are various administrative levels of implementation of the project namely the State Depart for Crops, PCMU, and the country governments would have fiduciary responsibilities. Previous IFAD funded projects implemented through similar structures have had issues with timeliness and quality of financial reports from some counties who were receiving funding. Another risk for INReMP the complexity due to multiple financiers. While PCMU shall be made up of qualified and experienced personnel with appropriate expertise in technical and financial management, there may be lack of staff familiarity with IFAD, GEF and GCF procedures.		
Mitigations:		
There will be MoUs between MoALD / National Treasury and participating county governments which will stipulate requirement on financial reporting. Any noncompliance by implementing counties may have their disbursements by PCMU		
suspended as a penalty for non-compliance. Regarding familiarity with IFAD, GEF and GCF procedures, FMD will provide capacity building training to the finance staff who will be selected competitively. The capacity building will include familiarization with procedures on financial reporting, expenditures categorizations across components, categories, financial reporting timeliness and other financial management related to the Project.		
and GCF procedures, FMD will provide capacity building training to the finance staff who will be selected competitively. The capacity building will include familiarization with procedures on financial reporting, expenditures categorizations across components, categories, financial reporting timeliness and other financial	Moderate	Moderate

Risk:	Moderate	Moderate
 PPADA Provision 118 provides for request for proposal through advertisement without REOI. Provision 131 sets a condition for BAFO procedures where the lowest evaluated price is in excess of available budget, but without a probity Auditor for BAFO procedures. Minimum period for International tender advertising provided as seven days in Regulation 83. PPADA provision 157 provides for participation of candidates in preference and reservation. It requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents a mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating in international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender. PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services. In practice, reviewed activities for Goods and Works contain allocation of scores, and preliminary evaluation requirements akin to post qualification requirements. There are no ICB documents for Works/Goods, though documents can be customized for international competition. In practice, reviewed documents revealed use of contract forms and provisions not originally disclosed in bidding documents. There is no procurement manual. 	Moderate	Moderate
 No Social/Labour or Environmental considerations of SPP. The same is not a requirement in the prequalification and bidding processes. Regional agreements are not specifically reflected in procurement policy. 		
Mitigations:		
 Use of REOI for IFAD operations open market approaches. Adherence to IFAD's procurement guidelines and SPD provisions when approaching the international market. BAFO not be used for reason of exceeding available budget and projects to put in place rigorous cost estimation procedures based on informed market research and defined in updated PPS. Allow minimum 45 days for ICB. Preliminary evaluations to be consistent with IFAD guidelines and no barriers to competition for openly advertised procurement activities. Internationally based suppliers/consultants/service providers be permitted to participate in open national procurement opportunities so long as they adhere to the set conditions of tender. Adequate customization of solicitation documents. Application of prescribed procedures for evaluation of Goods and Works, and disclosure of procedures in use at the stage of publishing invitations to bid and REOI. A copy of the record of Bid/Proposal opening promptly sent to all Bidders/Proposers/ Consultants whose Bids/Proposals were opened and, where subject to prior review also sent to IFAD. Use of IFAD SPDs for international competitive procedures. Development of Procurement Manual and Contract Management procedures. Development of Procurement Manual and Contract Management procedures. The specifications of the procurement requirements, bidders' qualifications and bid evaluation criteria must comply with IFAD SECAP standards. Linkage to be established between regional economic integration and procurement policies. 		
A.2 Institutional Framework and Management Capacity	Moderate	Moderate

Risk:	Moderate	Moderate
 Financial Procedures are in place, but in practice, project procurement payments are delayed and beyond contracted payment terms. PPRA is dependent for its resources on the state finances, and it is not clear if the available finances ensure the function's independence and proper staffing. Despite a provision in law, the actual functioning of a centralized contracting body does not exist. There lacks a system whereby analysis of information is routinely carried out, published, and fed back into the public procurement system The professional body's independence (KISM) is compromised due to budget allocation from the Ministry. 		
Mitigations:		
 Monitor timely payment of invoices and in case of delays interest for delayed payment to be made, not just penalty to the officer who delays or refuses to pay without reasonable ground. There is a need to create sources of finances that provide some degree of independence to the PPRA to ensure proper staffing and resources to keep the services at the level of quality desired and to fulfill the mandate in the PPADA. Make use of organization level framework agreements for common user items on condition they reflect current market prices. Incorporate OCDS for structured data dissemination to facilitate transparency and citizen engagement and support better use of data in policy decisions. Use of IFAD's procurement guidelines will require publication of contract awards on platforms where they were initially advertised such as UNDB online. A sustainable and intensive training program to be instituted to train key actors in procurement, in particular private sector and CSOs. These training should include integrity training programs. The Association of Procurement Professionals needs to be financially independent and sustainable. 		
A.3 Accountability, Integrity and Transparency of the Public Procurement System	Moderate	Moderate
Risk:	Moderate	Moderate
 No appropriate market research that informs the choice of methods and strategies. There are no contract implementation plans or internally documented procedures. The contract monitoring is undertaken as required for periodic reporting to PPRA. In practice, contracts experience delays in implementation. Lack of a formal mechanism on partnership and absence of ethics and integrity related training programs In practice, there is absence of fair payment provisions as a constraint as it does not help offset cost of doing business with the government. There is a preference for lowest cost providers even where these are significantly below budget. No evidence of sector market analysis to determine sector specific risks and government's scope to influence specific market segment. 		

 Market research to be mandated to guide procurement strategy irrespective of method of procurement adopted (including competitive methods). Use of REOI for IFAD funded open market approaches. Adherence to IFAD procurement guidelines and SBDs when approaching the international market. Improve capability of contract officers on contract management and sector market analysis for determining optimum contract size and to analyze if contractors fail due to their capacity to deliver, to improve capability of local construction companies, removing constraints of delayed payment, instituting a formal system of contract. Adoption of contract implementation plans for key contracts. Establish a formal mechanism and enhance its dialogue and partnership with private sector through training programs tailored to the needs of small businesses as well as to support supplier diversity. It should include a module on ethics and integrity in public procurement. More outreach and training of private sector participants is needed. Policy level discussion with private sector associations on constraints faced by them and take corrective measures to improve competition. Adopt a Project Procurement Strategy (PPS) that will be updated annually and inform procurement approaches for key project procurement activities 		
A.4 Public Procurement Operations and Market Practices.	Moderate	Moderate
Risk:	Moderate	Moderate
Lack of programmes to build the capacity of relevant stakeholders to understand, monitor and improve public procurement.		

Mitigations: · Government to take measures to enhance consultations. · Adherence to contract award publication requirements · Allow citizens to participate in the planning of their activities. In the execution of the contract, citizens/CSOs should be invited to monitor the execution of the works contracts including through application of innovative techniques like geo-tagging and social audits. • PPRA and the OAG to carry out procurement audit (both on compliance and performance) which are coordinated and mutually reinforcing. Specific guidance needed to reduce discretion on these aspects and need to be addressed in the Regulations and/or user's guide for transparency and certainty. · Periodic training to project staff on IFAD project procurement principles and monitoring how they are integrated in the procurement cycle during project supervision. • Invitations to Bid for all procurement for IFAD funded operations to identify the source of funding, the applicable rules, and the reporting channels for prohibited practices. · Include as part of the solicitation documents, a secure mechanism for reporting prohibited practices or unethical behaviour. · Use of the IAFD's SPD forms and contact addresses to report prohibited practices for project procurement solicitation documents. **B.1 Assessment of Project Complexity** Moderate Moderate Risk: Moderate Moderate • The procurement profile features largely standard items, though some activities could be unfamiliar to some procuring entities with limited project procurement • The procurement profile for the first 18 months features consulting services for feasibilities, construction design, and project management a challenge to sampled entities. • There are a number of procuring entities that will be relied upon in development of specifications and processing procurement of items at evaluation and contract management stages. Some agencies are new to IFAD project procurement Mitigations: • Use of procurement methods prescribed in the IFAD guidelines and handbook, and adherence to good specification practices. • IFAD Implementation support to lay emphasis on effective processing of consultancy services. · Procurement for beneficiary organization will be limited to non-complex items and approaches such as RFQ. International approaches and consolidated procurements will be implemented by the PCMU. B.2 Assesment of Implementing Agency Capacity Moderate Moderate Risk: Moderate Moderate • There has not been a deliberate procurement strategy and evidence of limited market research to inform planning. • SDA has an internal audit. PPRA also undertakes annual audits but on a sample basis. • There are no prescribed thresholds for contract amendments. • In practice payments gone beyond the 30-day payment terms • There are reported instances of late payment especially by Counties. Suppliers may not claim interest for fear of being victimized. There are instances of late payment exceeding the contractually specified payment schedule. • There are key procurement and contract information missing from files such as contract awards, and contractual correspondence. Contractual correspondence is kept separately from procurement file • The increase procurement activity will require more space and office facilities. There is need for sustained procurement training. · Procurement officers not certified · Quality of procurement documents is mostly moderately satisfactory.

Mitigations: Need for emphasis in needs analysis, defining requirements and packaging procurements to ensure optimal packaging and costing • Soon to be launched eGP system will ease sampling of public institutions for the procurement audits. Schedule the project for regular procurement audits and follow ups to ensure compliance under local framework · Include contract amendment approval thresholds as part of the PIM and consistent with local framework. • Close contract monitoring and receipt of complete deliverables. • Ensure timely release of budget allocations to enable procuring entity meet contractual obligations on payments • Retain consolidated procurement files with contract management records. · Retain copies of contractual correspondence on file. • Ensure there are dedicated facilities for effective procurement. • IFAD BUILDPROC training and other procurement related trainings. · Training in customization of solicitation documents and use of IFAD project procurement framework. **Project Procurement Overall** Moderate Moderate Risk: Moderate Moderate The assessment indicates a moderate or acceptable risk towards achievements of project objectives and/or compliance with IFAD's Project Procurement Framework. The risk matrix identifies gaps in the country framework and capacity of implementing partners that will influence implementation due to inconsistency with IFAD project procurement guidelines. Specifically, the presence of many procuring entities will pose a challenge in monitoring. Mitigations: Proposed mitigation measures will be spread within the project implementation period and are predicated on hiring an experienced procurement specialist from the market for project implementation. The PCMU will be relied upon for consolidated project procurement and when approaching the international market. IFAD project procurement guidelines will prevail over the local framework. **Substantial** Moderate **Environment, Social and Climate Impact** Substantial Substantial Vulnerability of target populations and ecosystems to climate variability and hazards Substantial Substantial Risk: Floods, droughts, and unreliable rainfall patterns and dry spells are the main climate risks likely to affect project beneficiaries, with negative impacts such as low productivity, poor yields, increased pests and diseases, loss crops and livestock, diminished livelihoods, and exacerbated poverty. Mitigations: Through its activities, INReMP will promote rain water harvesting, renewable energy, fodder trees/shrubs establishment, manure management and composting, improved breeds, fodder conservation, resilient varieties, irrigation climate insurance, access to climate finance, pest and disease surveillance and management, carbon markets, nature-based enterprises etc. Greenhouse Gas Emissions Moderate Moderate Risk: Moderate Moderate Investments in the dairy sector are likely to result in increased GHG emissions due to poor manure and feed management, poor breeds, etc. GHG gases may also result from agrochemical use and the use of diesel or petroleum-based energy sources e.g., in processing, pumping water, cooling etc., GHG accounting at project design and completion stages, carbon credits markets.

Mitigations:		
Renewable energy for processing, cooling, pumping etc., composting and manure management, IPM and bio fertilisers use, efficient feed management, and improved breeds.		
Physical and Economic Resettlement	Low	Low
Risk:	Low	Low
INReMP's interventions will not lead to resettlement of farmers or project stakeholders. In exceptional cases, land maybe acquired from the community or farmers for infrastructure or other investments.		
Mitigations:		
FPIC will be undertaken, and consent will be documented, and appropriate compensation provided as per national laws.		
Community health, safety and security	Moderate	Moderate
Risk:	Moderate	Moderate
Increased agricultural productivity from the use of inorganic fertilisers and pesticides will result in increased use of agrochemicals. Poor agrochemical handling and application will increase the risks to the health of pesticide-exposed people and agricultural product consumers.		
Women's increased domestic workload continues to endanger their health and nutrition. This can be exacerbated by allowing women to participate in labour-intensive activities. There is a possible risk of gender-based violence.		
Mitigations:		
Promote use of organic fertilizers, integrated pest management and safe use of chemicals. The project will create awareness on GBV prevention, management and reporting and HIV and AIDS management using the protocols by working with the Ministry of Health. Communities will access education and awareness on nutrition education as part of other mainstream topics.		
Labour and Working Conditions	Moderate	Low
Risk:	Moderate	Low
The risks of child labour due to high dropout rates in potential project areas, working during school holidays, heavy labour burden on women, occupational health/injuries risks during INRM works, and poor working conditions of workers working with partners and service providers.		
Mitigations:		
The ECSMP matrix provides for elaborate mitigation and monitoring/surveillance measures to prevent/limit child labour, occupational health, and safety as well as poor working conditions. The project will also be promoting the GALs methodology at household level to encourage equitable sharing of labour roles at farm and household levels, to reduce the burden on women and create awareness on GBV prevention.		
Indigenous People	Moderate	Moderate
Risk:	Moderate	Moderate
Potential indigenous people living within project area.		

Mitigations:		
Community consultations to ensure the voices of IPs are documented and appropriately addressed. Appropriate measures/procedures will be applied in accordance with IFAD's SECAP procedures.		
Cultural Heritage	Low	Low
Risk:	Low	Low
Project interventions done in areas considered to be cultural heritage sites.		
Mitigations:		
Avoidance of sites considered to be of cultural heritage value, and in the unlikely event that this happens, chance find procedures will be applied in accordance with IFAD's SECAP procedures		
Resource Efficiency and Pollution Prevention	Substantial	Moderate
Risk:	Substantial	Moderate
Inappropriate use of agrochemicals will potentially lead to pollution of soils and water bodies. Droughts and heat waves will result in water scarcity and inadequate fodder, resulting in low yields. Inadequate access to clean water affects livestock productivity, especially during the dry season. Poor manure and feed management may result to increased GHG emissions. Poor management of animal waste as well as waste produced in facilities such as slaughter houses can contaminate water and soil as well as result in the spread of zoonotic diseases. Inefficient use of water and energy may lead to wastage.		
Mitigations:		
Renewable energy use, water and energy efficient technologies, manure and feed management, water harvesting, circular approaches to solid waste management, treatment of effluent discharge from slaughter houses, integrated pests and disease management, precision agriculture technologies for water efficiency, improved livestock breeds, fodder conservation, and animal health and husbandry etc.		
Biodiversity Conservation	Moderate	Moderate
Risk:	Moderate	Moderate
Agricultural land, forests and wetlands lands in the project sites are exposed to soil erosion and siltation. Deforestation is rampant as most households rely on wood for fuel. Loss of habitats to agricultural activities and human settlements is a major factor contributing to biodiversity loss. Poor farming practices especially on steeps slopes also lead to loss of vegetative cover and contribute to landslides.	533.310	
Mitigations:		
The project will promote agroforestry and reforestation, wetlands conservation, CSA, soil erosion control measures, fodder production and conservation, composting, circular economy approaches, nature-based enterprises, carbon markets and operationalisation of a water fund to conserve critical catchments in the project area		
Stakeholders	Low	Low
Stakeholder Grievances	Low	Low
Risk:	Low	Low
There are multiple activities in the project portfolio that may lead to stakeholder grievances, including engagement of IPs, targeting of households and inclusion of project beneficiaries, choice of counties, and selection of implementing partners etc.		

Mitigations:		
INReMP will train programme staff and senior County representatives to effectively engage stakeholders and provide feedback on IFAD investments. A triple-level grievance redress mechanism (GRM) has been developed to address and resolve grievances raised by various stakeholders in the project at community, county and national level. Stakeholders will be informed about the GRM and sensitized on how to log in complaints and follow up of the resolution of these grievances.		
Stakeholder Engagement/Coordination	Low	Low
Risk:	Low	Low
Government and stakeholders relevant to the project could feel they have been insufficiently consulted resulting in disagreement with some of the approaches employed by the project. Further, some social groups e.g., indigenous people, may report being excluded from accessing project opportunities and interventions.		
Mitigations:		
Stakeholders were consulted extensively during the concept note and programme design preparation process. The project has developed a preliminary stakeholder engagement plan (SEP) that will guide identification of stakeholders, their means of engagement, areas of engagement and when to be engaged. All the counties have strong foot hold in the implementation areas which is going to be leveraged to build multi-dimensional stakeholder engagement and synergy. An FPIC and IPAP will be developed to inform the engagement of indigenous people.		



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex 10: Exit Strategy

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

INReMP Exit Strategy

This annex presents a summary of the elements of INReMP exit strategy. The PCMU should use these elements to define a draft Exit Strategy following the IFAD Technical Note on Developing Exit Strategies in IFAD Projects. The elements provided herein are at different levels: a) community-led development; b) implementation approach; c) market linkages; d) establishment of different committees; e) establishment of commodity value chain transaction platforms; f) Mainstreaming of INReMP experiences and policies in government policies; and g) Payment for Ecosystem Services (PES), Tax Credit and Carbon Credit Schemes.

- a) Community-led Development Through Subcomponent 1.1, the INReMP target beneficiary communities are to be empowered and facilitated to be in charge of Project planning, implementation, and evaluation. This approach will not only increase the level of community ownership of the intervention, it will also enhance the feeling of shared responsibility within the community there by contributing to improved effectiveness of the Project. The Community-Based Organisations (CBOs) (such as County Community Forest Associations (CCFAs), WRUAs (Water Resources Users Associations (WRUAs), Ward Climate Change Committees (WCCCs), Farmer organizations (FOs) and Common Interest Groups (CIGs) and other CBOs) will be promoters and managers of socio-economic change and will be capacitated to actively participate in and benefit from INReMP activities. Also, INReMP has specific activities targeted are improving the capacities of all these CBOs; the findings of the capacity and systems gap analysis will be used to inform the capacity building interventions. These interventions will enable many of these CBOs to take over the different INReMP activities using a gradual phasing down approach. The gradual phasing down approach will start after the mid-term review (MTR) when the INReMP PCMU would gradually assign more responsibilities to the relevant CBOs. This will necessarily require formal arrangements/agreements between the Programme and the CBOs and such discussions would need to start at the MTR. The management committees of the different CBOs would be responsible for entering into formal arrangements/agreements with the Programme;
- b) Implementation Approach The INReMP implementation approach is such that the Programme will be fully embedded into government structures at the national and, especially, county levels. Through consultation of the target communities, these government structures, working through their frontline extension agents, will be involved in AWPB preparation, overseeing activity implementation and in monitoring implementation progress. Under Subcomponent 3.1, capacities of the respective government institutions will be variously strengthened to ensure effectiveness. All these government institutions will continue to exist long after INReMP activity completion. However, it is recommended that, from the MTR stage going forward, a deliberate effort be made by the INReMP management to bring it to the attention of the relevant government institutions that for all public good-related interventions, the concerned institutions would need to allocate resources for continuity once the Programme closes. The advantage of INReMP's implementation approach is that the different departments at the county levels are involved in the planning and implementation of activities. However, there will be a need for these departments to gradually take on more responsibilities from the PCMU in accordance with their mandates (the phasing-over approach). This will also require formal arrangements/agreements between the Programme and the different institutions. The heads of the relevant government institutions would be responsible for steering the arrangements/agreements with the Programme management.
- c) Market Linkage Market linkage and business orientation are a key consideration of INReMP under Subcomponent 2. As long as the forward and backward linkages to be

established between the target beneficiaries and off-takers and agro-dealers, respectively, prove to be mutually beneficial, they will form a basis for sustainability and exit of the Programme. The different intervention targeted at women and youth, such as establishment of nurseries for supporting agro-forestry, reforestation and afforestation, etc., will also be a key INReMP sustainability measure. Also, the combination of productivity/production enhancement (leading to surplus production) of the target commodity value chains and these beneficial market linkages imply increased economic benefits and improved livelihoods for the beneficiaries. This would be an avenue/incentive for continued safeguarding of the ecosystem in which they live – hence sustained natural resources management since the target beneficiaries would have increased financial capacity to maintain the benefits of environmental protection/restoration activities;

- d) Establishment of Different Committees As part of INReMP implementation, a number of committees will be put in place. Such committees include the infrastructure operation and maintenance committees for all the different infrastructure that the Programme will put in place, Ward Climate Change Committees and all the other committees associated with the different CBOs. The orientation of all these committees and preparing them for the effective and sustainable management of INReMP investments should start at the time of the investment itself so that they get well versed with the requirements of the different stages involved. The capacities of all these committees will be built variously for continuity after INReMP closure. Particular emphasis will be put on ensuring that representatives of all interest groups are part of the different committees. The management teams of the different committees will assume responsibilities for ensuring compliance with established processes and procedures;
- e) Establishment of Commodity Value Chain Transaction Platforms The Programme will facilitate the establishment of different commodity value chain transaction platforms for all target commodities and support their respective operationalisation up to the point of them being able to stand on their own. For effectiveness, this activity should start early, around the second year of Programme implementation, by sensitising the different stakeholders about the need to have structured processes for information flow and business linkages in a manner that is mutually beneficial to all parties. In the process, the platforms will bring farmers/producers and key stakeholders together to promote business linkages, financial inclusion and achieve financial independence for the farmers and major actors. Once properly established and operational, these platforms have been proven to be good exist and sustainability strategies. The heads of the different farmer/producer groups will be responsible for adequately representing their respective members in these platforms;
- f) Mainstreaming of INReMP experiences and policies in government policies As part of Programme implementation, specific interventions, under Subcomponent 3.1, will contribute to ensure that the needed supportive environment is availed during and after Programme implementation. Such interventions include: a) mainstreaming climate resilience into county plans, strategies, policies, regulations; b) finalization of the pending gender and youth policies, policy reviews and development of addendums to address gaps identified to achieve gender transformation and youth empowerment in the participating counties; c) support completion of National Agroforestry Strategy; etc. These policy engagement activities are also designed to promote the scaling-up agenda but this will necessarily require a deliberate effort to identify the needed resources or partnerships for the uptake. For effectiveness, Programme management should seek to frontload implementation of these activities to give an opportunity for identifying potential partnerships for scaling-up some of the successful interventions; and
- g) Payment for Ecosystem Services (PES), Tax Credit and Carbon Credit Schemes This intervention would ensure fair compensation for communities involved in environmental

conservation efforts, fostering sustained interest and participation in activities that safeguard the natural resources. The compensation would serve as an incentive for continued conservation efforts long after INReMP closure. The involvement of local community leadership and opinion leaders would contribute to effectiveness of this intervention.



Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex 11: Mainstreaming themes – Eligibility criteria checklist

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Mainstrean	Mainstreaming themes – Eligibility criteria checklist						
	■ Be gender transformative	▼ Be youth sensitive	■ Be nutrition sensitive	Prioritize persons with disabilities	Prioritize indigenous peoples		limate finance ptive capacity
Situation analysis	National gender policies, strategies and actors Gender roles and exclusion/discrimination Key livelihood problems and opportunities, by gender	National youth policies, strategies and actors Main youth groups Challenges and opportunities by youth group	National nutrition policies, strategies and actors Key nutrition problems and underlying causes, by group Nutritionally vulnerable beneficiaries, by group	National policies, strategies and actors Main groupings among PwDs Context-based barriers and opportunities for PwDs	☐ International standards, national policies, strategies and key IPs' organizations ☐ Main IPs communities, demographic, social, cultural and political characteristics ☐ Important livelihoods constraints and opportunities for IPs and their cultural heritage		
Theory of change	Gender policy objectives (empowerment, voice, workload) Gender transformative pathways Policy engagement on GEWE	Pathways to youth socioeconomic empowerment Youth employment included in project objectives/activities	Nutrition pathways Causal linkage between problems, outcomes and impacts	Pathways to PwDs' socioeconomic empowerment using a twin-track approach	Pathways to IPs' socioeconomic empowerment		
Logframe indicators	Outreach disaggregated by sex, youth and IPs (if appropriate) Women are > 40% of outreach beneficiaries IFAD empowerment index (IE.2.1)	Outreach disaggregated by sex, youth and IPs (if appropriate) Persons with new jobs/employment opportunities (CI 2.2.1)	Outreach disaggregated by sex, youth and IPs (if appropriate) Targeted support to improve nutrition (CI 1.1.8) Outcome level CIs CI 1.2.8 MDDW CI 1.2.9 KAP	Outreach disaggregated by sex, youth, disability and IPs (if appropriate)	Outreach indicator disaggregated by sex, youth and IPs IPs are > 30% of target beneficiaries		
Human and financial resources	Staff with gender TORs Funds for gender activities Funds for IFAD	Staff with youth TORs Funds for youth	Staff or partner with nutrition TORs Funds for nutrition	Staff with disability inclusion-specific TORs Funds for disability inclusion-related	Staff with IPs-specific TORs Funds for IPs related activities, including FPIC	IFAD Adaptation Finance	\$98,541,000
	empowerment index in M&E budget	activities	activities	activities (including accessibility)		IFAD Mitigation Finance	\$0
						Total IFAD Climate- focused Finance	\$98,541,000

ECG Remarks	Gender
	Nutrition
	Youth
	Persons with Disabilities
	Indigenous Peoples
	□ No social inclusion themes



Kenya

Integrated Natural Resources Management Programme

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Annex: INReMP value chain analysis final

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

INTEGRATED NATURAL RESOURCE MANAGEMENT PROGRAMME (INREMP) ANALYSIS OF DAIRY, POULTRY AND AVOCADO VALUE CHAINS IN KENYA

1.0 BACKGROUND

1.1 Introduction

The International Fund for Agricultural Development (IFAD) and the Government of the Republic of Kenya (GoK) are jointly designing the Integrated Natural Resources Management Programme (INReMP). The programme goal for INReMP is to 'contribute to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem'. The Programme Development Objective (PDO) is to enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups. The intervention seeks to address the identified natural resources management challenges in ten target counties by providing alternative livelihood opportunities for identified beneficiaries. The eight year programme will be implemented in 10 counties of Kenya: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori.

The programme builds on the performance of the past IFAD funded projects in natural resources management in Kenya, particularly the recently closed Upper Tana Natural Resources Management Project (UTaNRMP). To address the issue of poverty sustainably, INReMP seeks to promote livelihoods for the rural people while encouraging them to conserve natural resources. In this context, the programme plans to promote value chain (VC) activities. Interviews and discussions that took place with top government officials in the programme targeted counties concluded that interference with natural resources (land cover, forest, fresh water, lakes, rivers, springs, wetland, mountains, agricultural land, and wildlife) by smallholder farmers (SHFs) was linked to a lack of impactful livelihood activities in their life. Such interference included overfishing, deforestation for agriculture, mining, logging, and gathering of fuelwood, edible leaves and animals from the wild. It is expected that integrating livestock and commodity VC with other activities of the rural people will enhance their livelihood and reduce natural resources exploitation and hence reduce degradation. VCs, as engines of growth, can create added value in this effort. Five such values are incorporated into the following components: salaries for workers; a return on assets to entrepreneurs; tax revenues to the government; a better food supply; and a positive net impact¹ on the environment if well handled. The inclusion of value chain development in the INReMP follows this principle.

In light of the above, the design team, jointly, with government officials from the 10 counties selected five VCs (dairy, poultry, apiculture, avocado and vegetables) using the following criteria: i) those that were neutral or provided beneficial environmental impact; ii) the availability and willingness of SHF to engage in the livestock and commodity VCs (and had the potential for volume aggregation and up-scaling); iii) had structured markets existence of Small and Medium Enterprises (MSMEs) involved in production, processing, aggregating and marketing; iv) had the potential to contribute to household nutrition; and v) showed high potential for inclusivity (youth, women and people with disability). This VC analysis focuses on dairy, poultry and avocado value chains.

1.2 Objective of the value chain analysis

A VC analysis for dairy, poultry and avocado was carried out in 10 INReMP targeted counties to identify key activities, the main actors and challenges with the aim of making recommendations and prioritizing actions that would inform the design of INReMP objectives, implementation arrangements and outcomes including:

- Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action:
- Improved nutrition and inclusive and sustainable rural livelihoods; and
- Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

¹ FAO, 2021: Youth Centred Value Chain Analysis of Multi Value Chain in Siaya and Kakamega Counties in Kenya.

The specific objectives of the VC analysis were to:

- Identify major local, regional and, if applicable international, input/output market actors (consumers, sellers, traders, middlemen, etc.). Identify if there is an overlap of counties and/or farmer groups targeted by those market actors in order to potentially bundle service deliveries.
- Identify producer groups/production areas. Run a light assessment of the identified producer groups by collecting data on: type of organization, level of organizational maturity, number of farmers, financial health and if any services are provided to farmers.
- Assess the size of the market, volumes of sale, market integration and/or segmentation.
- Identify the weakest linkages and bottlenecks in the supply line and of opportunities to make it more productive (e.g. through improving the flow of knowledge and market intelligence).
- Identify the state of the enabling environment and improved ecosystems including mapping of relevant local stakeholders (government's institutions, service providers etc.) and their roles in leveraging and enhancing investments for the value chains in question.
- Understand the local market structure and key risks and barriers in the enabling environment (e.g. information asymmetry, security issues or policies affecting market access).
- Assess procurement mechanisms, market requirements (quality and other standards, conditions for products delivery) and prices; Identify existing service delivery actors active in these value chains, and other potential actors if relevant.
- Identify specific opportunities for women and youth to be involved in the value chains.
- Identifying local businesses (processors, manufacturers) relevant for producers to connect with and what they can offer to the producers.
- Identify new links that can be created and supporting existing links that can be improved upon.
- Analyze supporting functions that are required to make the value chain work, including both existing and
 missing support functions (e.g. infrastructure, information, and related services).
 Develop simple gross-margin analysis for the identified value chains. Identify financing opportunities along
 the selected value chains as well as associated risks.
- Prepare a "Market Assessment and Value Chain Analysis Report" as an annex to the PDR, including an Executive Summary with practical recommendations that can be used to inform the development of sound, sustainable, and locally appropriate strategies aimed at creating viable agricultural value chains that support targeted communities and households to improve their livelihoods and incomes using interventions that are beneficial to the management of the natural resource base. The set of recommendations include actions, partnerships, and investments that are necessary to ensure the sustainable production and off-take of the produce from the selected value chains.

1.3 Value chain analysis methodology

The value chain analysis used both primary and secondary data. Primary data was collected with a set of checklists to generate responses from a wide range of stakeholders including SHFs as primary producers, private sector players (cooperative societies, input dealers, MSMEs, financial institutions, large processors, etc.) and government agencies and officials (County Directors of Livestock and County Directors of Agriculture) in the targeted 10 countries.

Some of the other respondents included a) suppliers of inputs (animal sellers, seed for fodder, and veterinary medicine; b) milk aggregators and collectors; c) milk processors; d) dairy cooperatives; e) financial institutions; and, f) extension workers. They were interviewed to understand their roles, business linkages, gauge market size (volume of sales, frequency of sales, number of farmers served), level of financial linkages, level of business linkages, level of market integration/market segmentation, and market channels that support business operations as well as the challenges that affect efficiencies and effectiveness of service delivery to SHFs within the VCs.

In addition, the mission team held discussions with the IFAD and GoK funded Kenya Livestock Commercialisation Project (KeLCoP) which is targeting livestock value chains such as small ruminants (Sheep, goats for meat and dairy goats), local improved poultry breed, bee keeping and rabbit production. KeLCoP is being implemented in 10 counties and some of the counties have an overlap with INReMP counties such as Elgeyo Marakwet, Kakamega and Trans Nzoia Counties. Additionally, the mission met with the Japan International Cooperation Agency (JICA) funded Smallholder Horticulture Empowerment Promotion (SHEP Biz) Project to understand the

initiative and explore collaboration areas with INReMP. SHEP seeks to promote empowerment of farmers using farming as a business approach. SHEP has been implemented in 20 counties in Kenya and some of these counties such as Homabay, Kisumu, Nandi and Trans Nzoia are INReMP targeted counties.

Following the outcome of field visits and literature review, the value chain analysis identified six distinct enterprise nodes, comprising: input supply, production, aggregation or bulk collection, processing, marketing and consumption. Along the three value chains, the study also identified specific areas where interventions are recommended, and the actions that could be directed to improve the performance of the targeted value chains to improve farmers' income. Using a six-step process, specific issues were also identified which then led to a series of potential activities that could be promoted by INReMP to positively impact on farmers livelihoods and on good natural resource management practices. The six steps were the following:

- Step 1: Mapped the value chain and established the value chain model/flow chart
- Step 2: Descripted the VC activities, main actors, business models and marketing channels.
- Step 3: Analyzed the economies of business models to establish business case for interventions.
- Step 4: Identified value addition action points for SHF enterprises.
- Step 5: Established value addition actions/tasks (activities) and expected outcomes for INReMP.
- Step 6: Provided specific recommendations to mainstream the value chains in INReMP.

2.0 DAIRY VALUE CHAIN ANALYSIS

2.1 Current status of the dairy value chain in Kenya

Dairy farming is the single largest sub-sector of agriculture in Kenya. Dairy products, including the sale of live animals, contributes around 40% of the agricultural GDP and accounts for about 4% to the national GDP². The dairy sub- sector has grown at about 3 to 4 % annually and the sector continues to grow rapidly. As of 2021, the production of processed milk and cream in Kenya reached 510.5 million litres, increasing from nearly 460 million litres in the previous year. Furthermore, in 2021 around 1,026 metric tons (mt) and 176 mt of butter and cheese respectably were produced³. The sector contributes to livelihoods and to the food and nutritional security of many actors who are engaged along the value chain. It is estimated that smallholder farmers contribute over 80 percent of domestic milk production. Most commercial dairy production is concentrated in Central and Rift Valley regions of Kenya. However, dairy production remains a dynamic economic activity found in every county and sub-county of the country although not fully exploited (USAID, KCDMS, 2019)⁴.

About 1.8 million rural SHFs are involved in the dairy sector, with about 80% being milk producers delivering about 56% of all domestic demand. Although there are a few cases of improved breed-based production, production is mainly based on indigenous cows on open grazing. Productivity ranges from 3 to 5 liters per cow per day, which by most standards is poor. Farmers who own improved breeds and practice a zero grazing regime have recorded 8 to 15 liters per animal per day⁵. Poor access to finance and lack of extension services hinder access to better fodder which translates into lower milk production, despite the presence of around 690 dairy cooperative societies across the 47counties. With low value added and weak access to market channels, production is weak to produce more at a desirable quantity.

⁴ USAID, KCDMS Dairy Value Chain Assessment Report, 2019

² Ministry of Agriculture and livestock department, 2021: Kenya Diary National Plan

³ Statista: 22 Sept 2023 - https://www.statista.com/statistics.

⁵ FAO 2021: Youth Centred Value Chain Analysis of Multi Value Chain in Siaya and Kakamega Counties in Kenya.

2.2 Description of the dairy value chain structure

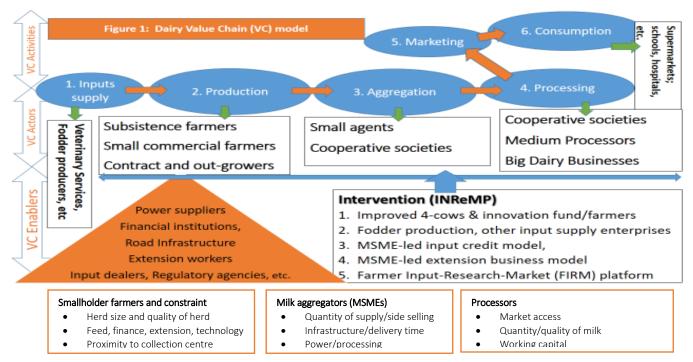


Figure 1: Dairy value chain map.

Note: Depending on the availability of fund, the INReMP design may consider the use of improved 2 cows per farmer (instead of 4 cows) in the smallholder milk production and poverty reduction model.

2.2.1 Dairy production

There are three categories of producers – smallholder farmers, small commercial producers and contract outgrowers around medium to large scale dairy firms in Kenya. In the INReMP counties, most of milk producers are smallholder farmers keeping largely local and cross breeds, with a few keeping pure exotic breeds. For instance, FAO (2021)⁶ reported that 42% of households in Kakamega County were engaged in dairy production. The smallholder farmers operated at subsistence level, keeping one or two cows local dairy cows as opposed to recommended minimum economic unit of four cows deemed suitable to run a profitable business. In addition, the farmers' breeds were mainly indigenous, non-dairy cows, which did not have sound attributes for milk production. The feeding pattern was mostly open grazing or in a few cases semi-open grazing. The farmers faced poor access to silage/fodder and the commercial ones pay a high cost for concentrate to supplement a zero grazing regime and to keep their cows healthy so as to yield a high milk production. Extension was weak and non-existent in most communities. Good husbandry practices such as a sound feeding regime, an appropriate animal spacing and milking regime, milking positioning, artificial insemination (AI) and vaccination were compromised by the farmers due to adoption of intensive grazing.

Productivity varies across counties, with farmers reported an average milk production of 3-5 Liters/cow/day. However, there are instances of higher productivity, reaching up to 7-12 liters/cow/day, especially for small commercial farmers in Trans Nzoia County. The higher levels of productivity were typically associated with farmers who have adopted improved breeds like Friesian, Ayrshire, and their crosses, adoption of semi-intensive or zero grazing systems, and often facilitated by access to extension. These commercial farmers demonstrate the potential for dairy as a profitable business, highlighting a key intervention point across the programme area.

⁶ FAO, 2021: Youth Centred Value Chain Analysis of Multi Value Chain in Siaya and Kakamega Counties in Kenya

Table 1: Summary of key production data for dairy value chain in the INReMP counties

Table 1: Summary of key production data for dairy value chain in the INReMP counties							
S/No.	Name of county	Main type of cattle kept	Main type of production system	Average milk production Per cow/day	Average number of animals/HH		
1)	Elgeyo Marakwet	Dairy cattle, Crosses, Sahwal, Zebu	Extensive and semi- intensive	3-4 liters/cow/day	3		
2)	Homabay	Local zebus and their crosses	Semi-intensive for dairy and crosses and extensive for zebu	5 liters for dairy and crosses 2.5 5 liters for zebu	2		
3)	Kakamega	Local Zebu, Friesian crosses, Ayrshire crosses, Guernsey crosses, Jersey crosses	Mainly extensive with some semi-intensive and few intensive	Zebu: 1.5 – 3.0 liters/cow/day Dairy and crosses: 5 - 7 liters/cow/day	2-4 for local Zebu and 1-2 for Dairy and crosses)		
4)	Kericho	Friesian, Ayrshire, Guernsey, Jersey, Crosses, Zebu	Mainly extensive with some semi-intensive and few intensive	3 liters/cow/day	2		
5)	Kisumu	Zebu, Indigenous, Improved cattle, Exotic	Mostly extensive	5 liters/cow/day for local. Up to 12 liters/cow/day for improved	3		
6)	Migori	Masaai Zebu, samburu Zebu, Winam Zebu, Kenyan Sahiwal, Friesian, Ayrshire, Jersey, Guernsey	Mainly extensive with some semi-intensive and few intensive	1 liter/cow/day	2		
7)	Nandi	Friesian, Ayrshire, Guernsey, Jersey crosses, indigenous	Extensive - 54%, Semi- intensive -40%; and intensive - 6%	5 liters/cow/day	3		
8)	Uasin Gishu	Friesian, Ayrshire, Crosses	Mainly extensive with some semi-intensive and few intensive	5 liters/cow/day	3		
9)	Trans Nzoia	Friesian, Ayrshire	Mainly extensive with some semi-intensive and few intensive	8 liters/cow/day	3		
10)	West Pokot	Friesians, Ayrshires and dairy crosses	Mainly extensive with some semi-intensive and few intensive	3 liters/cow/day	2		

Animal breeding: One of the major inputs into dairy enterprises is genetic material. This is mainly delivered through natural mating (involving bulls) and artificial insemination (AI). In the Republic of Kenya (RoK), AI services were fully privatized in 1992, hence government veterinary staff no longer inseminate cattle for free. Consequently, farmers meet the entire cost of service delivery for AI, whether provided by government staff or private service providers (USAID, KCDMS, 2019). Field visits in the INReMP counties revealed that there were private and public owned breeding farms in each county. It was also found that AI services were mainly provided by private firms who charged an average of Kshs 1,500 for local semen and Kshs 6,000 for sexed semen and that usage of these services was about 60% across counties. A county like Uasin Gishu supported farmers to access AI services through subsidies, therefore reducing the cost of these services. However, these services were not adequate due to high demand. Moreso, the AI services does not come with other extension advisory services.

Animal feeds: It was found that most SHFs fed their dairy animals using natural pastures under the extensive farming or grazing system. However, some farmers had established fodder production on their farms. These farmers obtained feed concentrates from agrovet shops located in each county. It was found that these agrovets produced the concentrate at low capacity due to the limited patronage from farmers who preferred open grazing instead of paying the high cost of concentrates. The study found that the high cost of feeds was a challenge to many farmers which impeded adoption of intensive or semi-intensive farming. It was noted that the average costs of feeds was Kshs 250/bale of hay, while corn silage costs Kshs 18/Kg and dairy meal costs Kshs 40/Kg. This presented an opportunity for INReMP to support farmers to establish feed concentrate and fodder production enterprises that can also be attractive to youth.

Animal health: The study found several animal health facilities and services available in each county such as: veterinary investigation laboratories; county government veterinary staff; routine annual livestock vaccinations carried out in each county; disease surveillance units and availability of cattle dips besides having cold chain facilities and equipment in each county. Nevertheless, it was noted that there was a high concentration of dairy animal diseases such as: Tick borne diseases like East coast Fever, Anaplasmosis & Babesiosis; Foot and Mouth Disease; Lumpy Skin Disease; Rabies; Anthrax; Black quarter and Endoparasites infestations — Especially liver flukes, which did not enable the animal to produce at optimum.

Extension services: It was found that the main source of livestock extension services by farmers were county staff and farmer cooperative extension staff. These extension personnel provided trainings and extension services such as individual and group trainings, on-farm demonstrations, field days and exhibitions and organizing farmer exchange visits. It was noted that although farmers found extension services to be effective in terms of quality of service, the number of extension officers were very few for each county and the extension coverage was very low averaging 1: 8,000 households, against 1:500 recommended by the FAO. For example, in Uasin Gishu County, which was a high potential dairy production county, there were only 16 livestock extension officers against an estimated 152,000 farmers.

 Table 2: Summary of key production challenges and opportunities

	ble 2: Summary of key production challenges and opportunities						
S/No.	Activities	Challenges	Interventions/opportunities				
1)	Breeding	Poor genetic makeup of the dairy herd, contributing to low milk productivity. Access to A.I is a challenge due to few inseminators and limited distribution of the inseminators and at times lack of equipment such as the liquid nitrogen tanks. High costs of AI, poor success rates/conception rates, long calving intervals and low level of adoption of AI. Genetic erosion due to use of poor-quality bulls.	 Improve farmers' access to quality and affordable AI and other breeding services. Support programs that will increase availability and the success rate of breeding technologies. Enhance adoption of good animal breeding practices 4 				
2)	Animal feeds	High cost of commercial feeds. Shortage of quality animal feeds and over reliance on natural pastures limiting productivity of animals Low level of knowledge and skills on animal feeding and feeds management, feed conservation and limited awareness of other non-conventional feed sources High cost of concentrates, low quality concentrates, and inadequate protein sources, Inadequate fodder conservation equipment and materials.	 Support the establishment of high-quality fodder and pasture formulation and production facilities by farmers. Capacity building on pasture establishment and conservation for youth and smallholder farmers Introduction of quality pasture and fodder seed Capacity building initiatives to address the issue of feed conservation and exposure to the alternative feed sources available for use. Access to modern mechanization equipment to process feeds for the market and on farm usage. Promote feed formulation at farm or cooperative societies (Scale) and to promote bulk forage cultivation and bulking by Co-operatives. Utilize open fields at county farms for feed production. 				
3)	Animal health	Cattle disease prevalence attributed to domination of extensive production systems. These diseases include tick borne diseases such as ECF, Anaplasmosis and ther diseases such as Foot and Mouth disease, Lumpy skin disease and anthrax. Limited access to veterinary services in some counties in addition to having few/inadequate animal health practitioners at both public and private levels.	Strengthen of disease surveillance and monitoring mechanisms in addition to farm biosecurity measures Capacity building of animal health practitioners and agrovets Rehabilitation of cattle dips Establishment of revolving fund for procurement of livestock vaccines and revival of tick control infrastructure Support for the purchase of motorcycles to enable animal health service providers reach farmers for vaccination activities.				

S/No.	Activities	Challenges	Interventions/opportunities
		High cost of veterinary services both curative and preventive Collapse of cattle dips due to high cost of acaricides & poor governance/management Infiltration of animal health service by untrained people and emergence of antimicrobial, and acaricide resistance due to their misuse by untrained personnel	Train and equip youth as Community Sprayers (in non-cattle dipping zones i.e. among zero-grazers) Establishment and enforcement of regulations on the provision of animal health services by untrained personnel, as well as the sales and distribution of falsified and substandard livestock medicines
4)	Extension services	Inadequate number of livestock extension staff Transport /mobility for livestock extension officers is a challenge. Inadequate technical skills on emerging dairy technology Extension is weak at the actor level	 Enhance the capacity of staff on emerging technology in dairy/capacity support to the Dairy Training Institute. Equipping extension agents for effective and efficient service delivery Support in the provision of mobility/transport for livestock extension officers. Empowerment of farmers and training of village-based youth to offer basic extension services and identify model farmers to offer advisory services at the village level as community-based vets. Optimization of ICT and other media – Radio, TV, and social media platforms- for delivery of extension messages to farmers. Promote the farmer field school approach to empower the dairy farmers. Make extension an enterprise and a business growth strategy for the service providers (micro, small and medium enterprises – MSMEs)

2.2.2 Dairy aggregation and marketing

Aggregation of raw milk from farmers is another major activity in dairy business. Aggregation is done through three marketing channels: 1) cooperatives societies (about 60%), 2) milk collection agents or vendors (about 30%), and 3) farmers selling directly to market (10%).

The first channel and most prominent channel is the cooperative society, set up to primarily aggregate milk from members, generate market volume, pasteurize milk and deliver to processors. Milk aggregation varies from cooperative to cooperative. In some cases, they aggregate milk and sell to medium or large processors. In this business model, the cooperatives end their operation at the aggregation level. In other cases, they go further and process milk into various products and then sell to consumers within their vicinity. There are also cooperatives that are involved in a combination of the two functions. Some cooperatives employ the services of milk collection/aggregation agents who visit farmers daily to milk the cow, collect the milk and deliver to the aggregation center, while some cooperatives receive the milk directly from the farmers. In each case, they serve as the market outlet for their members' milk.

The cooperatives visited during the design mission had an average of 3,000 members, but less than 10% of the members were active – delivering milk to the collection center, attending meetings, and paying their dues. All the cooperatives are formalized, but their management structures vary - some of them leased the management to a private person or firm while others are owner-managed. These cooperatives present the best option for INReMP to improve the performance of the SHFs dairy. Apart from the large processors, the cooperatives provide an alternative option to facilitate the establishment of reliable public-private-producer partnerships (4Ps).

Another channel of milk aggregation are the milk vendors. These vendors solely engage in raw milk aggregation. In this channel the vendors tend to aggregate milk from farmers and deliver to down-stream medium or large processors. They generally have a strong business linkage/partnership with the processors secured by contracts

in the chain. The vendors mainly work with trusted farmers who provide milk daily. In some cases, they provide limited extension services to the farmers to help collect and deliver milk to their client (processors).

Milk trade by farmers is also carried out informally and mainly involves use of 1) milk bars or kiosks; 2) mobile traders or hawkers; and 3) Sale of milk at farm gate. Some of these informal market actors are seasonal and only active during peak production. Some actors combine marketing functions like milk transportation and sale, milk production and aggregation, or transportation and trading. Most milk traders collect between 70 to100 percent of their milk directly from local farmers within their counties during peak production. In peak periods, traders concentrate on areas with relatively higher milk market surplus, then extend their catchment areas during the dry seasons. With extended catchment areas, the traders, in some cases, rely on transporters to deliver milk to them. This becomes difficult for them especially when the state of the road is challenging. Most traders sell directly to consumers in urban and peri-urban areas, while rural consumers get milk from producers directly. Some mobile traders and vendors collect milk from producers directly, others source it from milk bars and kiosks (who source the milk directly from farmers, i.e. farmers deliver to the milk bars) at the discounted price of approximately Kshs 3-5/Litre below the final consumer price. Most milk bars have small cooling facilities and handle larger volumes (50-350 litres) per day, as compared to mobile traders (10-100 liters) and vendors (less than 20 liters).

Value addition: Milk bar operators and some milk traders engage in some form of value addition and processing of fermented milk, (also referred to as 'maziwa lala or maziwa mala') and yogurt. There is great scope to promote milk value addition under INReMP interventions.

Table 3: Summary of dairy aggregation and market challenges and opportunities

	, , , ,	Challenges a					
S/No.	Activities	Challenges	Interventions/Opportunities				
1)	Milk collection and chilling	 Low levels of milk collection due to inability to mobilize enough farmers to deliver milk and therefore coolers operate below capacity. Some cooperatives have governance issues that affect smooth operations of milk collection and aggregation. Lack of marketing and entrepreneurial skills at farmer cooperative level and therefore lack of co-operatives' capacity to compete in the markets. Inadequate equipment at aggregation centres such as milk coolers, milk testers and high costs of operating the milk chilling equipment. Absence of sustainable marketing contractual arrangements with buyers 	 Capacity building of cooperatives on governance, marketing, and entrepreneurship skills Supporting farmer cooperatives with market linkages with buyers and processors Support farmer cooperatives with matching grants to acquire milk collection and chilling equipment such as milk coolers and other related equipment. Provide business develop training support to cooperative to integrate business model of extension in their functions and reposition extension as a business growth strategy in their dairy business operations. 				
2)	Selling and marketing	 Lack of milk quality assurance due to use of poor milk handling equipment (plastic containers) and lack of adequate milk testing equipment Prevalence of informality of milk selling and marketing combined with lack of organized market arrangements, Fluctuating milk prices combined with delayed payments to farmers. Post-harvest losses due to lack of milk value addition and transport challenges due to poor road infrastructure. 	 Capacity building of farmers on milk hygiene and milk handling besides enforcement of regulations on milk handling and hygiene. Partnership with county governments for prioritization of improvement of road network in dairy production areas. Supporting farmers to strengthen dairy cooperatives for milk aggregation and to increase the negotiation capacity with buyers for better prices and payment terms. Supporting farmer cooperatives to establish value addition activities through capacity building and use of matching grants. 				

2.2.3 Dairy processing

The field visit observed three categories of milk processors: small processors, medium processors and large processors. Processing of milk starts with quality testing using a lactometer for mastitis. The milk is also weighed.

Other activities mainly comprise milk chilling which is done mostly by farmer cooperatives using milk coolers, milk pasteurization (subjected to a temperature of about 70 degrees to kill any bacteria and then cooled down to 25 degree before being taken to an incubation room where it sits for 18 hours in the case of milk or 6 hours in the case of yoghurt before selling to the consumers); and packaging which is carried out by a few farmer cooperatives and private dairies; making of yoghurt and mala which is done by farmers, farmer cooperatives and private dairies and; production of cheese, ghee and butter which is done by private dairies.

Small processors: The small processors are mainly the cooperatives, even though these were established as medium processors. Most cooperatives in all the counties collect and then blend milk from their members, process and sell processed products to the market. Most of the cooperatives receive about 600 - 3000 litres of milk per day and operate at less than installed capacity. For the understanding of installed capacity, it is either the cooperatives have limited active members to supply the required volume of milk, or they have no market reach for the milk, or the power supply is erratic to run their processing facilities. Operating capital may also limit operations as indeed the milk collection mechanism itself may not be effective or efficient to run the business. One or all the issues may exist at any one time. The cooperatives supply processed milk products to their members, hospitals, schools, hotels, and supermarkets. Like the farmers, their profit margins are marginal to sustain the business of aggregation/processing.

Medium processors: The second category of operators are the medium processors. Some cooperatives fall in this category, and the majority of medium processors are private sector investors. They have an average installed capacity of about 10,000 liters per day and process at about 60% installed capacity. Some of them directly aggregate from farmers or engage Lead Farmers as milk collection agents. In some cases, they keep a limited number of dairy cows to bridge any unforeseen supply gap. Some of the notable medium dairy processors include: Elkeyio Dairies, Tarakwo Dairies, etc. This category of processors are potential partners to INReMP.

Large processors: The third category are the large processors. These are volume movers, usually called "market makers". They usually have financial resources to influence procurement/delivery of milk. They bulk raw milk which they pasteurize and process into various products. Some of them keep dairy cows and have up to 15 experienced dairy farmers who provide reliable supply of milk to the firm. They have an installed capacity of more than 10,000 liters of milk per day and process at over 80% per day. They also import milk to meet their market commitments. In Kenya, there are two major large processors who have national presence namely, New KCC Limited is owned by the Government of Kenya and Brookside Dairy Limited which is privately owned. The business model of the big processors can be replicated or scaled up – linking smallholder farmers to processors that can guarantee sustainable procurement of milk.

In the context of influencing strong private sector engagement in the dairy industry in Kenya and efficiently meeting performance, the large processors are strategically important to INReMP. They have reliable market outlets. They avert glut by bulking. The nature of their collaboration with INReMP will depend on their processing capacity, nature and quality of their services to dairy farmers, and disposition for a win-win partnership arrangement with smallholder farmers. INReMP will leverage the potentials of the large processors to establish a farmer-input-research-market (FIRM) transaction platform, which is a 4Ps model to resolve production and marketing issues around dairy operations in the targeted counties in Kenya.

Table 4: Summary of dairy processing challenges and opportunities

S/No.	Activities	Challenges	Interventions/Opportunities
1)	Milk processing	Low level of knowledge and skills by farmers on milk processing and value addition Low milk volumes to sustain milk processing throughout the year. High cost of equipment for milk processing combined with limited access to low-cost credit to start processing plants. High cost of electrical power (electricity) needed to run the processing facilities making it unviable	building value proposition to farmers to increase milk volumes.

S/No.	Activities	Challenges	Interventions/Opportunities
			 Establish farmer-input-research-market (FIRM) transaction platform to resolve production and marketing issues around dairy operations.

2.2.4 Dairy distribution

It was noted that there was a proximity issue between the dairy households and the collection centers in all the counties. An average of 5-10 km was reported during this study. Most farmers lacked the skill to keep their milk chilled sufficiently until the aggregator arrived, leading to self-delivery with associated risks such as a drop in quality which would results in low pricing at the milk collecting center.

It was further noted that milk producers also sell their milk directly to consumers (each farmer selling on his own in rural areas, mostly to neighbors and low-income urban dwellers, while some sell their milk to local vendors, mobile traders, milk bars and, to a minor extent, nearby schools, restaurants, etc.) Some farmers also split their milk and sold part of the milk through dairy cooperatives and producer groups, especially during the rainy season when production volume increases. Direct sales to neighbors provided a ready market and saved the farmer costs related to long distances to markets. Moreover, the farmers received relatively higher prices from direct sales to individual consumers, hence retaining a high proportion of marketing margins. In addition, some farmers participated in milk marketing by undertaking milk aggregation and transportation, running milk bars (or kiosks), and/or engaging in mobile milk trading or vending-a form of vertical market integration. It is notable that milk price varies with marketing channels, seasons, volumes, transport costs, and, in some cases, time.

Table 5: Summary of dairy distribution challenges and opportunities

S/No/	Activities	Challenges	Interventions/Opportunities
1)	Milk distribution	Limited number of specialized milk transportation trucks Long distance between farmers and collection centres combined with poor road infrastructure. Poor milk handling resulting to spoilage of milk during transit.	Capacity building of farmers on milk hygiene and milk handling besides enforcement of regulations on milk handling and hygiene. Supporting farmer cooperatives to acquire specialized milk transportation trucks through financial linkages with financial institutions. Partnership with county governments for prioritization of improvement of road network in dairy production areas.

2.2.5 Access to finance for the dairy value chain

While there exists a variety of formal credit services, access to financial services (credit facilities and loans) among dairy value chain actors is generally poor and the level of access to credit services from formal financial institutions stood at about 31% (FAO, 2021). Many farmers considered the terms for borrowing unfavorable and were, therefore, unwilling to take the risk.

The dairy value chain has also seen the increased use of buyers/processor supported credit plans including large scale processors underwriting equipment, feed suppliers and veterinary drugs for value chain actors such as buyers/traders or cooperatives, agrovets, stockists, and cooperatives extending credit to their members and recovering money from milk deliveries (the check-off scheme). Besides credit services, some microfinance institutions, such as Juhudi Kilimo, offered livestock insurance. There were also a number of Village Savings and Loan Associations (VSLAs) that offered table banking services to farmers and other value chain actors. Some financial institutions such as KCB Bank Limited, Equity Bank Limited and Cooperative Bank had also developed specialized loan and savings products targeted at livestock farmers. However, it is noted that participation of financial institutions in the dairy value chain is constrained by the high-risk levels often linked to high climate variability, the lack of collateral among small-scale actors, higher interest rates, and the general lack of information among key value chain actors. This hindrance calls for a reconfiguration of access to finance approach. INReMP should consider cashless credit model for smallholder farmers using the FIRM transaction platform.

Table 6: Summary of financial services challenges and opportunities

S/No.	Activities	Challenges	Interventions/Opportunities
1)	Financial services	 Limited number of financial services and products specially designed for the dairy sector. High cost of borrowing and stringent lending requirements. Risk averseness and lack of knowledge by farmers on the various financial services products. 	 Partnerships with financial institutions for product development Capacity building of farmers on financial literacy and credit preparedness Support farmer cooperatives to establish Savings and Credit Organizations (SACCOs) to provide alternative and cost friendly credit products to farmers. Consider cashless credit model for smallholder farmers using the FIRM transaction platform.

2.2.6 Main Actors in dairy value chain.

From the field work and the analysis in the preceding section, the main actors that facilitate farmers' activities in the milk production enterprise are: 1) breeders, 2) fodder producers, 3) feed producers, 4) milk aggregators/collectors, 5) extension workers, 6) processors and 7) transporters and milk traders.

As reported earlier, there is appreciable awareness on fodder production as an enterprise by the youth, as well as smallholder milk producers and government officials, but the cost of establishing a minimum economic unit of fodder enterprise (1 ha) was a limiting factor. The study met with youth who were involved in fodder enterprise. They can serve as the entry point for INReMP intervention programme in promoting fodder enterprises for SHF. They can serve as mentors to other youth. In this case, using a market system development approach, INReMP can partner with the youth to scale the success of fodder production in the targeted areas. By adopting a market system approach, the youth are partners (not beneficiaries) with INReMP and therefore must be paid for the services rendered to other youth in fodder enterprises.

In the area of feed/concentrate, there are feed firms with an installed capacity of about 150,000 mt per year that produce concentrates for dairy farmers. The firms produce at low capacity for the limited patronage from farmers who prefer open grazing instead of paying the high cost of concentrates. This category of players presents an intervention opportunity for INReMP to create a FIRM transaction platform and develop a network of dairy farmers around the feed producers and promote a cashless credit model for smallholder farmers to enhance access to finance. It is also another pathway to build the skills of feed processors in private sector extension provision for smallholder dairy farmers.

Another category of actors are the cooperatives societies. The field team visited and interacted with dairy cooperative societies who aggregate raw milk directly from farmers (often farmers bring their milk to the collection centre) and through milk collection agents for a fee. As reported earlier, they play little or no role in extension services. None of the cooperatives visited had embedded extension services which should be an integral part of their services to their members. An average of seven dairy cooperative societies exist in each count. Apart from the government that provides some level of extension services, extension is poor. This is a missed opportunity for the cooperative societies, which need assistance from INReMP to re-orientate their role to support member farmers. Membership of the cooperatives is within the vicinity of the cooperatives, no alternative profitable business models to expand outreach exists. Youth and women participation is low, consisting of less than 10% of the membership.

The cooperatives are confronted with some challenges including inconsistency in milk supply from members, under-utilization of installed capacity, poor logistics or lack of appropriate milk delivery mechanism to the center, erratic power supply and no access to working capital. This leads to an inability to: a) make prompt payment to the farmers at the point of taking delivery of their milk, b) support farmers to improve production practices, and c) upgrade or scale their processing facilities.

Field observations noted the need to expand the range of markets for farmers by clustering them around the cooperatives in their vicinity. It is also noted that there is a need to reorganize the cooperatives to include youth

and women, provide capacity building on business development to the members and link them to businesses to adopt alternative, but profitable business models. In this context, an innovative farmer-input-research-market (FRIM) transaction platform is necessary to encourage "farmer-private sector engagements".

2.2.7 Key deductions on areas of value addition in smallholder farmers' dairy business

Production activity in dairy is still subsistence based, rudimentary and relatively not business oriented. Productivity is between 3 to 5 liters of milk per cow per day. At this level, the sub-sector will not generate an interest for the youth because it is not economically viable for the households. This poor performance is attributed to weak extension, poor access to capital to buy feed concentrate and engage in intensive production. Secondly, "paddock technology" and fodder production enterprises are missing in the value chain. Thirdly, there is no process that brings farmers and market operators together to provide their needs. The cooperatives that were created by government intervention over 30 years ago lack the skill and business knowledge to facilitate this process. They may keep records, but they do not have the required farmers' base in their business record to meet milk supply. Most of them rely on their members to generate the raw milk, which is insufficient to operate a viable enterprise. However, the majority of rural households are involved in dairy activities, which is positive to INReMP as they seem to have the capacity to adopt new technologies that will come with the programme.

Milk aggregation, processing and marketing activities of the cooperatives are below standard. Most of them operate at less than 40% installed capacity. They have no embedded extension component in the management system to induce high milk production from farmers. The logistics in terms of milk delivery mechanisms is not efficient and often milk collection happens only once a day as opposed to twice for a well lactating dairy animal.

In the area of marketing, engagement with medium and large private sector milk processors is lacking for both the farmers and cooperatives. Only limited number of farmers are linked or tied to few large processors. The absence of large processors is a missing link in the smallholder dairy value chain development, because it constricts the dairy space and denies farmers of improved access to vital services (inputs, credit, market providers etc.) to enhance their business operations. In this scenario, farmers are not challenged to grow their business, because there is no target to meet.

Finally, the Cooperatives are challenged by power supply interruptions which limit their ability to sustainably take delivery of milk from their members. Women and youth are not sufficiently represented to bring new business initiatives on the discussion table and grow the cooperatives. Farmers are not well linked with large processors. They receive payment few weeks after delivering the milk to the collection center. With an improved payment system farmers may well be encouraged to invest in their own dairy business.

3.0 POULTRY VALUE CHAIN ANALYSIS

3.1 Current status of the poultry value chain in Kenya

Kenya has an estimated poultry population of 43.8 million and contributes 5.1 % of the total livestock value, with indigenous chicken forming the largest proportion of 75%, layers and broilers 24% while other poultry species make up 2 %. The poultry sector is highly diverse and produces more than 35,000 mt of meat and 1.6 billion eggs (FAO, 2019)⁷. Most of the indigenous chicken (IC) are found in rural settings while broilers and layers are kept in peri-urban and urban areas. In addition, the per capita consumption of meat was low, averaging less than 10 kg for any type of meat while that of eggs was 36 eggs compared to 200 in the world (FAO, 2017)⁸. According to world atlas 2019, Kenya produced 30,248 mt of poultry meat up from 24,000 mt in 2006. Poultry production has gained popularity in the developing countries due to its role in bridging the protein availability gap, economic empowerment of the resource poor segment of the society and fits well in the farming systems commonly practiced in these countries (KALRO, 2022)⁹.

⁷ Food and Agriculture Organization of the United Nations. (2019), FAOSTAT statistical database. [Rome] :FAO.

⁸ Food and Agricultural Organisation. (2017). Africa Sustainable Livestock (ASL) 2050 Country Brief, Rome, Italy

⁹ Challenges and opportunities in Improved Indigenous Chicken Production in Kenya, KALRO, 2022

The IC contribute 71% of the total egg and poultry meat produced in Kenya and therefore impact significantly on the rural trade, welfare, and food security of smallholder farmers (Nyaga, 2007)¹⁰. Most rural families in Kenya (an estimated 75%) keep chicken a poultry production in Kenya and in particular IC production plays a significant role in the economic and social life of these resource poor households, contributing to cheap source of animal proteins and cash income. The IC is present whenever there are human settlements, and their economic strength lies in their low cost of production which is a characteristic of the resource-poor rural households. They are highly adapted to the harsh scavenging conditions, poor nutrition, and disease and/or parasite challenges (Magothe et al., 2012)¹¹.

3.2 Description of the poultry value chain structure

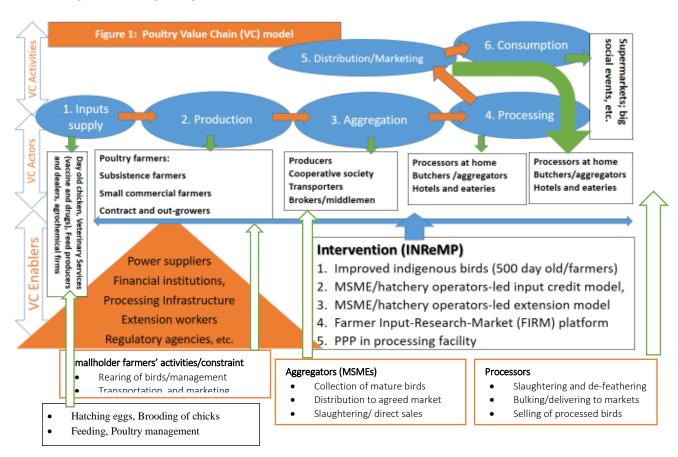


Figure 2: Poultry value chain map

Note: Depending on the availability of fund, the INReMP design may consider the use of improved 100 birds per farmer (instead of 100 birds) in the smallholder production and poverty reduction model.

3.2.1 Poultry production

The main entry point for poultry value chain is the hatchery operation, which gives rise to day old chicks. Hatchery operators who are mainly in groups receive fertilized eggs from parent stock operators. They incubate and hatch the eggs and deliver day old chicks to growers. The most popular poultry breeds produced by smallholder farmers were the local Indigenous Chicken (IC), improved indigenous chicken including the Kuroiler, Kenbro, KARI Kienyeji varieties, crossbreeds and exotic layers and broilers. Due to their resilience to harsh weather, high cost of feed and related economic reasons, improved indigenous breeds have become the major poultry enterprise for most

¹⁰ Nyaga, P. (2007). Poultry sector country review-Kenya. University of Nairobi, Kenya FAO, Animal Production and Health division, Emergency Centre for Trans-boundary Animal Diseases Socio Economics, Production and Biodiversity Unit.

¹¹ Magothe, T. M., Okeno T. O, Muhuyi., W. B. and Kahi A. K. (2012).Indigenous chicken production in Kenya: Current status. World's Poultry Science, 68(1):119-132. https://doi.org/10.1017/ S0043933912000128

households in the rural communities. It takes between 20 to 21 days to incubate and hatch the eggs. Some of the hatchery units visited during the design mission were producing at about 60% installed capacity. For instance, SkyRider Hatchery Operators in Migori County has an installed capacity of 5000 eggs, but due to power failure, the business operates at 40 percent installed capacity. The business which is owned and operated by a youth cooperative society with a membership of about 15 persons has an average of 85% success in hatchery operation.

In production, day old chicks, feeds, vaccine, and drugs constitute the major inputs. For the improved indigenous birds, the farmers take delivery of the day old, keep them carefully in secure places for about 2 weeks and move to semi-intensive production system. In this system, depending on the capacity of the grower/farmer, and age of the birds, they are feed with factory compounded or commercial feeds for about one week before they are released to a secure environment to search for food, until they attain market weight. At this stage, some farmers blend the commercial feeds with traditional feeds such as maize grains and vegetables to mitigate the high costs of commercial feeds while other farmers who have to financial ability tend to completely go with traditional feeds. Farmers submitted that total use of commercial feeds is not economically feasible as the cost of feed is not affordable by them.

In terms of poultry house, the smallholder farmers usually have a poultry house where the birds are fed or return to after daily feeding. The quality of the poultry house depends on the financial capacity of the grower. In some cases, the poultry house is non-existent while in other cases it is an improvised enclosure within the living house, where the birds return after each day until the following day when they set out again to fend for themselves. There are cases where farmers provided one of the rooms in their house for the birds to avoid theft and related risks. Depending on the level of care and quality of management practices (feeding, disease control, sanitation, etc), it takes about 5 months for the birds to grow to a market weight.

The major challenge faced by poultry farmers is high cost of feed, which tend to force the farmers to sell their birds before maturity, resulting in loss of money. Not many feed millers exist, but those under operations like Homa Bay Poultry Feed Millers are working at less than 50% installed capacity. There is also issue of market access for the growers. The growers have a wide range of options for selling mature birds, but depending on the scale, they either sell to individuals, or aggregators or engage in offtakers arrangement. Majority of the poultry farmers visited rely on individual, because they lack scale to engage with aggregators/offtakers. There are cooperative societies and private sector investors that have been facilitated by the Government of Kenya (GoK) to enhance market access for growers, but fragmentation of farmers does not generate the required volume of birds to make that arrangement work. The GoK had also encouraged smallholder farmers to form cooperatives to enable them generate market volume for the processors. While some cooperatives exist, they are weak and yet to gain traction to meet government objective. This is a point of intervention for INReMP. Another major challenge is weak extension service delivery. Apart from the veterinary services from the private sector, extension is weak to provide additional information that could enable the growers enhance their performance. Another limiting factor is poor access to quality chicks. At the supply side (hatchery) of the chicks, there is high cost of establishing and running a hatchery unit occasioned by erratic power supply, high cost of power and poor quality of eggs as well as chicks mash. Some growers source their day old chicks from neighboring country like Uganda. To address the challenge of cost and availability of chicks, the government of some counties like Kakamega government runs a subsidy programme, which supply farmers with improved one-day-old chicks of Kenya Agriculture and Livestock Research Organization (KALRO) breed- at half price of Kshs 50 per chick targeting youth groups (60%) and women groups (40%). This subsidy programme intervention is very strategic for INReMP. While a pure subsidy support may not be a solution from the macroeconomic point of view, the INReMP will liaise with the programme to explore areas of partnership/improvement. The VC analysis also noted that feed mills and hatchery operators are major actors in the smallholder poultry enterprise. They are strategic for the smallholder farmers. Their presence calls for the establishment of a Farmer-Input Research-Market (FIRM) transaction platform to bring players together to provoke a dynamic poultry business in the 10 counties of INReMP's intervention. Depending on the decision of the stakeholders, either FIRM platform can be established around the hatchery operator or feed miller.

Across the INReMP program area, poultry production exhibits variations. While the average household keeps around 5 birds, productivity differs based on factors such as species and production systems. Farmers engage in raising a mix of indigenous, improved Kienyeji, broilers (meat production), and layers (egg production). Some farmers employing improved breeds, semi-intensive or intensive systems, and potentially better management practices, achieve higher outputs, reaching up to 300 birds per broiler cycle, and 3,000 eggs per cycle. Conversely, counties dominated by extensive systems show lower productivity, averaging 2-3 birds and eggs per household daily. The summary of findings are as presented in the table below.

Table 6: Summary of key production data for poultry value chain in the INReMP counties

Table 6: Summary of key production data for poultry value chain in the INReMP counties					
S/No.	Name of county	kept	Average no. of birds/HH	Average poultry products production	Main type of production systems
1)	Elgeyo Marakwet	Indigenous, Improved Kienyeji (Premium , Sasso ,Kalro, Rainbow Rooster)	8	50 birds/cycle; 300 eggs/cycle	Mainly extensive, but with some semi-intensive & intensive production
2)	Homabay	Indigenous Improved Indigenous Commercial layers Broilers	39 birds (Most are kept for both meat & eggs)	100 birds per cycle for improved indeginous 50 eggs per household	Semi-intensive
3)	Kakamega	Commercial layers, Broilers, Kroilers, Rainbow rooster,Sasso , Kalro improved Kienyeji,Brown Kienyeji	4-10 birds	20 – 50 birds/year; 50 – 200 eggs/year	Extensive (free range), Semi- intensive, Intensive
4)	Kericho	Indigenous, Improved Kienyeji, broilers layers	3	2 birds/cycle;1 egg/house/day	Mainly extensive, but with some semi-intensive & intensive production
5)	Kisumu	Indigenous poultry; Improved Kienyeji	20	30 birds	Semi intensive
6)	Migori	Sasso, Kroiller, Rainbow rooster, Luo indigenous, Kuria indigenous	3	300 birds/cycle; 50 eggs/cycle	Mainly extensive, but with some semi-intensive & intensive production
7)	Nandi	Indigenious, Improved Kienyeji, Broilers, Layers	12	15 eggs /laying cycle; 8 chicks /clutch; 50 birds /cycle	Free range (65%), Semi intensive (25%), Intensive (10%)
8)	Trans Nzoia	Indigenious, Improved Kienyeji	5	50 birds/cycle	Intensive Extensive
9)	Uasin Gishu	Improved Kienyeji	2	3 commercial birds 3eggs	Scavenging/Extensive (70%), Semi intensive (20%), htensive (10%)
10)	West Pokot	Indigenous, Improved Kienyeji, Exotic breeds	5	100 birds/cycle; 4 eggs/household/ day	Mainly extensive, but with some semi-intensive & intensive production

Poultry feeds: Poultry farmers in INReMP counties utilize various types of feed, including commercially produced feeds, homegrown concentrates, and kitchen scraps. Commercially produced feeds, often preferred for their balanced nutrient content, can cost anywhere between Ksh 2,500 to Ksh 4,000 per 70kg bag, depending on the quality and location. However, affordability remains a major challenge for many farmers, especially those relying solely on commercially produced feeds. This often leads to dependence on homegrown concentrates and kitchen scraps, which, while cheaper, may lack the necessary nutrients for optimal bird growth and egg production. Additionally, the inconsistent availability and quality of homegrown feeds and kitchen scraps can further hinder productivity.

Poultry health: There are various challenges reported across the programme area. Newcastle disease, Coccidiosis, and Avian Influenza are the most frequently mentioned concerns. To address these concerns, farmers primarily rely on a combination of traditional remedies, vaccinations provided by government extension services, and medication purchased from private agro-vets. However, limited access to veterinary services, particularly in remote areas, coupled with the high cost of medication and vaccines, often hindered effective disease prevention and control. This resulted in poultry mortality and economic losses for farmers, highlighting the need for improved access to affordable veterinary services, medication, and vaccines, alongside potential training on biosecurity measures and early disease detection to enhance poultry health management in the program area.

Table 7: Summary of key production challenges and opportunities

S/No.	Activities	Ch	alleng	es				Interventions	opportuni	ities				
1)	Poultry	•	Low	adoption	of	improved	poultry	 Capacity 	building	and	training	of	farmers	on
	Production		breed	ls and gene	etics			modern	poultry pro	ductic	n technol	logie	es	

		Poor hatching and brooding practices Low adoption of modern poultry production technologies such as improved housing and ventilation, feeding and watering systems and climate control systems	Supporting farmers to establish hatcheries through matching grants. Emphasis on 100 bird as a minimum economic unit of production for youth and women
2)	Poultry feeds	 High cost of feeds and limited access to quality feeds Unavailability of raw materials for feeds production Competition for feed with the dairy sector and humans and high aflatoxins levels High cost of concentrates, low quality of concentrates and inadequate protein 	Capacity building of farmers on on-farm feed formulation Support feed production by supporting farmers to acquire feed mixers Establish mechanism for feeds inspection and analysis. Seek alternative source of feed such as homemade rations or climate smart production of feed such as using the Black soldier fly. Link producers to feed firms and explore a partnership arrangement with major actors to promote input credit for farmers
3)	Poultry health	 High incidence of diseases such as Newcastle Disease (ND) leading to mass loss of birds Insufficient knowledge on farm biosecurity measures Low technical knowhow on poultry disease prevention and management Limited access to poultry vaccines and medicine Poultry drugs miss use by unqualified veterinary service providers especially in the agrovets leading to Antimicrobial resistance. 	 Enhance disease surveillance and monitoring. Enhance routine and timely vaccination. Capacity build farmers on disease control and poultry health management Support agro dealers in stocking and maintaining the cold chains towards the vaccines and drugs for poultry. Promote new versions of vaccines that do not require refrigeration such as the thermo stable vaccines. Train and support community-based vets to periodically vaccinate the chicken on behalf of farmers.

3.2.2 Aggregation and Marketing

It was established that cooperative societies exist for aggregation and market linkages for poultry farmers, with a few private sector aggregation centers in some counties. These cooperatives provide services like capacity building/training for members, supplying day-old chicks and feeds, linking farmers to feed suppliers, and facilitating market linkages for eggs and live birds. However, the actual collection/bulking and aggregation capacity of most cooperatives appears to be very low or not utilized currently. Apart from basic collection, dressing and packaging of birds, most cooperatives do not provide other value-addition services like cold storage, transportation, and further processing, which are identified as gaps.

While some cooperatives have slaughterhouses for processing birds, most marketing is done through informal channels like farm-gate sales, middlemen, hotels, and auctions, with limited formal market arrangements between farmers/cooperatives and big players in the poultry industry. Specific figures on installed aggregation capacity were generally not provided, Kisumu County reported an average installed capacity of 3500 egg crates in cooperatives, with actual utilization being low at around 100 crates on average. The findings highlight the need for strengthening farmer cooperatives through capacity building, infrastructure development and organized production-marketing systems to effectively aggregate, add value and market poultry products.

Farmers primarily use informal methods and channels to market their poultry produce. The main market channels include farmgate sales, sales to middlemen, hotels, auctions, and individual consumers. The existing markets include supermarkets, other farmers, retail and wholesale shops, institutions, open-air markets, and hotels. The main buyers are other farmers, individual consumers, and institutions. The demand level for poultry products is generally reported as high.

The market requirements vary, with demand for raw eggs that are clean and of good quality, as well as preference for products from indigenous chicken breeds like improved kienyeji varieties with yellow shanks. The average prices ranged from Ksh 450 per crate of eggs to Ksh 600 per kg for meat. There are limited formal marketing

arrangements between farmers and big market players in the poultry industry. Most farmers are unable to meet stringent market requirements like guaranteed volumes and quality standards.

Key challenges faced by farmers in marketing include lack of organized market systems, lack of bargaining power, lack of cold storage and proper transportation facilities, and lack of value addition. Recommendations to address these challenges include formation of cooperative societies, establishment of cold storage facilities, enforcing animal welfare standards for transportation, capacity building on marketing, value addition and developing structured markets.

Table 8: Summary of poultry aggregation and market challenges and opportunities

S/No.	Activities	Challenges	Interventions/Opportunities
1)	Marketing of poultry products for farmers	 Absence of aggregation centres and lack of col chain facilities Marketing of poultry products by farmers is disjointed and dominated by middlemen since farmers lack bargaining power. Price fluctuation due to absence of group marketing arrangements 	 Formation and strengthening of poultry cooperative societies. Support to the establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements or matching grants.
2)	Marketing of poultry by the cooperatives	Poultry cooperatives lack adequate facilities or outlets for sale of poultry and poultry products. Lack of facilities for processing and value addition of poultry products Low volumes to meet the bigger market demand and weak linkages with the market/buyers.	Strengthening of poultry cooperative societies and partnership with county governments for establishment of marketing outlets Support to the establishment of poultry processing facilities with adequate cold storage capacity through PPP arrangements or matching grants.

3.2.3 Poultry processing

The data revealed very limited processing activities for poultry across the INReMP program area. Processing is mainly restricted to simple slaughtering and dressing of birds, with some instances of individual poultry vendors/farmers doing slaughtering and distribution to customers. The utilization of processing facilities is extremely low or non-existent, with a few owned by county governments or cooperatives not being operational currently. While markets exist for processed products like hotels, supermarkets, food vendors and institutions, most of the poultry trade involves unprocessed whole eggs and live birds. Major gaps identified include the lack of poultry processing/slaughtering facilities, inadequate volumes/supply for commercial processing operations, lack of necessary equipment and skills for processing, and limited awareness on food safety concerns related to unprocessed poultry products.

Table 9: Summary of poultry processing challenges and opportunities

S/No/	Activities	Challenges	Interventions/Opportunities
1	Poultry processing	Lack processing equipment and absence of poultry abattoirs. Limited technical skills and lack of the required skills in processing, packaging, and marketing of processed Lack of cold storage Inadequate volumes for processing and lack of cold storage	 Support the establishment of poultry slaughterhouses or slabs and processing facilities including cold storage facilities in the counties. Capacity building of farmers on poultry processing and value addition

3.2.4 Training and health services in poultry value chain

The main source of extension services for poultry farmers is government extension staff, private extension officers, and development programs. However, there is a shortage of extension personnel in most counties, with staff to farmer ratios as low as 1:8000 households in some areas. The type of training and extension services provided include group trainings, farm visits, demonstrations, field days, exhibitions, and occasional farmer exchange visits.

The approaches are generally considered effective in terms of quality but low in coverage due to limited personnel across the counties.

Table 10: Summary of training and extension challenges and opportunities

S/No/	Activities	Challenges	Interventions/Opportunities
1)	Training and extension	 Inadequate number of public extension staff and lack of adequate transport/mobility of existing staff Inadequate technical skills on emerging technology by extension staff Inadequate resources to be used in provision of extension kits. 	 Capacity building of extension staff on emerging technology in poultry production Support for provision of mobility/transport such as motorcycles. Empower farmers and train village-based youth to offer basic extension services and identify model farmers to offer advisory services at the village level.

3.2.5 Access to finance for the poultry value chain

In terms of financing methods used, farmers rely primarily on their own savings, loans from financial institutions like savings and credit cooperatives (SACCOs), micro finance institutions (MFIs), as well as informal sources like merry-go-rounds and village savings groups. Regarding financial products available, there are general agricultural development loans and products like "poultry loans" offered by some financial institutions and SACCOs to farmers. However, there appears to be a lack of specialized, tailor-made financial products specifically designed for poultry farmers across the regions.

Table 11: Access to finance for the poultry value chain, challenges, and opportunities

S/No.	Activities	Challenges	Interventions/Opportunities
1)	Financial services	 Limited number of financial services and products specially designed for the poultry sector. High cost of borrowing and stringent lending requirements. Risk averseness and lack of knowledge by farmers on the various financial services products. 	for product development Capacity building of farmers on financial literacy and credit preparedness

3.2.6 Main Actors in the Poultry Value Chain.

From the field work and the analysis in the preceding section, the main actors that facilitate farmers' activities to grow birds to maturity are: 1) hatchery operators, 2) feed millers, 3) aggregators/collectors, 4) veterinary service provides and, 5) sector extension workers. Hatchery operators are very strategic in improved indigenous poultry production enterprise. Some of the hatchery operators visited like SKYRIDER POULTRY FARM in Migori County operate at 40% installed capacity of 5000 per week -hatching 2000 eggs with 80% success against a weekly demand of 8000 chicks. The firm has strong business linkage with smallholder farmers, but it is not able to meet its weekly demand for lack of steady power supply and high cost of feeds and drugs. The firm is not formally registered despite the high volume of business. The infrastructure (incubation/hatchery center) is tight for any expansion. The firm is also battling with reliable sources of high quality eggs to enhance farmers' patronage and scale its business operations. Despite these challenges, the operators have good farmers' outreach/clientele. However, the VC analysis team observed some gaps in the business relationship with the farmers – extension, input credit and financial literacy and business linkages to key services like insurance are lacking in the entire business relationship. There are 7 of such hatchery units in Migori alone. The team noted that an average of 4 of such hatchery operators exist in each County. The presence of the hatchery operators is a great opportunity for INReMP to cause an innovative poultry value chain in Kenya, hence they should form the entry point for the INReMP. They are closer to the farmers, occupy the larger space in the VC and understand the chemistry of poultry enterprise better than the farmers and other operators. They serve as the MSMEs and can facilitate business alliance with other key stakeholders in the poultry VC. They are well positioned to provide private sector extension services, input credit, and financial literacy as well as facilitate insurance for commercial bird growers. INReMP will encourage them to expand their farmers' base as a business growth strategy. In the context of market system approach, the INReMP will partner with the hatchery operators in the 10 counties to leverage the investments to scale poultry production enterprise for smallholder farmers in the targeted areas. By adopting a market system approach, the hatchery operators are partners (not beneficiaries) with INReMP and therefore must be paid for the services rendered to smallholder farmers. Unless where necessary, there is no need to invest in more hatchery units, rather INReMP should endeavor to strengthen the existing ones. The INReMP can develop the Farmer-Input-Research- Market (FIRM) alliance platform around the hatchery to create an instrument of scale and sustainability of VC in Kenya.

In the area of feed millers, not many of them exist. However, the few ones that are operational (like Feed Mill Centre in Homa Bay County) have the capacity to provide feed to thousands of poultry farmers if strengthened to operate at full capacity. The feed mill in Homa Bay has an installed capacity of about 240 metric tons of various feeds (day old chick mash, growers mash and layers mash) per month, and a market demand of 150 metric tons per month, but it produces at 6 to 10 metric tons per month. There is issue of power, limited knowledge in business development to engage and take advantage of the presence of other stakeholders to improve on its business operations. For instance, record keeping is poor, no deliberate effort to grow farmers' clientele, no reliable market arrangement to promote/market their products, no financial access to fix/maintain their machines. There is no cluster of grain production producers to achieve a sustainable and cost-effective supply of raw materials for the mill. Those challenges call for a transaction platform to bring players together and improve access to services. Despite those shortcomings, it is has the capacity to influence activities in poultry business and impact positively on the productivity and income of large number of smallholder poultry farmers, if supported with business development training and linkages.

Another category of actors are the aggregators. They are mainly cooperatives societies facilitated by the government or non-governmental organizations and currently engaged in aggregation of birds to generate enough volume for processors. They are farmer owned and membership managed societies. They visit farmers in their houses, buy and aggregate mature birds and sell live birds to processors, or hospitality industry players. As said earlier, the activities of the cooperatives/aggregators are weak. They play little or no role in extension services. None of the cooperatives visited had embedded extension services which should be an integral part of their services to their members. They are faced with inability to meet offtaker commitment due to lack of consistency in the supply of mature birds, which is also caused by limited number of farmers in their membership/business network. Additionally, they lack aggregation facility and financial resources to hold the birds for some days until they generate the desired market volume. A temporary holding facility is necessary in birds' aggregation and could be seen as a point of intervention for INReMP in the poultry value chain for the aggregators, subject to establishing the economic viability of the facility. Some cooperatives reported limited profit margin that does not encourage the members to support the business of aggregations. To reduce cost of operations, there is need to strengthen the cooperatives with business development knowledge to enable them to adopt alternative, but profitable business models. For instance, establishing a holding stock facility to generate volume and meet market demand also requires investments in the upstream and linkages with other business. This missing link is one of the banes of the poultry VC in the counties visited. In this context, an innovative business alliance platform between the hatchery operators, cooperatives and farmers is necessary and can be an enetry point for INReMP for the aggregators. The INReMP should re-assess the cooperative model for viability/sustainability. Where doubt the INReMP can run two pilot models - cooperative-based model and private sector own model.

3.2.7 Key deductions on areas of value addition in smallholder farmers' poultry business

Production business in poultry is still subsistence based, mostly not business oriented. Productivity is at an average of 20 birds per farmers. First, at this level, the sub-sector will not generate an interest from the youth because it is not economically viable and adds little if anything to their households. This poor performance is attributed to limited or non-existent extension services.

Second, for most producers there is a business disconnect between the hatchery operators and growers, which hinders productivity at the farmers levels and affect scaling of hatchery business in the targeted counties. Some of the hatchery operators are operating at less than 30% installed capacity for lack of power supply and capital.

Thirdly, most cooperatives lack the required farmers' base and business knowledge to enable their members improve productivity and income. They lack extension knowledge or the skill to enhance their farmers' clientele to

meet market demand. Finally, the Cooperatives are challenged by power supply interruptions which limit their ability to advance to processing or create a niche market for themselves.

4.0 Avocado value chain analysis

4.1 The state of Avocado value chain in Kenya

Avocado (Persea americana) is an economically important tropical fruit crop that has seen rapidly rising global production and demand in recent years. Kenya was the 6th highest avocado producer worldwide in 2020, with an output of 322,556 mt¹². Over the past decade, Kenyan avocado production increased by a remarkable 216%, growing from 149,241 mt in 2011 to the 2020 level¹³. However, yields declined by nearly 38% in 2015 compared to the prior year, likely due to drought conditions and reduced acreage. The main avocado cultivars grown in Kenya include the Hass and Fuerte varieties. Hass avocados account for most Kenyan exports due to their intense flavor, creamy texture, and excellent quality attributes. When ripe, Hass avocados turn a deep purplish-black color. In contrast, the elongated Fuerte type is preferred for processing but does not soften as much when ripe, making it harder to determine maturity. Kenya has over 40 avocado cultivars adapted to its diverse growing regions. Besides Hass and Fuerte, other popular varieties include Keitt, Reed, Booth 8, Simmonds, and Pinkerton. Hass seedlings are typically grafted onto rootstocks like Puebla, Fuerte, Duke, G6 and G7. The expansion of Kenyan avocado production has been driven by rising export demand, particularly for the Hass cultivar which comprises most exports.

4.2 Description of the avocado value chain structure

Avocado value chain map

¹² FAOSTATS 2020, https://www.fao.org/faostat/en/#data/QCL

¹³ FAOSTATS 2020, https://www.fao.org/faostat/en/#data/QCL

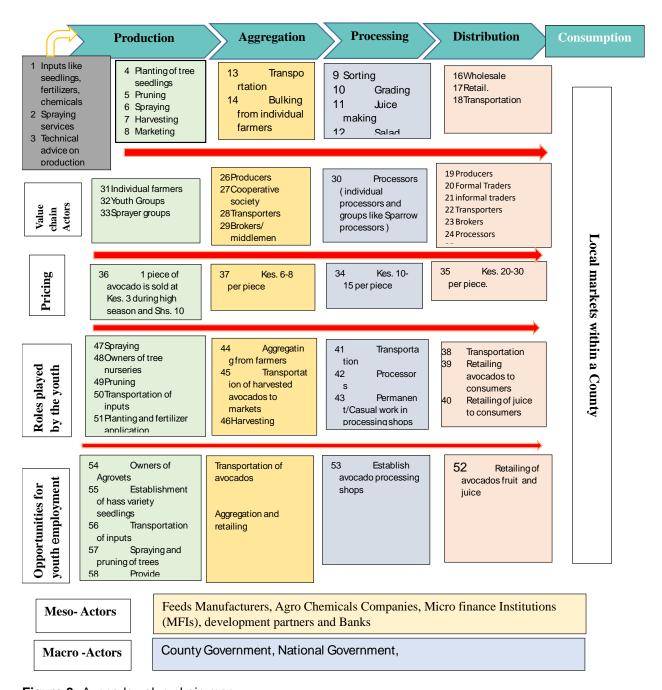


Figure 3: Avocado value chain map

4.2.1 Avocado Production in INReMP Counties

The number of farmers engaged in avocado production varies across the counties, ranging from a few hundred to tens of thousands. For instance, in Kakamega County, there are 1,525 farmers growing avocado, while in Trans Nzoia County, the number stands at 26,594 farmers. In Kericho County, there are approximately 25,000 farmers engaged in avocado production, and in Nandi County, there are 3,623 farmers.

The main avocado varieties grown by farmers in these counties include Hass, Fuerte, Pinkerton, Jumbo, and local varieties. The Hass variety appears to be the most widely cultivated, with many farmers reporting its production. For example, in Kericho County, 25,000 farmers are growing the Hass variety, with an average of 20 trees per farmer. In Nandi County, out of the 3,623 farmers, 1,395 are growing the Hass variety, with an average of 25 trees per farmer. The average area of land put under avocado production by farmers varies slightly across the counties. In Kakamega County, the average area is 0.25 acres, while in Kericho County, it is 0.2 acres. In Trans Nzoia County, the average area is also 0.25 acres, and in Uasin Gishu County, it is 0.25 acres. The average number of trees per farmer ranges from around 15 to 25. Regarding the volume of avocados sold, there is significant production across several counties. For instance, in Trans Nzoia County, approximately 8,960 metric mt of avocados are sold per year, while in Kakamega County, the volume sold is around 2,000 mt.

Table 12: Summary of key production data for avocado value chain in the Programme area

S/No.	Name of county	Main varieties of avocadoes grown	Average no. of acre of land //farmer	Average avocado trees/ farmer	Percentage of farmers using Certified seeds	Percentage of farmers using improved inputs	Average volume of avocados sold/year/c ounty
1)	Elgeyo Marakwet	N/A	N/A	N/A	N/A	N/A	N/A
2)	Homabay	N/A	N/A	N/A	N/A	N/A	N/A
3)	Kakamega	Hass Fuerte Local Varieties	0.25 acres/farmer	925 trees/farmer	60%	40%	2000 mt
4)	Kericho	Hass	0.2 acres/farmer	20 trees/farmer	75%	70%	1,438 tmt
5)	Kisumu	N/A	N/A	N/A	N/A	N/A	N/A
6)	Migori	Hass Fuerte Local Varieties	161	71 trees/farmer	20%	5%	50 tmt
7)	Nandi	Hass Fuerte Local Jumbo	0.2 acres/farmer	Hass – 25/farmer Fuerte – 20/farmer Local Jumbo – 8/farmer	30%	20%	5,250 mt
8)	Trans Nzoia	Hass Fuerte Pinkerton	0.25 acres/farmer	20 trees/farmer	90%	Fertilizers- 80%; Pesticides- 50% Biopesticides- 30% Organic manure- 55% Pheromone traps- 25%	8,960 mt
9)	Uasin Gishu	Hass Fuerte Varieties	0.25 acres/farmer	15 trees	100%	100%	N/A
10)	West Pokot	Hass Fuerte Local Varieties	0.5 acres/farmer	15 trees/farmer	50%	50%	N/A

4.2.2 Use of inputs in avocado value chain

From the data, use of certified avocado seedlings among farmers varies across counties, ranging from around 20% in some counties like Migori to as high as 100% in others like Uasin Gishu. In Kakamega, 60% of farmers use certified seedlings, while in Kericho, the level is 75%. The main sources of these certified seedlings include certified nurseries within the counties as well as outside, such as in Muranga, Uasin Gishu, and Trans Nzoia counties. Some farmers also obtain seedlings from local nurseries and private companies like Kakuzi and Olivando

Kimili nurseries. The level of usage of other inputs like fertilizers and pesticides also differs among counties. In Nandi, around 20% of farmers use fertilizers and pesticides, while in Trans Nzoia, 80% use fertilizers and 50% use pesticides. Kericho County reports a 70% usage level for fertilizers and pesticides. Organic manure is commonly used, with 55% of farmers in Trans Nzoia using it.

The cost of certified avocado seedlings ranges from KES 130 to KES 400, depending on the source and stage of growth. In Kakamega, the average cost is KES 350 per seedling, while in Kericho, it is KES 300. The cost of other inputs like fertilizers can be significant, with a 50kg bag of planting fertilizer costing around KES 6,500 in Kericho and KES 5,200 for CAN fertilizers in Nandi.

4.2.3 Crop health in the avocado value chain

The main avocado health and disease concerns reported across the counties include pests such as fruit flies, false codling moths, thrips, mites, and scales. Common diseases affecting avocado production are anthracnose, root rot, fruit rot, stem rot, powdery mildew, and cercospora leaf spot. In Nandi County, false codling moth, thrips, scales, root rot, and anthracnose are significant concerns, while in Trans Nzoia, pests like fruit flies and diseases like anthracnose, root rots, and leaf spots are problematic. The prevalence levels of avocado diseases vary, with some counties reporting moderate to high levels during certain seasons. In Kakamega, the prevalence is around 15%, while in Kericho, it is estimated at 10%. In Nandi, root rot is common in young orchards due to the use of uncertified seedlings, and anthracnose is prevalent during the wet season.

To manage avocado health, various facilities and services are available in the counties. These include plant clinics, as reported in Trans Nzoia and West Pokot, where farmers can access advice and support. Private spray service providers are available in some counties like Migori and Kakamega. Extension services, joint crop-livestock advisory services, and the use of print and electronic media are also employed to disseminate information on pest and disease management.

However, some challenges exist in managing avocado health, such as inadequate knowledge and skills on pest and disease identification and management, as well as the availability of counterfeit pest control products in some areas.

Table 13: Summary of Avocado value chain analysis challenges and opportunities

S/No.	Activities	Challenges	Interventions/Opportunities
1)	Access to seedlings and inputs	Unavailability of quality. grafted seedlings and certified nurseries not within the reach of farmers High cost of seedlings & inputs (fertilizers and pesticides). Insufficient technical know-how on Avocado production. Inadequate access to mother blocks for rootstock and scions. Uncertified (roadside) nursery operators. Diseases and pests, Low production due use of locally available seedlings	Supporting the establishment of certified nurseries close to the farmers. Subsidize inputs to the farmer through E-Voucher subsidy program. Capacity building of Co-operatives, CIGs and individual nurseries on nursery management. Enhance quality control by mandated institutions e.g. KEPHIS, HCD, Department of Agriculture. Supporting local agro vets to stock specialized avocado inputs like pheromone traps. Register mother blocks for scions and establish mother blocks for root stock. Empower youth to engage in Seedling production.
2)	Adoption of GAPS	 Lack of knowledge on GAP and good agronomic practices and inadequate training on GAPS. Slow adoption of new technologies and resistance to change. Low transition to sustainable/regenerative agricultural practices like organic farming. 	Capacity building on GAPS and global Gap certification Continuous sensitization and demonstration/training of the technologies. Development of simple and affordable technology, provision of inputs subsidy, Establishment of commercial Fruit tree nursery in the county.

S/No.	Activities	Challenges	Interventions/Opportunities
			Train more youth on clean & Certified seedling production by linking to AFA
3)	Fruit tree health	Unaffordable soil testing, inadequate skills on IPM, importation of diseased seedlings. High cost of agro chemicals. Inadequate technical knowhow on nutrient application and pest and disease control. Counterfeit pest and disease control products. Inadequate knowledge and skills on avocado pests and diseases control Lack of adequate water for the avocado fruit trees Inadequate knowledge on post-harvest handling	Capacity building on soil sampling and analysis, IPM and support to the provision of affordable soil testing kits Promote and license nurseries, sensitize on IPM. Establishment of agro chemicals subsidy using E-Voucher programme Strengthen extension services by deployment of agronomists to provide advisory services. Revitalize and adequately fund plant clinics. Support provision of water harvesting and water conservation technologies Capacity build farmers on integrated pest management and disease control and relevant technologies of post-harvest management of avocadoes

4.2.4 Aggregation and marketing of avocado produce

Across the INReMP programme counties, farmers utilize various marketing channels to sell their avocado produce. Brokers and local traders are the most common channels, as reported in Kakamega, Uasin Gishu, and West Pokot Counties. Farmer cooperatives offer an alternative marketing avenue, seen in Nandi County, while contract farming arrangements exist in specific areas, like Trans Nzoia County. The limited presence of operational aggregation centers is a recurring theme, with most counties acknowledging their absence or nascent stages of development. Existing avocado cooperatives, like the Nandi Avocado Farmers' Cooperative Society (NAFCS) in Nandi County, provide valuable services such as aggregation, marketing, capacity building, and market access linkages. However, addressing gaps in grading, packaging, storage, and market channels remains crucial for these organizations.

Table 14: Summary of data from dairy cooperatives in the INReMP counties

S/No.	Name of county	Average number of members in cooperatives	Average no. of aggregation centers	Volume of Avocados sold /year	Other services provided by cooperatives
1.	Kakamega	Data not available	Data not available	2000 mt	N/A
2.	Kericho	Data not available	Data not available	1,438 mt	Capacity building and market access linkages
3.	Migori	Data not available	Data not available	50tonnes	N/A
4.	Nandi	862	1	5,250 mt	Aggregation of produce Marketing of produce through exporting companies and oil processing companies Capacity building of growers on market requirement
5.	Trans Nzoia	Data not available	Data not available	8,960 mt	N/A
6.	Uasin Gishu	Data not available	Data not available	Data not available	Data not available
7.	West Pokot	Data not available	Data not available	Data not available	Data not available

Farm gate prices vary significantly depending on the county and market. Kakamega County reported local sales ranging from KES 10-15 per fruit, while export quality fetches KES 80 per kg in Nandi County. Conversely, West Pokot County reported an average of KES 7 per kg. Local markets can also offer higher prices, an example been Kakamega prices reaching KES 20-30 per fruit. Both local and overseas markets exist for avocados produced in

the programme counties. Major towns within these counties serve as local markets, with Migori County supplying urban centers across Kenya. The overseas export market holds significant potential, with Kericho County highlighting high demand in China, Europe, and the UAE. Trans Nzoia County identifies exporters like Keitt, Biofarms, Sunripe, and KTL Farming Ltd as key players in this market. Stringent quality requirements pose a challenge for accessing the lucrative export market. There is need to emphasize the need for specific criteria, including dry matter content, shape, pest/disease control, and pesticide residue levels for the export market. Additionally, Kakamega highlights the demand for organic Hass avocado fruits. Maintaining quality is a challenge, as reported in Nandi County, where premature harvesting by middlemen can lead to fruit rejection in the export market.

Table 15: Summary of marketing of avocado produce challenges and opportunities

		Challanasa	¥		
S/No/	Activities	Challenges	Interventions/Opportunities		
1)	Marketing of avocado	 Lack of market and price information, poor packaging, no refrigerated storage facilities, poor harvest, poor transport, unorganized mkt. Low quality, Low prices, unstructured markets. Middlemen take advantage of farmers, hence low prices. Compromising harvesting maturity by middlemen resulting in rejection of fruits. Unstructured local markets. Poor transport and storage, high post-harvest losses, low market prices. Fluctuating market price locally and internationally, quality (size, shape, texture, chemical residues, sunburns, pests, and diseases), breach of contracts (side selling), inadequate volumes to service customer orders. Group governance and dynamics. There is no organized marketing channel as every farmer sells his/her own produce. Exploitation by Middlemen on poor pricing, Lack of cold storage facility, poor infrastructure, lack of credit facility. High post-harvest losses 	farmer CIGs and cooperatives, establish pack house, farmer trainings. Improve quality, new markets, strengthen market channels. Capacity building of farmer cooperative to export fruits and value addition (processing into avocado oil). Provision of cold storage facilities. Stabilization funds (GMRs), formation of county aggregation centers, capacity building of farmers, and enforcement of contracts. Capacity building on governance and group dynamics. Enforcement of contracts. Training of farmers and construction of aggregation		

4.2.5 Processing of avocado

A limited processing characterizes the avocado value chain across most counties in the INReMP programme area. Counties like Kakamega, Nandi, and West Pokot currently reported no avocado processing activities. Despite the lack of established processing, several counties acknowledge its potential. Kakamega County identifies opportunities for avocado oil extraction, cosmetic products, and animal feed production, although these activities are not yet operational. Similarly, Kericho County recognizes the potential of the cosmetic industry for processed avocado products, but highlights challenges like limited raw material availability, processing facilities, and community awareness. Migori County presents the sole instance of basic processing activities within the programme areas, with local food hotels utilizing avocados for juice and fruit salads. In Trans Nzoia County, limited processing exists in the form of oil extraction from avocados deemed unsuitable for export due to not meeting stringent quality requirements. These findings reveal the nascent stage of avocado processing within the INReMP programme counties. While potential opportunities exist, significant development is needed to establish a viable and sustainable processing sector that adds value to the avocado value chain.

 Table 16: Summary of financial services challenges and opportunities

S/No/	Activities	Challenges	Interventions/Opportunities
1)	Processing	Lack of equipment, inadequate skills. Availability of raw material. Lack of processing facilities. Lack of community awareness. Inadequate funding to support processing infrastructure. Inadequate capacity to operationalize processing plants. Low volumes for processing. Low quality of the produce. Lack of processing knowledge. Limited products marketing. Low value addition technology Lack of agro-processing plants	 Capacity building, provide information on equipment. Increase avocado production. Establishment of processing facilities. Establishment of avocado oil processing facilities. Adequate funding. Capacity building on adoption of new technologies. Develop legal/regulatory framework (policies). Stabilization funds (GMRs). Formation of county aggregation centers. Enforcement of contracts. Trainings and credit facility for startups. Promotion of value addition, capacity building and provision of avocado processing equipment. To enhance Acreage & production to build volumes enough for processing.

4.2.6 Training and extension services in avocado production

The programme counties rely on dedicated crop extension staff to provide training and support to farmers. However, the number of personnel varies considerably across these counties. Kakamega County has 15 staff, while Nandi County has 50, and Trans Nzoia County boasts a significantly higher number with 102. Migori County also reports having 60 dedicated crop extension personnel. These extension services utilize diverse methods to deliver training and information to farmers. The use of farmer field and business schools is prevalent, as reported in Trans Nzoia County. Additionally, the traditional training and visit model remains in practice, alongside demonstrations, field days, shows, and exhibitions for knowledge and skill dissemination. Nandi County exemplifies a comprehensive approach, employing field days, demonstrations, various training programs, agricultural shows and exhibitions, exchange tours, field visits, and group visits as part of their extension activities. Similarly, Migori County offers a range of services including group training, individual farm visits, farmer field schools, plant clinics, farmer-to-farmer learning events, and exchange visits. Recognizing the limitations of traditional methods, some counties, like Kakamega, advocate for the adoption of e-extension technologies to supplement physical services. There is need for increased training facilitation and widespread adoption of new technologies throughout the avocado value chain.

Table 17: Summary of training and extension challenges and opportunities

S/No/	Activities		Challenges	Interventions/Opportunities
1)	Provision of extension	training and	 Limited e- extension technology. Insufficient Training facilitations. Insufficient Technologies throughout the value chain. Inadequate extension officers. Limited financial resources. Inadequate staff facilitation e.g. transport. Inadequate refresher training on emerging issues and enterprises. Inadequate extension staff. Inadequate funding. Knowledge is dynamic and new technologies arise. Limited staff mobility Low staff farmer ratio. Inadequate budgetary allocation. Need for more mobility – Motorbikes & vehicles. Vast and rugged terrains in some parts of the County. 	 Provide extension support. Government grants/Donor funding. Increase Training facilitations. Uptake of technologies. Youth and Women groups' formation and training in every ward. Establishment of avocado nurseries manned by Youth and Women attached to co-ops for management and marketing. Utilize agricultural extension staff attached/employed by co-ops to promote avocado value chain. Recruitment of more extension officers. Increase allocation of resources. Capacity building of staff on emerging technologies. Increased funding to agriculture. Continuous capacity building of extension staff. Engaging private service providers.

S/No/	Activities	Challenges	Interventions/Opportunities
			 Trainings should be continuous and tailor made to suit the current situation for effective extension provision. Provision of transport Motorcycle and motor vehicle Need for more training focusing on skills transfer especially on new technologies & Innovations.

4.2.7 Financing services in avocado value chain

Avocado farmers within the INReMP programme counties primarily rely on self-financing methods to fund their operations. This is evident in counties like Kakamega, West Pokot, and Uasin Gishu, where savings serve as the main source of finance. Some counties report the use of alternative individual methods like table banking, merry-go-rounds, and loans from banks. The availability of financial products specifically designed for avocado farmers is limited across the programme areas. Kericho County mentions the Agricultural Finance Corporation (AFC) products as options, while Nandi County reports contract farming arrangements with companies like Abexagro offering financing options. However, dedicated financial products targeting the avocado value chain are generally scarce. Farmers face significant challenges in accessing financial services, hindering their ability to invest and expand their operations. Lack of collateral, making it difficult to secure loans, is a recurrent issue across multiple counties. Additionally, high-interest rates on available loans, as reported in Migori and Kericho, further discourage farmers from seeking formal financing.

Table 18: Summary of financial services challenges and opportunities

S/No/	Activities	Challenges	Interventions/Opportunities
1)	Financial services challenges faced by avocado farmers	 High interest loans. Lack of collateral. Poor record Keeping. Few financial/insurance products to support farmers. No financial institution has a product tailored for avocado farming. Farmers hesitant to take loans especially from the mainstream financial institutions 	 Provide seed capital to coops. Formation of Farmer SACCOS Training farmers on record keeping. Encouraging saving culture by farmers. Funding to farmers through farmer organizations, cooperatives. Government support by reducing interest on loan. Reduce requirements for collateral. Introduction of an avocado fund. To develop a product for avocado value chain suitable for each node of the value chain. Provision of subsidy to farmers, donor support, International and local grants. To enhance financial literacy among farmers Promote other forms of resource mobilization e.g. table banking

5.0. CONCLUSION AND RECOMMENDATIONS

Value chain analysis for dairy, poultry and avocado reveals that these enterprises are viable interventions for farmers across the ten INReMP counties. The findings has been supported by gross margin analysis in the annex. However, it is noted that support to these value chains are needed especially on the supply side (both production and aggregation) to improve efficiency along the production chain to enhance productivity and income for SHFs.

Investment in the production side driven on effective extension service and improved efficiencies in aggregation and processing enterprise nodes can lead to an expansion of opportunities in these value chains, which would provide jobs for youth and women and meet domestic demand. The proposed business models have the potential to contribute to the local and national GDP growth. The establishment of an innovative public-private-producer partnership (4Ps) will facilitate bundle services (access to inputs, finance and sustainable market to smallholder

farmers) as well as provide steady flow of produce to market operator and scale implementation successes. Based on the findings of this value chain analysis, the following specific impactful recommendations proposed.

5.1 Recommended interventions for INReMP

Subcomponent 2.1: Improve both Production and Productivity:

- Adopt 2- improved breed dairy cow (IBC): Promote the use of improved breeds for dairy farmers (the
 "2-IBC-based production model"): The project will need to identify sources of improved breeds and through
 the cooperatives, facilitate business linkages with improved breed suppliers, investors and dairy farmers.
 Once the linkage is established, the INReMP can introduce and support the 2-IBC business model as a
 minimum economic unit of investment for smallholder dairy farmers.
- 2. **Promote Innovative Capital Stimulation Fund:** Introduce the concept of an Innovation Capital Stimulation Fund (CSF) to help provide start-up capital for:
 - Dairy Farmers (at a ratio of 3:1) to adopt improved breed-based farming; 3 parts from INReMP while 1 part from the farmer
 - Youth (in the ratio of 3:1) to adopt fodder production enterprise and; 3 parts from INReMP while 1 part from the farmer
 - Cooperatives (1:2) to add or upgrade specific enterprise lines: 1 part from INReMP and 2 parts from farmers.
- 3. **Promote improved feeding system:** Pilot a zero grazing programme by financing a fodder production enterprise.

The programme will use two business models for the pilot.

- a. The first business model involves provision of 2 cows from the CSF to a youth who is interested in commercializing fodder. The INReMP design will determine the number of youth to that will benefit from this support
- b. The second business model involves integrating fodder production in the operations of dairy farmers. The farmers will receive CSF support to establish a paddock of 2 cows in one location (cluster arrangement) to enable them to benefit from one source of water. The cluster arrangement will present business opportunity to other services providers who will take advantage of economies of scale in the clusters to make services available to the farmers. The farmers will individually establish 1 ha of fodder farm each with own fund while the INReMP will fund 2 improved cows each, water and paddock infrastructure.
- c. Provide capacity building support to youth and stallholder farmers in feed production and mix including feed formulation at farm or cooperative societies, bulk forage cultivation and bulking as an enterprise, and utilization open fields at county farms for feed production.
- 4. **Provide capacity support to milk collection center:** Provide capacity business and technical building to aggregators including cooperative societies involved in milk aggregation to improve the quality of services to smallholder farmers such as extension at the production side offered to members; and to enhance/scale their processing and marketing operations.
- 5. Adopt 100 birds per farmer as an economic unit of investment to bring the poor out of poverty: Promote the use of improved breeds by giving 100 improved indigenous birds to a youth on a cost share basis at the ratio of 3:1, representing 3 part for the project and one part for the youth. The project will need to identify reliable hatchery operators to provide the chicks to the farmers and facilitate business linkages amongst the parties (hatchery operators, feed millers and farmer groups).
- 6. **Promote Innovative Capital Stimulation Fund:** Introduce the concept of an Innovation Capital Stimulation Fund (CSF) to help provide start-up capital on a cost share basis for the:
 - Youth farmer (at a ratio of 3:1) to adopt improved indigenous breed-based farming; 3 parts from INReMP and 1 part from the youth farmer.
 - Cooperatives (1:2) to add or upgrade specific enterprise lines, such as processing facility once there is guarantee to generate high production volume of birds from the groups: 1 part from INReMP and 2 parts from farmers.

- 7. Establish holding stock facility: Partner with willing cooperatives or private sector aggregators to facilitate the establishment holding stock for the mature birds for the aggregators or cooperatives to generate supply volume and meet market demand. This is a missing link in the VC that hinders effective poultry enterprise in the rural communities. INReMP may also apply the use of CSF to induce the start-up of this aggregation business models.
- 8. Support private sector-led implementation by developing the capacity of private service providers to provide required production support services such as AI services, private sector extension providers including improved seeds producers for fodder, improved cow and poultry breeders, poultry hatchery operators, feed millers and other relevant micro, small and medium enterprises (MSMEs) to enhance the quality of their services to smallholder farmers and facilitate scaling the success of intervention. In the context of leveraging resources in the ratio of not less than 1:10 from the private sector to enhance productivity and income of smallholder farmers, the INReMP may catalyze investments for those private sector extension providers by providing not more than one portion of the cost implication of improve performance in private sector extension.

The MTR may revisit parties' contribution, number of cows and number of birds in favour of programme performance. The CSF is seen as a facility that helps INReMP to leverage investments from farmers, youth and processors to enable them to re-activate strategic parts of their business. Depending on available fund, the INReMP design will determine the number of cows and birds, number of farmers and beneficiaries' selection criteria.

B. Subcomponent 2.2: Improve Value Addition and Market Linkages:

- 1. Identify, and partner with, MSMEs/big businesses (including input dealers and produce/milk aggregators) willing to provide input, extension and market services to farmers to execute their business plans. Strength their capacity to provide quality business development services to the farmers, including business planning, record keeping, quality enhancement and marketing of their produce.
- 2. Work with aggregators to develop a "Business Growth Strategy" that hinges on "knowing your customer" (KYC). Through the KYC approach, aggregators will maintain reliable farmer records to guide their service provision including input and extension information to their farmer clientele.
- 3. Organize farmers in groups of common interest and liaise with their leaderships to establish the "Firm-Input-research Market" (FIRM) transaction platform. Through the FIRM platform, link farmers and aggregators to financial institutions to provide credit to small farmers through the MSMEs to purchase credit. The FIRM platform will be a public-private producer partnership (4-IPs) and an innovative dairy platform and industry enabler that brings the producers, aggregators, buyers, input dealers, government and other services providers together to transact business, promote linkage, facilitate input/credit access, share knowledge, resolve conflicts, influence policy and scale the success of implementation. Operationally, it is a multi-stakeholders transaction forum that meets periodically to facilitate business linkages among members, provide services to farmers and ensure steady flow of milk to the market (processors). It is a key scale-up system of INReMP.
- 4. Engage with private sector players to promote MSME-led aggregation model that allows milk buyers to support SHFs with input credit, extension and advisory services to meet quantity and quality standards. Establishing the FIRM platform takes care of this requirement.
- 5. Support a contract business model/template to enable agreed quantity and quality of produce to drive production at the farmer level and establish confidence in financial institutions to lend credit to farmers/aggregators.
- 6. Provide processors with business development support various business/specific enterprise development training; business growth strategies, incorporating extension in business, trust and confidence building, and environmental compliance, among others to avoid natural resource degradation.

ANNEX I: GROSS MARGIN ANALYSIS FOR SELECTED DAIRY, POULTRY AND AVOCADO ENTERPRISES

1) Feeds formulation for Bhoma Rhodes

Table 1: Gross margins analysis for producing and marketing of Boma Rhodes -Suitable youth enterprise

Item	Wet season	Dry season	Annual
Yield per acre (bales)	300	300	600
Price per bale (Ksh)	200	250	225
Gross output (Ksh)	60000	75000	135000
Variable costs			
Planting materials/acre (Ksh)	7000	-	7000
Fertilizer	5000	5000	10000
Harvesting and baling cost/acre	11000	11000	22000
Hired labour (Land prep)	4000	-	4000
Family labour	1500	1500	3000
Total	28,500	17,500	46,000
Gross margin	31,500	57,500	89,000
Other costs			
Other charges; Depreciation	1210	1210	2420
Storage	2600	2600	5200
Total	3810	3810	7,620
Net income	23,880	49,880	73,760

Source: Survey data

2) Feeds formulation for Napier Grass – Suitable youth enterprise

Table 2: Costs and returns for producing and marketing of oat in the wet and dry seasons per acre

Item	Wet season	Dry season	Annual
Yield per acre (bales)	400	400	800
Price per bale (Ksh)	225	300	262.5
Seeds (90Kg bags)	-	15	40
Price per bag	-	3,000	3,000
Gross output (Ksh)	90,000	165,000	255,000
Variable costs			
Planting materials /acre (Ksh)	13500	-	13500
Fertilizer	3000	-	3000
Transport costs (seeds,	450	-	450
fertilizer)			
Land preparation	4500	-	4500
Hired labour	2250	2250	4500
Family labour	150	150	300
Harvesting and baling	3000	3000	6000
cost/acre			
Harvesting and baling	2950	2950	5900
materials			
Total	29,800	8,350	38,150
Gross margin	60,200	156,650	216,850
Other costs			
Other charges; depreciation	1210	1210	2450
Storage	620	620	1240
Rent (1 acre @ 5000 per	2500	2500	5000
year)			
Total	4330	4,330	8660
Net income	55,870	152,320	208,190

Source: Survey data

Table 3: Gross margins analysis for a dairy enterprise- (Intensive production)

County	Average	Uasin Gishu	Kakamega	Kisumu
Average no. of cows	4	6	3	3
Average no. of lactating cows	2	3	1	2

Daily yield (I/c)	6	6.7	5.8	5.6
Lactation days	270	270	270	270
Annual yield (I/c)	1,633	1,809	1,570	1520
Price per litre	40.3	36	40	45
Cost detail	Amount	Amount	Amount	Amount
Operational costs				
Acaricides	4178	5520	3433	3580
Health services	2384	1300	720	5133
De – worming	3054	4467	1263	3432
Vaccination	3483	3533	2933	3983
Insemination	3406	7667	717	1833
Milk hygiene	1282	2007	702	1138
Sub-total operational costs	17787	24494	9768	19099
Labour costs	41172	48250	31767	43500
Cost of feeds – (Dairy meal, mineral supplements, fodder & water)	63986	109173	43433	39353
Total cost	122945	181917	84968	101952
Cost per litre	18.82	16.76	18.04	22.35
GM per litre	21.51	19.24	21.96	22.65

Source: Survey data

Table 4: Gross margins analysis for milk dispensing enterprises (per month)

Particulars	Details
Milk volume (litres)	6,000
Cost (Ksh):	
Purchase price per litre	35
Labor	12,000
Rent	
Electricity	1,000
Lab services	
Cleaning	3,000
License fees	1,000
Maintenance	
Sales price per litre	60
Total cost of milk	210,000
Total variable cost	227,000
Total sales revenue	360,000
Gross Margin (GM)	133,000
GM per litre	22.16
GM%	36.9%

Source: Survey data

Table 5: Agents/distributors costs and returns for 35 doses of local and imported semen

Item	Cost for 35 doses per day (KES)		% cos	% cost share		Data source /remarks	
	Local semen	Imported semen	Local semen	Imported semen	Local semen	Imported semen	
Purchase of semen	7,000	12,250	66	78	Survey data. Semen from KAGRC bought at 200 per dose. The average number of doses in the year 2016 was 12,500, translating to 35 doses in a day	Survey data. Used the price of KES 350 per dose	
Labour for distribution	500	500	5	3	Survey data		
Transport	200	200	2	1	Survey data		

Item			% cos	st share	Data source	Data source /remarks	
	Local semen	Imported	Local semen	Imported	Local semen	Imported	
		semen		semen		semen	
Marketing costs	200	200	2	1	Survey data		
Liquid nitrogen	2,630	2,630	25	17	Survey data The average number of litres used in the year 2016 was 4800 litres, translating to KES 13.15 per day. The cost of one litre of nitrogen was		
Total cost	7,913	15,780			KES 200		
2. Sale price of 35 doses to inseminator	8,750	31,500			Survey data. Used KES 250 per dose	Survey data. KES 900 per dose	
3. Sale of nitrogen	3,288	3,288			Survey data. North Rift distributor in Trans Nzoia County used 4800 litres in 2016, translating to 13.15 litres per day at KES 250/litre		
4. Total revenue	12,038	34,788					
5. Gross margin	1,508	19,008			100 mbish sassassas	1- 400/ (05	

Note: KES 100 = 1US \$; the percentage gross margin is = (gross margin/gross revenue)* 100, which amounts to 13% for 35 doses

Table 6: Artificial inseminators' costs and returns per dose of local and imported semen

Item	Cost for 35 dos	es per day (KES)	% co:	st share	Data source /remarks
	Local semen	Imported semen	Local semen	Imported semen	Local semen
Price of semen from distributor/agent	250	250	47	74.51	Survey data.
Transpor	200	200	37	17.53	Survey data
Price of Liquid Nitrogen per dose	2.19	2.19	0.4	0.19	KAGRC A 35 liters can of liquid Nitrogen has a capacity of 4000 doses. There for 1 dose uses 0.00875 liters. With a price of 1 liters of nitrogen being KES 250, this translates to KES 2.19 per dose
Price of one Sheath	12	12	2.2	1.01	KAGRC KES 600 for 52 pieces, and each insemination uses 1, giving KES 11.53 per dose
Price of one glove	9	9	1.7	0.79	KAGRC KES 900 for 100 pieces, each piece used for one dose giving a cost of KES 9 per dose
Price of lubricant per dose	29	29	5.3	2.50	KAGRC Lubricant for KES 400 used for 14 days, therefore 1 dose is KES 29
Al kit depreciation per day	36	36	6.7	3.16	Calculated from KAGRC data*.

Item	Cost for 35 doses per day (KES)		% cost share		Data source /remarks
	Local semen	Imported	Local semen	Imported	Local semen
		semen		semen	
 Total cost 	537	1141			Survey data
Sale price	700	1800			
of semen					
to farmer					
3. Gross	163	660			
margin					

Source: Survey data

Table 7: Gross margin analysis of avocado processing

No	Item	Quantity	Unit Price(Kes)	Total Revenue (Kes)
	Product			
1)	Avocado Juice	20litres	100	2,000
	Variable costs			
2)	Water	10 liters		100
3)	Ripe Avocados	25	10	250
4)	Labor	1	250	250
5)	Plastic tumblers	100	3	300
Total	Cost	•		900
Gros	s profit per day	1,100		
Gros	s Margin per day	55%		
Estin	nated sales per day= 20 litr			
Gros	s margins for 1 month @ 2	5 working day		27,500

Source: Survey data

Table 8: Gross margin analysis for avocado tree seedlings production

No	Item	Quantity	Unit Price (Kshs)	Period	Total Revenue (Kshs)
	Product				
	Avocado seedlings	1,000	150		150,000
	Variable costs				
1	Fuel (litres) -for pumping water	10	100	4	4,000
2	Avocado seeds	1,000	1	1	500
3	Manure(pick-up)	1	625	1	625
4	Labor-Preparation	5	200	1	1,000
5	Labor-Watering	1	1,500	4	6,000
6	Seedling Pots	1,000	2	1	2,200
	Total Cost				14,325
	Gross profit per 4 months season				135,675

Source: Survey data

Annex I I: Measuring performance during implementation (guide the design in the choice of activities and performance indicators)

Table 3 demonstrates proposed specific interventions/tasks and how they align with the GoK's value chain framework and the expected results from implementation team.

Table 3 of interventions

Value Chain Vision			IFAD-assisted INR	eMP response
GOK differenced approach	GoK focus	GoK Approach	Task	Result (outcome)
National	Food Security and Exports Database	Inputs subsidy, Policy, International Trade, Mechanization, Enablers, National Database	Provide innovation capital stimulation fund (CSF) as start-up capital in the ratio of 3:1 for a 100 improved indigenous bird production model to a young poultry farmers. INReMP will provide 3 parts of the fund while the young farmer will provide 1 part. MTR may revisit the contribution pattern in favour of programme performance.	xx farmers reached with start- up capital (CSF) to engage in improved indigenous poultry breeds xx youth are engaged in production enterprise Ksh x realized as sales/income by farmers, youth and cooperative.
County	National Targets	Agroprocessing, TVET, Database, Leadership & Governance, Extension Services, Warehousing	Strengthen existing cooperatives and link them to: a) beneficiaries of CSF to off-take their birds, b) financial institutions for credit access to start processing as an enterprise, and to provide input credit to growers, c) and provide extension to farmers	xx number of processors linked to farmers for sustainably supply of birds xx birds sold by farmers to cooperatives Ksh x sales realized by processors Ksh x released by processors through value addition; xx processors adopt environmental compliance protocols promoted by INReMP xx job created by INReMP through poultry value chain intervention
Cooperatives	Technical Support	Bulking, Marketing, Bulk Purchasing, Setting-up SACCOs, Value Addition, Hustlers Fund, Farmer Registration	Strengthen the parties – producers and cooperatives. Facilitate the establishment holding stock for aggregators/cooperatives to generate supply volume and meet market demand Facilitate the establishment of farmer-input-research-market (FIRM) transaction platform for the stakeholders and link growers and cooperatives to hatchery operators and feed millers to strengthen their businesses – enhance access to services to increase their productivity and income and ensure sustainability. FIRM platform is a transformational public-private-producer partnership (4Ps) - an organic multi-stakeholders transaction forum that meets periodically to facilitate business to business linkages among members, provide services to farmers and ensure steady flow to mature birds from the farm to the market.	xx number of FIRM formed to facilitate services for farmers, members and to facilitate NR management discussions among parties. xx number of business deals agreed and executed by members of the platform Ksh x credit (cash or cashless leveraged by investors through the platform) xx farmers accessed input credit through the platform Ksh x generated in sales by members through the platform engagement

Value Chain Vision			IFAD-assisted INReMP response			
GOK differenced approach	GoK focus	GoK Approach	Task	Result (outcome)		
			Provide processors with business development support – various business/specific enterprise development training; business growth strategies, incorporating extension in business, trust and confidence building, and environmental compliance, among others to avoid NR degradation			
Farmer	Quality Extension	Support farmer with Inputs, Technical Advisor (1 for 250 Acres), and Access to Capital, NHIF, Housing and Savings.		xx MSMEs (or cooperatives) keep business record which includes farmers record xx cooperatives or MSMEs develop reliable farmers data base and have up to 5000 active farmers in their business record xx cooperative or MSMEs provide extension services or improved technologies to farmers to enhance their productivity and sales xx farmers receive extension services on improved technologies from private sector-led extension providers (MSMEs or cooperatives). xx farmers enhanced their productivity due to engagement with extension services from cooperatives xx number of improved technologies promoted through MSMEs or cooperatives Farmers who receive extension services from MSMEs increased their productivity (litre/cow/day) by least 20%		
				xx farmers are out of poverty (\$2.5 per day income) and respond to Pillar 4 of the government vision on value chain (average annual farmers gross/net income increased).		

NN/B: Disaggregate all relevant outcome data by gender and age.



Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex: Fragility And Or Conflict Affected Situation Assessment

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Annex 7: Fragility and/or Conflict Affected Situation

Kenya is not listed in the current World Bank (WB) list of fragile States. According to the World Bank (WB), countries are considered fragile when their average Country and Policy Institutional Assessment (CPIA) score is 3.2 or less. The average CPIA for the Kenya was 3.8 as per last WB score (2021). Similarly, the Fund for Peace, an organisation that ranks fragile countries through the "Fragile States Index" gives Kenya 87.8 points, noting that the country's fragility situation has been improving since the aftermath of post elections violence of 2008.

Whereas Kenya is not listed in the current World Bank (WB) list of fragile States, the country has suffered political turmoil in the recent past, occasioned by disputed general election results after every five years, with the worst situation being experienced in 2008 following 2007 general elections. Currently Kenya has been experiencing demonstrations called by the opposition coalition to protest against the recently passed Finance Bill, which has introduced a raft of fiscal changes that the opposition considers is worsening the cost of living. The demonstrations have disrupted business in the capital city of Nairobi and other parts of the country, especially in the strongholds of the opposition.

The country's fragility situation also stems from events within the region, particularly in light of the outbreak of a major conflict and humanitarian crisis in Sudan, the armed conflict in northern Ethiopia which began in November 2020, continued cross-border political tensions and security challenges, including violent extremist threats in Somalia, which spills over to northeast Kenya. The situation is compounded by shocks such as climate change and COVID-19. Additionally, the ongoing food crisis arising from successive droughts and the war in Ukraine continues to pose threats to the country, with an estimated 4.5 million people facing food insecurity, as of February 2023. Lastly, the proposed geographical area for INReMP includes northern rift valley region, where there are issues relating to inter-communal contestation over resources such as water, pasture, and land, as well as cattle rustling, and which are exacerbated by pressures such as climate change and rapid demographic growth.

In order to manage the risks arising from the country's fragility situation, efforts will be made to select wards that are secure for programme implementation as well as adopting a phased approach starting where possible in more secure areas. Moreover, the PDT will consult UNDSS during design to identify security and conflict hotspots. Adequate stakeholder engagements and community consultations will be carried out to ensure the voices of communities are documented during the design and reduce the risk of social conflicts especially over natural resources during implementation. Concerning implementation capacity, the Programme in addition to having a dedicated Project Management Unit at the central level, county level coordination and implementation teams will be established and these aligned with the existing Government structures to ensure continuity. The Programme will also work with grassroot and community based organizations such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs) to address fragility over natural resources and strengthen sustainable management.



Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex: Secap Indigenous Peoples Action Plan Ipap In Re Mp

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REPORT

Consultations with Indigenous Peoples (IPs) within the Integrated Natural Resource Management & Food Systems Programme (INReMP) & GEF-8 Project Site: Pathways towards Free Prior Informed Consent (FPIC) & Indigenous Peoples Action Plan (IPAP)





April 2024

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I. Executive summary of the Indigenous Peoples Plan

The Ogiek, Sengwer and Cherangany are the three Indigenous Peoples groups found in at least six of the ten INReMP and 2 of the GEF-8 Projects target counties. The communities were consulted on the INReMP and GEF-8 projects and given an opportunity to reflect, discuss and share their take and contributions on the Project. Following is a summary of the key findings and recommended actions.

a) Non-Recognition and Weak Consultation in development Planning and Actions

- 1. While the national policy space is generally improved for indigenous peoples' rights in the country, the communities consulted aver that, their actual engagement at the planning, decision-making level, and practice on the ground, remains in discordant with progress in the policy environment.
- 2. This in-optimal consultation and participation of IPs in decisions that have a bearing on their lives and livelihoods, is a cross-cutting concern reflected in initiatives of the State (national and county), and non-state (environmental NGOs, Development partners,) actors alike. Consequently, IPs community are experiencing in-optimal representation and participation, minimal uptake of their perspectives and interests in development planning, culminating in exclusion, marginalization and entrenchment of poverty and inequality.
- 3. The communities reported that they've negligible voice in participating and influencing inputs into their respective County's development planning processes and instruments of development such as the County annual planning, budget-making, and County Integrated Development Plans (CIDP) and subsequent implementation processes.
- 4. The community cited previous examples of natural resources conservation and agricultural production enhancement related projects implemented in their landscape especially among the Ogiek of Kericho, Chepkitale and Sengwer of Cherangany that generated more tensions than benefits due to weak or lack of full and effective engagement of Indigenous peoples present on the project landscape.
- 5. In some instances, such as those related with forest conservation, in which sections of these communities reported repeated evictions from what they claim to be their ancestral lands, interaction with environmental agencies such as Kenya Forest Services and Kenya Wildlife has been characterized by antagonism and mistrust.
- 6. The reasons for the reported negative trends in representation and engagement are varied, including consistent minority status, unsettled historical land related claims and traditional occupations that aren't recognized in mainstream economic production systems such as hunting and gathering.
- 7. Hence, initiatives that rely solely on the governance and decision-making arrangement of the state, e.g., KFS and KWS, including County, and community level structures such as Community Forest Association (CFAs) and Water Resource Users Association (WRUAs) to deliver fair and equitable benefits to Indigenous peoples and incorporate IPs perspective into the project design; may not achieve the desired outcomes.

Proposed Response measures:

8. Indigenous communities consulted called for adoption of deliberate measures and actions for ensuring their direct representation & participation in activities of the INReMP and GEF-8 projects being implemented within their territories.

- 9. Specifically, consultation processes in the course INReMP and GEF-8 project should be through legitimate Indigenous peoples' structures of governance and decision-making such as the Council of Elders and identified legitimate Indigenous Peoples Organizations working within the project area. Such a consultation should be based on mutual trust and respect with IPs given a chance to nominate their representatives based on self-determination.
- 10. The representation of IPs under the INReMP and GEF-8 project should be reflected in all levels of decision-making of the project to guarantee the consideration and uptake of their voices, perspectives, and rights within the project and pre-empt any possibilities of misunderstanding during project implementation.
- 11. Binding decisions-making on substantive matters related to INReMP and GEF-8 implicating IPs rights and livelihoods should be safeguarded through a robust, meaningful Free Prior Informed Consent process sufficiently supported with time and resources.
- b) Land and natural resources related Insecurity
- 10. Each of the IPs community group present in the project landscape expressed concerns over unsettled historical land and natural resource related claims, repeated forceful evictions from forest landscapes (Ogiek of Mau, Sengwer and Cherangany of Embobut) which they consider to be their ancestral homes.
- 11. They also expressed concerns over inconclusive historical land related redress mechanisms such as the historical land rights claims submitted to the National Land Commission (NLC), by each of the indigenous community groups present in the project landscape and non-implementation of court decisions and disregard of Court orders in favour of the community.
- 12. These circumstances have contributed to landlessness, instability in livelihood production practices and mistrust of external actors by the IPs communities. In addition, the lack of secure land rights among IPs has constrained possibilities for accessing credit facilities where land is needed as collateral.

Proposed Actions:

- 13. Any land-based intervention activities implemented under INReMP & GEF-8 that have a bearing in IPs land rights claims or affect ownership, occupation, or usage, should be subjected the full, free prior and informed consent of the affected Indigenous peoples.
- 14. The INReMP and GEF-8 project should minimize promotion of interventions that are seen by IPs to facilitate and solidify erosion of their on-going land rights claims.
- 15. Support and facilitate sustained dialogue between the IPs communities with National Land Commission (NLC) on the status of submitted historical land related injustices claims and explore pathways towards their final determination.
- 16. Support dialogues towards triggering implementation of existing Court Decisions and compliance to Court orders as in the case of the Decision of the East African Court on the Ogiek of Mau and the Stay of Execution order at Embobut forest with the Sengwer.

c) Livelihoods and Food Security

- 17. Despite the identified challenges of land tenure insecurity, weak recognition, and representation, the Sengwer, Ogiek, and Cherangany still have access to an appreciable array of assets critical in supporting agricultural productivity and food security.
- 18. On food security and nutrition, the communities have access to well-watered land for productive agricultural use albeit in varying degrees. The Ogiek of Trans Zoia for example has relatively reliable access to lands with rich soils compared to the Sengwer and the Ogiek of Kericho and Nandi who live as squatters or on rented plots. These assets present opportunity for diversification & pathways towards value addition in the value chains of interest to IPs.
- 19. The communities are also endowed with easily accessible semi-skilled labour and a growing body of professionals with competencies in diverse fields, that should be of interest in the context of the INReMP & GEF-8 projects. The largest pool of this labour force is women and youth.

Proposed Action:

- 20. Specifically, the IPs community called for support from the INReMP & GEF-8 project through value addition in the areas listed below to enable sustainable promotion of IPs' nature-based livelihoods activities and potential pathways towards diversification:
 - Support for improved fodder crops to enable enhanced production in the livestock sector.
 - Provision of high yielding certified seeds to optimize productivity of crops farmed by IPs groups.
 - Support for provision of improved Beehives, installation of honey processing, packaging, branding, and marketing equipment and skills to enhance incomes from sale of honey.
 - Support for provision of Millk collection and cooling plants to minimize wastage and optimize incomes through value addition to milk.
 - Support land restoration activities through construction of terraces and growing of super Napier grass.
 - Support provision of water harvesting and storage facilities (tanks) to ensure sustained access of portable water to IPs communities.

- d) Minimal to lack of access to public and private sector finance,
- 21. Overall, the IPs community consulted asserted that they experience minimal direct access to financial resources both from the state (national and county) private sector and mainstream development actors.
- 22. The communities reported receiving negligible benefits from constitutionally established affirmative action and devolved funds in the Country. Kenya has established a wide range of affirmative action funds and social protection measures aimed at addressing exclusion, marginalization and ensuring equity and respect for constitutionally guaranteed social and economic rights. The funds are targeted at a wide range of groups including marginalized communities¹, regional focus², Women³, Youth⁴, and Persons with Disabilities (PWDs).⁵
- 23. Furthermore. Kenya has set up an *Equalization Fund* to respond to the need to address historical marginalization occasioned by the previous legislated discrimination. The marginalization is associated with certain geographical location; culture and lifestyles; external domination; land legislation and administration; recognition of minority groups such as Indigenous Forest peoples; ineffectual political participation; and inequitable government policies. IPs communities consulted, insists that these funds are yet to reach them.
- 24. In addition, the representatives of community consulted reported negligible employment opportunities accorded to members of their communities at County and national level, private sector and in the NGO sector, even in instanced where they've the requisite competencies.

Proposed Actions:

- Promote & support dialogues between National and county government with IPs to fast-track realization of the Affirmative action provisions in representation, decision-making arrangements and access to social welfare funding and services.
- Establish measures to guarantee direct consideration and affirmative action in employment opportunities at national, county and project levels, including within INReMP & GEF-8 project.
- Lock or ring-fence a given percentage or quota of project resources to identified IPs' projects under the Indigenous Peoples Action Plan (IPAP) for ease and quick project implementation to ensure fairness and equity as they've no voice due to minority status.
- The project should consider provision of a revolving loan scheme to IPs with flexible access modalities & regulations for sustainability.
- e) Intensified impact of Climate change & Environmental Degradation
- 25. IPs communities present in the project landscape unequivocally expressed their deepest concerns with regards to intensifying changes in climate and seasonal trends reflected in frequent extreme weather-related events such as heatwaves, droughts, floods. landslides and lightning.
- 26. The community attributes these changes in climate partly to non-environmentally friendly human activities such as unregulated logging, charcoal burning, unregulated

⁴ Youth Enterprise Development Fund (YEDF):

¹ National Government Affirmative Action Fund (NGAAF), UWEZO Fund,

² Youth Enterprise Development Fund (YEDF):

³ Women Enterprise Fund:

⁵ Access to Government Procurement Opportunities (AGPO)

or overuse of pesticides, largely practiced by non-IPs community groups. The changes have had serious ramifications in nature and local livelihoods as reflected in emergence of new diseases, reduced soil productivity, Pest infestations such as caterpillar on crops and disruption of Indigenous knowledge practices of weather forecasting.

27. The communities consulted expressed concerns over the potential impacts of the contemplated carbon trading projects on their landscape. Communities held that introduction of carbon trading in the context of unclarified property rights to carbon and low awareness levels among IPs will layer and complicate existing community land rights claims. They felt that such a move would mask and diminish the chances of ever securing their existing land rights claims. Clarity on property rights to land & capacity building, IPs communities held, should precede initiation of any carbon credit projects within IPs' territories.

Proposed Actions:

- Build the Communities' capacity on Carbon market dynamics including on key concepts, its functioning, inherent risks, cost-accounting, and benefit sharing and give space for IPs' self-determination on the decision to sign-up or not.
- Strengthen the IPs' communities' capacities for uptake of climate financing for green investments/nature-based enterprises through formation of Cooperatives and institutional management skills.
- Adopt and support just transition principles in facilitating the communities' shift towards use of clean and renewable sources of energies such as energy saving stoves and biogas.
- Support land restoration activities through construction of terraces and growing of super Napier grass.
- Establish indigenous trees nursery within IPs territories to facilitate land restorations initiatives.

f) Policy Gaps and Disconnects in Policy Gains and Practice

- 21. At the national level, Kenya has made tremendous progress in putting in place policies that recognize and seek to advance the rights and interest of indigenous peoples in the Country. The policy & programmatic gains include development of instruments of engagement such as Free Prior Informed Consent guidelines to be applied in the context of IPs and provision of affirmative action arrangements in representation and in access to benefits.
- 22. IPs community representative consulted held that, their respective county governments exhibit low level of awareness of such policy gains, are slow in uptake & domestication of such policies related to IPs, including taking initiatives on their own accord to respond to policy gaps at County level. This situation has negatively impacted opportunities for IPs to benefit from development initiatives at the county level.

Proposed Response Measures:

- 23. Support dialogues between National and County government actors to build state actors capacity on IPs' unique challenges, policy gains in the context of IPs, and facilitate enhancement of respect of IPs' rights as constitutionally guaranteed including right to healthcare, education, food security.
- 24. Undertake awareness raising and capacity building activities of the INReMP and GEF project implementers and stakeholders including private sector actors operating on the project landscape on existing policy gains on indigenous Peoples.
- 25. INReMP and GEF-8 projects implementers to support activities towards mapping-out policy gaps in the context of IPs and efforts towards formulation of such policies at the

County level to respond to the unique situation of Indigenous Peoples present on the project landscape. The IPs consulted specifically called for development of County level guidelines on how their respective counties should guarantee their representation, participation, and access to benefits – as political structures of representation do not sufficiently serve minority groups.

g) Weak Appreciation and uptake of Indigenous knowledge systems, values, and practices

26. Consulted IPs groups still pride itself in the value, efficacy and robustness of their Indigenous knowledge systems and practices that have contributed to biodiversity conservation, climate, and livelihood resilience within the landscapes they occupy.

Proposed Response Actions

- Facilitate uptake of traditional knowledge systems and practices to conserve and restore the forests. Recruit and train members of IPs communities as Forest scouts for ecotourism and nature conservation to tap from IPs' indigenous knowledge systems and practices.
- Promote and safeguard the link between positive people-nature relations among indigenous peoples' groups and effective conservation efforts among IPs such as protection and conservation of IPs Sacred sites, Clan totems which embed nature in cultural identity.
- Support documentation, preservation and sustainable promotion of indigenous food systems and indigenous healthcare practices founded on nature-based solutions such as medicinal plants by identifying such medicinal plants for proactive conservation.

h) Place and Role of Women, Youth & Persons with Disability

- 27. While indigenous communities present in the project landscape expressed concerns over entrenched marginalization and inequality as peoples' groups, women and youth within these communities exhibit even worse experiences in participation and access to development benefits undertaken on their landscapes.
- 28. Further, indigenous knowledge systems and practices are gendered. Women for example have privilege knowledge on issues to do with promotion of nutrition among members of the family, and general care of sick within the family.
- 29. Intergenerational mechanisms for transfer of indigenous knowledge systems & practices on nature conservation & indigenous food systems are increasingly constrained by the demands of formal education and disconnection of indigenous communities from their forest landscapes which serve as living library for IPs.
- 30. Equally, the impacts of climate change are gendered. Women for example pays the highest negative price in terms of burden for accessing water and firewood to meet domestic household water and energy needs.
- 31. While traditional structures of decision-making are increasingly being reformed to provide space for the voices of women, youth and persons with disability, there still remains a lot of ground to be covered, especially within rural communities with minimal access to formal education.

Proposed Action

- 32. The INReMP & GEF-8 project implementers need to develop strategies to proactively overcome the barriers faced by women, youth and persons with disability in contributing to the design of project activities and in accessing project benefits.
- 33. The project should empower women and youth through targeted affirmative action strategies in the areas of representation, employment opportunities, access to funding and credit, including training on micro finance, formation and running of cooperatives.

II. Description of the project

- 34. The INReMP project goals and development objectives around enhanced rural households' food and income security; integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods in a sustainable and resilient ecosystem; has a direct bearing on Indigenous peoples' rights and livelihoods (where present) as they're peoples of the land.
- 35. The INReMP will be implemented in the counties served by the Cherangany Hills and Mau West water towers, namely: Elgeyo Marakwet, West Pokot, Trans Nzoia, Uasin Gishu; Nandi, Kakamega, Kericho, Kisumu, Homa Bay and Migori. The GEF-8 will be implemented in 3 of the 10 Counties covered under the INReMP namely: Nandi, Kericho and Kakamega.
- 36. The INReMP has a focus on strategies and activities aimed at addressing post-harvest losses, promoting value addition and processing, market development and consumption and promoting policy dialogues and multi-stakeholder engagements. These are challenges related to production and value chains identified by IPs consultated.
- 37. The GEF-8 project components seeks to enhance food systems transformation through promotion of sustainable and nature positive dairy, maize, and aquaculture foods systems. Specifically targeting fodder production in the case of livestock, maize as a regenerative food crops and lined rainwater harvesting, water pans and ponds for sustainable fish-farming promotion. These are underlying driving weakened resilience.
- 38. The barriers identified under the INReMP, and GEF-8 project such as inadequate or lack of access to capital or financing, weak extension services including systemic challenges such environmental degradation, low agricultural productivity and Climate change resonates with those identified by Indigenous communities.
- 39. In addition, the project target beneficiaries include Smallholder farmers with commitment to design tailored interventions to enhance support for women and youth and physically challenged.
- 40. The Project Concept Note (PCN) acknowledges that, while the project may not be sited in an area where indigenous peoples are present, associated facilities may moderately impact on indigenous peoples. That, the project is sited in an area that was previously used by indigenous peoples, but no claim has been made on the land.
- 41. The project is significant in terms of scale of funding, extend of landscape covered and duration given its total project cost of US\$250.2 million over an eight-year period and covering a spurn of 10 counties. This implies potential benefits and perhaps risks & impacts, for stakeholders making meaningful and strategic engagement a necessity.
- 21. It's evident, therefore that, the place and role of Indigenous peoples present in the project landscape needs to be clearly articulated under INReMP & GEF-8 including their

- numbers/population receiving services promoted or supported by the project such as capacity, building, renewable energy technologies, sustainable rural livelihoods and nutrition supported among others.
- 22. The INReMP co-financiers including IFAD, GCF, GEF⁶ and the recipient country, Kenya has each established commitment for safeguarding and promoting indigenous peoples interests and rights in development practice.
 - III. Description of Indigenous Peoples
 - a) IPs' Settlements and their demographics
- 23. Indigenous Peoples present on the project landscape include the *Ogiek, Sengwer* and *Cherangany*, who have predominantly been associated with exercising hunting and gathering livelihoods within the forest landscape they occupy.
- 24. In general, these communities exhibit ethnic minority status within the respective localities and Counties they occupy. On average, their combined population is less than 150,000 spread across 6 of the 10 project target counties.
- 25. The *Ogiek* are found in in Kericho, Nandi, Uasin Ngishu and Trans-Zoia. The *Cherangany* in Elegyio Marakwet, Trans-Zoia and West Pokot; and the *Sengwer* in Elgeyio Marakwet, Transzoia and West Pokot. The specific locations of each of the IPs within the respective counties covered by the project have been identified to the village and location level.
- 26. The *Ogiek of Trans-Zoia* are settled in Chepchoina, Kaptega, Kiboi, Matumbei, Kaibei, Mubere, Endebess, Kinyoro, kissawai, Saboti and Kiboroa locations in Trans-zoia County.⁷ and they number about 6000 in population.
- 27. The *Ogiek of Kericho County* are settled across Kamasian, Kipteris, Toroton, Kokwet, Kapkwen and Kapkoros locations overlapping with several wards⁸ and their population is about 6000 persons.
- 28. One half of *the Ogiek of Nandi* reside in Serengonik, Mlango, Tereno and Keilot villages within Kapchorwa, Cherendoto, Kapkores and Koiloit locations⁹ of Nandi hills and Lessos in Nandi Hills Subcounty. The other half of the community is settled at Sigowet, Kipuaor, Chebisas, Chemamul and Kapsinendet vilagges of Tinderet Ward, Tinderet SubCounty. The combined community population is about 6400 persons.
- 29. The *Ogiek of Uasin Ngishu* is small minority group estimated at about 5000 population. The Community is comprised of 25 clans that reside in Saos, Kipkurere, Chagaiya, Burgei villages of Ndungulu and Timboroa locations, Tarakwa ward, Kesses sub county.
- 30. The *Sengwer* are found within the Cherangany hills landscape spread across Elgeyio Marakwet, Trans-Zoia, and West Pokot Counties. They're specifically settled at Makutaono, makutano sublocation/Ward within Trans-nzoia; Talau, Kaiboir, Karagat location, Sijoi ward in West Pokot; Rogor, Kamoi, Kapterit, Sengwer, Kipteber; Sijoi of Elgeyio Marakwet Subcounty. The community places its population at about 45000.
- 31. Members of the *Cherang'any indigenous peoples* are spread across West Pokot, Elgeyo/Marakwet, Trans Nzoia and Uasin Gishu counties. Specifically, they're settled

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⁶ GEF's Principles and Guidelines for Engagement with Indigenous Peoples. https://www.thegef.org/sites/default/files/2023-06/Indigenous Peoples Principle EN.pdf

⁷ Ogiek are spread across chepchoina, matumbei,entebess, kinyoro and saboti electoral wards

⁸ Kedowa, Kiplogy's, Sorget, Tendero locations, Tendeno/Sorget

⁹ Chepkunyuk, Kapchorua wards

in seventeen locations¹⁰ in Elgeyio Marakwet, two locations¹¹ in Trans Nzoia County: one location¹² in Uasin Gishu and 5 locations¹³ in West Pokot County. The Cherang'any indigenous peoples total about 6000 people.

- b) IPs' Lands, natural resources, livelihoods & food Security.
- 32. The Ogiek, Sengwer and Cherangany present in the project landscape, predominantly practices traditional occupations based on their indigenous knowledge systems, values, belief, and practices. Their livelihoods and food production systems within the project landscape are generally nature based.
- 33. Specifically, the IPs community groups are engaged in *Beekeeping, herbal medicine trade*, subsistence livestock keeping, farming a variety of food crops, and increasingly adopting agroforestry. They are participating in honey production, sale of sheep & goats, milk, fruit trees (Hass Avocado in the case of the Cherangany; mangoes, avocados, and macadamia in the case of the Ogiek of Chepkitale) value chains at the subsistence levels.
- 34. The communities rely heavily on honey, Milk, Meat, Sweet potatoes, millet in small quantities with negligible engagement in commercial crops. Increasingly, the community's nutritional status is being compromised due to unavailability of land, the inhibitive cost of the food and scarcity of income due to narrow opportunities for income streams/gainful employment. The outlawing of hunting has especially impacted the degree of access to meat protein foods among indigenous forest peoples.
 - c) IPs' Decision-making arrangements
- 35. The decision-making arrangements of the three indigenous communities Sengwer, Ogiek and Cherangany present in the project landscape is comprised of both traditional and contemporary institutions.
- 36. Each of the communities have an established Counsel of Elders that is representative in terms of Clans, gender, youth, and geography. This is topmost traditional decision-making organ.
- 37. In addition, each of the community have a registered affiliated Indigenous Peoples Organization such as the Ogiek Peoples Development Programme (OPDP), Chepkitale Indigenous Peoples Development Programme (CIPDP), the Cherang'any Multipurpose Development Programme (CHEMUDEP) and Senwer indigenous Community trust (SICT). These NGOs have become critical avenues in the communities' lobbying and advocacy activities to advance their rights and interests across scales.

¹⁰¹⁰ Rogor Location, Kapterit, Kamoi, Chesubet, Sengwer, Lelan, Koisungur, Cherang'any, Chebororwa, Kondabilet, Kaptiony, Kuserwa, Kapyego, Embobut, Kerer, Kapkochur, Kimnai

¹¹ Makutano, Kapsara

¹² Meibeki

¹³ Kaisagat Location, Kaibos, Talau, Kapyongen, Lelan

IV. Summary of Substantive Rights and Legal framework

a) Kenya's Policy Environment on Indigenous Peoples

- 38. Kenya's legislative, policy, and programmatic environment with respect to recognition, respect, and promotion of Indigenous Peoples (IPs') rights is increasingly positive.
- 39. Historical marginalization and exclusion of IPs is acknowledged, and corrective measures entrenched in law – acknowledging and clarifying indigeneity¹⁴, affirming the right to economic and social rights¹⁵, safeguarding intellectual property rights on culture/indigenous knowledge¹⁶, political representation¹⁷ and requisite affirmative action.18
- 40. Land and natural resource tenure rights are acknowledged, and provisions made to safeguard and secure it. This recognition includes communal/customary ownership, traditional practices of land being recognized and given the same force and effect in law as individual propriety rights. Historical land related injustices are also acknowledged and measures towards their resolution instituted. 19,20
- 41. Traditional occupation/land use approaches (pastoralism & hunter gathering)²¹ mediating traditional institutions of governance and value and place of Indigenous Knowledge Systems²² in natural resource management is recognized in legislation. The Disproportionate vulnerability of IPs to direct Impacts of Climate Change and impacts of unsafequarded response measures is recognized within climate change policies, strategies, and actions.²³
- 42. Respect to, protection and promotion of cultural diversity²⁴ and Indigenous knowledge systems especially in the context of natural resource management including right of access to benefits associated to genetic resources are guaranteed.²⁵
- 43. Art. 35 (1) of the Constitution provides the right of access to information by every citizen and the State is to publish and publicize any important information affecting the nation.
- 44. The Land Act (2012) calls upon the National Land Commission (NLC) to provide incentives for communities and individuals to invest in income generating natural resource management programmes, and establishment of measures to facilitate the access, use and co-management of forests, water and other resources by communities who have customary rights to these resources.²⁶

¹⁴ CoK 2010 art. 260

¹⁵ Cok 2010 art. 43

¹⁶ CoK 2010 art. 44

¹⁷ CoK 2010 art. (56) & 100 (e)

¹⁸ CoK 2010 art. 204

¹⁹ CoK 201 art. 260

²⁰ The community Land Act 2016, The National Land policy (NLP) 2009; National Land Commission (art.67e); Wildlife Conservation and Management Act 2013

²¹ National Policy for the Sustainable Development of Northern Kenya and other Arid Lands; Kenya endorsed the Resolution on a United Nations International Year on Rangelands and pastoralism; Policy Framework for Nomadic Education in Kenya (GoK, 2010) The Forest Conservation and Management Act of 2016

²² Protection of Traditional Knowledge and Cultural Expressions Act, 2016. Climate Change Act 2016

²³ Gok, Ministry of Environment and Energy, - National REDD+ Strategy

²⁴ The National Policy on Culture and Heritage (2009):

²⁵ The Kenya Constitution 2010 arts. 11; The Forest Conservation and Management Act of 2016; Climate change Act 2016; The Protection of Traditional Knowledge and Cultural Expressions Act, 2016. ²⁶ The Land Act (2012); article 19.

- 45. Under the Forest Conservation and Management Act 2016, Community forests management is predicated on the registration of a Community Forest Association (CFA)²⁷, which allow communities adjacent to forests to participate in the joint management of public or community/county forests as well as access associated benefits.
- 46. Decision-making and resources are devolved through County governments with a corresponding emphasis on equity, efficiency, accessibility, non-discrimination, transparency, accountability, citizen participation²⁸, and information sharing alongside a focus on basic needs.²⁹
- 47. Specific & relevant-mandate institutions are in place; constitutional Commissions such as the National Gender and Equality Commission (NGEC) with mandate on marginalized communities, National Cohesion, and Integration Commission (NCIC) with mandate to promote inclusivity and harmony in co-existence, National Land Commission (NLC) with a mandate to address historical land related injustices are established.
- 48. The Kenya National Commission on Human Rights (KNCHR), has mandate to monitor and promote application and respect for human rights through adoption of the human-rights based approaches and Action Plans on Business and Human rights, this incudes ensuring compliance to Kenya's international commitment on human rights reporting such as under the Universal Periodic Review (UPR) and the Voluntary national reporting (VNR) under the SDGs mechanism and the Safeguards Information Systems (SIS) in the context of Carbon markets.

b) Mechanism of Engagement with IPs in Kenya

- 49. Kenya, through the Ministry of Environment and Natural resources has developed and adopted *National guidelines for Free Prior Informed Consent (FPIC)*, primarily targeted at indigenous peoples. The guidelines aim at capturing and accounting for the experiences and the views of indigenous communities potentially affected by policies, programs, and interventions and in addition to safeguarding their interests.
- 50. National Environment Management Authority (NEMA) has also developed an *Environmental Impact Assessment (EIA), Review Guide for Communities*³⁰ The guide seeks to enhance public participation in the project cycle management under the Environmental (Impact Assessment and Audit) Regulations, 2003. It targets the communities present in the project areas to assist them in reviewing and commenting on Environmental Impact Assessment (EIA) reports. It emphasizes the importance of participatory approaches in the EIA decision making process for promotion of sustainable development at County and National government levels & ensures that community needs, and aspirations are considered.

c) Kenya's International Commitments related to IPs

51. Kenya has ratified most of the international treaties, conventions, agreements, and protocols related to human rights, environmental protection, conservation of natural resources and sustainable development; most of which have incorporated Indigenous

²⁷ Gok, Forest Act 2005, section 46

²⁸ CoK 2010, Schedule Four Part (2), 14

²⁹ County government Act 2012

National Environment Management Authority, 2014 – accessible from https://www.uncclearn.org/wp-content/uploads/2021/12/Session-6 pre-reading Environmental-Impact-Assessment-EIA-%E2%80%93-Review-Guide-for-Communities.pdf

peoples related safeguards, including FPIC.³¹ Article 2 (a) of the Constitution (2010), provides that every treaty and convention that Kenya is a party, forms part of the laws of Kenya.

- 52. Kenya's national development agenda benefits from, and is informed by UN agencies³², multilateral financing Institutions³³, bilateral³⁴ development agencies and partners who have entrenched policies for the inclusion of and safeguarding the interests and rights of marginalized or indigenous peoples in their funding modalities.
- 53. The safeguards policies aspire to ensure social justice for Indigenous peoples by articulating measures aimed at preventing, mitigating, and managing adverse impacts of development actions (do no harm) and/or pro-actively address marginalization (do good).
- 54. In implementing development projects supported by such partners, the country has often triggered application of the respective policies whenever communities that fit the profile stipulated in the policies are present within project landscape.
- 55. Increasingly project specific engagement frameworks, founded on constitutional rights and International Financing Institutions' (IFIs) specific safeguards³⁵ related to social, environmental, and indigenous peoples' rights are emerging as standard good practice in the country.³⁶
- 56. Consequently, the country has often commissioned the elaboration of the Indigenous peoples planning instruments as operational tools for promoting the respect of rights and interests of marginalized communities, as well as for ensuring overall environmental and social sustainability of such development initiatives.
 - d) Project Funders' & Implementors' Safeguards Policies on IPs
- 57. The INReMP and GEF-8 project is co-financed by the Global Environment Facility (GEF) and the International Fund for Agricultural Development (IFAD). FPIC is a policy requirement for both the GEF's³⁷ and IFAD's engagement with Indigenous peoples. The IFAD's Policies on Engagement with Indigenous Peoples including IFAD's Social, Environmental and Climate Assessment Procedures (SECAP, 2021) will particularly be relied on in ensuring safeguards for Indigenous peoples.
- 58. The Global Environmental Facility (GEF) has recognized the unique contribution of Indigenous peoples (through their indigenous knowledge systems and practices) in nature conservation and has acknowledged the disproportionate vulnerability of indigenous peoples' livelihoods to the adverse impacts of climate change. Consequently, GEF's work among and with IPs is guided by the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

³⁵ The World Bank Environmental and Social Safeguards, The European Commission policy on IPs; the GCF Indigenous Peoples etc

³¹ United Nations Framework Convention on Climate Change (UNFCCC)and the Paris Agreement UN Convention on Biological Diversity' (CBD) & Nagoya Protocol, Sustainable Development Goals (SDGs) The UN Guiding Principles on Business and Human Rights,

³² UNDP/UN-FAO, UNEP, Indigenous Peoples policies.

³³ World Bank Environmental and Social Standards no. 7 on Indigenous Peoples/ Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, The Green Climate FUND Policy on Indigenous Peoples.

³⁴ The European Union Policy on Indigenous Peoples

³⁶ Gok, The National Treasury. Vulnerable and Marginalized Groups Framework (VMGF). Infrastructure Finance and Public, Private Partnership (IFPP) Project Additional Finance (AF). Dec. 2016

³⁷ Principles and Guidelinés for Engagement with Indigenous Peoples - https://www.thegef.org/what-we-do/topics/indigenous-peoples

- 59. To advance IPs' rights and interest, GEF has developed a minimum standard dedicated to Indigenous Peoples³⁸ within its broader policy on Agency Minimum Standards on Environmental and Social Safeguards and principles of engagement³⁹. In its programmatic work IPs are part of the GEF Indigenous Peoples Advisory Group (IPAG), which provides useful guidance and partnership to the GEF Secretariat. This is in addition to commitments to enhance direct access to benefits by IPs as in the case of the National Adaptation Plans (NAPs) under GEF's mandate with the United Nations Framework Convention on Climate Change (UNFCCC).
- 60. Free, Prior and Informed Consent (FPIC) is one of the nine Guiding Fundamental Principles which inform IFAD's country strategies, policy dialogue and project cycle. The other principles which remain relevant and critical in the INReMP project include cultural heritage and identity as assets, community-driven development, land, territories and resources & associated to customary laws and systems, indigenous peoples' knowledge, environmental issues, and climate change; access to markets; empowerment; and gender equality.
- 61. The INReMP and GEF-8 project's commitment to FPIC resonates well with the aspirations of 'The Nature Conservancy's Human Rights Guide for Working with Indigenous Peoples and Local Communities' (IPLCs). 40 The Guide facilitates TNC's efforts towards respect and support for the rights of IPLCs; ultimately improving conservation outcomes for people and nature by integrating human rights into TNC's conservation practice. The Guide is informed by nine Principles and Safeguards related to international human rights law and standards to which TNC has committed to. 41 FPIC is one of the Six Modules articulated in the Guide. 42
 - e) Conditions under which FPIC is a pre-requisite:
- 62. As presently designed & envisioned the INReMP and GEF-8 project doesn't seem to enlist project activities that are contingent on establishing legally recognized rights to lands, resources or territories that indigenous peoples have traditionally owned, occupied or otherwise used or acquired.
 - V. Summary of Social and Environmental Assessment & Mitigation Measures
- 63. Preliminary results show that INReMP has triggered several SECAP 2021 standards, one of which is the standard on *indigenous peoples* and consequently, the project has committed to facilitate Free Prior and Informed Consent (FPIC) and Indigenous Peoples Action Plan (IPAP).
- 64. The PCN points out that Indigenous peoples in the country, regularly experience land tenure and food insecurity, poor service delivery, weak political representation, as well as general discrimination and exclusion.
- 65. Further, the PCN observed that land tenure unsettled claims/issues including in the context of IPs in some parts of the country has often trigged violent community conflicts or inability to access and productively utilize land resources.

https://www.nature.org/content/dam/tnc/nature/en/documents/TNC IPs LCs TraditionalKnowledge.pdf

³⁸ https://www.thegef.org/documents/environmental-and-social-safeguard-standards

³⁹ https://www.thegef.org/documents/indigenous-peoples

⁴¹ Free Choice and Self-Determination, Prior Engagement and Collaborative Relationships, Informed Decision-Making; Right to Withhold Consent; Meaningful Consultation; Equity; Inclusion; Accountability; Overarching Good Faith

⁴² Learning & Early Discussions; Free, Prior & Informed Consent (FPIC); Conflict Resolution; Implementation; Documentation; Monitoring, Evaluation & Adaptation

- 66. That, IPs among other marginalized groups (Women, Youth, PWDs) experience limited access to *incentives for participation* in conservation activities in addition to other prevailing negative pressures on their livelihoods.
- 67. From the outset the INReMP project aspires to contribute towards: *enhanced resilience* of poor rural people; *sustainable* food and nutrition security for rural households; *equitable* social and economic empowerment and *reduced poverty* and *enhanced social cohesion* among the rural communities.
- 68. The PCN acknowledges that the realization of the stated aspirations hinges on a) inclusive activities to ensure full participation of indigenous peoples (among other marginalized groups), including affording them access to incentives for economic and livelihood diversification; b) acceptance of alternative livelihood interventions by the potential beneficiaries; c) private sector willingness to partner with communities and smallholder farmers on ecosystem restoration.
- 69. The Project document's integrated Project Risk Management Matrix identifies project risk to Indigenous peoples present on the project area as moderate and low for inherent and residual risks respectively and, as mitigation measure, commits to undertake community consultations to ensure the voices of IPs are documented during the design (where present) in tandem with IFAD's SECAP procedures.
- 70. The PCN also holds that failure to engage identified/relevant stakeholder effectively and meaningfully, including ensuring access to project opportunities and intervention in the context of IPs, may result in disagreement with some of the approaches employed by the project.
- 71. Consequently, the project has developed a preliminary stakeholder engagement plan that will guide its identification of stakeholders, their means of engagement and areas of engagement. An FPIC and IPAP are developed to inform the engagement of indigenous peoples.
- 72. Under the project's Environment, Social and Climate Management Plan Matrix, lack of free, prior, and informed consent when dealing with indigenous peoples is identified as potential risk that could lead to conflicts for which the proposed remedy is commitment to implement free prior and informed consent process, and an IPAP developed in line with IFAD SECAP guidelines and national laws.
- 73. The Project management Unit (PMU) is charged with the responsibility to coordinate & document the FPIC and subsequent IPs' consultation processes validate with IPs Signatures and IPAP as evidence.
- 74. The project proponents and stakeholders will also further explore potential direct or indirect impacts of the project on IPs' cultural heritage: inter alia their rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible).
- 75. The SECAP also calls for disaggregation of data to account for dimension of exclusion/discrimination, IPs livelihood problems and opportunities, including by gender and how they're reflected in national policies, strategies, and actions.
- 76. Inclusion of and full participation, including access to incentives for economic and livelihood diversification and uptake pf alternative livelihood interventions for the youth, women and indigenous peoples are critical in ensuring success of the project.
- 77. While the project impacts on cultural heritage, indigenous peoples, community health and safety are rated moderate, the project commits to avoiding of sites considered to

- be of cultural heritage value, and adherence to safeguards under IFAD's SECAP procedures.
- 78. The project design review note recommended further studies to be undertaken on FPIC, & IPAP, the report of which will be annexed to the project design report package and presented at DRM.
- 79. While the risks associated with dealing with potential stakeholder *Grievances* is rated as low, the project document acknowledges that, there are multiple activities in the project portfolio that may lead to stakeholder grievances, including engagement of IPs, targeting of households and inclusion of project beneficiaries, choice of counties, and selection of implementing partners among others.
- 80. A grievance redress mechanism (GRM) is therefore contemplated to be developed to address and resolve grievances raised by various stakeholders, including IPs in the project area. Stakeholders will be informed about the GRM and sensitized on how to log in complaints and follow up of the resolution of these grievances.
- 81. The project has also committed to explore trends in social inequalities among indigenous peoples and other marginalized groups present on the project site that are being exacerbated by climate change in order inform project aspirations towards social inclusion.
- 82. PCN Review Note urges the INReMP Project Design Team) PDT) to consider expanding the risk assessment in the context of IPs to include threats to or the loss of resources of historical, religious, or cultural significance.
- 83. The PCN Review Note also urges the PDT to further clarify how the project will affect the Indigenous Peoples present in the project area and assess the capacity of the implementing agencies to implement the FPIC and Indigenous People Action Plan (IPAP).⁴³
- 84. Based on the preceding project design commitment and aspirations, project proponents and Kenya's policy commitments, and initial consultation with indigenous peoples present in the project landscape was convened.
 - VI. Participation, Consultation and FPIC Processes
 - a) Key elements of the FPIC and IPAP Consultation process
- 85. The INReMP and GEF-project proponents recognize the place and value of FPIC as an instrument to enable self-determination aspirations of indigenous peoples in the context of the project.
- 86. They acknowledge that FPIC isn't an event, rather, an iterative and inclusive process that takes time and allow communities opportunities during the life of the project to consider any emerging matter with potential implication on IPs' rights and resources.
- 87. The INReMP & GEF-8 project proponents provided the community with an independent consultant to help facilitate the communities' consultation towards an informed FPIC process outcome based on IPs' customary norms. The following key elements were taken into account in ensuring robust consultation with IPs on the project landscape:

⁴³ PCN Review Note: OSC Date: 8 December 2023; Country: Kenya. Project Name: Integrated Natural Resources Management Project (INReMP), GRIPS ID: 2000003938

- *Full and Effective representation of IPs*: Participants to the consultation should be careful identified through IPs self-selection decision-making arrangement processes to ensure legitimacy, effective voice, and ownership of the consultation outcomes.
- Choice of Venue: Consider cultural sensitivity in selection of venues for consultations to ensure accessibility and comfortability of IPs e.g. women and persons with disability.
- Conducive Environment for dialogue: Provide Open, comprehensive, and transparent process to ensure comfort in sharing ideas free from any form of intimidation or harassment, manipulation or conditionalities.
- Adequate time for consultation: allows for adequate time for IPs to understand, seek clarifications, share opinions, and receive feedback to arrive at common understanding on the project dynamics their roles. This includes allowing for sufficient notification time in arranging consultations for effective participation.
- Clear and accountable documentation of process & outcomes: This entails upfront
 commitment to a jointly agreed and shared, accurate documentation, recording of
 consultations processes and outcomes between Indigenous Peoples and project
 proponents.
- *Verification and validation*: Summary of consultation action points verified and attested to by all participating parties.
 - b) Initial Consultation with IPs resident in the Project Area
- 88. An Indigenous Peoples specific consultation meeting on the INReMP and GEF-8 project was held on April 4 and 5th, 2024 in Eldoret with the support of IFAD.
- 89. The consultation brought together a total of 60 Indigenous peoples representative drawn from Ogiek, Sengwerr and Cherangany communities spread within 6 of the counties covered by the INReMP and GEF-8 projects inter alia Elgeyio Marakwet, Uasin Ngishu, Kericho, Nandi, Trans-Zoia and West Pokot (See annex 1 List of Participants).
- 90. Participants to the two-day consultative meeting were careful identified through IPs' self-selection process and decision-making arrangement structures to ensure legitimate & effective voice, equal opportunity, inclusiveness, transparency and wide range of perspective and process ownership.
- 91. The categories of representation included traditional governance institutions, Indigenous Peoples Organizations (IPOs) leaders, special interests' groups women youth, PWDs including expertise in areas such as knowledge of customary/traditional laws & natural resource management among others. The meeting was facilitated by the IFAD Consultant on IPs and attended representative from IFAD and TNC.
- 92. The meeting objectives included i) Introduction of the aspirations of the INReMP & GEF-8 Projects to Indigenous Peoples present on the Project landscape, ii) Reflect on Indigenous Peoples contribution, role and place under the INReMP & GEF-8 Project and iii) highlight Kenya's policy context for Indigenous Peoples participation in INReMP & GEF-8 Project.
- 93. The anticipated outcomes of the consultation were i) a clear roadmap/pathway/strategy towards the rollout of Free Prior Informed Consent (FPIC) and development of an Indigenous Peoples Action Plan (IPAP) among indigenous

- peoples within the project landscape and harvested ideas from IPs to inform the ultimate design of the Project (s).
- 94. The consultation exercise was delivered as a two-way information flow interaction with an exchange of opinions, views, and feedback to contribute towards a shared understanding on the project, goals, activities, risks, and benefits. The IFAD Consultant provided an overview of the INReMP, and GEF-8 project; the policy context including the landscape of interest. The participants were accorded sufficient time to seek clarification on any aspects of the project to level-up on the aspirations of the project and their space.
- 95. Thereafter, participants were organized into the specific IPs community groups based on their landscape (County) of settlement within the project target area. The groups were presented with reflection questions inspired by the INReMP and GEF-8 project goals & activities and recommendations of the PCN review note. A synthesised summary of the outcome of the consultation is shared below (See reflection Questions Annexed
 - c) Conditions for Which FFPIC is a pre-requisite:
- 96. While FPIC of Indigenous Peoples present on the project landscape is/was undertaken at the time of project inception, INReMP & GEF-8 project implementers will remain open to proactively trigger an FPIC process whenever new project realities emerge during implementation.
- 97. Specifically, FPIC process with indigenous peoples will be triggered when developing, adopting, and implementing legislative, policy or administrative measures with potential adverse impacts on Indigenous communities' rights, traditional knowledge, lands, territories, natural resources, sacred sites, genetic resources.
- 98. FPIC will also be triggered whenever Interventions with potential serious implications on IPs health, territorial integrity, collective identity, cultural integrity, livelihoods, social cohesion, and wellbeing are being introduced.
- 99. FPIC is also triggered, whenever indigenous peoples request to exercise their rights to determine and develop priorities and strategies critical in facilitating respect of their rights.

VII. Appropriate Benefits

- 100. The INReMP and GEF-8 project implementers will proactively establish and promote measures aimed at ensuring that IPs present on the project landscape. receive equitable social and economic benefits that are culturally appropriate arrived at through a process of open and transparent consultation, including FPIC.
- 101. The benefits to be accrued to IPs present in the project landscape will be cross-cutting in all project activities inter alia, Regenerative agriculture, fodder agroforestry

trees, renewable energy, nature-based solutions, sustainable land and water management, climate smart agriculture, aquaculture practices, ecosystem management, integrated soil fertility management, water harvesting and irrigation, circular waste management and reuse, climate and weather information systems, including in efforts to reduce greenhouse gas emissions (GHGs) and carbon trading where appropriate.

- 102. The Indigenous Peoples Action Plan (IPAP) is one of the instruments through which the INReMP & GEF-8 project will articulate measures that aim to ensure that the IPs receive social and economic benefits that are fair, equitable & culturally appropriate,
- 103. The IPAP is accompanied with a consulted budget detailing the summary of activities to be undertaken and supported within IPs territories and corresponding resources committed.
- 104. The benefits to IPs will also entail employment and capacity building opportunities occasioned by the project.

VIII. Capacity Support

- 105. The INReMP and GFE-8 project implementers are committed to collaboratively work with Indigenous Peoples present on the project landscape to enhance their representative institutions' social, legal, and technical capabilities to contribute towards minimization of risks, optimization of opportunities and project benefits and facilitate uptake of their contribution in shaping project outcomes based on their indigenous knowledge systems and practices.
- 106. Indigenous peoples consulted called for support towards awareness raising and capacity building of the relevant county departments and private sector actors operating on the project landscape on policy gains related to indigenous peoples and IPs' positive-nature relations and associated practices.
- 107. INReMP and GEF-8 project implementers will support activities towards building capacities of representative institutions of IPs on Carbon market dynamics including on key concepts, its functioning, inherent risks, cost-accounting, and benefit sharing and give space for self-determination on the decision to sign-up.
- 108. INReMP and GEF-8 project implementers will support capacity building activities targeted at community level environment and natural resource conservation and management actors such as the Community Forest Associations (CFAs) and Water Resource Users Association (WRUAs) to facilitate mutually respectful dialogues with indigenous peoples.
- 109. INReMP and GEF-8 project Implementers will proactively support capacity building activities targeted at indigenous peoples whenever new innovations and technologies are incorporated into interventions promoted under the project. Such training activities will be conducted in language understood by the IPs and venues accessible to them.

IX. Grievance Redress

78. The objective of the grievance redress mechanism (GRM) is to provide arrangements for accessible procedures appropriate to the project to address grievances by the affected indigenous communities arising from project implementation. The mechanism also considers the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous communities.

- 79. Consulted Indigenous community representatives present in the project area called for establishment of a community level arrangement for resolution of grievances and conflicts which incorporates use of their traditional dispute resolution system to the extent possible.
- 80. The GRM in the context of the INReMP & GEF-8 project will seek to integrate both indigenous and corporate ways of resolving problems into the complaint's mechanism to ensure mutually acceptable processes and outcomes.
- 81. The GRM is designed with the objective of solving disputes at the earliest possible time for the sake of all parties concerned. This will ultimately minimize referring such matters to the law courts for resolution which would otherwise be costly and take a considerably longer time. Yet, access to the mechanism is without prejudice to the complainant's right to legal recourse.
- 82. A GRM integrated within existing structures at national, county and community levels will be established to ensure that persons affected by the project have an avenue to raise and have their grievances resolved.
- 83. A Grievance Redress Committee (GRC) will be established at the project area(s). The GRC will comprise of; The Indigenous peoples traditional governance institutions (respective Council of Elders), NGOs active in the area, women and youth representative present in the project area, relevant department of the national & county government and TNC. The GRC is to be formed and activated during the IPAP implementation process to allow indigenous communities sufficient time to lodge complaints and safeguard their recognized interests.
- 84. The grievance procedure will be simple and administered as far as possible at the local levels to facilitate access, flexibility and ensure transparency. Traditional dispute resolution structures existing among participating Indigenous community groups will be used as the first step in resolving grievances experienced at the community level informed by a thorough investigation of the facts.
- 85. As a proactive measure, the GRM will designate an independent person/focal point with regularized schedules to monitor incidences of complaints experienced among vulnerable groups within indigenous communities such as women, youth & persons with disability, to ensure that their concerns have been identified, articulated, and promptly addressed.
- 86. As part of the GRM, the Indigenous communities will be provided with a variety of options for communicating issues, grievances, and concerns, including in writing, orally, by telephone, over the internet or through more informal methods.
- 87.To facilitate uptake of the GRM services, when needed, requisite capacity building/awareness raising will be undertaken among participating Indigenous communities present in the project area. Assistance will also be given to Indigenous communities to document and record the complaint, whenever need arises.
- 88. A grievance log will be maintained by at the project Management Unit (TNC) documenting and recording how complaints are logged, assessed, assigned to an individual for management, tracked and closed out or "signed off" when resolved, ideally with the complainant(s) being consulted, where appropriate, and informed of the resolution. In addition, provision will be made for confidentiality of information or anonymity of the complainant (s) whenever necessary.

- 89. Capacity of the existing interagency team dealing with conflicts and security issues within the participating Counties and community level mechanism on resolving disputes and conflicts will be strengthened.
- 90. IFAD is committed to working with the affected parties to resolve complaints; (i) provisions for project-level grievance redress mechanisms to complement IFAD's Complaints Procedure; 44 which committed to responding to all concerns and complaints in a timely manner, (ii) ensuring that the complaints procedure and project-level grievance mechanism are easily accessible to affected persons, culturally appropriate, responsive and efficient; and (iii) maintaining records of all complaints and their outcomes.
- 91. In all cases, if the complainants disagree with IFAD's response, they may submit a request to SECAPcomplaints@ifad.org and request that an impartial review be carried out by the Office of the Vice-President).
- 92. All the grievances that will not be successfully resolved by the GRC, IFAD's complain procedure, or which the Indigenous communities are dissatisfied with in terms of resolution will be channelled to the existing structures in Kenya for handling grievance. The Constitution of Kenya (CoK) has provided for Issue-specific courts (Labour, land, and environment etc) Courts will serve as the ultimate stop in the event of disputes or complaints that cannot be resolved through other alternative means.

X. Monitoring, Reporting and Evaluation.

- 93. The INReMP Project design commits to development and adoption of a M&E system for and with local stakeholders and county decision makers within the target counties. Key indicators generated from the FPIC/action plans reports and ESMPs will be embedded into the project's operational monitoring framework and the PMU tasked with ensuring progress in its implementation over the project period.
- 94. The M&E system will be deployed at two levels of project management: PMU, and county implementation and support teams, including relevant partner organizations. M&E will also be designed based on the indicators and means of verification specified in the INReMP and GEF-8 project results framework.
- 95. The implementation of the IPAP will be monitored by all implementing agencies and a monitoring system involving own staff, partner implementing agencies, county governments, and Indigenous communities will be established to ensure effective implementation of the IPAP.
- 96. A set of monitoring indicators have been determined during FPIC and IPAP development process. An independent M&E expert/consultants will be engaged by the implementing agencies to verify monitoring information of the IPAP, as necessary.
- 97. The monitoring and evaluation indicators include for Indigenous peoples includes: i) compliance of activities undertaken to the objectives and methods identified in the IPAP ii) process and threshold of consultation at the community level; (ii) direct representation of IPs in decision-making arrangements and relevant activities; (iii) any potential negative impacts of the project and mitigation measures; (iv) accessibility, use and outcomes of the grievance redress mechanism, v) impact of the project on income and standard of living within the communities inter alia

⁴⁴ https://www.ifad.org/en/accountability-and-complaints-procedures

- access to project benefits i.e. support for alternate livelihoods, enhanced opportunities for Income Generating Activities (IGAs), capacity building, access to employment opportunities vi) incorporation of Indigenous knowledge systems and practices on natural resources management and the inclusion of women and youth.
- 98. The external agencies will collect baseline data, including qualitative information and analyse the same to assess the impacts of the project on Indigenous communities. External experts will advise on compliance issues, and if any significant issues are found.
- 99. TNC will collect required data/information and regularly analyze project outputs and impacts considering impact on participating Indigenous communities, and periodically report the results to the IFAD, as deemed appropriate.
- 100. Annual Project progress reports will be prepared by TNC in collaboration with IFAD, as part of the overall M&E reporting requirements including assessment of project performance within IPs' territories against the set indicators and aspirations of the IPAP.

XI. Institutional Arrangements

- 101. The decision-making arrangements of the three indigenous communities Sengwer, Ogiek and Cherangany present in the project landscape is comprised of both traditional and contemporary institutions.
- 102. The Ogiek, Sengwer and Cherangany IPs have their respective Counsel of Elders that is representative in terms of Clans, gender, youth, and geography. This the community's topmost traditional decision-making organ.
- 103. In addition, each of the community have a registered affiliated Indigenous Peoples Organization such Ogiek Peoples Development Programme (OPDP), Chepkitale Indigenous Peoples Development Programme (CIPDP), the Cherang'any Multipurpose Development Programme (CHEMUDEP) and Senwerr indigenous Community trust (SICT). These NGOs have become critical avenues in the communities' lobbying and advocacy activities to advance their rights and interests across scales.
- 104. IFAD has responsibility for overall supervision of the project, financial management and reporting to the GEF. It is the fund manager and will undertake supervision, mid-term review and final evaluation of the project. IFAD also has responsibility for undertaking the social, environmental and climate risks and impacts assessments and for instituting the requisite mitigation measures.
- 105. Relevant state department of the national government such as Treasury, Ministry of Agriculture, Crops and Livestock, Ministry of Water will oversight project financing, partnerships & technical guidance.
- 106. The Nature Conservancy (TNC) is ear-marked to take responsibility as Lead project executing agency. TNC undertakes this role with support from other relevant state agencies present on the project area.⁴⁵ It will host and coordinate activities of the Project Management Unit (PMU) on behalf of the INReMP and GEF-8 project and undertake day-to-day management and implementation of the Project.
- 107. County government Forest Conservation and management⁴⁶, and promotion of cultural heritage and Indigenous knowledges are devolved functions.

⁴⁵ Water Resources Authority (WRA), Water Services Regulatory Board (WASREB) and the National Environment Management Authority (NEMA

⁴⁶ CoK 2010, Schedule Four Part (2), 10(b)

Counties remain strategically placed to impact indigenous peoples' rights and livelihoods securities. The County Integrated Development Plans (CIDPs) and associated Annual plans and budgets are the foundational development planning and operational tools upon which all development actions within the County are undertaken. Activities to be supported under the INReMP and GEF-8 project are envisioned to align with priority interventions identified within the participating county's current CIDPs.

- 108. Other critical institutions with oversight, regulatory and operational functions working within the natural resources sector identified to be relevant in the context of implementation of INReMP and GEF-8 project include Kenya Forest Service (KFS), Kenya Forestry Research Institute (KEFRI)", Kenya Water Towers (KWTA), National Environment Management (NEMA), and the Water Resources Users Associations (WRUAs). Each of these institutions has a designated role in the implementation of the INReMP and GEF-8 project, hence the need for a proactive arrangement for engaging with Indigenous communities present in the project area.
- 109. In addition, other participating stakeholders whose work has a bearing on Indigenous communities' rights and livelihoods include Research institutions, Private Sector (Kenya Association of Manufacturers and/ Kenya Private Sector Alliance), Kenya National Chamber of Commerce, and County based Water and Sewerage Companies among others. Capacity building on knowledge and perspective of these actors towards Indigenous communities needs to be enhanced.

XII. Budget and financing

- 110. All costs for implementation of IPAP will be financed by the INReMP and GEF-8 project. The costs will be estimated through consultation with community representative & in consultation with project implementers. Project resources will therefore be made available to support consultation/meetings, information dissemination, capacity building efforts, value addition and livelihoods diversification & land restorations related activities. implementation & monitoring, operationalizing the grievance redress mechanisms as described in the IPAP.
- 111. Once the project components, subprojects and/or activities have been fully defined, an appropriately costed plan, with itemized budget sufficient to satisfactorily undertake the activities described will be developed.
- 112. Each of the six landscapes (Kericho, Nandi, Uasin Ngishu, Elgeyio Marakwet, Trans-Zoia and West Pokot) specific IPs groups will have a dedicated budgetary support. Shared capacity building needs could be delivered jointly to benefit from the economics of scale.

Budget Template:

	Indicative Budgetary Item	Unit cost Ksh
1.	Consultation/meetings, information dissemination - Facilitate inclusive participation of IPs with adequate gender and generational representation; customary/traditional IPs organizations	

2.	Capacity Building & skills development - Technology, Carbon trading, improved Beehive	
3.	Promotion of Environmental-friendly alternate livelihoods, IGAs & self- employment training - Improving dairy value chain through fodder, supporting regenerative food crops, rainwater harvesting water pans and ponds	
	Addressing identified social and environmental risks – Sensitization & support	
4.	Implementation & monitoring, GRM (Participation in SSC - Establishment & operationalization of the GRM including support activities of the GRC, - Monitoring and reporting	
5.	Addressing policy gaps and engagement with external actors	
	Total	



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex: Stakeholder Engagement Plan

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department



Integrated Natural Resources Management Programme (INReMP) in Kenya



Engagement Plan (SEP) & Grievance Redress Mechanism (GRM)

Volume V

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List of Abbreviations and Acronyms

CBOs Community Based Organisations
CFAs Community Forestry Associations

DOSHS Directorate of Occupational Safety and Health Services

EIA Environmental Impact Assessment

EMCA Environmental Management and Coordination Act ESCMF Environmental, Social and Climate Management Framework

ESCMP Environmental, Social and Climate Management Plan ESIAs Environmental and Social Impact Assessment

FAO Food and Agriculture Organization

GBV Gender Based Violence
GEF Global Environment Facility
GRM Grievance Redress Mechanism

I&APs Interested & Affected Parties

IFAD International Fund for Agricultural Development

IPP Indigenous Peoples Plan

IPMP Integrated Pest Management Plan

INReMP Integrated Natural Resources Management Programme

KEFRI Kenya Forestry Research Services

KFS Kenya Forest Services
KWTA Kenya Water Towers Agency
MoA Ministry of Agriculture

NCPWD National Council for Persons with Disabilities
NECC National Environmental Complaints Committee
NEMA National Environmental Management Agency

NET National Environmental Tribunal NGOs Non-Governmental Organisations NRM Natural Resources Management PAPs Project Affected Parties/People PMU Programme Management Unit

PWD People with Disabilities

SEAH Sexual Exploitation, Abuse and Harassment

SECAP Social, Environment and Climate Assessment Procedures

SEP Stakeholder Engagement Plan

VGRC Village Grievance Redress Committee

WGRC Ward Grievance Redress Committee WRA Water Resources Authority

WRUAs Water Resource User Associations

1 Introduction

The Government of Kenya (GoK) and the International Fund for Agricultural Development (IFAD) are currently designing the Integrated Natural Resources Management Programme (INReMP) aimed at contributing to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem. The Programme Development Objective (PDO) is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers as follows: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to co-finance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori.

INReMP's PDO will be achieved through the effective implementation of three interlinked components with the following outcomes:

- Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action;
- Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and
- Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

INReMP's direct beneficiaries are estimated at 407,176 vulnerable rural households, equivalent to 2,035,880 million people. Direct beneficiaries will be selected from a) rural smallholder food insecure farmers; b) Rural Moderately Food Insecure Farmers; c) Rural Semi-Commercial and Commercial Producers. Selection of participating sub-counties and wards will be guided by the following set of criteria: a) be within a targeted County microcatchment area; b) degree of natural resource and environmental degradation; c) population and population density; d) poverty and vulnerability index; e) extent of land fragmentation; f) environmental risks presented by economic activities; g) vulnerability to climate change and extreme weather events h) potential for improved productivity, food security, nutrition status, and commercialization; and g) complementarity with other programmes and potential for co-financing.

2 Rationale for Stakeholder Engagement

The implementation of the INReMP Programme will involve a wide range of stakeholder groups comprising various state departments at national level, county Governments, local institutions, service providers, NGOs, private sector, Community Based Organisations (CBOs) and communities/beneficiaries at large. Each stakeholder has their role and responsibility at different stages within the programme hence the need for an effective Stakeholder Engagement Plan (SEP).

This SEP was developed as part of the Environmental, Social and Climate Management Plan (ESCMP) for INReMP, hereinafter referred to as "The Programme". The Implementing Agency of the Programme, the State Department for Crop Development, under the Ministry of Agriculture (MoA) through the Programme Management Unit (PMU), has the responsibility to effectively engage stakeholders in achieving the Programme objectives.

The SEP is designed to ensure effective engagement with local communities and other key stakeholders throughout the Programme life cycle. This SEP supports sub-project conceptualization, feasibility studies, planning and impact assessment processes, implementation, and operational and maintenance phases of the INReMP.

The scope of this SEP is proportionate to the nature and scale of the Programme and its potential risks and impacts. The Plan is a flexible document and can be updated, if need be, to include new stakeholders and/or to change engagement mechanisms depending on the prevailing context. The SEP aims to improve and facilitate decision making and create an atmosphere of understanding that actively involves Programme-affected people and other stakeholders in a timely manner. It also aims to provide the stakeholders, sufficient opportunity to voice their opinions and concerns that may influence Programme decisions.

Stakeholder engagement in Plan implementation will start with inception workshops to kick off the Programme. *Firstly*, a national level inception workshop, led by the State Department for Crop Development will present the Programme to national level stakeholders to confirm a shared understanding of Programme objectives, go through the Programme theory of change and implementation plan, discuss and agree on roles and responsibilities, get stakeholder feedback and recommendations for Programme implementation and introduce the Programme support team to stakeholders. The inception workshop will also provide a detailed overview of IFAD Environmental, social and climate standards, requirements and procedures including the Grievance Redress Mechanism.

Secondly, County level inception workshops will be held with relevant stakeholders to kick start and support implementation at local level. In addition, informal stakeholder engagement will also take place as and when necessary. The Programme will have regular review and learning events to support adaptive management and learning across the responsible partners and the sub-projects. This will support the Programme in drawing on and promoting best practice across the ten counties. The regular monitoring, learning and review events will also allow stakeholders to raise issues of concern and grievances to be addressed on time.

3 Policy Framework for Stakeholder Engagement

This Stakeholder Engagement Plan is underpinned by the Kenya's policy and legal framework which guarantees the right to information and public participation. It is also supported by the IFAD stakeholder engagement policy which aims to improve the design and quality of beneficiary participation and feedback processes and promoting meaningful project target group engagement throughout the project cycle. The Constitution of Kenya (2010) Article 1(2), 10 (2), 33,35,174, 174 (d), 184, 232 and 37 continuously refer to public participation. Stakeholder Engagement is further supported by other relevant Kenyan Legal framework in the County Government Act (2012) and the Environmental Management Coordination Act (EMCA), 1999 among others.

Several IFAD policies and the Social, Environmental and Climate Assessment Procedures (SECAP) require that free, prior and informed consent (FPIC) be sought during the design and implementation of the projects it funds. FPIC empowers local communities to give or withhold their consent to proposed projects that may affect their rights, access to land and resources, and livelihoods. FPIC also ensures that beneficiaries and institutions endorsed by communities participate in project-related decision making. *Refer to Annex 5 of the ESCMF for a detailed FPIC for the INReMP.*

4 Objectives of the SEP

The SEP seeks to define a technically and culturally appropriate approach to consultation, decision making and disclosure. The Key objectives of the SEP are to:

- Provide guidance for stakeholder engagement such that it meets the standards of International Best Practice,
- Identify key stakeholders that are affected, and/or able to influence the Programme and its sub-activities,

- Identify the most effective methods, timing, and structures through which to share Programme information, and to ensure regular, accessible, transparent, and appropriate consultation,
- Develop a stakeholders' engagement process that provides stakeholders with sufficient opportunity to voice their opinions and concerns and be able to influence the Programme,
- Establish formal grievance redress mechanisms disclosure.
- Define roles and responsibilities for the implementation of the SEP,
- Define reporting and monitoring measures to ensure the effectiveness of the SEP and periodical reviews of the SEP based on findings.

5 Benefits of SEP

The SEP provides a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the Programme is carried out effectively within budget and on-time to the satisfaction of all concerned. Effective stakeholder engagement develops a "social licence" to operate and depends on mutual trust, respect and transparent communication between PMU and its stakeholders. It thereby improves its decision-making and performance by:

- Managing costs: Effective engagement can help the Programme avoid costs, in terms of money and reputation,
- Managing risk: Engagement helps the Programme and communities to identify, prevent, and mitigate environmental and social impacts that can threaten Programme viability,
- Enhancing reputation: By publicly recognising human rights and committing to environmental protection, institutions (like IFAD) involved in financing the Programme can boost their credibility and minimise risks,
- Avoiding conflict: Understanding current and potential issues such as land rights and proposed Programme activities,
- Improving corporate policy: Obtaining perceptions about a Programme, which can act as a catalyst for changes and improvements in MoA, Counties and PMU corporate practices and policies,
- Identifying, monitoring, and reporting on impacts: Understanding a Programme's impact on stakeholders, evaluating, and reporting back on mechanisms to address these impacts, and
- Managing stakeholder expectations: Consultation also provides the opportunity for the Programme to become aware of and manage stakeholder attitudes and expectations.

The SEP shall be informed by a set of principles defining its core values underpinning interactions with identified stakeholders. Common principles based on International Best Practice include the following:

- *Commitment* is demonstrated when the need to understand, engage and identify the community is recognised and acted upon early in the process,
- *Integrity* occurs when engagement is conducted in a manner that fosters mutual respect and trust,
- Respect is created when the rights, cultural beliefs, values and interests of stakeholders and affected communities are recognized,
- *Transparency* is demonstrated when community concerns are responded to in a timely, open, and effective manner,
- *Inclusiveness* is achieved when broad participation is encouraged and supported by appropriate participation opportunities, and
- Trust is achieved through open and meaningful dialogue that respects and upholds a community's beliefs, values, and opinions.

The key elements of the SEP are:

- Stakeholder identification and analysis
- Stakeholder Engagement Program
- Grievance Redress Mechanism
- Monitoring and Reporting

6 Stakeholders Identification and Analysis

6.1 Identifying Stakeholders

To develop an effective SEP, it is necessary to determine who the stakeholders are and understand their needs and expectations for engagement, and their priorities and objectives in relation to the INReMP Programme. This information is then used to tailor engagement mechanism for each type of stakeholder. As part of this process, it is particularly important to identify individuals and groups who may find it more difficult to participate and those who may be differentially or disproportionately affected by the Programme because of their marginalised or vulnerable status.

6.2 Preliminary Stakeholder Identification

Key stakeholders identified for INReMP implementation during stakeholder consultations are presented in table below:

Table 1: Preliminary list of stakeholders

Institution	Primary Role and responsibilities as they relate to
State Department for Crop Development	INRemP Central Government Implementing Agency responsible for overall programme coordination, implementation and monitoring.
	Technically, the department is responsible for National Agricultural Policy and Management; Agricultural Crops Development, Regulation and Promotion; Agriculture Financing; Policy on Agricultural Training; Agricultural Land Resources Inventory and Management; Agricultural Mechanization Policy Management; Policy on Land Consolidation for Agricultural Benefit; Agricultural Insurance Policy; Agricultural Extension policy and Service Standards; Capacity Building Policy for Agricultural Staff; Crop Research and Development; Support in administration of Irrigation Schemes; Agriculture Seed Research and Development; Crop Genetic Research; and Biosafety Management.
Programme Management Unit (PMU)	Implementing Agency on behalf of the Ministry of Agriculture and State department for Crop Development. Staff in the PMU are an important stakeholder.
IFAD Country/Regional Office	Funding Agency, programme policy guidance, supervision and monitoring
Global Environment Facility (GEF)	Co-financing partner, programme policy guidance, supervision and monitoring
FAO	Strategic and operational partnerships
County Governments	Counties are responsible for implementation of specific national government policies on natural resources and environmental

	conservation, including forestry. They are therefore responsible for conservation of water towers that fall in the category of community forests. The County Governments have powers to control or prohibit all businesses, factories and other activities including the proposed programme subprojects which maybe or become a source of danger, discomfort, or annoyance to the neighbourhood and to prescribe conditions subject to which such activities shall be carried. Respective County Governments shall supervise project roll out within respective counties. Counties will be the custodian of the ESCMF and will provide oversight to the implementing Unit in terms of its implementation and monitoring.
State Department for Environment and Climate Change	National Environment Policy and Management; Climate Change/Action Policy; Promotion of low carbon technologies to reduce emissions; Restoration and Protection of Strategic Water Towers through the Kenya Water Towers Agency (KWTA); Protection and Conservation of the Natural Environment; Pollution Control; Lake Victoria Environmental Management Programme; Restoration of Lake Naivasha Basin; Meteorological Services; Conservation and Protection of Wetlands.
State Department for Forestry	Forestry Development Policy; Forestry Management; and Support in Climate Change/Action Policy; and Development of Forests, Re-afforestation, and Agroforestry.
National Environment Management Authority (NEMA)	The responsibility of the NEMA is to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment. In addition to NEMA, the EMCA provides for the establishment and enforcement of environmental quality standards to be set by NEMA which governs the discharge limits to the environment by the proposed project.
State Department for Irrigation	National Irrigation Policy and Management; Water Harvesting and Storage for Irrigation; Management of Irrigation Schemes; Water Storage and Flood Control Management; Mapping, Designating and Developing Areas ideal for Irrigation Schemes; Development of irrigation infrastructure; and Land Reclamation.
State Department for Wildlife	Wildlife Conservation and Protection Policy; Protection of Wildlife Heritage; Management of National Parks, Reserves and Marine Parks. Wildlife Biodiversity Management and Protection; Sustainable Wildlife Biodiversity Economy; Wildlife Conservation Training and Research and Wildlife Conservation Education and Awareness; Wildlife Biodiversity International Obligations and Multilateral Agreements; Human-Wildlife Conflict Mitigation and Response Policy; and Wildlife Sector Governance and Coordination.
State Department for Livestock Development	Livestock Policy Management; Veterinary Services and Disease Control Policy; Range Development and Management; Promotion of Dairy Industry; Livestock Insurance Policy; Promotion of Bee Keeping and apiculture; § Promotion of quality of Hides and Skins; Leather Sector Development and Promotion of Value Chain. Livestock Research and Development; Animal Genetic Research; and Tsetse Fly and Trypanosomiasis Research and Control.

State Department for the Blue Economy and Fisheries State Department for Lands and physical planning	Fisheries and Aquaculture Policy; Co-ordination of Development of Policy, Legal, Regulatory and Institutional Framework for the Fisheries Industry and the Blue Economy; Development of Fisheries; Promote Fish Consumption; Fish Quality Assurance; Capacity Building for Sustainable Exploitation of Agro-Based Marine Resources; Protection of Aquatic Ecosystems; National Lands Policy and Management; Physical Planning for Land Use; Land Transactions; Survey and Mapping; Land Adjudication; Land Registration; National Spatial Infrastructure; Land and Property Valuation Services Administration; Land Information Systems; Maintenance of a Public Land Bank; Administration of Public Land as Designated by the Constitution; Land Settlement Policy and Management; Land Settlement Matters; Rural Settlement Planning.
State Department for Mining	Mineral Exploration and Mining Policy Management; Management of Health Conditions and Health and Safety in Mines;
State Department for Co-Operatives	Co-operative Policy, Standards and Implementation; Promotion of Co-operative Ventures; Co-operative Production and Marketing; Supervision and oversight over Co-operative Societies; Co-operative Savings, Credit and other Financial Services Policy; Co-operative Legislation and Support Services; Co-operative Education and Training; Co-operative Audit Services; Co-operative Financing Policy.
State Department of Public Health	Public Health and Sanitation Policy, Food Quality, Hygiene and Nutrition Policy;
State Department of Water and Sanitation	Water Resources Management Policy and Standards; Water Catchment Area Conservation, Control and Protection; Water and Sewerage Services Management Policy; Waste Water Treatment and Disposal Policy; Water Quality and Pollution Control; Sanitation Management; Management of Public Water Schemes and Community Water Projects; and Water Harvesting and Storage for Domestic and Industrial Use
State Department for Gender and Affirmative Action	Gender Policy Management; Special Programmes for Women Empowerment; Gender Mainstreaming and Community Mobilization on Gender Issues; Domestication of International Treaties/Conventions on Gender; Policy and Programmes on gender-based violence
State Department for Youth Affairs and Creative Economy	Youth Policy and Empowerment;
State Department for Social Protection and Senior Citizen Affairs	Social Protection Policy; Senior Citizens Policy; Policy and Programmes for Persons with Disabilities; Policy and Programmes for Older Persons; Community Development Policy; Community Mobilization; Registration of Self-Help groups; Social Assistance Programmes; Family Protection Policy;
State Department of labour and skills development	National Labour and Employment Policy Management; Labour and Social Protection Policy and Programme Implementation; Industrial Training; Child Labour Policy and Regulations Management; Workplace Inspection; Workman's Compensation Policy; Promotion of Occupational Health and Safety at Work; Industrial Relations Management;
Kenya Water Towers Agency (KWTA	The role of KWTA is to coordinate and oversee the protection, rehabilitation, conservation and sustainable management of water towers in Kenya. In addition, the agency coordinates and oversees the recovery and rehabilitation of forest lands,

	wetlands and biodiversity hot spots. It promotes the implementation of sustainable livelihood programmes in water towers in accordance with natural resource conservation and assesses and monitor rehabilitation, conservation and management activities in water towers.
Kenya Forest Services (KFS)	KFS is a state corporation created through the Forest Act (2005) although now repealed. The KFS is mandated to conserve, protect and manage all public forests and to manage water catchment areas in relation to soil and water conservation, carbon sequestration and other environmental services in collaboration with relevant stakeholders.
Kenya Wildlife Service (KWS)	The KWS is responsible for the conservation and management of water towers that fall under national parks and reserves.
Kenya Forestry Research Services (KEFRI)	KEFRI is an agency responsible for forestry research and development. Its main role in water tower conservation os to offer expert advice on appropriate tree species for each water tower.
National Environmental Complaints Committee (NECC)	Interested party, technical expertise. The National Environmental Complaints Committee (NECC) was established under Section 31 of the Environmental Management and Coordination Act, 1999. It was formerly known as the Public Complaints Committee (PCC) but its name changed in the EMCA (Amendment) No. 5 of 2015. It is an important institution in the assessment of the condition of the environment in Kenya. It plays an important role in the facilitation of alternative dispute resolution mechanisms relating to environmental matters. The NECC makes recommendations to the Cabinet Secretary and thus contributes significantly to the formulation and development of environmental policy.
National Environmental Tribunal (NET)	The NET is established under Section 125 of EMCA for the purpose of hearing appeals from administrative decisions by organs responsible for enforcement of environmental standards. An appeal may be lodged by a project proponent upon denial of an EIA license or by a local community upon the grant of an EIA license to a project proponent. NEMA may also refer any matter that involves a point of law or is of unusual importance or complexity to NET for direction.
Kenya Meteorology departments	Provision of meteorological and climatological services to agriculture, forestry, water resources management, for the better exploitation and utilization of natural resources for national development
Directorate of Occupational Safety and Health Services (DOSHS)	The mandate of the Directorate is to ensure compliance with the provisions of the Occupational Safety and Health Act 2007 and promote safety and health of workers. The programme shall work with the DOSHS officers at the County levels to help oversee that the necessary workplace safety and health requirements are observed, and any related issues are promptly addressed
Environment and Land Court	The Kenya Constitution establishes Environment and Land Court. Article 162 of the constitution provides for the creation of specialized courts to handle all matters on land and the environment. The court has the status and powers of a High Court in every respect. Section 20, of the Environment and Land Court Act, 2011 empowers the Environment and Land Court, on its own motion, or on application of the parties to a dispute, to

	direct the application of including traditional dispute resolution
	mechanisms.
National Council for Persons with Disabilities (NCPWD)	The NCPWD oversees all matters relating to PWDs, including: statutory responsibility for facilitation of disability mainstreaming programmes; formulating and developing measures and policies designed to achieve equal opportunities for PWDs; recommending measures to prevent discrimination against PWDs; and registering persons with disabilities and institutions and organizations giving services to PWDs. NCPWD could also support the process of translating documents and communicating with PWDs (e.g., sign language and braille).
County Environmental Committees	The County Environmental Committees contribute to decentralized environmental management and enable the participation of local communities. These environmental committees consist of the following: • Representatives from all the ministries; • Representatives from local authorities within the county; • Two farmers/pastoral representatives; • Two representatives from NGOs involved in environmental management in the county; and • A representative of each regional development authority.
Water Resources Authority (WRA)	WRA is another state corporation established under the Water Act (2016). It is mandated to, on behalf of the national Government, safeguard the right to clean water by ensuring that there is proper regulation of the management and use of water resources to ensure sufficient water for everyone no and in the future.
Ward Administrators	 facilitating inter-governmental relations and conflict resolutions; Overseeing safe custody of county government assets in the ward; coordinating and liaising with other directorates and departments in the ward; ensuring compliance with legal, statutory and regulatory requirements; enhancing administrative capacity for effective functions and governance at the local level; identifying development projects; disseminating information to the public; and providing linkage between the office and the community.
Chiefs / Assistant Chiefs	chiefs have played a central role in the implementation of policies, the provision of order, and mobilization of political support.
Village Elders	The contemporary village elders are involved in solving disputes among conflicting members in the village they oversee, enforcing government regulations at the local levels, and security related issues as well as enforcing health interventions such as immunization and vaccinations for children. Village elders oversee villages and work under the guidance of chiefs and assistant chiefs.
NGOs and Private Sector / Services Providers (Aggregators and off- takers, agro-dealers, financial institutions and agricultural input suppliers)	Provide support in market systems facilitation, capacity building and strengthening of farmer organisations and producer associations, Ensuring farmers, groups and producer associations have access to inputs, markets and other business development services (including extension support), enabling them to produce for the market
Water Resource User Associations (WRUAs)	Water resources management and NRM Conservation and restoration. These are the most important stakeholders for this

Community	Forestry	programme. Programme staff will actively request to be invited
Associations (CFAs)		to all their meetings at sub-catchment level to share updates
		and plans for verification and endorsement. Community level
		water management
Community		Directly Affected parties / primary Programme beneficiaries.
Beneficiaries		

The above list is not exhaustive. As the Programme gets underway, the PMU should develop a detailed list, identifying emerging and all possible stakeholders, their specific information needs and the appropriate models of engagement as well as feedback mechanisms. The consultation process shall ensure that all those identified as stakeholders are conferred with. Active engagement of all stakeholders will facilitate a common understanding of the specific opportunities and constraints which can be the foundation for deeper harmonization and coordination of the various support services.

Stakeholders for the purpose of this Programme have been identified (refer to Table 1) and will continue to be identified on a continuous basis by identifying those people and institutions that have an interest in the successful planning and execution of the INReMP Programme including *special interest groups*. These include:

- Programme Implementing Agencies (funding agencies, executing agencies (Counties), partners etc.)
- Directly and/or indirectly Programme-affected parties (PAPs) and
- Interested parties (Environmental protection authority, Social and labour regulatory authorities, Contractors, Media, Civil Society etc)

The affected group comprises of community members/farmers, CBOs among others who will benefit from the services offered by the Programme. A subset of this category are the vulnerable groups which are the Indigenous People (IP), People with Disabilities (PWD), women and youths. A significant factor in achieving inclusiveness of the engagement process is safeguarding the participation of vulnerable individuals in public consultations and other engagement forums established by the Programme. Vulnerable groups are persons who may be disproportionately impacted or further disadvantaged by the Programme as compared with any other groups due to their vulnerable status, and that may require special engagement efforts to ensure their equal representation in the consultation and participation in the program. Attention needs to be given to differences within the segments of the same categories e.g. how female youths are affected more than make youths.

Engagement is directly proportional to impact and influence, and as the extent of impact of a Programme on a stakeholder group increases, or the extent of influence of a particular stakeholder on a Programme increases, engagement with that stakeholder group should intensify and deepen in terms of the frequency and the intensity of the engagement method used.

6.3 Stakeholder Analysis

Once stakeholders are identified by directly and/or indirectly Programme-affected parties, interested parties, and those who have the potential to influence Programme outcomes, the next step will be to assess the level of stakeholder interest and support for the Programme. The assessment shall be geared towards identifying:

- stakeholders' interests,
- areas of potential risks and misunderstandings,
- mechanisms to positively influence other stakeholders,
- key people to be informed about the Programme during the preparation and implementation phases and,
- negatively impacted stakeholders as well as their adverse effects on the Programme.

The PMU through its Implementation Partners shall continuously classify stakeholders based on:

- their power to influence and their interest on the Programme,
- the legitimacy of each stakeholder's relationship with the Programme, and
- the urgency of the stakeholder's claim on the Programme activities, potential risks, and impacts.

Based on this analysis, the communication strategy, and the coordination mechanism to be developed by the PMU shall incorporate strategies to engage the 'High Interest and High Influence stakeholders 'and the 'high Interest and Low Influence' stakeholders.

High interest and high influence stakeholders: The plan should be to fully engage this group and apply all effort to ensure that they are satisfied and fully always informed of the Programme. This can be done by focusing efforts on these groups of stakeholders throughout the Programme cycle, giving them the importance, they deserve, involving them in Programme governance decision making bodies and engaging them and consulting them regularly as well as providing timeous feedback. The engagement plan targeting these stakeholders shall be incorporated into the Programme annual work plan.

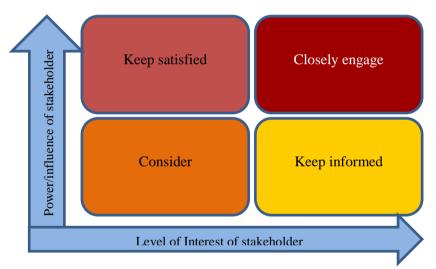


Figure 6-1 Basic Stakeholder Influence/Interest Chart.

(Source: https://www.boreal-is.com/data/uploads/2020/07/A-step-by-step-guide-to-building-a-stakehoder-engagement-plan

High interest and medium/low influence stakeholders: The high interest and low influence stakeholders should be kept informed, ensuring that no major issues arise because of the Programme. The Programme will maintain this group's interest in the Programme, involving them in the implementation arrangements, tapping into their interest and keep them in the loop.

The objective of the engagement and consultation plan under the INReMP Programme is to:

- Begin early in the Programme planning process to gather initial views on the Programme proposal and inform Programme design
- Encourage stakeholder feedback, particularly as a way of informing Programme design and engagement by stakeholders in the identification and mitigation of environmental and social risks and impacts
- Ensure that stakeholders understand how the Programme is likely to affect them
- Ensure consistency in messaging

- Continue engagement on an ongoing basis as risks and impacts arise and manage stakeholders' expectations
- Ensure prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information in a timeframe that enables meaningful consultations with stakeholders in a culturally appropriate format, in relevant local language(s) and is understandable to stakeholders
- Consider and respond to feedback
- Support active and inclusive engagement with Programme-affected parties
- Ensure that consultation(s) is/ are free of external manipulation, interference, coercion, discrimination, and intimidation; and
- Ensure consultation(s) is/are documented and disclosed by the Programme

7 Stakeholder Engagement Considerations

The following considerations should be made when planning for stakeholder engagement:

Resourcing Stakeholder Engagement: Stakeholder engagement requires resources as it takes time to develop and build trust-based relationships with stakeholders. Relationships with stakeholders should develop and grow, and that these relationships should be sustained. Additional stakeholders might be identified that also want to be engaged. Some stakeholders will need to be educated about the concept of engagement itself, as well as on the complex issues requiring specialised and technical knowledge. These demands can increase the cost of consultation required to meet external expectations.

Managing expectations: Stakeholders can have unrealistically high expectations of benefits that may accrue to them from the Programme and as such the engagement information must be clear on what they can and cannot do, establishing a clear understanding of their roles and responsibilities. The engagement processes should provide PMU with an opportunity to develop relationships with stakeholders and potential Programme partners.

Securing stakeholder participation: Cultural norms and values can prevent stakeholders from freely participating in meetings. Often there are conflicting demands within a community, and it can be challenging for the Programme to identify stakeholders who are representative of common interests. There may be a need to employ local officers who are sensitive to local power dynamics e.g. an individual from the Indigenous Peoples groups who is working in the county or attached to the PMU.

Consultation fatigue: Stakeholders can easily tire of consultation processes especially when promises are unfulfilled, and their opinions and concerns are not taken into consideration. Often stakeholders feel their lives are not improving because of the Programme and this can lead to consultation meetings being used as an area to voice complaints and grievances about the lack of development. Implementing Partners must not make promises to stakeholders; expectations should be managed through dissemination of accurate information. Opinions for stakeholders should be treated as feedback to the Programme and other Programme partners and specialists.

7.1 Planning for Stakeholder Engagement

Prior to the commencement of stakeholder's engagement activities, meetings shall be scheduled with relevant traditional authorities, community representatives, political leaders in the counties, ministries and departments, media, and other Interested & Affected Parties (I&APs). The purpose of these meetings shall be to refine stakeholder's engagement strategy to meet the requirements of I&APs and ensure that future communication is effective and cognizant of all social sensitivities.

The PMU will establish an operational plan in line with proposed Programme activities to ensure the participation and engagement of the stakeholders, ensuring that each group gets involved as defined and receive the agreed information. The plan must ensure a balance in the involvement and benefits between different gender segments and the participation of vulnerable groups, ensuring that the Programme's objectives are met in terms of contributing towards wealth creation, and improve food and nutrition security among the rural population. Regular meetings will be scheduled with the representatives of the groups of actors involved in the Programme, for the revision of the plan, activity progress and necessary adjustments according to probable changes in the initial context during the execution of the Programme.

a) Stakeholder Consultation Techniques/Methods

There are a variety of engagement techniques used to build relationships with stakeholders, gather information from stakeholders, consult with stakeholders, and disseminate Programme information to stakeholders. For the engagement process to be effective and meaningful, a range of techniques need to be applied that are specifically tailored to the identified stakeholder groups. The format of every engagement activity should meet general requirements on accessibility, i.e., should be held at venues that are easily reachable and do not require long commute, entrance fee or preliminary access authorization, cultural appropriateness (i.e., with due respect to the local customs and norms), and inclusivity, i.e., engaging all segments of the Programme affected parties including the vulnerable individuals. If necessary, logistical assistance should be provided to enable participants from the remote areas, persons with limited physical abilities and those with insufficient financial or transportation means to attend public meetings scheduled by the Programme. Particular attention will be given to the vulnerable groups to ensure that they are not denied Programme benefits.

In general, public consultations will take place through workshops, seminars, meetings, radio programs, request for written proposals/comments, questionnaire administration, public reading and explanation of Programme ideas and requirements. In the event of an emergency (e.g., floods or disease outbreak) however, there need to be a paradigm shift as to how engagement processes are carried out to minimize risk of infection and spread of the disease. There is need to do a cost-benefit analysis and strike a balance between virtually based communication channels and those that need physical interaction. The techniques mostly used in SEP are outlined in table below:

Table 2: Stakeholder Consultation Techniques

ENGAGEMENT	APPROPRIATE APPLICATION OF THE TECHNIQUES
TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUES
PMU - Internal	 Emails Progress Meetings Bulletin board Grievance procedure Code of conduct
Official correspondences (Phone, Emails)	 Distribute information to co-Implementing partners (at national, county and extension level), other Government departments, NGOs, Local Government, private sector, and organisations/agencies Invite stakeholders to meetings and follow-up
Multi-stakeholder meetings and/or Workshops	 Present Programme information to a group of stakeholders Allow a group of stakeholders to provide their views and opinions Use participatory exercises to facilitate group discussions, brainstorm issues, analyse

	information, and develop recommendations and strategies
	Record responses
Social media (WhatsApp,	 Share information with beneficiaries
SMS, Face book, Twitter,	 Distribute information to Co-Implementing
Zoom, Microsoft Meetings	partners
Google classes etc	 Invite stakeholders to meetings and follow-up
	 Online Meetings with stakeholders
	Online Workshops with stakeholders
Programme website	Present Programme information and progress
	updates
	Disclose ESCMP, ESIAs, SEP, GRM and other
	relevant Programme documentation
One-on-one physical	Seeking views and opinions
meetings	· · · · · · · · · · · · · · · · · · ·
	issues
	Build personal relationships
	Record meetings
Formal physical meetings	Present the Programme information to a group of
	stakeholders
	 Allow group to comment – opinions and views
	 Build impersonal relation with high level
	stakeholders
	 Disseminate technical information
	Record discussions
Public consultation	 Present Programme information to a large group
meetings (Barazas)	of stakeholders, especially communities
	 Allow the group to provide their views and
	opinions
	Build relationship with the communities, especially
	those impacted
	Distribute non-technical information
	Facilitate meetings with presentations,
	PowerPoint, posters etc.
Focus group mostings	
Focus group meetings	Present Programme information to a group of atalyshalders (2.15 page).
	stakeholders (8-15 people groups)
	Allow stakeholders to provide their views on
	targeted baseline information
	Build relationships with communities
	Record responses
Programme leaflets	Brief Programme information to provide regular
	update
	 Site specific Programme information.
Surveys	 Gathering opinions and views from individual
	stakeholders
	Gather baseline data
	Record data
	Develop a baseline database for monitoring
	impacts

7.2 Engagement Activities and Information Disclosure

7.2.1 Stakeholders Engagement Stages and Activities

Table 3: Stakeholder Engagement stages

Table 3: Stakeholder Engagement stages							
STAGE	OBJECTIVES	KEY ACTIVITIES	TARGET STAKEHOLDERS				
Preliminary Engagements	To gain a preliminary understanding of the scope of the INReMP Programme and relevant stakeholders; To meet key	 Field Visits Stakeholder identification process Project inception 	 Government Ministries and state departments County departments Communities Local/traditional Leadership Government 				
	stakeholders and introduce them to the Programme and Grievance Redress Mechanism (GRM) Process, To disclose the GRM as well as other Programme documents in the public domain to all interested and affected stakeholders, To gather issues of concern and through this identify a list of potential negative and positive impacts,	workshops Project Management Offices / focal points Meetings with key stakeholders to facilitate the broader stakeholder's engagement process, Dissemination of engagement materials (background information documents, posters, media notices etc.), Consultations through training workshops with GRM focal points, and all other stakeholders Feedback from stakeholders.	Ministries and state departments, County departments Communities, Local Leadership INReMP Consultants, NRM and Crop Extension Officers NGOs Vulnerable Persons				
Disclosure of the Grievance Redress Mechanism (GRM) and other Programme specific Reports.	To expose the stakeholders to the developed GRM and other Programme specific Reports.	 Disseminate the GRM and other Programme specific Reports to all stakeholders, Expound the contents of the GRM and other Programme specific Reports to all stakeholders 	 Government Ministries and state departments County departments Communities Local Leadership General Public Media 				

7.2.2 Current Stakeholder Engagement

Consultations for INReMP were held as part of project preparation in 2023 and 2024 during the scoping and design phases respectively. More specifically, during the preparation of the ESCMF, this Stakeholder Engagement Plan as well as the Indigenous People's Plan. A Summary of the issues / concerns from stakeholders ranged from; Adequate involvement of diverse stakeholders giving attention to the differences within each group (age, gender, economic status etc), capacity building of communities in natural resource management, enhancement of livelihood initiatives especially seed funding and market linkages, provision of quick alternative livelihoods to pave way for regeneration of wetlands and

forests, ensuring that infrastructure to be constructed by INReMP will be well operated and maintained, ensuring the programme design includes community needs including needs of the most vulnerable, improvement of information disclosure between programme and beneficiaries, more support to vulnerable persons and community Training on safety awareness.

7.2.3 Information Disclosure

The type of information to be disclosed to the various stakeholders depends on their interests and how they will be affected by the Programme – or how INReMP activities may be affected by them. Thereafter various communication tools can be utilized for the engagement process, such as:

- Programme notices published in local newspapers,
- Radio advertisements,
- Direct mailings to communities,
- Presentations with or without focus group sessions),
- Targeted e-mails,
- One-on-one meetings, presentations, seminars, workshops, e-mails, and phone conversations with stakeholders,
- Site tours, and
- The use of social media.

7.3 Communication Plan

Below is an example of a Stakeholder Engagement Communication Plan that can be adapted by the Programme and sub-projects.

Table 4: Stakeholder Engagement Communication Plan

	gement Communication Plan	M 11 1 C	_
Stakeholders	Information	Method of	Frequency
Who are they?	What information do you need to give them	Engagement/Channel	How often do
		Where do they get their	you need to
		information	share this
			information
- Programme Beneficiaries	 Seeking Free Informed and Prior Consent 	 Community Meetings 	 Inception
including Indigenous	• Programme activities and how these relate to them in terms of	,	Quarterly
People	opportunities and threats e.g;	 Presentations and 	•as need
- Surrounding	- Identification of natural and environmental resources to be	posters	arises
Communities / Indirect	rehabilitated, restored and protected (surveys and mapping)	• Focus Group	throughout
Beneficiaries	- Assessing effectiveness and efficiency of infrastructure to be	discussions and	programme
disaggregated by	improved	 Hearing sessions 	term
vulnerability	- Sharing traditional knowledge systems related to forest and	 Informal, targeted 	
- Community Based	ecosystem management that will lead to preservation of	talks	
Management Committees	biodiversity	 Social media 	
- Local leaders (Chiefs,	• SECAP programme requirements and opportunity for community		
tribal and Indigenous	to express environmental impact fears and get feedback e.g.,		
People leaders, religious	accidental release/escape; contamination; emergencies, etc.		
organisations	• Present GRM and other Programme specific information		
	(objectives, targeting, benefits etc) to Programme communities		
	 Induction and sensitisation on GBV and SEAH 		
	 Build relationships with the communities 		
	• Feedback from community where they can be allowed to provide		
	their views and opinions including traditional knowledge systems		
	 Adoption of proposed methodology and 		
	 Replication by other communities 		
- Central and County	• To communicate Programme information, key expectations, status	 Inception Workshop 	Inception
government departments	and updates	Formal Meetings\	Quarterly
led by Ministry of	• Evaluation and approval of programme outputs (adaptation	 Training physical and 	•as need
Agriculture	measures, etc)	virtual Workshops	arises
	 Provision of access to data required e.g regulatory issues 		throughout

	 Contribution of expertise Grievance Redress Mechanism training Induction and training on GBV and SEAH Sharing Implementation results, findings and experience. Communicating Monitoring/Evaluation process and results Information on the SECAP consultants and their independence 	Baseline surveys / subsequent surveys to monitor impacts	programme term
 Ward Agricultural, irrigation, forestry/environmental, social officers Other Extension staff 	 Programme Information Present information on SEP and GRM and other Programme specific reports to them Induction and training on use of SEP and GRM tools Induction and training on GBV and SEAH Distribute non-technical information (available information on new technologies, crops varieties for improved yield etc) Facilitate meetings with presentations, PowerPoint, posters etc. 	Inception WorkshopFormal MeetingsOther Workshops	• Inception • Monthly
 Programme Field Officers (PFOs) Safeguards Specialists Consultants	 Induction and training on SEP and use of GRM tools Distribute technical and non-technical information Feedback, views and opinion Request guidance on how to handle INReMP issues related to their views and opinions 	 Inception Workshop Formal Meeting Other Workshops Email presentations, PowerPoint, posters 	• Monthly
- Academic Institutions	 Professional, Research and Internship opportunities Increase programme awareness Technical expertise and advice on Carbon Trading 	WorkshopsResearch papersBulletin boards	•Annual
- Media	 Advocacy and publicity related information Wide dissemination of programme results Link to communities 	Press StatementsNews articles	•as need arises throughout programme term
 Intergovernmental Institutions including funding organisations and NGOs 	 Sharing implementation findings and experience on safeguards Build partnerships through meetings, seminars, workshops 	Intergovernmental meetings and consultations	Quarterly
Add more stakeholders and	include other context specific engagement methods as necessary.		

8 Grievance Redress Mechanism

8.1 Introduction

Implementation of sub-projects activities under INReMP will take place in wards and villages within the ten counties selected for the programme. The implementation may generate a number of challenges and complaints especially to those which relate to infringement of rights of sections of the society.

Typical grievances anticipated under the INReMP include: land boundary disputes; dissatisfaction over controlled access to forests, wetlands and grazing area; water sharing issues; pollution of water in any watercourse; obstruction of any river/stream or watercourse; cutting and wasteful destruction of trees; activities causing spread of diseases for both human beings and animals; exclusion and participation in projects as well as sharing of benefits from the project etc.

As part of addressing such complaints and in the spirit of the continuous consultation process, a Grievance Redress Mechanism (GRM) has been developed for the Programme. The GRM will consist of three parallel systems at the disposal of the community and will be applied at the discretion of the complainant and/or the nature of the grievance. Three systems are; i) a community-based system ii) a County level system and iii) the IFAD Complaints procedure.

The GRM will be a system by which queries or clarifications about the programme will be responded to, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively. The purpose of the grievance redress mechanism is:

- To be responsive to the needs of beneficiaries and to address and resolve their grievances;
- To serve as a conduit for soliciting inquiries, inviting suggestions, and increasing community participation;
- To collect information that can be used to improve operational performance;
- To enhance the programme's legitimacy among stakeholders;
- To promote fairness, transparency and accountability;
- To deter fraud and corruption and mitigate programme risks.

The three systems are presented below;

8.2 First Level: Community/Traditional Based System

The Community based system will be a stand-alone Grievance Mechanism where the communication mechanism involves only community members and will be site specific. This will be used to facilitate agreements among community members but also to solve disagreements where these might occur. The Community Based Grievance Redress Mechanism, aims to use the existing traditional structures and facilitate grievance resolution at higher levels (which may include the court of law, where necessary).

Communities tend to rely substantially on their own local social regulatory systems including mechanisms to deal with grievances that work in parallel with the formal systems. These internal social regulatory systems will be used to the extent possible at community level. Recourse where necessary will be facilitated by the Programme, but in general the INReMP PMU will ensure easy access to information through culturally appropriate means and language of communication.

In solving problems, negotiation and agreement by consensus will provide the first avenue to iron out and resolve any grievances expressed by programme affected individuals. However, the channels will have to be in line with the norms of the communities as well as laws of the country. Thus, the process will involve informal courts handled by traditional

leaders (Village Elders, Assistant Chiefs and Chiefs) and/or other recognised local leaders as and when applicable.

i) Village level

The first port of entry is the Village Grievance Redress Committee (VGRC) to operate at village level. The main targets at this level are the communities and project beneficiaries. In every village, three community leaders shall be appointed and trained to handle complaints. The Village Elder and the committee presides over the matter over a set time (not more than 15 days) from receipt of the grievance to act upon it.

The Village Elder and the committee shall dedicate days when they are available to receive and resolve complaints. Once they receive a complaint, they shall be mandated to register the complaint, investigate and recommend an action. The received complaint shall be recorded on a standardized GRM form provided by the PMU.

ii) Area/Ward Level

When one party is not satisfied with the decision at village level, the complaint can be taken up to the Area/Ward Grievance Redress Committee (WGRC). The WGRC operates at Chief or Assistant Chief Level's court. In most cases, many such complaints get sorted out at the Chief level.

iii) County Level

However, those who are not satisfied will be allowed to appeal to the County Commissioner (DC). At this level the County Grievance Redress Committee will preside over the case.

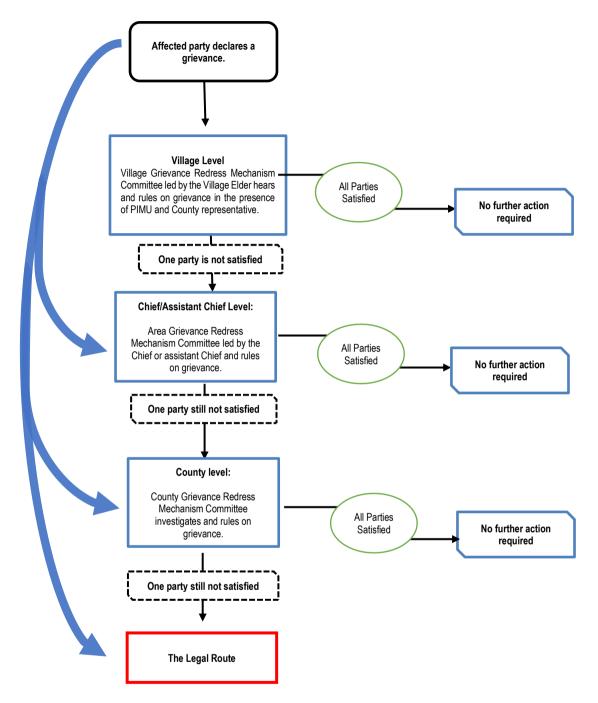


Figure 2: Traditional/Community Grievance Redress Mechanism

However, if the aggrieved party is still not satisfied then they can ultimately take the legal route. The legal route includes Magistrates, High Court and Supreme Court and Constitutional of Kenya. These courts handle both civil and criminal cases. With regards to complaints and cases during INReMP, people with complaints will have opportunity to take cases to these courts for review and determination on course of action. Such cases may include review of amount of compensations, cases of theft of valuable property as well as physically harming each other. Magistrate courts are generally located in every county in Kenya and these would help complainants to access the services of these magistrates in case such needs arise.

Points of receipt of complaints at community level

The community members shall be advised to register their complaints at the following points:

- i. The Village Elder and the appointed community leaders
- ii. Chief/assistant chief of the area
- iii. INReMP Project Officer (PMU)

Mode of receipt and recording of Complaints

The complaints can be made in writing, verbally, over the phone, or email. The officer receiving the complaints should try to obtain relevant basic information regarding the grievance. It is anticipated that at this level, most complaints will be made verbally. The receiving points shall be in possession of a standardized complaint form which must be filled in for every complaint. As soon as a complaint is received, an acknowledgement form, shall be issued. The PMU shall adequately equip the GRM handling structures with the necessary capacity including stationery.

Handling complaint cases

The GRM handling teams at all the three stages shall set a date to investigate the matter, after which they shall provide a recommendation. If necessary, meetings have to be held between the complainants and the concerned officers to find a solution to the problem and make arrangements for grievance redress. The deliberations of the meetings and decisions taken are recorded in a standardized format as shall be provided by the PMU.

Timeline for the resolution

Resolution at community level will be done within 15 working days and notified to the concerned through a standardized disclosure form to be provided by the PMU. Should the Grievance not be solved within this period, it would be referred to the next level of Grievance Redress. However, if the complainant requests for an immediate transfer of the issue to the next level or is dissatisfied with the recommendation, the issue will be taken to the next level.

8.3 Second Level: County Level

The main targets of this system are project implementers, executers, communities and project beneficiaries and their related institutions. At every county implementation level, a grievance handling committee shall be appointed and trained to handle complaints. This committee shall work under the supervision of the County Director of Environment in coordination with the department responsible for Social Welfare issues.

The County Grievance Redress Mechanism consists of the following components which will be facilitated by the PMU:-

- The access point for impacted/concerned people will be situated as close to the beneficiary farmers as possible, such as places at the sub-project and PMU offices.
 PMU staff will be responsible for receiving the Grievances, classifying and logging them. In areas where PMU staff are not available, ward administrators will receive the grievances.
- An acknowledgement of receipt should be given to the complainant containing an expectation of when they will receive a response.
- The grievance is then assessed and investigated to identify all the key facts.
- A resolution is then arrived at and the proposed actions are confirmed with PMU/Department of Environment senior members of staff.
- A response is then communicated to the complainant within the timescale promised.
- Once done the case is brought to a closure and other PMU staff members should be made aware of the nature of the complaint, any underlying issues and plans to prevent any future recurrence of the issue.
- The complainant is given room to appeal to the county and national Courts of Law if they are not satisfied with the response.

The structure of the County GRM consists of a number of components as follows:

- The access point for impacted/concerned people
- Grievance log
- Acknowledgement stage
- Assessment stage
- Passing of resolution
- Response
- Room for appeal
- Case closure

8.3.1 Process Overview

The following key steps must be followed for all complaints received:

a) Receive, Classify and Log

Summary

Ensure that all potential issues are captured and classified for escalation, review and action as required.

Receiving the Grievance

The access points will be as close to the users as possible. An easily accessible and well publicized focal point or user-facing 'help desk' is the first step. This will be established at each sub-project, and PMU offices so that it will be seen as credible and accessible. In areas where PMU offices are not established the grievance will be handled by the Ward administrators. The main issues for the access point include the following:

Uptake channels should include some or all of the following: phone hotline, email, mail, SMS, webpage, or face-to-face.

- The uptake channels will be publicized and advertised via local media and the implementing agency.
- Verbal complaints should be recorded by staff for them to be considered.
- Many complaints may be resolved 'on the spot' and informally by the PMU staff but should also be logged in order to (i) encourage responsiveness; and (ii) ensure that repeated or low-level grievances are being noted in the system.
- The GRM should have the ability to handle anonymous complaints.

Typically, the complainant will be provided with a receipt and 'roadmap' telling him/her how the complaint process works and when to expect further information.

Logging and classifying

Any complaint, issue or negative stakeholder interaction (whether this is formally logged by the complainant or not), must be logged and classified for action.

All of these complaints must be formally logged using the standard forms.

All complaints must be prioritised as follows:

- ✓ Priority 1 urgent, potential high health and high business impact. This requires a response to the Complainant within three (3) working days.
 - This should be used (sparingly) for major health issues where the complaint may have disastrous impacts on either human, the environment or the project itself.

- Also, this could be used in a situation where the complainant may be in a position to influence or make public statements that would impact upon the project reputation.
- ✓ Priority 2, non-urgent, lower health environmental and social impact. This requires a response to the complainant within 2 working weeks.
 - This should be used for most complaints with individual stakeholders, as this allows a reasonable time to collect information and produce a balanced response.
- O Discretion and flexibility should be exercised in prioritising all complaints
- The staff member logging the complaint should review the complaint and its priority with the PMU Coordinator before proceeding to the next step.
- The PMU Coordinator will decide on the appropriate person(s) to carry out subsequent steps, including the investigation.
- All Priority 1 complaints must be escalated immediately to the PMU Coordinator.

b) Acknowledge

Summary

Ensure that every complaint receives a formal written acknowledgement, containing an expectation of when they will receive a response, and the person dealing with it.

O All complaints, regardless of priority, should receive a pro forma acknowledgement sent out 1st class mail on the day of receipt.

c) Assess and Investigate

Summary

Follow up all aspects of the complaint, both internal and external, to ensure that the key facts are identified and clarified.

- The priority of the complaint will drive the timescale for completion (3 days for urgent or 2 weeks for non-urgent).
- O All areas of interaction and communication should be established (who, what, where, when, why etc.) and documented where possible.

d) Resolve and Confirm

Summary

Ensure that the final resolution is clear and fair. Also confirm the proposed action and resolution with another senior person (INReMP – PMU).

- Ensure that the proposed resolution meets corporate guidelines and does not prejudice the project in any unnecessary legal or financial manner.
- O Document the proposed action and discuss and agree with the PMU Coordinator.
- O Discuss and review the solution from both the corporate and complainant viewpoint to ensure fairness and clarity.
- The review should include recognition and documentation of any underlying issues that have contributed to the complaint and recommendations for actions to prevent further occurrence.
- O This should then be reviewed as part of the bi-monthly quality assurance reviews.

e) Respond to Complaint

Summary

Provide the Complainant with the resolution within 15-day period but may be sooner depending with the nature of the complaint.

- O The details of the findings and proposed resolution should be clearly explained (in written or verbal form as appropriate) to the complainant- within the agreed timescales.
- If this cannot be done on time the Complainant should be contacted by telephone to request further time.

f) Appeal and Follow Up

Summary

Ensure that complaints are followed up to confirm that the complainants are satisfied with the response given. If not satisfied the Complainant is advised on the route for Appealing.

- O All Priority 1 complaints (GBV, SEAH and child labour cases) and 95% of priority 2 complaints must be followed up within a reasonable timescale.
- O This will be carried out by project administration team / PMU Coordinator's office.
- The follow-up should identify the following
 - Is the complainant satisfied with the response?
 - Did they feel that their complaint was properly and fairly handled?
- Any negative responses to these questions should be referred to PMU Coordinator for action and direct follow up with the complainant.
- The complainant is given room for appealing to the Ministry of Agriculture or Courts of Law, if he is not satisfied.

g) Questions, Answer and Close

Summary

Ensure that the PMU as a whole is aware of the complaints and any underlying issues. Plan actions to remove these and prevent future recurrence.

- All complaints should be reviewed monthly as part of the quality assurance review meetings.
- Any complaints where action can be taken to avoid recurrence must be acted upon and raised with the appropriate managers/teams across the project.

8.4 Third Level: IFAD Accountability and Complaints Procedure

Besides the proposed GRM approach, aggrieved persons can also employ additional channels to air their complaints. These include the IFAD Accountability and Complaints Procedures.

The objective of the IFAD Complaints Procedure is to ensure that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP.

Complaints must concern environmental, social and climate issues only and should not be accusations of fraudulent or corrupt activities in relation to project implementation – these are dealt with by IFAD's Office of Audit and Oversight.

To file a complaint for alleged non-compliance with IFAD's social and environmental policies and mandatory aspects of its SECAP, IFAD will consider only complaints meeting the following criteria:

- The complainants claim that IFAD has failed to apply its social and environmental policies and/or the mandatory provisions set out in SECAP.
- The complainants claim that they have been or will be adversely affected by IFAD's failure to apply these policies.
- Complaints must be put forward by at least two people who are both nationals of the country concerned and/or living in the project area. Complaints from foreign locations or anonymous complaints will not be taken into account.
- Complaints must concern projects/programmes currently under design or implementation. Complaints concerning closed projects, or those that are more than 95 per cent disbursed, will not be considered.

A complaint relating to non-compliance with IFAD's Social and Environmental Policies and mandatory aspects of its SECAP can be submitted by downloading the complaints form on the IFAD website or to send an email to SECAP complaints@ifad.org. If you email or mail your complaint, please include the following information:

- Name, address, telephone number and other contact information
- Whether the complainants wish to keep their identity confidential, and if so, why
- Name, location, and nature of the IFAD project/programme (if known)
- How the Complainants believe they have been, or are likely to be, adversely affected by the IFAD-supported project or programme

Complaints sent by mail should be addressed to: IFAD, SECAP Complaints (PMD), Via Paolo di Dono 44, 00142 Rome, Italy

9 Managing GRM

Effective management demands that the GRM be well understood by potential users and implementers of the GRM. There has to be good coordination of the GRM, and the GRM has to be well-resourced.

9.1 Public Awareness of the GRM

The GRM will occupy a central place in the PMU and Ministry of Agriculture Communication Strategy to create public awareness of the GRM. The information, education and communication activities to publicise the GRM will include public sensitisation through media and meetings at national, county and community levels, including distribution of GRM brochures in public places. Part of the public awareness to make the GRM accessible will involve translating the English version of the GRM and the accompanying registry forms into local languages spoken in each of the ten counties (may include but not limited to Kiswahili). The PMU will develop and share the necessary forms required for registering and reporting all grievances especially at community and at the county programme level. Grievance cases that are taken to the official courts and/or to IFAD directly should be recorded by the PMU accordingly.

9.2 Capacity Building and Monitoring

Stakeholders shall be trained on the GRM processes and steps to ensure that they perform their roles effectively and with speed to the satisfaction of the aggrieved parties and project expectations shall be taken. The preparation of a monthly report on the types of grievances raised or received will help in identifying complaints that are most common. With this information, actions can be taken to first avoid the rise of this type of complaints in the future. The monitoring of grievances is essentially a learning exercise to improve situation on the ground. It will be the responsibility of the Social Safeguards Specialist in

the PMU to monitor the performance of the GRM through reports from the local, ward to county level.

10 SEP Resources and Responsibilities

10.1 Responsibilities

The management, coordination and implementation of the SEP and its integral tasks will be the responsibility of dedicated team members within the PMU through Environmental and Social and Climate Safeguards Specialists whose roles and responsibilities of the organizations are presented below.

The Programme Management Unit

The PMU will be accountable for ensuring INReMP achieves its development objectives and for oversight of all day-to-day operations of the Programme. The PMU will also be responsible for all reporting requirements of GoK and IFAD related to the Programme. The PMU under the oversight of the Permanent Secretary will work closely with relevant stakeholders to ensure that the SEP is implemented in a successful manner.

Environmental and Climate Safeguards Specialist

The person will be responsible for the management of Programme related environmental safeguards issues and will have oversight over all stakeholder engagement activities as well as other Programme specific safeguards documents. Responsibilities will include the following:

- Continuous development, implementation and monitoring of the stakeholder's engagement plan and other Programme specific documents
- To bring together the different stakeholders engaged in climate financing and develop joint strategies and plans, ensuring that key stakeholders are engaged while creating and maintaining momentum. Liaise with the Programme Coordinator to ensure that stakeholders engagement requirements are understood
- To develop and maintain the stakeholder database/map and
- Proactively identify stakeholders, Programme risks and opportunities and inform Programme Coordinator to ensure that the necessary planning can be done to either mitigate risk or exploit opportunities.
- To initiate the Technical Working Group on environment protection and Climate Change, identifying participants, organizing several initial meetings, and ensuring the TWG is a useful and efficient instrument for technical collaboration.
- To organize regular meetings and/or prepare regular communications, in close collaboration with the PMU
- To ensure compliance with SECAP and NEMA social and environmental standards, and regularly review and update the social and environmental assessment procedures.

Gender and Social Inclusion Specialist

The Social Inclusion Specialist will be responsible for the management of Programme related social safeguards issues. He/she will oversee all stakeholder engagement activities regarding the implementation of the GRM as well as other Programme specific documents. Responsibilities will include the following:

- Continuous Development, implementation and monitoring of the stakeholder's engagement plan, GRM and other Programme specific documents
- Guiding and overseeing community sensitization processes, ensuring that key information reaches all intended target groups, that beneficiary selection is transparent and in line with pre-defined criteria and that all target groups participate in relevant programme decision-making processes.
- Liaising with local stakeholders regularly to disseminate information about social risk mitigation activities considered by INReMP.

- Liaise with the Programme Coordinator to ensure that stakeholder engagement requirements are understood.
- Maintain the stakeholder database and
- Proactively identify stakeholders, Programme risks and opportunities and inform Programme Coordinator to ensure that the necessary planning can be done to either mitigate risk or exploit opportunities.

Resources

The design and implementation of a detailed and accurate SEP will be the overall responsibility of the PMU. The Programme Coordinator will oversee the SEP implementation to ensure the success of the INReMP Programme.

Budget

The Programme Coordinator will ensure that the PMU has an adequate standing budget allocated towards the Stakeholder Management Programme. Preliminary budget allocation has however been made in the ESCMP (Volume I).

Training

All the INReMP partners and PMU team members will attend a workshop whose focus will be to bring awareness on the Programme, SEP, GRM, IPP, IPMP as well as other Programme specific documents. The training can be organised at multi-level to accommodate all stakeholders and allow free expression of concerns regarding the project.

10.2 Monitoring and Reporting

Monitoring and evaluation of the SEP process is vital as it ensures that the PMU can respond to identified issues and alter the schedule and nature of engagement activities to make them more effective. As part of the SEP, a mechanism for providing feedback to the stakeholders on their information needs will be set up. In addition, the SEP will include means for monitoring the effectiveness of the public consultation processes and outcomes from consultations, and for determining where further action may be necessary regarding engagement.

The Safeguards specialists in the PMU will be responsible to ensure that the SEP is implemented throughout the life of the Programme. They will also be responsible for communicating and reporting on all stakeholder matters to the Programme Coordinator.

Monitoring of the stakeholder engagement process allows the efficacy of the process to be evaluated. Amongst others the following monitoring activities will be implemented:

- During the engagement activities: short-term monitoring to allow for adjustments/improvements to be made during engagement; and
- Following completion of all engagement activities: review of outputs at the end of engagement to evaluate the effectiveness of the SEP as implemented.

To help in the monitoring system, a series of key performance indicators for each stakeholder engagement stage will be developed. Table below shows an example of the indicators and performance against the indicators to show successful completion of engagement tasks.

Table 5: Key Performance Indicators

PHASE	ACTIVITIES	INDICATORS		
Planning for Programme	Share updates on Programme activities	Posters displayed in allocated service centres by time specified		
GRM, SEP and other Programme	Share updates on SEP, GRM and other	Posters displayed in allocated service centres by time specified,		

specific documents Implementation	Programme specific documents activities	Affected community stakeholders will have received and understand the information disclosed and attended the public meetings, Communities provided feedback,
		No complaints about non-receipt of Programme specific documents received.

The identification of INReMP related impacts and concerns is a key element of stakeholder engagement that will occur over the complete Programme life cycle. As such, the identification of new concerns, impacts and grievances as the GRM and Programme progress will serve as an overall indicator for the implementation of the stakeholder engagement process. There are two keyways in which the stakeholder engagement process, as will be provided for in the M&E action plan, will be monitored:

10.2.1 Review of Engagement Activities in the Field

During the engagements with stakeholders the engagement team will assess meetings using the following engagement tools:

- Stakeholders database,
- Issue and Response table, and
- Meeting records of all consultations held.

10.2.2Reporting Stakeholders Engagement Activities

Performance will be reviewed following the stakeholder's engagement sessions conducted in the field. In assessing performance, the following will be considered:

- Materials disseminated: Types, frequency, and location,
- Place and time of formal engagement events and level of participation including specific stakeholders' groups e.g., Chiefs,
- Number of people attending public or formal meetings,
- Number of comments received type of stakeholder and detail of feedback provided.
- Meeting minutes, attendance register and photographic evidence,
- Numbers and type of stakeholders who contact the INReMP Programme team by mail, telephone, and any other means of communication,
- Comments received by government authorities, community leaders and other Programme partners and passed to the INReMP Programme, and
- Number 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



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex: Volume 2 I Pest Management Plan

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department



INTEGRATED PEST MANAGEMENT PLAN

For the

Integrated Natural Resources Management Programme (INReMP) in Kenya

VOLUME II

MARCH 2024

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Abbreviations and Acronyms

CFAs	Community Forest Associations
CIDPs	County Integrated Development Plans
CIGs	Common Interest Groups
DOSHS	Directorate of Occupational Safety and Health Services
EMCA	Environment Management and Coordination Act
FAO	Food and Agriculture Organization
GAPs	Good Agricultural Practices
IFAD	International Fund for Agricultural Development
INReMP	Integrated Natural Resources Management Programme
INRM	integrated natural resources management
IPM	integrated pest management
IPPC	International Plant Protection Convention
KALRO	Kenya Agriculture and Livestock research Organization
KEBS	Kenya Bureau of Standards
NEMA	national Environment Management Authority
NGO's	Non-government Organization
NRM	natural resources management
PCPB	Pest Control Products Board
PDO	Program Development Objective
PES	Payment for Ecosystem Services
UTaNRMP	Upper Tana Catchment Natural Resource Management Project
WCCCs	Ward Climate Change Committees
WHO	World Health Organization

1.0 INTRODUCTION

1.1 BACKGROUND AND CONTEXT

The Government of Kenya and IFAD are currently designing an 8-year programme titled "Integrated Natural Resources Management Programme (INReMP). The programme will scale-up results of the completed Upper Tana Catchment Natural Resource Management Project (UTaNRMP). INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega; c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. This will be done by supporting integrated natural resources management (NRM), access to payment for environmental services and improved nutrition-sensitive production and sustainable rural livelihoods. The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture

1.2 THE PROJECT DEVELOPMENT OBJECTIVE, OUTCOMES AND COMPOM

1.2.1 The project objective

The Program Development Objective (PDO) is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'

1.2.2 The Project Expected Outcomes

INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes:

Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action;

Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and

Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

1.3 PROJECT COMPONENTS.

The proposed project consists of three main components:

1.3.1 Component 1

Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and quality; d) improve dietary diversity; and e) capacity building of community-based

organizations, such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs.

Subcomponent 1.1: Community Empowerment and Gender Transformative Approaches. This subcomponent will be informed by the County Integrated Development Plans (CIDPs) that specify community priorities per sub-county and ward. Community empowerment will include community awareness creation, sensitization, prioritization of actions and development of Community action plans. Example community organizations to be targeted are Community Forest CFAs, WRUAs, Ward Climate Change Committees (WCCCs), Beach Management Units (BMUs), Farmer Organizations (FOs) and Common Interest Groups (CIGs) including those for women, youth, PWDs and vulnerable groups. INReMP will support establishment and strengthening of already existing community organizations and committees before creating new ones.

Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services. The objective of this subcomponent is to reduce degradation, rehabilitate, restore and sustainably manage available natural resources. The component will focus on forests, rangelands, arable land, wetlands and water resources using an ecosystem approach. Planned activities include: a) comprehensive mapping of natural resources (forests, water bodies, land, and wetlands etc); b) enhancement of critical infrastructure supporting Integrated Natural Resource Management (INRM), including for example, installation of river monitoring meteorological weather stations, restoration of degraded lands and rivers, systems, reforestation etc; c) safeguarding water sources, preserving environmental integrity (including the protection of riparian zones surrounding rivers and springs), implementing sustainable land management practices, erosion control through terracing, adoption of smart precision agriculture technologies, and promoting the sustainable utilization of land and water. This will include afforestation/reforestation efforts, establishment of tree nurseries, and the promotion of green energy solutions like solar energy, biogas and promotion of efficient cooking stoves at the household level to combat forest degradation. In addition, initiatives for wetland restoration and integrated approaches like school greening programmes will be pursued; d) the project will also employ digital technologies such as Remote Sensing and GIS to support NRM through Geo-mapping and monitoring, soil and land management as well as establishment of a robust digital platform to facilitate the implementation and oversight of Payment for Ecosystem Services (PES); and e) conducting targeted studies to inform intervention selection, such as assessments of sediment flows, hydro-geological studies, and capacity-building initiatives.

1.3.2 Component 2

Component 2: Improved, Inclusive and Sustainable Rural Livelihoods seeks to support communities and households to improve and diversify their livelihoods and incomes through improved management of natural resources. These activities will serve as incentives for the communities to sustainably conserve their environment and reduce destructive practices. The following value chains have been prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees; and e) horticulture. Support activities will cover production, market linkages and value addition. The subcomponents are:

Subcomponent 2.1: Improve Productivity of Selected Nutrition- Sensitive Value Chains and Nature-based Enterprises. Activities will be value chain specific to address constraints to

effective value chain integration. These include: a) supporting the set-up of digitally enabled mobile-based e-voucher platform enabling targeted beneficiaries to access bundled inputs, technologies, services and facilities for improved crop and livestock productivity; b) support livestock feed and fodder production, pasture management and feed preservation; c) training of farmers in good and climate smart agricultural practices (agronomic, animal husbandry, disease control, efficient use of inorganic/organic inputs, green and water-efficient irrigation technologies etc.); d) enhance extension advisory through digital extension services to ensure farmers access information on agronomic practices, climate information and advisory services; e) organisation of farmers into farmer-led institutions (or strengthen the capacity of such groups) to facilitate access to technologies and collective production decisions, including organizational structures in irrigation schemes/systems; f) organising demonstrations as a way of scaling up adoption of new technologies and good agriculture practices; q) training on safe handling and disposal of chemicals; and h) investments in climate-proof infrastructure to support production. Such infrastructure will include improved livestock housing and handling facilities, multi-purpose community-based water supply systems based on gravity or solar power, rainwater harvesting, rehabilitation of small-scale irrigation systems, shade cloth/greenhouse infrastructures, etc.

Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises. Planned interventions include: a) regular market opportunity assessments; b) organisation of farmers for commodity aggregation and collective marketing; c) strengthen capacity of farmer organizations (Cooperative, CIG) to effectively manage collective marketing activities; d) facilitate linkages with market intermediaries through formal win-win relationships (Memoranda of Understanding (MoUs), out grower and off-take contracts); e) improve access to market information through digital market information systems; f) training in post-harvest handling and provision of post-harvest equipment to preserve quality and reduce loss; g) investments in market access, market and marketing infrastructures and equipment (rehabilitation of feeder/access roads linking high production zones to markets, improving infrastructure for collection/aggregation centres, storage facilities, produce handling equipment, improvement of local market structures, developing of green energy infrastructure (such as bioenergy, solar energy, etc.); h) facilitate nutrition sensitive market standards and certifications to the private sector for supportive market systems and infrastructure and f) support for local processing and value addition through individual and/or collective efforts.

1.3.3 Component 3

Component 3: Institutional Strengthening, Policy Support and Programme Coordination. This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps. The subcomponents are:

Subcomponent 3.1: Institutional Strengthening and Policy Support – The subcomponent will have a dual focus: institutional strengthening and policy support.

Subcomponent 3.2: Programme Coordination and Implementation Support Services –will provide INReMP with efficient and effective coordination, including planning and implementation, financial management and control, procurement support, Digital Monitoring and Evaluation System, knowledge management, and progress reporting.

2.0 RATIONALE AND OBJECTIVES OF THE PEST MANAGEMENT PLAN

Currently, the common pest control practices in Kenya include, (i) use of resistant varieties and (ii) informal cultural practices for diverse crops, (iii) natural control (use of natural enemies), and (iv). Pesticides application, mainly on cash crops and horticultural crops.

The farmers carry out routine management of pests on their livestock and in their fields, mainly through the use of pesticides. Animal husbandry and crop management techniques are also used to control pests but there are limitations and problems that the farmers face in using these methods. Below are the existing and potential pest management efforts for both crops and animals.

i. Growing a Healthy Crop by Starting with Healthy Seed

A crop that germinates from seed that is healthy is likely to be less vulnerable to pest damage. Also, a crop grown from seed that has been bred from resistant strains is less likely to be damaged during plant growth and crop storage.

Most of the farmers do not have ready access to good seed at the time of planting and as a result they use seed from the previous harvest. Commercial seed is usually too expensive for the farmers who mostly rely on seed and farm input donations.

ii. Good Farming Practices to Ensure Vigorous Crops

A plant growing in good farm conditions is generally less vulnerable to pest damage than a plant growing under stressed conditions. Good farming practices include timely and recommended soil preparation and planting, and recommended water and nutrient application.

Limitations and constraints for the farmers include lack of appropriate skills/knowledge on water and nutrient management, lack of farm inputs and resources to adequately and timely prepare their farms.

iii. Making the Crop Unattractive or Unavailable to Pests

This strategy includes adjusting planting times to ensure that crop development does not coincide with pest appearance. The success of using this strategy requires good knowledge of the seasons and the ability to forecast the right time for planting.

The farmers need the appropriate training and information through the extension workers to ensure that they plant at the right times.

iv. Crop Diversity or Rotation, Early Planting

Crop rotations or multiple cropping removes the chance for the re-appearance of persistent pests. This strategy depends on the availability of seed to the farmers who, most of the times, are in short supply of adequate and good quality seed.

v. General Hygiene

Good sanitation of the farms and surroundings, including crop storage structures and buildings ensures clean and healthy crops as well as seed for planting.

The farmers need to be well trained in crop and seed management to avoid damage. They need to appreciate the importance of preparing their farms in time and the benefits of weeding at the appropriate times.

vi. **Biological/ecological control**

This is achieved by conserving and enhancing natural biological/ecological controls already in the field and in selected situations, through natural enemies of pests. This method requires research and thorough evaluation before new species are introduced to avoid disrupting existing ecosystems.

The farmers need to be trained in available and appropriate biological controls that can be used to prevent emergence of pests. Farmers are not fully aware of the potential for this control method which, by creating an enabling environment could tame natural biological systems to discourage pests.

vii. Physical Control

Physical controls, such as flooding to eliminate snails are practiced where there is good supply of irrigation water. Other physical controls include hand picking of pests, uprooting infested crop, using fire to remove pests on crop residues and frequent weeding.

These methods are commonly used by the farmers. However, there is need to enhance their application to ensure that they are used in a systematic and coordinated manner.

viii. Use of pesticides

Pesticides may be used with care to ensure their toxicity to non-target organisms is as low as possible. The effectiveness of pesticides should be as selective as possible. Certain pesticides of natural origin are compatible with integrated pest management (IPM), causing minimum disturbance to natural biological and ecological pest control mechanisms.

It was noted that farmers are using different types of pesticides for the same crops and that the type of pesticide used is determined by affordability and availability. Use of pesticides is a commonly preferred method of pest control since it is perceived as a rapid method that does not require much effort. The farmers therefore need to be guided and trained to understand the limitations and environmental consequences of using pesticides. They should

be knowledgeable of pesticides that are compatible with IPM and that do not degrade the natural biological and ecological pest control systems. The farmers need to be equipped with information on pesticide application quantities and methods; prevention of chemical poisoning/accidents and effects of high pesticides residues in crops. Enforcement of the act that deals with Pesticides is of primary importance to control importation and use of pesticides

2.1 PROPOSED MANAGEMENT OF MAJOR PESTS IN CROPS AND FODDER

The tropical crops and fodder provide substrate for wide spectrum of pests such as insects, fungus, viruses, bacteria, and nematodes. However, few of them are pests of economic importance and their attack is usually local in character and sporadic in incidence. Information of these pests is limited and in Kenya not reported.

Therefore, the major thrust in pest management in crop and fodder production, pasture legumes and grasses under INREMP will be to identify the pest species present in Kenya, study their biology and population development, and establish their pest status.

The use of chemical control measures is not recommended because of their residues in crops and their high agro-chemical price. Therefore, the INREMP thrust will be to establish pest spectrum and biodata in Kenya where the target species will be grown.

2.2 PESTICIDES USE IN AGRICULTURE AND LIVESTOCK

2.2.1 Current Pesticides used in agriculture

Pesticides have been one of the main tools used for pest management worldwide. Chemical Pesticides used in agriculture usually fall into either of the three categories i.e. insecticides, fungicides or herbicides.

The use of pesticides, especially cases of overuse and misuse, results in significant negative impacts to health and the environment, including poisoning incidents and suicides, chronic diseases like cancers, and severe contamination of food, water and soil.

In Kenya, insecticides are applied most widely followed by herbicides and lastly fungicides. Smallholders' farmers in Kenya like in other countries in the world use pesticides to control pest especially in maize, wheat, coffee, potatoes, and tomatoes.

2.2.2 Current Pesticides used in Livestock

The pesticides used in livestock are mainly acaricides against tick control. The livestock in Kenya, especially in the western part move a long distance to the water drinking points at the dams or streams or rivers. In the process they are infested by ticks. The ticks are known to transmit diseases to livestock and cause major problems e.g. East Cost Fever.

In order to minimize the tick attack and disease transmission, the cattle keepers spray the acaricides on their cattle at their kraal at homestead. In the counties located in the border like Trans zoia, they have access on acaricides from Uganda, and since pesticides marketing are liberalized, cattle keepers are free to buy where prices are reasonable.

Since farmers and cattle keepers have little knowledge on pesticides safety, use, and handling; they may misuse or buy poor quality acaricides which in turn will cause ticks to develop resistance. There is no guarantee that such pesticides have required efficacy and that they are effective. The other pesticides used are the antibiotics, vaccines etc. The cattle keepers also buy their antibiotics and treat their own cattle. In general, the vaccines are very useful their impact is very high. There is vaccine against east coast fever (ECF), CBP etc. These are important pesticides which are administered regularly sometimes on annual basis.

3.0 DESCRIPTION OF PEST MANAGEMENT PRACTICE

3.1 INTEGRATED PEST MANAGEMENT

The pest management technique of choice is the Integrated Pest Management (IPM). IPM refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. It involves (a) managing pests (keeping them below economically damaging levels) rather than seeking to eradicate them; (b) relying, to the extent possible, on non-chemical measures to keep pest populations low; and (c) selecting and applying pesticides, when they have to be used, in a way that minimizes adverse effects on beneficial organisms, humans, and the environment.

Integrated Pest Management (IPM) is a comprehensive approach to solving pest problems. IPM shifts the focus from controlling a pest now; to making the best management decisions for the long-term; and builds a comprehensive response to pest problems. The goal is to identify and implement coordinated strategies that work together in an integrated manner to provide optimum results; with the view to achieving long-term positive environmental and social benefits. The concept of integration works on multiple levels in that remedial strategies for individual pests are integrated with each other to ensure compatibility with the need to manage other pests. The pest management strategies must be consistent with the objectives to protect the environment and to address social concerns.

The IPM approach arises as a response to negate over-reliance on pesticides and short-term solutions that do not account for all of the long-term costs and externalities. IPM acknowledges that pesticides are still valuable, but stresses that chemical control is but one of the many tactics considered in an IPM approach. Pesticide use in IPM is limited to situations where there is an identified need and lack of suitable alternatives. This contrasts with a preventive chemical approach where pesticides are used on a prescribed basis without determining the need or making full use of alternative measures.

IPM techniques can be separated into two major groups: i) Relatively straightforward replacements for chemicals, and ii) Supporting measures.

Chemical replacement includes:

- ix. Biological control: the introduction of insects, mites, micro-organisms that prey on or parasitize harmful species.
- x. Bio-pesticides: these have a pathogenic micro-organism as the active ingredient, for example a bacterium, fungus or a virus.
- xi. Botanicals: botanical pesticides contain plant extracts that have biocidal properties e.g., Neem (*Azadirachta indica*).

xii. Semi-chemicals: chemicals (especially pheromones) are used to stimulate particular behaviours or interactions between individual insects so as to control pests.

Choosing appropriate measures is not straightforward and requires significant understanding of the interactions between the environment, crop, pest, and predator. The scientific basis for farmer decision-making in biological control depends on detailed knowledge of the life histories of pests and their natural enemies, crop ecology, and interactions within the agroecosystem. Supporting measures include traditional methods of pest control as used in subsistence farming systems: cultural control (e.g., intercropping), habitat manipulation (e.g., creating diversity), mechanical and physical control, natural biological systems and host plant resistance. Farmer participation and learning are therefore essential in ensuring proper pest management practices.

The basic requirements for implementing IPM in the INREMP project areas includes understanding the biology and economics of the pest and the system in which the pest exists, monitoring the pests and natural controls, and establishing their economic or aesthetic injury thresholds. IPM can be achieved by selecting an appropriate strategy of cultural, mechanical, biological, and/or chemical prevention or control techniques, as briefly described below:

3.1.1 Cultural Practices

These include habitat modification and adapting operating procedures so that pest damage is reduced, and natural control is enhanced. It involves sanitation or cleaning of sources of pest infestation, choosing plant varieties that are resistant to pest injury, adjusting planting time, fertilization, tillage, and harvesting operations to have the most beneficial effect for the pest management situation.

3.1.2 Biological Controls:

These are predators, parasites, and diseases that attack pests. Measures should be taken to conserve naturally occurring populations of these biological controls. In some situations, where naturally occurring biological controls are not effective, they can be introduced from outside sources.

3.1.3 Chemical Control

This involves selecting a pesticide with the lowest toxicity to humans and no target organisms (including biological controls) and using it in such a way to prevent or minimize undesirable environmental effects. The lowest effective amount of pesticide is applied, using appropriate and carefully calibrated equipment. In many cases, use of pesticides cannot be entirely eliminated. However, use of pesticides must be controlled so as to reduce or eliminate social and environmental impacts.

A comprehensive IPM should support a pesticide management plan that is designed to ensure that pesticides are procured, handled, stored, applied and disposed in such a manner that protects life and the environment. The plan shall consider the entire life cycle of the pesticides. Hence the various livelihood activities and operations must observe the following:

- a) All pesticides must be purchased from registered pesticides dealers.
- b) Pesticides must be purchased strictly according to the requirements to avoid overstocking. A follow up system for the procurement, transportation, receipt and custody of pesticides must be established.
- c) During movement or transportation of pesticides they must not be mixed up with other items, particularly food items. They should be in well confined containers.
- d) Pesticides shall be stored in a dedicated and centralized warehouse or storage facility, separately from agricultural produce and other items. All pesticides must always be under lock and key and under the custody of a very responsible person. Storage of pesticides in farmers' houses must be prohibited. Warehouses must be protected from sources of fire. Access to the warehouses must be restricted to responsible and authorized persons.
- e) All pesticide mixing containers and spraying equipment must be washed and cleaned in a safeguarded central point. All containers must be disposed of in line with the requirements of the Pesticides Pest Control Act and the Pest Control Products Regulations of 2022

IPM strategies will comprise of soil pests, weeds, field and post- harvest pests, and pest diseases management. Use of certified seeds or seed dressing will protect crop from soil borne pests. Weed control could either be manual or use of appropriate herbicides, for example, pre- and post-germination herbicides. However, extreme care is needed in the use of herbicides, as wrong or uninformed use is likely to cause total loss of crops or pollution of water and soil.

As a rule, beneficiaries should observe strict surveillance of their crop and observe high levels of crop hygiene as a first step to manage the pests and diseases in their plots, as appropriate. These include removal and destruction of affected plants and then preventive control of the identified problem. Post-harvest pests are managed even before harvesting by cleaning the stores and destroying the residues from previous harvest. Use of recommended pesticides on the harvested crop before storage contributes immensely to the preservation of the harvested crop against attacks by pests.

IPM initiatives have the potential to improve the management of pests on the farms and in food handling facilities to improve yields and to prevent damage to crops. Section 2 above highlights some of the IPM practices that are being used to a limited extent, by the farmers. These practices have great potential and therefore need to be supported and strengthened through extension services and targeted training activities to ensure maximum benefits.

4.0 INSTITUTIONAL, LEGISLATIVE AND REGULATORY FRAMEWORK

4.1 LEGAL FRAMEWORK AND ENFORCEMENT

Currently, in Kenya the main piece of legislation on matters related to pests and pesticides is the Pest Control Act and Pest Control Products Regulations of 2022. In line with the principal legislation, the regulations stipulate that No person shall import into, or sell in, Kenya any pest control product unless that product has been registered, packaged and labelled in accordance with regulations and conforms to the standards specified in the Pest Control Products Regulations of 2022. The Pest Control Products Board (PCPB) is a statutory

organization of the Government of Kenya established under the Pest Control Products Act to regulate the importation and exportation, manufacture, distribution and use of pest control products in the country. The PCPB publishes the list of pest control products registered in the country on its website. This list is published to stakeholders in order to easily identify the pesticides that have been evaluated by the board for safety, efficacy, quality and economic value. By accessing the PCPB website, any person can access categorised downloadable list of registered products, including those for use in crop production, animal health and public health. Contained in the list is information on trade names of products, their registration numbers, the name(s) of active ingredient(s) and their concentrations, formulation type, authorized uses including crops and target pests, the name of the registrant and the period of registration.

The Pest Control Products Board promotes Good Agricultural Practices (GAPs). According to the FAO, GAPs are practices aimed at improving the quality, safety and sustainability of food and agricultural products while maintaining environmental, economic and social sustainability. For concerned consumers, this is a good thing. It suggests that the default position of the Board is to support the use of chemical pesticides as a last resort. For environmental sustainability, it is a positive step away from agrochemical inputs, which significantly contribute to the toxification of the planet. Other institutions that play specific roles in control, management, administration and of Pesticides in Kenya include Kenya Agriculture and Livestock research Organization (KALRO), Kenya Bureau of Standards(KEBS), Government Chemists Department, Directorate of Occupational Safety and Health Services (DOSHS) and the ational Environment Management Authority(NEMA).

There are other legislations in in Kenya that were enacted to safeguard the health of users of pesticides in agriculture and livestock sectors. These include: Pharmacy and Poisons Act Chapter 244, 2012, Plant Protection Act Chapter 324, 2012, Environment Management and Coordination Act (EMCA (Amendment) Act 2015, Occupational Health and Safety Act, 2007 and Public Health Act, Chapter 242, 2012.

Kenya is a signatory to several international treaties and conventions that are relevant to Pest Management. The conventions include among others; International Plant Protection Convention (IPPC) of FAO, 1952 and World Food Security and the Plan of Action of November 1996.

5.0 INTEGRATED PEST MANAGEMENT AND MONITORING PLAN (IPMP)

The following is an outline of the integrated pest management and monitoring plan for the INREMP 2. It covers the Control or mitigation measures that will be employed, the persons that will be responsible, and the monitoring arrangements.

 Table 1
 Integrated pest management and monitoring plan

Item No.	Potential Issues/ Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/instit ution	Standards/R egulation/Pr actices	Monitoring Institution	Monitori ng Frequenc y
PHYS	ICAL AND BIC	LOGICAL CONTROL	S				
1.1	Pest Impact on Crops and fodder	Low yield	Use healthy seed and resistant varieties. Train farmers on importance of using healthy seed	Farm management & farmers	IPM practices	Min of Agriculture, INREMP PMT	Quarterly
			Good farming practices (timely and recommended soil preparation, water and nutrient management). Train farmers in good farming practices	Extension workers, farm management & farmers	Recommended agricultural practices, IPM practices	Min of Agriculture INREMP PMT	quarterly
			Provide information to farmers on appropriate planting times	Extension workers	Recommended agricultural practices, IPM practices	Min. of Agriculture INREMP PMT	Half yearly
			Crop rotation, diversity and intercropping	Extension workers	Recommended agricultural practices	Min of Agriculture INREMP PMT	Half yearly
			Train farmers in enhancement of biological control of pests. Research in IPM methods	Extension workers Agricultural Research	IPM practices	Min of Agriculture, KARLO/INRE MP PMT	Half yearly

Item No.	Potential Issues/ Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/instit ution	Standards/R egulation/Pr actices	Monitoring Institution	Monitori ng Frequenc y
			Make farm inputs and information on pests, pesticides and pest resistant seeds available to farmers	institutions, NGO's Micro-credit institutions, Extension workers, seed suppliers and NGO's	IPM	Min of Agriculture, INREMP PMT	Half yearly
2.	CHEMICAL C	ONTROLS (PESTICI	DES)				
2.1	Issues / Con	cerns During Pestio	ide Transportation				
2.1.1	Adulteration	Lack of controls	Inspection, sampling and testing	Transporters	 Packaging and storage standards Product specifications Pesticides Control Act and regulations 	- Pest Control Products Board (PCPB) - INREMP PMT	Half yearly
2.1.2	Accidents / spillages	 Vehicle condition, Road condition Poor driving skills 	Ensure that roadworthy vehicles are used. Ensure drivers are properly instructed.	Police	- Road traffic regulation - Vehicle maintenan ce requireme nts	- Police	As need arises
2.1.3	Accidental Contaminati on	Using same vehicle for different purposes	Ensure vehicles are inspected and cleaned when changing use	Transporters	-pesticide transport regulations.	Pest Control Products	As need arises

Item No.	Potential Issues/ Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/instit ution	Standards/R egulation/Pr actices	Monitoring Institution	Monitori ng Frequenc y
						Board (PCPB)	
2.2		erns During Pestici					
2.2.1	Pesticide loss, degradation and contaminatio n.	inappropriate building for storage of pesticides.	- Suitable warehouse	Transporters, Agro dealers	- regulations	-Pest Control Products Board (PCPB) -INREMP PMT	Before approval of storage faculties for pesticides
		Wrong shelving or stacking	- Routine inspection and inventory checks	Agro-dealers	-regulations, - manufacturer' s guidelines	-Pest Control Products Board (PCPB), INREMP PMT	Half yearly
		 Inadequate storage space. Bad housekeeping Multi- purpose use of warehouse 	 Provide adequate and separate storage space for pesticides 	Agro-dealers	- regulations - manufactu rer's guidelines	Pest Control Products Board(PCPB) -INREMP PMT	Half yearly
		Theft and vandalism	Restrict entry to pesticide areas. Check pesticides records regularly	Farm management	Farm security policy	Farm managemen t	quarterly
		Over-stocking	Buying the required quantities only	Agro-dealers	Pesticides Control Act	Farm managemen t	As need arises
2.2.2	Farm members safety	Lack of control on trespassers	Restrict entry to pesticide areas, Provide appropriate warning signs	Farm management	FAO Guidelines	Directorate of Occupational Safety and Health	Annually

Item No.	Potential Issues/ Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/instit ution	Standards/R egulation/Pr actices	Monitoring Institution	Monitori ng Frequenc y
						Services (DOSHS), INREMP PMT	
2.2.3	Occupational Health	Exposure to pesticides	-Provide protective clothing and ensure it is usedTrain farmers in proper pesticides handlingRoutine medical examination	Agro-dealers	labour regulations, regulations	Directorate of Occupational Safety and Health Services (DOSHS)	Annually
2.3		Issues/concerns during pesticide application					
2.3.1	Pesticide misuse, over / under use	lack of appropriate knowledge	- Training and awareness campaigns	Ministry of Agriculture, INREMP PMT	Pesticide manufacturers regulations	Pest Control Products Board(PCPB) -INREMP PMT	Annually
2.3.2	Intentional poisoning	Frustration, Social pressures	- Ensure responsible, mentally sound and mature persons are given charge and control of pesticides Restrict accessibility to pesticides Spot checking	Agro-dealers	Pesticides Control Act	- Directorate of Occupational Safety and Health Services (DOSHS), INREMP PMT	Annually
2.3.3	Accidental poisoning	lack of knowledge of pesticide potency and negligence	Training	Ministry of Agriculture, INREMP PMT	Pesticides Control Act	Pest Control Products Board(PCPB)	Annually
		-Equipment malfunction	-Regular maintenance of equipment.	-Ministry of Agriculture, INREMP PMT	Manufacturer's recommendati ons.	Pest Control Products Board(PCPB)	Annually

Item No.	Potential Issues/ Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/instit ution	Standards/R egulation/Pr actices	Monitoring Institution	Monitori ng Frequenc y
		-Wrong type of equipmentTime and method of application (spraying)	-Use recommended equipmentUse approved methods of applicationUse recommended protective clothingTraining seminars -Integrated Pesticide Management		-Equipment maintenance policy	INREMP PMT	
		-Improper cleaning of equipment.	-Clean equipment and dispose equipment as recommended by manufacturer	Ministry of Agriculture INREMP PMT	Manufacturer's recommendati ons.	INREMP PMT	Annually
		-Improper disposal of cleaning water and old equipment	-Use bio-beds and draining dams to dispose cleaning and drainage waters -Integrated Pesticide Management	Ministry of Water and sanitation, NEMA	Regulations. Water resources regulations	NEMA, INREMP PMT	Annually
		Multi-purpose use of equipment or pesticides	Control use of equipment and pesticidesThorough cleaning of equipment -Training -Integrated Pesticide Management	Ministry of Agriculture	Pesticides Control Act	Pest Control Products Board(PCPB) INREMP PMT	Annually
2.4		Issues / Concer containers and equ	ns during disposal	of pesticides			
2.4.1	Water and Environment al pollution	-Cleaning of equipment,		Pest Control Products Board(PCPB)	Pesticides Control Act	Pest Control Products Board(PCPB)	Annually

Item No.	Potential Issues/ Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/instit ution	Standards/R egulation/Pr actices	Monitoring Institution	Monitori ng Frequenc y
		-Disposal of remains of pesticides -Disposal of containers and equipment	-Use chemical remains to re- sprayClean equipment in one placeUse plants such as water lilies to absorb waste pesticidesTake stock of pesticide containers -Integrated Pesticide Management	INREMP PMT, Ministry of Water and sanitation		INREMP PMT,	
2.4.2	Post Application Monitoring	Pesticides residues in the food chain	-Integrated Pest Management -Adherence to specifications on control of residues -Sensitize farmers not to harvest produce immediately after spraying -Information management -Develop manuals for use at grassroots level	Pest Control Products Board(PCPB), INREMP PMT	- Environmental standards -Wastewater standards	Pest Control Products Board(PCPB) INREMP PMT	Annually

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Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex: Volume 3 Targeted Adaptation Assessment.2024

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department



TARGETED ADAPTATION ASSESSMENT REPORT

For the

Integrated Natural Resources Management Programme (INReMP) in Kenya

Volume III

March 2024

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Abbreviations and Acronyms

BMU	Beach Management Units
CFAs	Community Forest Associations
CIDPs	County Integrated Development Plans
CIGs	Common Interest Groups
FAO	Food and Agriculture Organization of the United Nations
FOs	Farmer Organizations
GIS	Geographic Information System
GoK	Government of Kenya
IFAD	International Fund for Agricultural Development
INReMP	Integrated Natural Resources Management Programme
INRM	Integrated Natural Resources Management
IP	Indigenous Peoples
MCA	Multi-Criteria Analysis
mm	Millimeter
MoUs	Memoranda of Understanding
NRM	Natural Resources Management
PDO	Programme Development Objective
PDR	Project Design Report
PES	Payment for Ecosystem Services
PIM	Programme Implementation Manual
PMCU	Programme Management and Coordination Unit
SECAP	Social, Environment and Climate Assessment Procedures
UTaNRMP	Upper Tana Natural Resources Management Project
WCCCs	Ward Climate Change Committees
WRUAs.	Water Resources Users Associations

1. INTRODUCTION

1.1 Purpose of Adaptation Assessment

The Targeted Adaptation Assessment report is prepared as a response to the requirement of IFAD's Social, Environment and Climate Assessment Procedure of 2021 (SECAP 2021). The Climate screening procedure followed during the preparation of the Project Design Report (PDR) established that the Integrated Natural Resources Management Programme (INReMP) falls into the category of Projects with "Substantial" Environmental and Social Risks. Under this circumstance, it is assumed that much as the project is not as complex as a High-Risk project and its environmental and social scale is not in such a sensitive area but may pose significant risks and impacts if not adequately managed, as such adaptation measures need to be in place at the design stage, so as to ensure that the project is sustainable in the long-term.

1.2 Background on INREMP

The Government of Kenya and IFAD are currently designing an 8 year programme titled "Integrated Natural Resources Management Programme (INReMP). The programme will scale-up results of the completed Upper Tana Catchment Natural Resource Management Project (UTaNRMP) to the Cherangany Hills and Mau West water towers to further enhance the sustainable use and management of natural resources. This will be done by supporting integrated natural resources management (NRM), access to payment for environmental services and improved nutrition-sensitive production and sustainable rural livelihoods.

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega; c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori.

The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture.

1.3 Objective and Component of INREMP

The Program Development Objective(PDO) is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'

INReMP's development objective will be achieved through the effective implementation of three Components: a) Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action and Component; b) Improved, Inclusive and Sustainable Rural Livelihoods; c) Institutional Strengthening, Policy Support and Programme Coordination to ensure effective Programme implementation. Following hereunder is a summary of the Components/Subcomponents focus areas.

1.3.1 Component 1

Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and

quality; d) improve dietary diversity; and e) capacity building of community-based organizations, such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs.

Subcomponent 1.1: Community Empowerment and Gender Transformative Approaches. This subcomponent will be informed by the County Integrated Development Plans (CIDPs) that specify community priorities per sub-county and ward. Community empowerment will include community awareness creation, sensitization, prioritization of actions and development of Community action plans. Example community organisations to be targeted are Community Forest CFAs, WRUAs, Ward Climate Change Committees (WCCCs), Beach Management Units (BMUs), Farmer Organizations (FOs) and Common Interest Groups (CIGs) including those for women, youth, PWDs and vulnerable groups. INReMP will support establishment and strengthening of already existing community organizations and committees before creating new ones.

Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services. The objective of this subcomponent is to reduce degradation, rehabilitate, restore and sustainably manage available natural resources. The component will focus on forests, rangelands, arable land, wetlands and water resources using an ecosystem approach. Planned activities include: a) comprehensive mapping of natural resources (forests, water bodies, land, and wetlands etc); b) enhancement of critical infrastructure supporting Integrated Natural Resource Management (INRM), including for example, installation of river monitoring meteorological weather stations, restoration of degraded lands and rivers, systems, reforestation etc; c) safeguarding water sources, preserving environmental integrity (including the protection of riparian zones surrounding rivers and springs), implementing sustainable land management practices, erosion control through terracing, adoption of smart precision agriculture technologies, and promoting the sustainable utilization of land and water. This will include afforestation/reforestation efforts, establishment of tree nurseries, and the promotion of green energy solutions like solar energy, biogas and promotion of efficient cooking stoves at the household level to combat forest degradation. In addition, initiatives for wetland restoration and integrated approaches like school greening programmes will be pursued; d) the project will also employ digital technologies such as Remote Sensing and GIS to support NRM through Geo-mapping and monitoring, soil and land management as well as establishment of a robust digital platform to facilitate the implementation and oversight of Payment for Ecosystem Services (PES); and e) conducting targeted studies to inform intervention selection, such as assessments of sediment flows, hydro-geological studies, and capacity-building initiatives.

1.3.2 Component 2

Component 2: Improved, Inclusive and Sustainable Rural Livelihoods seeks to support communities and households to improve and diversify their livelihoods and incomes through improved management of natural resources. These activities will serve as incentives for the communities to sustainably conserve their environment and reduce destructive practices. The following value chains have been prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees; and e) horticulture. Support activities will cover production, market linkages and value addition. The subcomponents are:

Subcomponent 2.1: Improve Productivity of Selected Nutrition- Sensitive Value Chains and Nature-based Enterprises. Activities will be value chain specific to address constraints to effective value chain integration. These include: a) supporting the set-up of digitally enabled mobile-based e-voucher platform enabling targeted beneficiaries to access bundled inputs,

technologies, services and facilities for improved crop and livestock productivity; b) support livestock feed and fodder production, pasture management and feed preservation; c) training of farmers in good and climate smart agricultural practices (agronomic, animal husbandry, disease control, efficient use of inorganic/organic inputs, green and water-efficient irrigation technologies etc.); d) enhance extension advisory through digital extension services to ensure farmers access information on agronomic practices, climate information and advisory services; e) organisation of farmers into farmer-led institutions (or strengthen the capacity of such groups) to facilitate access to technologies and collective production decisions, including organizational structures in irrigation schemes/systems; f) organising demonstrations as a way of scaling up adoption of new technologies and good agriculture practices; g) training on safe handling and disposal of chemicals; and h) investments in climate-proof infrastructure to support production. Such infrastructure will include improved livestock housing and handling facilities, multi-purpose community-based water supply systems based on gravity or solar power, rainwater harvesting, rehabilitation of small-scale irrigation systems, shade cloth/greenhouse infrastructures, etc.

Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises. Planned interventions include: a) regular market opportunity assessments; b) organisation of farmers for commodity aggregation and collective marketing; c) strengthen capacity of farmer organizations (Cooperative, CIG) to effectively manage collective marketing activities; d) facilitate linkages with market intermediaries through formal win-win relationships (Memoranda of Understanding (MoUs), out grower and off-take contracts); e) improve access to market information through digital market information systems; f) training in post-harvest handling and provision of post-harvest equipment to preserve quality and reduce loss; g) investments in market access, market and marketing infrastructures and equipment (rehabilitation of feeder/access roads linking high production zones to markets, improving infrastructure for collection/aggregation centres, storage facilities, produce handling equipment, improvement of local market structures, developing of green energy infrastructure (such as bioenergy, solar energy, etc.); h) facilitate nutrition sensitive market standards and certifications to the private sector for supportive market systems and infrastructure and f) support for local processing and value addition through individual and/or collective efforts.

1.3.3 Component 3

Component 3: Institutional Strengthening, Policy Support and Programme Coordination. This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps. The subcomponents are:

Subcomponent 3.1: Institutional Strengthening and Policy Support – The subcomponent will have a dual focus: institutional strengthening and policy support.

Subcomponent 3.2: Programme Coordination and Implementation Support Services –will provide INReMP with efficient and effective coordination, including planning and implementation, financial management and control, procurement support, Digital Monitoring and Evaluation System, knowledge management, and progress reporting.

2. SCOPING FOR ADAPTATION ASSESSMENT

2.1 Methodology

The scoping exercise for the Targeted Adaptation Assessment was undertaken during the field mission that took place from the 23rd Jan to 7th Feb 2024. Information and relevant data on the socio-economic, cultural and environmental conditions of the targeted 10 counties were collected. The following methodology was employed for the purpose of scoping:

- Field Observation at 10 counties,
- Stakeholders' consultations through face to face discussions as virtual meetings

Furthermore, an extensive literature review was done including the use of online tools to collect secondary relevant data and information on the project target areas.

2.2 Indication of hazard, exposure, sensitivity and adaptive capacity

The geographic coverage of the INREMP targets ten counties in Kenya where communities practice subsistence agricultural and zero grazing livestock keeping. In these rural areas, smallholder poor farmers mostly rely on existing natural water bodies like streams/rivers and ponds/swamps as sources of water for their cattle, irrigation and domestic use. They also depend on natural forage and crop by-products for feeding their livestock. As such, the impacts of climate change could be cited as the major issue that cause vulnerability of the small holder farmers in the target areas.

2.3 Climate Change Analysis, Adaptation and Mitigation

2.3.1 Precipitation.

At the regional level, there will be a decreasing trend on total annual rainfall over East Africa during the 1951-2010 period. Most of the precipitation decline over East Africa is observed in the 1950s (-6.7mm/yr.) and in the 1960s (-21.8mm/yr.), whereas a precipitation increase is reported in the 1970s (+16.0mm/yr.) (Ongoma & Chen, 2017). Over the last three decades (1980-2010), the total annual precipitation has remained relatively stable.

At the country level, there will be a decline in total annual precipitation in Kenya (- 1.87 mm/yr.) and Uganda (-0.59 mm/yr.), equivalent to an average loss in total annual precipitation of -67 and -21 mm over the 1981-2016 study period. On the other hand, an increase in total annual precipitation is observed in Rwanda (+1.05 mm/yr.) and Tanzania (+0.52 mm/yr.), corresponding to an average gain in total annual precipitation of +38 mm and +19 mm during the 1981-2016 period. Because of a very high inter-annual rainfall variability, none of these countries display statistically significant changes (p-value <0.05) in total annual precipitation over the 1981-2016 period (Kirungu et al, 2023).

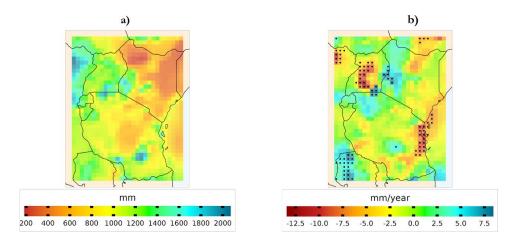


Figure 2-1 (a) Average total annual precipitation (mm) and (b) annual change (mm/yr.) over the 1981- 2016 period using the W5E5 dataset. For the annual change (b) a linear regression is applied to each pixel and, thus, a statistically significant change is represented with a black dot; conversely, pixels with an absence of a black dot indicate a lack of statistical significance.

2.3.2 Temperature

a) Mean maximum temperatures

The average daily maximum temperature (hereafter mean Tmax) over East Africa will increase, particularly across the entire Kenya, and most of Uganda and Tanzania (Figure 2-2 b). For example, in the Eastern and Northern region of Uganda and the northwest of Kenya (north of Lake Turkana county), the mean Tmax trend is of +0.030 to $+0.035^{\circ}$ C/yr., equivalent to a +1.1 to $+1.3^{\circ}$ C increase over the 1981-2016 period. The north Rift Valley in Kenya is considered the warmest area among the targeted INReMP areas, where mean Tmax ranges between 34 to 36°C year-round (Figure 2-2 a).

The mean Tmax increase for Tanzania is lower (+0.015 to +0.020°C/yr.) than that observed in Kenya and Uganda (Figure 2-2 b). Further, the west of Tanzania (e.g., Katavi, Rukwa, and Songwe) hardly experienced a mean Tmax increase over the 1981-2016 period. (Gebrechorkos et al. 2019; Kirungu et al. 2023).

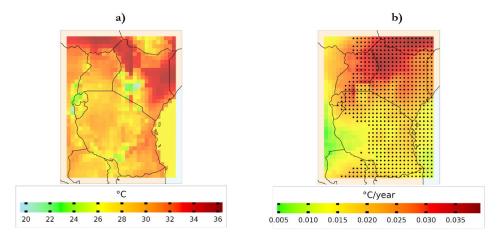


Figure 2-2 (a) Mean maximum daily temperatures (°C) and (b) annual change (°C/yr.) over the 1981-2016 period using the W5E5 dataset. For the annual change (b) a linear regression is applied to each pixel and, thus, a statistically significant change is represented with a black dot; conversely, pixels with an absence of a black dot indicate a lack of statistical significance.

b) Mean minimum temperatures

There is an increase in average daily minimum temperature (hereafter mean Tmin) over Kenya and Tanzania; however, there is no increase in Rwanda nor in the west of Uganda (Figure 2-3 b). As for mean Tmax, most of the mean Tmin increase is observed in the east of Uganda and the northwest of Kenya where temperatures have increased by $+0.035^{\circ}$ C/yr., equivalent to $+1.3^{\circ}$ C over the 1981-2016 period.

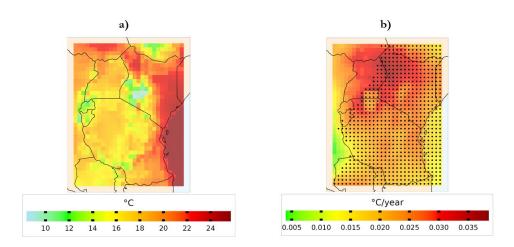


Figure 2-3. (a) Mean minimum daily temperatures (°C) and (b) annual change (°C/yr.) over the 1981-2016 period using the W5E5 dataset. For the annual change (b) a linear regression is applied to each pixel and, thus, a statistically significant change is represented with a black dot; conversely, pixels with an absence of a black dot indicate a lack of statistical significance.

2.2.3 Extreme weather events

a) Dry-spells and extreme precipitation

The average annual number of dry days (R \leq 1mm/day) in East Africa exceeds 300 days in the north of the Rift Valley and in the northeast of Kenya and, conversely, declines to less than 160 days towards Lake Victoria (including Mount Elgon) and tropical rainforests near the Democratic Republic of Congo (Figure 2-4 a). In Tanzania, the number of dry days on annual average ranges between 180 days along the border with Uganda and Rwanda to more than 280 days along the interior. Very few statistically significant differences in the number of dry days on annual average are reported in East Africa, except for the Indian Ocean coastline where there has been an increase in the number of dry days by +1.0 days/yr. (equivalent to +36 dry days on annual average since 1981) and the east of Uganda where there has been

decreasing number of dry days by 0.50 days/yr. (equivalent to +18 wet days on annual average since 1981) (Figure 2-4 b).

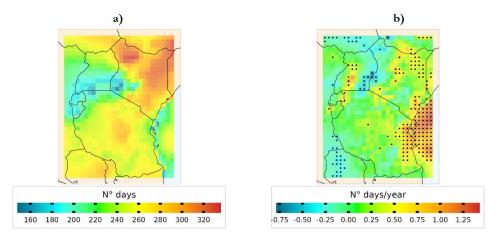


Figure 2-4. (a) Average number of dry days (R≤1mm/day) and (b) annual change (days/yr.) over the 1981 2016 period using the W5E5 dataset. For the annual change (b), a linear regression is applied to each pixel and, thus, a statistically significant change is represented with a black dot; conversely, pixels with an absence of a black dot indicate a lack of statistical significance.

There is no clear spatial pattern in the number of very wet days (R≥20mm/day) over East Africa, except for the Indian Ocean coastline that has experienced 10 very wet days on annual average over the 1981-2016 period (Figure 2-4 a). The trends on very wet days show statistically significant differences (p-value <0.05) along the Great Rift Valley in Kenya and Tanzania, with an annual average increase of +0.15 days/yr. over the 1981 2016, equivalent to an additional +5 very wet days on annual average since 1981 (Figure 2-4 b). However, neither the interior of Kenya, Tanzania nor Uganda show an increase or decrease in the number of very wet days on annual average since 1981. Thus the entire East Africa region has experienced less than 20 very wet days on annual average during the 1981-2017 period (Ojara et al. 2021; Kirungu et al. 2023).

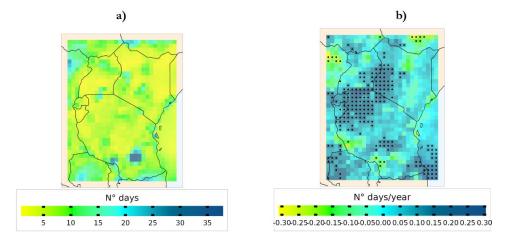


Figure 2-4. (a) Average number of very wet days (R≥20mm/day) and (b) annual change (days/yr.) over the 1981-2016 period using the W5E5 dataset. For the annual change (b) a linear regression is applied to each pixel and, thus, a statistically significant change is represented with a black dot; conversely, pixels with an absence of a black dot indicate a lack of statistical significance.

b) Extreme temperatures

A significant increase in the number of very warm days (Tmax $\geq 35^{\circ}$ C) on annual average is reported in the north Rift Valley, the east/northeast of Kenya, where the number of very warm days on annual average has increased by +1.2 to +2.8 days/yr. (equivalent to 40 to 100 additional very warm days on annual average since 1981) (Figure 2-5 b). Besides experiencing the highest positive trend over time, the north of Kenya has recorded the highest number of very warm days on annual average, ranging between 150 to 250 days on annual average depending on the location (Figure 2-5 a). Though not significant, the north of Uganda has observed an increase in very warm days at a rate of +0.8 days/yr. over the 1981-2016. The rest of the region did not report any major changes (denoted in green colors) in the number of very warm days on annual average over the 1981-2016 period.

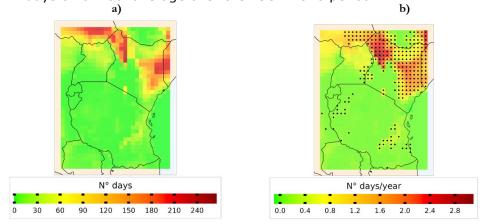


Figure 2-5. (a) Average number of very warm days (Tmax ≥35°C) and (b) annual change (days/yr.) over the 1981-2016 period using the W5E5 dataset. For the annual change (b) a linear regression is applied to each pixel and, thus, a statistically significant change is represented with a black dot, conversely pixels with an absence of a black dot indicate a lack of statistical significance.

2.4 Future Climatic Trends

2.4.1 Precipitation

Future changes in precipitation show an enhancement in some parts of East Africa in the far future under different shared socioeconomic pathways (SSPs) (Ayugi et al. 2022). However, the arid and semi-arid regions are expected to receive less amount of precipitation, whereas the highlands and the lake regions may receive larger amounts of precipitation. Seasonal climatological precipitation over East Africa displays a precipitation increase during the dry season in Kenya, Tanzania, and Uganda.

More advanced statistical analysis performed in CAVA analytics using CORDEX-CORE simulations indicate an overall reduction in total annual precipitation over Uganda (0 to -100mm) in the mid-term (2040-2069) for RCP 2.6, as well as in the south of Tanzania (0 to -200mm) in the far-future (2070-2099) for RCP 8.5 relative to the baseline period (1976-2005) (Figure 2-6). In some parts of Uganda and the south of Tanzania, there will be a decline in total annual precipitation of up to -4.5% by 2050 and 2080. Conversely, with regards to the positive changes in total annual precipitation, future projections indicate an increase towards the east of Kenya under (+100 to +200mm) in the far-future (2070-2099) relative to the baseline period (1976-2005).

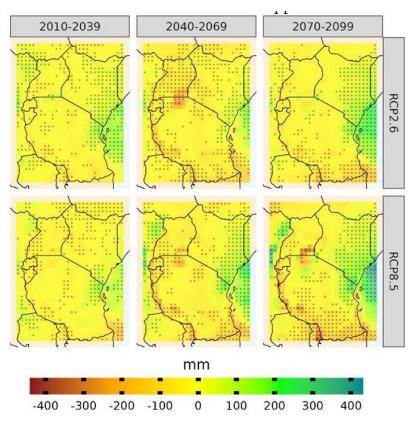


Figure 2-6 Climate change signal in total annual precipitation (mm) over the 21st century from historical period (1976-2005). The black cross indicates whether at least 60% of the models agree in the sign of the climate change signal (positive or negative). For future simulations, a multi-model ensemble mean of 3 GCMs with REMO2015 is applied.

Figure 2-7 shows the trends in total annual precipitation for RCPs 2.6 and 8.5 over the century in Kenya, Rwanda, Uganda, and Tanzania. At the country level, Kenya is likely to experience the highest increase (p-value <0.05) in total annual precipitation, with an increase in total annual rainfall of +1.32mm/yr., under RCPs 8.5, equivalent to +120mm on annual average. (Gebrechorkos et al. 2023; Kirungu et al. 2023). In Rwanda, there is no statistically significant trend (p value >0.05) in total annual precipitation over time. In Uganda, future climate projections show a precipitation decline of -0.30mm/yr. across the century and, thus, representing a minimal loss (-27mm) in total annual precipitation by the end-century (Kirungu et al. 2023). In Tanzania, the rate of precipitation decline under RCP 8.5 doubles that of RCP

2.6 (-0.21 and -0.39mm/yr., respectively), equivalent to a precipitation reduction of -5% in the worst-case scenario by the end-century.

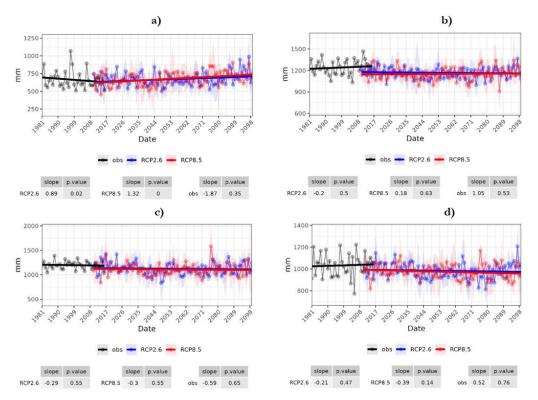


Figure 2-7. Total annual rainfall (mm) over the 21st century from historical period (1981-2016) in (a) Kenya, (b) Rwanda, (c) Uganda, and (d) Tanzania. For future precipitation projections, the significance of trends is calculated on a multi-model ensemble mean of 3 bias-corrected GCMs downscaled with REMO2015.

2.4.2 Temperature

a) Mean maximum temperatures

While mean daily maximum temperatures (hereafter mean Tmax) may reach its highest increase in the midterm (2040-2069) under RCP 2.6; conversely, under RCP 8.5, the highest mean Tmax is expected by the end century (2070-2099) (Figure 2-8). In both RCPs, the rate of increase is lower (1 to 2° C depending on the RCP) towards the ocean because water can hold more heat than the air and, consequently, takes more time to warm up than the air. Therefore, the coastline of Kenya and Tanzania may experience an increase of +0.5 to $+1.0^{\circ}$ C and +2.0 to $+3.0^{\circ}$ C, respectively under RCPs 2.6 and 8.5 by the end-century (2070-2099) relative to the baseline period (1976-2005). Conversely, towards the central parts of East Africa, mean Tmax may increase by as much as $+4.5^{\circ}$ C under RCP 8.5 by the end-century (2070-2099) relative to the baseline period (1976 2005).

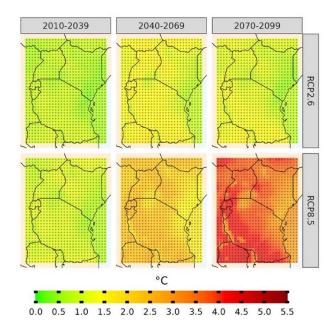


Figure 2-8. Climate change signal in mean daily maximum temperatures (mean Tmax; °C) over the 21st century from historical period (1976-2005). The black cross indicates whether at least 60% of the models agree in the sign of the climate change signal (positive or negative).

b) Mean minimum temperatures

Figure 2-9 shows the mean daily minimum temperature (hereafter mean Tmin) increase in East Africa over the 2010-2099 period for RCPs 2.6 and 8.5. Overall, mean Tmin may increase by +1.5 to $+2.0^{\circ}$ C (RCP 2.6) and by +4.0 to $+5.0^{\circ}$ C (RCP 8.5) towards the interior and by less than $+1.5^{\circ}$ C (RCP 2.6) and $+3.0^{\circ}$ C (RCP 8.5) in Tanzania's and Kenya's coastline by 2070-2099.

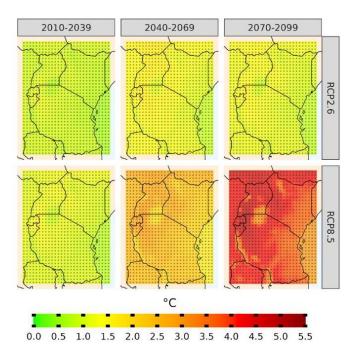


Figure 2-9. Climate change signal in mean annual minimum daily temperatures (mean Tmin; °C) over the 21st century from historical period (1976-2005). The black cross indicates whether at least 60% of the models agree in the sign of the climate change signal (positive or negative).

2.4.3 Extreme weather events

a) Dry-spells and extreme precipitation

Figure 2-10 shows the changes in the emergence of number of dry days ($R \le 1 \text{mm/day}$) over the century in East Africa. Model outputs show a positive agreement in the time of emergence, slightly earlier and widespread for RCP 8.5 (2030-2050) compared to RCP 2.6 (2040-2060). The positive change

There will be a general increase in the number of dry days) across East Africa, which will appear quite ealy (2030 to 2060) and will be concentrated towards the west of Kenya, the entire Uganda and Rwanda, and most parts of Tanzania. Conversely, the time of emergence for negative values (reduction in number of dry days) is foreseen by 2060 onwards especially in the east and south of Kenya.

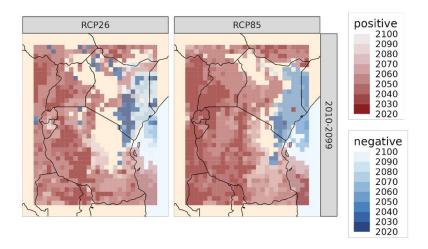


Figure 2-10. Time of emergence for the number of dry days (R≤1mm/day) over the 21st century.

Most of the increase in very wet days ($R \ge 20$ mm/day) is anticipated in the southwest of Kenya under RCP 2.6 where there might be an extra 1 to 2 very wet days on annual average by the end-century (2070-2099) (Figure 2-11). For RCP 8.5, the increase in very wet days is widespread over Uganda, Rwanda, Tanzania, and the southwest of Kenya and is between 2 to 6 additional very wet days on annual average by the end-century (2070-2099). This increase is substantial because the entire East Africa received less than 20 very wet days ($R \ge 20$ mm/day) on annual average during the 1981-2017 period (Ojara et al. 2021).

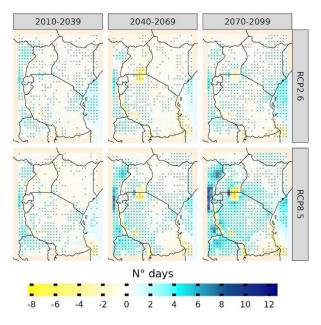


Figure 2-11. Climate change signal in the number of heavy rainfall events (R≥20mm/day) on annual average over the 21st century from historical period (1976-2005). The black cross indicates whether at least 60% of the models agree in the sign of the climate change signal (positive or negative).

b) Extreme temperatures

Other relevant climatic extreme indices, such as very warm days (Tmax ≥35°C), may gain in frequency and intensity in a warmer global climate (Figure 2-11). Under the low emission scenario (RCP 2.6), for example, an additional +25 to +75 very warm days on annual average are expected in Uganda, Kenya's Rift Valley, and central Tanzania in the mid-term (2040-2069). Most of the increase in very warm days is projected by the end-century (2070-2099) under RCP 8.5, showing an increase that ranges between +100 to +200 additional very warm days on annual average compared to the baseline period (1981-2010).

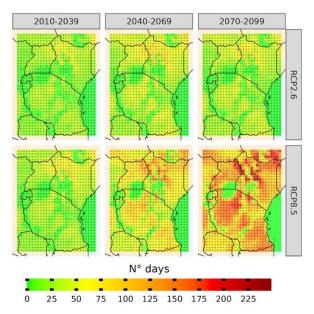


Figure 2-12 Climate change signal in the number of very warm days ($Tmax \ge 35^{\circ}C$) on annual average over the 21st century from historical period (1976-2005). The black cross indicates whether at least 60% of the models agree in the sign of the climate change signal (positive or negative).

2.5 The Impact of Climate Change on Agriculture and Dairy Production

Figure 2-13 summarizes the potential effects of climate stressors, including drought, rainfall variability, floods, temperature increases, on agriculture and dairy production. The climate impacts point to the connection between climate change and agricultural and dairy productivity. It shows that four climate stressors – temperature increase, rainfall variability, droughts, and floods – affect the agricultural and dairy sectors and ultimately reduce their productivity.

Mean temperatures in East Africa are projected to increase by up to 1.9°C by 2050, under an RCP8.5 scenario. The vulnerable sectors to rises in temperature are particularly rainfed agriculture, natural ecology systems and biodiversity, water resources, and energy (production and consumption). This ultimately increases the vulnerability of certain

communities, such as poor farmers, pastoralists and generally communities that rely on rainfed agriculture (Figure 12-13).

Precipitation is projected to decrease through the 2030s, with increasingly significant decrease expected throughout the rest of the century, under the high emissions scenario, RCP8.5. There will be increased aridity and a higher occurrence in the number and frequency of dry spells over the summer season. Rainfall variability will also increase together with increased frequencies of both droughts and floods. Communities that are most vulnerable to droughts and floods are poor farmers, and generally poor families with senior members, children, and women.

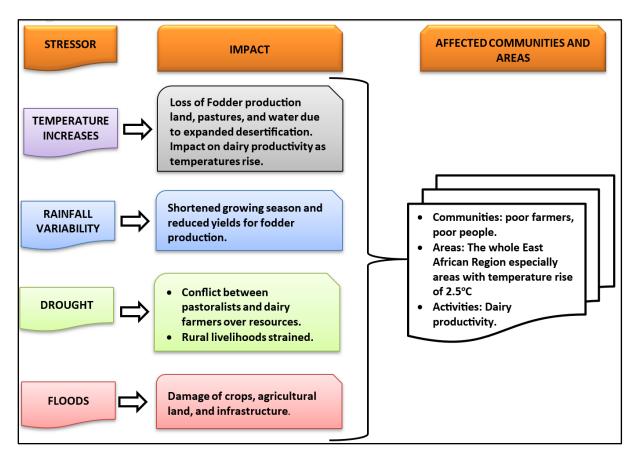


Figure 2.13 Climate stressors and their potential impacts on dairy and agriculture production.

The climate change impacts will occur through different channels and will agriculture and dairy production dimensions of food security: access, availability, utilisation and stability.

Changes in temperature, precipitation, water availability, extreme climate events, and atmospheric composition will have direct effects on agriculture and dairy production, which may then translate into impacts on prices, incomes and livelihoods in general.

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¹ Food and Agriculture Organisation (FAO) (2016) The state of food and agriculture. Climate change, agriculture and food security. FAO, Rome, Italy.

Table 2.1 Climate-change impacts on different aspects of dairy production $security^2$

security			
PRODUCTION SECURITY DIMENSION	POTENTIAL IMPACTS		
Availability	 Reduced rainfall and increased evapotranspiration reducing yields from rain-fed agriculture and livestock production, Reduced soil fertility and increased land degradation from increased temperatures, evaporation, and drought, Climate change induced crop and livestock pests and diseases, Higher post-harvest losses as a result of climate change. 		
Access	 Loss of agricultural income due to reduced yields and higher costs of production input such as water, Climate-change impacts on food production could lead to higher global and local food prices, Difficulties in accessing food due to displacement driven by climate extremes and disasters. 		
Stability	 Greater instability of supply due to increased frequency and severity of extreme events, including droughts, Instability of incomes from agriculture. 		
Utilisation	 Impact on food safety due to increased temperatures, Impacts on nutrition resulting from reduced water quality and quantity, Climate induced morbidity 		

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² adapted from **Jobbins, G., and Henley, G., 2015**; Food in an uncertain future: the impacts of climate change on food security and nutrition in the Middle East and North Africa. Overseas Development Institute, London / World Food Programme, Rome.

3. ADAPTATION ASSESSMENT

3.1 Main Adaptation Needs

Adaptation needs are the specific requirements and or actions that are necessary to cope with the impacts of climate change and, consequently, ensure the resilience of agriculture and livestock systems. Identifying adaptation needs helps prioritize actions and allocate resources to address the most critical challenges.

3.1.1 Access to climate-smart technologies

Farmers need access to climate-smart technologies such as improved livestock breeds, drought-tolerant crop varieties, and energy-efficient milk cooling and processing equipment. These technologies can enhance productivity, conserve resources, and mitigate climate change impacts. Improving the agriculture and dairy production efficiency is an effective way towards reducing emissions per unit of milk (Place & Mitloehner, 2010).

3.1.2 Capacity building and knowledge transfer

Providing training programs, Farmer Field Schools, and extension services can enhance farmers' technical knowledge and skills in agriculture and dairy management. This includes training on sustainable feeding practices, breeding strategies, disease control measures, and effective use of water resources.

3.1.3 Financial and market support

Ensuring access to affordable finance and micro-credit services enables farmers to invest in productive assets, infrastructure development, and value addition. Additionally, supporting farmers in accessing fair and transparent markets and promoting value chain linkages can enhance their incomes and improve market resilience. Connecting resource-poor smallholder farmers to large enterprises can improve input and output markets as well as other productivity-enhancing services (Omondi et al. 2017). Cooperative selling institutions can help mitigate transaction costs, stimulate entry into the market, and promote growth in rural communities (Holloway et al. 2000).

3.1.4 Strengthening infrastructure

Investing in rural infrastructure, such as improved water supply, electricity supply, and milk collection and processing facilities, can reduce production costs, post-harvest losses, and improve overall market access for farmers.

3.1.5 Climate information and early warning systems

Developing and disseminating climate information, early warning systems, and advisory services can assist farmers and rural producers in making informed decisions related to planting seasons, feed management, breeding, and disease control. This helps farmers anticipate and adapt to climate-related risks. Market information systems form a key component of these early warning systems.

3.1.6 Policy support and institutional strengthening

Developing supportive policies and regulations that address the specific needs of the agriculture sector, as well as strengthening the institutions involved in research, extension, and market development, are crucial for enabling a conducive environment for small holder farmers to thrive. Collaboration between governments, research institutions, dairy cooperatives, financial institutions, and development partners is required to address the identified key barriers and adaptation needs.

3.2 Adaptation Options

Having considered the type of observed and potential climatic hazards, analysed the vulnerability factors and estimated some of the climate impacts in the region, this section proposes feasible adaptation options that the project may promote.

3.2.1 List of Adaptation Options

A list of adaptation options based on climatic hazards, sensitivity, exposure, adaptive capacity and agroecological zone are presented in Table 3.1 below. The list is developed from options recommended in the updated NDC, the IFAD Database for Climate Adaptation Options and discussions with technical officers and the local stakeholders.

Table 3.1 Climate change adaptation options.

I D	Climate risks	Potential impacts on value chains	Suggested adaptation option
1	Increased temperature	Low water availability and reduced crop yields	Introduce new varieties of crops, e.g., with greater drought or flood resistance
	s and droughts		Diversify livelihoods / create income sources from activities other than agriculture and livestock
			Promote community and small scale irrigation structures and better water management practices
			Build new storage facilities / micro-dams to cope with drought
			Identify alternative sources of water supply during drought
		High temperatures reduce agricultural productivity and dairy products shelf life	Promote dairy production in cooler areas of the region and capacity building in cold chain handling and management.
		Droughts may lead to total livestock and crop failure	Promote design of attractive and affordable crop and livestock insurance products for farmers

I D	Climate risks	Potential impacts on value chains	Suggested adaptation option
		and loss of substantial investment for farmers	Diversify agricultural activities within single farm units, e.g. introduction of agro-forestry systems
		Reduced precipitation may lead to reduced and scarcity of water for livestock.	Construct new water harvesting infrastructure Increase range of water sources (and collection/ storage facilities)
		Increased warm temperature led to pest and disease outbreaks	Improve pest and disease control practices Enhance capacity in pest and disease surveillance
2	Increased precipitation intensities	Increased precipitation led to landslide, occurrence of floods, loss of crops,	Promote micro catchment conservation (afforestation, micro dams, contour bunds and vetiver)
	and flood occurrence	livestock and damage investment infrastructures	Promote flood control structures and river flood defences near vulnerable farming areas
			Promote zoning and proper land use planning to avoid investment in flood and landslide prone areas
			Produce evacuation plans for low-lying agricultural areas
			Promote climate resilient infrastructure development (animal structures, storage structures) etc
		High erosion from floods on bare lands and increased sedimentation in water bodies	Change approach to farmland management to work with flooding, rather than fighting against it (particularly in flood plains where flood sediments increase productivity of pastures)
			Introduce new tillage and drainage methods to reduce soil erosion.
3	Climate variability		Re-schedule planting and harvesting dates.
			Research traditional farming practices to identify approaches that may be suited to a different climate
			Research new crops, new breeds and opportunities/ risks of introduction.
			Make contingency plans to deal with loss of crops due to drought or flood
			Consider the effect of new weather patterns on the health and well-being of agricultural workers.
4	Impact on Livestock keeping Methods		Make use of integrated systems involving intercropping and/or other activities like aquaculture and apiculture to improve resilience

I D	Climate risks	Potential impacts on value chains	Suggested adaptation option
5	Increased occurrence of strong	Strong winds and cyclones led to loss of crops, livestock and investment	Build expertise in the use of climate forecast information for improvement of cropping strategies.
	winds and cyclones	assets	Assume a lower life expectancy and plan for more frequent infrastructure replacement activities.
			Collect climate and flood data for the project area and identify areas that are vulnerable to climate related damage (drought, flooding, soil erosion)
			Develop early warning systems to improve response to climate disasters

3.2.2 Prioritization of Adaptation Options

Having developed a longlist of adaptation options, a criterion for prioritisation is presented as in Table 3.2 below. The Multi-Criteria Analysis (MCA) was used to decide which "most feasible options" should be implemented. The approach takes into consideration a number of criteria including technical feasibility costs, benefits, potential to address climate risks, accessibility of option to small holder farmers, flexibility (i.e., avoids lock-in), mitigation co-benefits, transformative potential. The approach is adapted from IFAD (Thematic Brief Irrigated Crops (ifad.org) and is an expert-driven process using information gathered from a wide stakeholder engagement.

The assessment uses a simple scoring system based on the eight criteria outlined below. 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 scored the highest are most suitable for a project.

Table 3.2 Criteria and scoring for prioritisation of adaptation options

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	Potential to address Climate Risk	Adaptation option is not relevant or may not be effective for the risks identified	effectively addresses	Adaptation option is relevant for all of the major climate risks identified
4	Accessibili ty for SHF	Adaptation option is inaccessible for the main project beneficiaries (e.g. unaffordable,	Adaptation option is accessible for the majority of the	Adaptation option is accessible to project beneficiaries and specifically benefits

No.	Theme	Scoring Criteria		
		1	2	3
		requiring regular complex maintenance), or exacerbates existing inequalities.	project's target beneficiaries.	women or other marginalised groups.
5	Flexibility (avoids lock-in)	The adaptation option has a long lifetime (>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	Transform ative 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 option, for instance with a declining marginal cost	Adaptation option enables change in the system in question which significantly increases opportunities for target beneficiaries to adapt to climate change.
8	Complem entarity 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.

Table 3.3 Adaptation decision Matrix Table

PRIORITY ADAPTATI ON OPTIONS	NAME	RATIONALE
1	Introduce new varieties of crops, e.g., with greater drought or flood resistance.	New varieties of crops will be adopted much easier since the farmers are already familiar with them. Further if they have greater drought or flood resistance, they will address the climate risks
2	Promote dairy production in cooler areas of the region and capacity building in cold chain handling and management.	Raising dairy cattle in cooler regions of the country will enhance dairy productivity as dairy cattle do very well in cooler climates.
3	Make use of intercropping systems to improve resilience.	The farmers have to diversify their crops so that if one crop fails, the other crop ay serve as source of income.
4	Improve pest and disease control practices	The improvement of pest and livestock disease control practices will ensure high yield and healthy animals which translates to higher dairy productivity.
5	Make contingency plans to deal with loss of crops and fodder due to drought or flood	contingency plans to deal with loss of crops and fodder due to drought or flood will ensure that the food is available and animals have adequate feed even during difficult times.

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
Select Sector	Adaptation options	Technic al feasibil ity	Cost- bene fit ratio	Addres ses climate risks	Accessibil ity for smallhold ers	Flexibili ty (i.e avoids lock-in)	Mitigati on co- benefit s	Transf ormati ve potent ial	Complem entarity to IFAD themes	Suitabi lity	Tot al Sco re		
Agriculture and Dairy	Introduce new varieties of crops, e.g., with greater drought or flood resistance	3	2	3	3	3	3	3	3	Suitable	23		
	Diversify livelihoods / create income sources from activities other than agriculture and livestock e. apiculture	2	2	2	2	2	3	2	2	Suitable	17		
	Promote community and small scale irrigation structures and better water management practices	2	2	2	2	1	2	1	1	Suitable	13		
	Build new storage facilities /micro-	2	2	2	2	1	2	1	1	Suitable	13		

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
	dams to cope with drought												
	Identify alternative sources of water supply during drought	2	2	2	2	3	1	2	2	Suitable	16		
	Promote dairy production in cooler areas of the region and capacity building in cold chain handling and management.	2	3	3	2	3	3	3	3	Suitable	22		
	Promote design of attractive and affordable crop and livestock insurance products for farmers	1	2	2	3	2	2	2	3	Not Suitable	0		
	Diversify agricultural activities within single farm units, e.g. introduction	2	2	2	2	2	3	2	2	Suitable	17		

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
	of agro-forestry systems												
	Construct new water harvesting infrastructure	2	3	2	2	2	3	2	2	Suitable	18		
	Increase range of water sources (and collection/ storage facilities)	2	2	2	3	3	2	1	2	Suitable	2		
	Improve pest and disease control practices	3	2	3	2	3	3	2	2	Suitable	20		
	Enhance capacity in pest and disease surveillance	2	2	2	2	1	2	1	1	Suitable	13		
	Promote micro catchment conservation (afforestation, micro dams, contour bunds and vetiver)	2	2	2	2	1	2	1	1	Suitable	13		
	Promote flood control structures and river flood defences near	2	2	1	1	1	2	2	2	Not Suitable	0		

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
	vulnerable farming areas												
	Promote zoning and proper land use planning to avoid investment in flood and landslide prone areas	2	2	1	1	1	2	2	2	Not Suitable	0		
	Produce evacuation plans for low-lying agricultural areas	2	2	1	1	1	2	2	2	Not Suitable	0		
	Promote climate resilient infrastructure development (animal structures, storage structures) etc	2	2	2	2	1	2	1	1	Suitable	13		
	Change approach to farmland management to work with flooding, rather than fighting against it (particularly in	1	2	1	2	2	2	2	2	Not Suitable	0		

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
	flood plains where flood sediments increase productivity of pastures)												
	Introduce new tillage and drainage methods to reduce soil erosion	2	1	2	2	2	2	2	2	Not Suitable	0		
	Re-schedule planting and harvesting dates of crops and fodder	2	2	2	3	2	2	3	2	Suitable	18		
	Research traditional farming practices to identify approaches that may be suited to a different climate	1	2	2	2	1	1	2	1	Not Suitable	0		
	Research new crops, new breeds and opportunities/	1	2	1	2	2	2	2	2	Not Suitable	0		

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
	risks of introduction.												
	Make contingency plans to deal with loss of crops due to drought or flood	3	3	2	3	2	2	2	2	Not Suitable	19		
	Make use of integrated systems involving intercropping and/or other activities like aquaculture and apiculture to improve resilience	3	2	3	2	2	3	3	3	Suitable	21		
	Build expertise in the use of climate forecast information for improvement of cropping strategies.	2	1	2	2	2	2	3	3	Not Suitable	0		
	Assume a lower life expectancy and plan for more frequent infrastructure	1	1	1	1	1	1	1	1	Not Suitable	0		

PRIORITY ADAPTATI ON OPTIONS	NAME		RATIONALE										
	replacement activities.												
	Collect climate and flood data for the project area and identify areas that are vulnerable to climate related damage (drought, flooding, soil erosion)	2	2	2	2	3	1	1	3	Suitable	16		
	Develop early warning systems to improve response to climate disasters	2	2	2	2	2	2	2	2	Suitable	16		

4. TARGETED ADAPTATION ASSESSMENT IMPLEMENTATION & MONITORING.

The oversight for the Targeted adaptation assessment implementation will be undertaken by the Environmental and Social Safeguards Specialists, recruited under the Programme Management and Coordination Unit (PMCU). The PMCU will customise, update and include the targeted adaptation assessment as part of project annual workplan for review by the Project Technical Committee and approval of the Project Steering Committee.

Monitoring will ensure the long-term success of climate adaptation initiatives, plans and actions. The targeted adaptation assessment will play an important role in planning of and mainstreaming of adaptation activities to be undertaken; track progress of planned outputs and outcomes from adaptation actions; monitor if project interventions are leading to any unanticipated side effects.

5 CONCLUSIONS AND KEY RECOMMENDATIONS.

This report analysed the most common observed hazards, factors that compound agriculture and dairy vulnerability to climate change, including exposure, sensitivity and adaptive

capacity. The main climate hazards found include droughts and floods. Future climate trends indicate increase in temperature and extreme temperatures; increased rainfall variability; and reduction in precipitation.

Based on the climate risks and projected impacts, the key adaptation options recommended include:

- a) Introduce new varieties of crops and fodder, e.g., with greater drought or flood resistance.
- b) Promote dairy production in cooler areas of the region and capacity building in cold chain handling and management.
- c) Make use of integrated systems like intercropping and/or other activities like aquaculture and apiculture to improve resilience.
- d) Improve pest and disease control practices and
- e) Make contingency plans to deal with loss of crops and fodder due to drought or flood

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Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex: Volume 4. Solid And Liquid Waste Management Plan

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department



Solid and Liquid Waste Management Plan

For the

Integrated Natural Resources Management Programme (INReMP) in Kenya

Volume IV

March 2024

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Abbreviations and Acronyms

BMUs	Beach Management Units
CFAs	Community Forest Associations
CIDP	County Integrated Development Plans
CIGs	Common Interest Groups
FOs	Farmer Organizations
IFAD	International Fund for Agricultural Development
INReMP	Integrated Natural Resources Management Programme
INRM	Integrated Natural Resource Management
PDO	Project Development Objective
PES	Payment for Ecosystem Services
SMEs	Small and Medium Enterprises
WCCCs	Ward Climate Change Committees
WRUAs	Water Resources Users Associations

1.0 INTRODUCTION

1.1 BACKGROUND ON INREMP

The government of the Republic of Kenya (GoK) and the International Fund for Agricultural Development (IFAD) have jointly designed the Integrated Natural Resources Management Programme (INReMP). The Programme aims to contribute to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem. The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture.

1.1.1 Project Target Area.

INReMP will be implemented in the counties served by the Cherangany Hills and Mau West water towers. The implementation will focus on the following ten counties: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori. INReMP interventions will support the implementation of the Integrated Master Plan for the Rehabilitation and Restoration of the Cherangany-Elgeyo Hills Ecosystem.

1.1.2 Beneficiaries and target groups

The INReMP targets beneficiaries selected from the following socio-economic groups:

- a) Rural Smallholder Food Insecure Farmers These are productive male and female farmers who possess the potential to achieve household food security from agricultural production on their farms, but due to limited land and resources are unlikely to produce a surplus for the market. Usually, this group constitutes the largest and includes female headed households, such as the elderly, youth, people with disabilities (PWDs), people living with HIV/AIDS(PLWHAs) and vulnerable households. This group will constitute about 40% of the Programme beneficiaries;
- b) Rural Moderately Food Insecure Farmers These farmers are involved in subsistence crop farming and animal husbandry with low level of production. They lack access to quality seeds, inputs and implements to increase their production for consumption and to make their production market oriented. When supported technically and financially with input loans and access to markets, this group is responsive and would facilitate wider spread of sustainable Integrated Natural Resource Management (INRM) and livelihoods. The female and male farmers dominate this group, which is relatively bigger than the commercial farmers. This group will constitute about 40% of the Programme beneficiaries; and
- c) Rural Semi-Commercial and Commercial Producers These farmers have a market-oriented approach but lack entrepreneurial/management skills to farming as a business. They also have limited access to extension services, financial support and more commercial markets. This group will constitute about 20% of the Programme beneficiaries.

1.2 THE OBJECTIVES OF INREMP

1.2.1 The project goal

INReMP's goal is to 'contribute to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem'

1.2.2 The Project Development Objective

The Project Development Objective (PDO) is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'

1.3 PROJECT COMPONENTS AND SUB COMPONENTS

The project will comprise 3 main components:

Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and quality; d) improve dietary diversity; and e) capacity building of community-based organizations, such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs) to strengthen sustainable management of natural resources. Investments will employ a landscape approach to catchment management, payment for ecosystem services, and low carbon focused interventions for resilient crop and livestock production and associated value chains, with particular attention to enhancing climate resilience of the target beneficiaries. It comprises the following subcomponents:

Subcomponent 1.1: Community Empowerment and Gender Transformative Approaches -This subcomponent will be informed by the County Integrated Development Plans (CIDPs) that specify community priorities per sub-county and ward. Each ward has a committee to lead its development priorities related to NRM, livelihood needs and other community needs. Community empowerment will include community awareness creation, sensitization, prioritization of actions and development of Community action plans. Example community organisations to be targeted are CFAs, WRUAs, Ward Climate Change Committees (WCCCs), Beach Management Units (BMUs), Farmer Organizations (FOs) and Common Interest Groups (CIGs) including those for women, youth, PWDs and vulnerable INReMP will support establishment and strengthening of already existing aroups. community organizations and committees before creating new ones. The community structures will be the entry for planning, guiding and mobilizing development activities in the respective wards and community empowerment will be the entry point for all Programme activities to ensure ownership and contribute to sustaining interventions. Under this subcomponent, the Programme will employ digitally enabled platform that provide seamless bundled/multiple services (adapting from and replicating KCEP-CRAL digital clustered experience) to support community empowerment through: a) access to advisory services to promote good agriculture practices for efficient usage of land, soil and water, access to inputs and market information; and b) training of farmers on agronomic practices, including natural resource management. The Programme will explicitly target women and youth to access digitally enabled multiple services and enhance their knowledge and participation

Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services – The objective of this subcomponent is to reduce degradation, rehabilitate, restore and sustainably manage available natural resources. The component will focus on forests, rangelands, arable land, wetlands and water resources using an ecosystem approach. The expected outcomes include enhanced environmental sustainability and integrated management of natural resources and increased provision of ecosystem services. Planned activities include: a) comprehensive mapping of natural resources (forests, water bodies, land, and wetlands etc); b) enhancement of critical infrastructure supporting Integrated

Natural Resource Management (INRM), including for example, installation of river monitoring systems, meteorological weather stations, restoration of degraded lands and rivers, reforestation etc; c) safeguarding water sources, preserving environmental integrity (including the protection of riparian zones surrounding rivers and springs), implementing sustainable land management practices, erosion control through terracing, adoption of smart precision agriculture technologies, and promoting the sustainable utilization of land and water. This will include afforestation/reforestation efforts, establishment of tree nurseries, and the promotion of green energy solutions like solar energy, biogas and promotion of efficient cooking stoves at the household level to combat forest degradation. In addition, initiatives for wetland restoration and integrated approaches like school greening programmes will be pursued; d) the project will also employ digital technologies such as Remote Sensing and GIS to support NRM through Geomapping and monitoring, soil and land management as well as establishment of a robust digital platform to facilitate the implementation and oversight of Payment for Ecosystem Services (PES); and e) conducting targeted studies to inform intervention selection, such as assessments of sediment flows, hydro-geological studies, and capacity-building initiatives.

Component 2: Improved, Inclusive and Sustainable Rural Livelihoods seeks to support communities and households to improve and diversify their livelihoods and incomes through improved management of natural resources. These activities will serve as incentives for the communities to sustainably conserve their environment and reduce destructive practives. Value chains have been selected based on the following criteria: a) neutral or beneficial environmental impacts; b) the commodity is produced or can be easily produced by beneficiaries (potential for volume aggregation and scale); c) availability of profitable and structured markets (existence of Small and Medium Enterprises (SMEs), processors, aggregation centres, etc.); d) potential to contribute to household nutrition; and e) potential for including youth, women and other vulnerable groups. On the basis of these criteria and consultations with the ten target counties, the following value chains have been prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees; and e) horticulture. During implementation INReMP will regularly review these value chains to determine continued relevance and add new emerging opportunities. Support activities will cover production, market linkages and value addition. The subcomponents are:

Subcomponent 2.1: Improve Productivity of Selected Nutrition- Sensitive Value Chains and Nature-based Enterprises – activities will be value chain specific to address constraints to effective value chain integration. These include: a) supporting the set-up of digitally enabled mobile-based e-voucher platform enabling targeted beneficiaries to access bundled inputs, technologies, services and facilities for improved crop and livestock productivity. This mobile-based e-voucher platform will leverage on the proven KCEP-CRAL e-voucher experience; b) support livestock feed and fodder production, pasture management and feed preservation; c) training of farmers in good and climate smart agricultural practices (agronomic, animal husbandry, disease control, efficient use of inorganic/organic inputs, green and water-efficient irrigation technologies etc.); d) enhance extension advisory through digital extension services to ensure farmers access information on agronomic practices, climate information and advisory services; e) organisation of farmers into farmer-led institutions (or strengthen the capacity of such groups) to facilitate access to technologies and collective production decisions, including

organizational structures in irrigation schemes/systems; f) organising demonstrations as a way of scaling up adoption of new technologies and good agriculture practices; g) training on safe handling and disposal of chemicals; and h) investments in climate-proof infrastructure to support production. Such infrastructure will include improved livestock housing and handling facilities, multi-purpose community-based water supply systems based on gravity or solar power, rainwater harvesting, rehabilitation of small-scale irrigation systems, shade cloth/greenhouse infrastructures, etc.

Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises - value chain studies conducted as part of this design as well as follow up assessments during implementation will identify market opportunities that will drive the production support activities under Subcomponent 2.1. Planned interventions include: a) regular market opportunity assessments; b) organisation of farmers for commodity aggregation and collective marketing; c) strengthen capacity of farmer organizations (Cooperative, CIG) to effectively manage collective marketing activities; d) facilitate linkages with market intermediaries through formal win-win relationships (Memoranda of Understanding (MoUs), out grower and off-take contracts); e) improve access to market information through digital market information systems; f) training in post-harvest handling and provision of post-harvest equipment to preserve quality and reduce loss; g) investments in market access, market and marketing infrastructures and equipment (rehabilitation of feeder/access roads linking production zones to markets, improving infrastructure for collection/aggregation centres, storage facilities, produce handling equipment, improvement of local market structures, developing of green energy infrastructure (such as bioenergy, solar energy, etc.); h) facilitate nutrition sensitive market standards and certifications to the private sector for supportive market systems and infrastructure and f) support for local processing and value addition through individual and/or collective efforts. Such support will include coinvestments in processing equipment as well as support in business plan development to access funding. Support for local processing and value addition will be preceded by market research and capacity building for required product certification and compliance with health and safety requirements.

Component 3: Institutional Strengthening, Policy Support and Programme Coordination – This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps.

1.4 PROJET OUTCOMES

INReMP interventions will seek to address the identified natural resources management challenges in the ten target counties by providing alternative livelihood opportunities to the target groups. The following are the expected outcomes:

- Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action;
- Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods; and
- Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods

2.0 OBJECTIVES OF THE SOLID AND LIQUID WASTE MANAGEMENT PLAN

2.1 MAIN AND SPECIFIC OBJECTIVES

The main objective of the Solid and Liquid Waste Management Plan is to identify the different waste streams and establish risk levels for each so that the waste hierarchy can be developed for immediate attention based on their priority.

Specifically, the Solid and Liquid Waste Management Plan aims to:

- i. identify measures to ensure management of each of the identified waste stream and plan when the mitigation measures should be implemented;
- ii. establish associated costs of the mitigation measures

2.1.1 Purpose of Solid Waste Management

The primary goals of solid waste management are as follows:

Minimize Production rate of waste: Proper management practices help to minimize the rate of generation of waste that need handling. The answer to the question, "What are the main objectives of waste management" starts with minimizing the amount of waste produced.

Reduce Pollution Effects: Secondly, it is vital to lower the impact that organic waste has on pollution. Organic residue can emit toxic methane as it rots. On a global level, methane gas adds to the greenhouse effect and warms the planet. Handling organic waste properly can reduce pollution and its ill effects on the earth.

Protect ground water sources: Poorly handled waste can end up in rivers, lakes and other water sources, polluting the water and contaminating the soil below it. The appropriate waste management system helps to safeguard limited water sources and preserve rare species.

Ensure Sustainability: There are ways to save money by reducing waste, but it is essential to use natural resources to do so. Engaging in practices that help protect nature creates an outstanding balance between the environment and businesses. This balance helps create economic benefits while protecting the environment.

2.1.2 Purpose of Liquid Waste Management

Correct liquid waste management is so critical because of the following reasons:

Environmental protection: Improper liquid waste disposal can inflict grave damage on the surrounding environment. It can disrupt the balance of aquatic ecosystems and kill marine organisms. Or it can seep into the soil, kill plants, destroy natural habitats and cause biodiversity loss.

Human health protection: Inadequate liquid waste disposal can also make people seriously ill. If waste fluids leak, spill or run off over the ground, they can contaminate the groundwater and surface water sources that people use for drinking. If treatment plant filters cannot address the contaminants, people may ingest them. They may develop gastrointestinal illnesses, heavy metal poisoning or other severe conditions depending on the composition of the waste

Aesthetic concerns: Improper disposal of liquid waste can give the disposal area an offensive smell. Though it may not harm residents directly, it can make their daily activities more unpleasant and lead to complaints

3.0 ASSESSMENT OF IMPACTS RELATED TO SOLID AND LIQUID WASTE

3.1 INTRODUCTION

The section outlines the potential environmental impacts related specifically to solid and liquid waste that are likely to be caused by the implementation of the INREMP. The strategies and measures that will be implemented to protect human health and the environment and prevent pollution are also provided for each identified impact. With appropriate design and adequate management and monitoring, negative impacts can be kept to a minimum or eliminated.

3.2 ACTIVITIES AND SOURCES OF ENVIRONMENTAL IMPACTS

By design, INReMP has various activities that are clustered under component 1 and 2. Impacts might occur during Construction and operation phases.

The critical activities that are likely to generate impacts related to solid waste and liquid waste during construction and operations phases are:

- Development /rehabilitation of micro dams, springs and shallow wells
- Establishment of Soil Testing laboratories at county level
- Rehabilitation of identified wetlands/riparian and development of water collection or access points
- Support the dairy value chain through provision of processing equipment for Dairy Processing plants
- Establishment of avocado Aggregation centers
- Supporting establishment of poultry processing facilities
- Support agricultural produce marketing infrastructure facilities like construction of Warehouses
- rehabilitation of multipurpose water supply infrastructure like rain water harvesting tanks
- Rehabilitation of Small-scale irrigation systems

3.3 ENVIRONMENTAL IMPACTS AT DIFFERENT PHASES OF INREMP

In the analysis of impacts related to solid and liquid waste, the two main phases of the INREMP have been considered i.e. construction and operation. The decommissioning phase has not been considered at this point because it is expected that the project will continue even after the funding period is over. This implies that, although the project funding period is 8 years but project activities will continue beyond the funding period.

3.3.1 Environmental Impacts during construction Phase i) Solid waste nuisance

Substantial amounts of solid wastes are normally generated from construction activities. Such wastes include stones, wood, debris, plastic containers, rods of metal, pieces of iron sheets etc. The sub-project implementers will be expected to design and institute appropriate measures for the collection and disposal of the various wastes produced from their operations. Animals may suffocate from ingesting the solid waste materials like plastics. Solid waste can also be dangerous to aquatic animals if washed into water courses.

Assessment of the impact

The disturbances from the solid waste will be negative and direct in nature. This impact will definitely occur during the construction phase and will be medium term in nature. The consequence of the impact is anticipated to be moderate detrimental because of the medium duration that the impact will be experienced. For the people surrounding environment nearest to the project site it is considered to be of Moderate significance. The moderate detrimental and definite probability results in this impact being of Moderate significance.

Strategies and Mitigation Measures

In order to protect human health and the environment and prevent soil pollution during construction phase, some of the strategies and mitigation measures include, sorting of waste at source, timely collection and immediate transportation to the designated area for proper disposal in compliance with requirement of SECAP and local laws and regulations. The precautionary approaches will be employed for each type of waste including the application of instructions written on the Material Safety Data Sheets to manage hazardous wastes/obsolete or unused chemicals containers

•Residual Impact

Post-mitigation- It is expected that the impact of solid waste management could be reduced to one of Low significance as the system gets underway.

ii) Surface and Ground Water pollution from debris and spoil materials

The quality of water especially rivers and ground water may be affected negatively by disposal of debris from civil works and other pollutants generated from construction works like paints containers, bitumen etc. Surface water pollution may result from uncontrolled disposal of solid waste into freshwaters. There are still many people relying on river water as a source for drinking water.

Assessment of the impact

The surface water pollution disturbances will be short to medium term in nature and will occur for the duration of construction. These impacts will be carried downstream and will not only be a problem to the footprint area, but it will also reach all the downstream residences where some people use the river water for drinking and for their animals. It is expected that the intensity of these impacts for most people will be medium-high.

The disturbances from the surface water pollution will be negative and direct in nature. This impact will definitely occur during the construction phases and will be short to medium term in nature. The consequence of the impact is anticipated to be moderate detrimental because of the short to medium duration that the impact will be experienced. The moderate detrimental and definite probability results in this impact being of Moderate significance.

Strategies and Mitigation Measures

Some of the mitigation measures to prevent surface and ground water pollution include, timely collection and transportation of solid waste particularly debris and spoil materials to the designated area for proper disposal.

•Residual Impact

Post mitigation- it is expected that the impact of Surface Water pollution could be reduced to one of Low significance for all people once proper disposal of solid waste is done.

iii)Public health risks from sewage at construction sites

Construction of facilities and infrastructure may necessitate concentration of skilled and unskilled labour at one area during construction phase. In the event that the sanitation facilities are not adequately provided by the contractor, mismanagement of sewage from such facilities is likely to result into public health risks and spreading of communicable diseases like cho.

Assessment of the impact

The health risk associated with poor sanitation will be short to medium term in nature and will occur for the duration of construction phase. These impacts may affect the larger population and will not only be a problem to the construction site, but it will also reach all the adjoining residences given the level of interaction in the community. It is expected that the intensity of these impacts for most people will be medium-high.

•Strategies and Mitigation Measures

Prior to commencement of construction activities, the contractor shall ensure installation of adequate temporary or mobile mobile toilets with running water at the construction site. The number of toilets should be according to the number of crew expected to be on site.

Residue Impacts

Post mitigation- it is expected that the impact of mismanagement of sewafe and resulting oublic health impacts could be reduced to one of Low significance for all people once proper and adequate sanitation facilities are in place.

3.3.2 Environmental Impact during Operation Phase

a) Impact related to Solid Waste

i) Impact on Ecosystem resulting from solid waste

Significant quantities of solid wastes are normally generated during the operation phase of the project involving dairy, poultry and agriculture value chains. Although it is not possible to quantify the amount of waste to be generated at this point but such wastes are like manure from cow sheds and solids from milk and poultry processing plants. This organic waste if allowed to access water bodies may lead to increased nutrients levels consequently polluting such water resources.

Assessment of the impact

This impact is medium to long term in nature and will occur in the duration of the operation phase. These impacts will not only be a problem to the footprint area but can affect the wider surrounding community if not managed. It is expected that the intensity of this impact for most people will be low to medium. The solid waste disposal impact will be negative and direct in nature. The moderate detrimental and definite probability results in this impact being of Moderate significance.

Strategies and Mitigation Measures

To mitigate impacts that may result from solid waste especially from dairy and poultry processing during operation phase, the best strategy is to have in place proper sorting at source, collection and final disposal points.

•Residual Impact

Post mitigation- it is expected that the impact of solid waste pollution on local communities could be reduced to one of Low significance if solid waste is converted into resource.

ii) Agro-Chemical Pollution

Enhancement of agricultural production especially horticulture will induce an increased use of agrochemicals to realize better yields and control pests and diseases. The agrochemicals include herbicides, fertilizers and pesticides. The farmers must be made aware of the poisonous nature of the chemicals, should employ recommended disposal methods, and apply the agrochemicals correctly. Poor handling of the agrochemicals, exacerbated by potential accidental spillages, can expose the farmers to these toxic chemicals resulting in the poisoning of farmers, aquatic animals, and soils. The inappropriate disposal of unwanted or expired agrochemicals and the cleaning of application equipment in canals causes pollution. Agrochemicals and some of their degradation products may accumulate in soils, leach into groundwater and can be transported by runoff to surface water bodies.

Assessment of the impact

Agrochemical pollution can be medium to long term in nature and will occur for the duration of the operation phase. These impacts will not only be a problem to the footprint area but can be washed into the rivers and affect water resources. This disturbance will be negative and indirect in nature. For the people residing nearest to the project site, the impact is considered to be of Moderate significance. The moderate detrimental and definite probability results in this impact being of Moderate significance.

•Strategies and Mitigation Measures

Some of the mitigation measures include, encouraging organic farming and limit the use of agrochemicals like inorganic fertilizers, use of Integrated Pest Management approaches to minimize pesticide use, conduct awareness training & Farmer Field Schools on safe handling of chemicals, erect separate storerooms for all agrochemicals so that they are always under lock and away from food stuffs, use split application of fertilizers to avoid the excess from being washed away, and discourage application of agrochemicals just before or during rainfall season.

•Residual Impact

Post-mitigation, it is expected that the impact of agrochemical pollution on local communities could be reduced to one of Low significance for all people.

b) Impacts related to Liquid Waste

i) Effluent Discharges and resulting surface water pollution

Operations at Milk processing plants and poultry processing facilities produce effluent besides the solid waste. Depending on their size, these processing plants may generate substantial amounts of effluent. The effluent has potential to pollute soil and water resources due to high nitrates and phosphates contents in the waste stream.

Assessment of the impact

Effluent discharges during the operation phase will be long term in nature and will occur for the duration of the operations. These impacts will not only be a problem to the footprint area, but it will flow downstream and pollute the water resources in the process. It is expected that the intensity of these impacts for the environment will be medium-high, necessitating the installation of some form of treatment before effluent discharges. The disturbances from the effluent discharges will be negative and direct in nature. The impact will be experienced at the regional level. The consequence of the impacts anticipated to be moderate detrimental. For the people residing nearest to the project site, it is considered to be of Moderate significance. The moderate detrimental and definite probability results in this impact being of Moderate significance.

•Strategies and <u>Mitigation Measures</u>

One of the best mitigation strategies include control of disposal of wastewater by installation and use of appropriate disposal facilities such as Upflow Anaerobic Sludge Blanket Reactors as part of the processing plants. This mode of treatment in a facility has high performance rate of breaking down BOD loads and control offensive smells.

•Residual Impact

Post mitigation- it is expected that the impact of effluent from milk and poultry processing plants could be reduced to one of Low significance for all people once proper effluent treatment systems are installed and are running properly.

3.4 Summary of Impacts and mitigation measures

Herein below is the summary of the Impacts, mitigation measures and monitoring plan for each of the identified impact related to solid and liquid wastes. It should be noted that this plan is just a framework; a far more detailed and specific plan with realistic costs will be prepared for each sub-project prior to implementation.

Table 1: Environmental Management and Monitoring Framework for Solid and Liquid Waste

SN	Potential Impact	Mitigation Measure	Parameter to Monitor	Monitoring Frequency	Target Level/Standard	Responsible party		
1.0	0 CONSTRUCTION PHASE							
1.1	Solid waste nuisance i.e. dbris and spoil materials at construction sites	Collection and disposal of solid wastes at authorised areas	Type of waste collected, Quantity of each type of waste collected in kg	Weekly during construction	Compliance to requirement of SECAP, The Environmental Management and Coordination Act 1999 and the amendment Act 2015	Contractor, INREMP PMT		
1.2	Surface water pollution from mismanagement of debris and spoil materials	Hauling of unwanted debris from the site to designated area	Quantity of debris hauled in kg	Weekly during construction	Compliance to Solid Waste Management regulations of 2009	INREMP PMT		
1.3	Public health risk from sewage at construction sites	Installation of proper and adequate toilet facilities for construction crew at site	Number of toilets and availability of running water	Weekly during construction	Compliance to Public health regulations	INReMP PMT		
2.0	OPERATION PHAS	E						

SN	Potential Impact	Mitigation Measure	Parameter to Monitor	Monitoring Frequency	Target Level/Standard	Responsible party
2.1	Impact on ecosystem resulting from generation of solid waste	Collection and disposal of solid wastes at authorized disposal site	Type of waste collected, Quantity of each type of waste collected in kg	Monthly	Compliance to The Environmental Management and Coordination Act 1999 and the amendment Act 2015	INREMP PMT
2.2	Agrochemicals contamination	Use of the Material Safety Data Sheets to manage dispose/manage hazardous wastes/obsolete or unused Agro chemicals containers	Quantity in kg and Type of Agro chemicals containers collected	Quarterly	The Environmental Management and Coordination Act 1999 and the amendment Act 2015	INREMP PMT
2.3	Effluent Discharges from milk and poultry processing plantst and resulting surface water pollution	-controlled disposal of effluent by installation of Upflow Anaerobic Sludge Blanket Reactor	BOD ₅ , COD, Nitrates, TDS, TSS, Phosphates	Quarterly	Compliance to The Environmental Management and Coordination Act 1999 and the amendment Act 2015	INREMP PMT

4.0 CONCLUSION

The solid and liquid waste management plan has attempted to point out impacts and risks related to solid and liquid waste that might occur in the course of implementation of the Integrated Natural Resources Management programme. It has not been possible to come up with a more site-specific detailed analysis of each impact given the limitation on specific details such as exact location where activities for each sub project will be implemented. Therefore, a more detail plan to guide monitoring of impacts will be prepared after selection of sites.



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex: Procurement Quality Assessmenent Matrix

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

COUNTRY: KENYA

PROJECT: Integrated Natural Resources Management Programme (INReMP)

Quality Assessment Matrix/Checklist

Parameter/issue requiring QA scrutiny	Rating of this Parameter	Justification
	-	
1. The national public procurement legal framework achieves the established IFAD procurement principles and complies with applicable obligations and the hierarchy of national legal instruments is clearly established (law, Regulations and procedures). 2.National Procurement Methods are sufficient to meet the full range of project's needs with clear conditions for use of less competitive methods and ensure value for money, fairness, transparency, proportionality and integrity.	5	 There are some inconsistencies with IFAD procurement guidelines, that include request for proposal through advertisement without REOI, BAFO procedures where the lowest evaluated price is more than available budget, mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating in international tenders to source at least forty percent of their supplies from citizen contractors. Use of REOI for IFAD operations open market approaches. Adherence to IFAD's procurement guidelines and SPD
		provisions when approaching the international market. • Allow minimum 45 days for ICB. • Preliminary evaluations to be consistent with IFAD guidelines and no barriers to competition for openly advertised procurement activities
3.National Advertisement rules are compatible with IFAD requirements	4	 Minimum period for International tender advertising provided as seven days Allow minimum 45 days for ICB.
4. Rules for participation do not exclude foreign bidders based on nationality or unnecessary national requirements	6	 Framework requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents a mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating in international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender. Internationally based suppliers/consultants/service providers be
	The assessment of the Acceptability of the National Procure parameters and, in case of deficiency, assessment of Quality mitigation measures: 1. The national public procurement legal framework achieves the established IFAD procurement principles and complies with applicable obligations and the hierarchy of national legal instruments is clearly established (law, Regulations and procedures). 2. National Procurement Methods are sufficient to meet the full range of project's needs with clear conditions for use of less competitive methods and ensure value for money, fairness, transparency, proportionality and integrity. 3. National Advertisement rules are compatible with IFAD requirements 4. Rules for participation do not exclude foreign bidders based on nationality or unnecessary national	The assessment of the Acceptability of the National Procurement system is parameters and, in case of deficiency, assessment of Quality will scrutinise mitigation measures: 1. The national public procurement legal framework achieves the established IFAD procurement principles and complies with applicable obligations and the hierarchy of national legal instruments is clearly established (law, Regulations and procedures). 2. National Procurement Methods are sufficient to meet the full range of project's needs with clear conditions for use of less competitive methods and ensure value for money, fairness, transparency, proportionality and integrity. 3. National Advertisement rules are compatible with IFAD requirements 4. Rules for participation do not exclude foreign bidders based on nationality or unnecessary national

Pillars/Areas of Quality assessment	Parameter/issue requiring QA scrutiny	Rating of this Parameter	Justification
			permitted to participate in open national procurement opportunities so long as they adhere to the set conditions of tender.
	5. Bidders' qualifications criteria are pass/fail and related to deliver the specific contract. (Exclusions can be justified in case of convictions related to criminal or corrupt activities, non-payment of taxes and social security contributions and for administrative debarment under the national law)	5	 In practice, reviewed activities for Goods and Works contain allocation of scores, and preliminary evaluation requirements akin to post qualification requirements. Adequate customization of solicitation documents. Application of prescribed procedures for evaluation of Goods and Works, and disclosure of procedures in use at the stage of publishing invitations to bid and REOI.
	6.National domestic preferences rules are in line with IFAD's requirements	4	 PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 billion for Work and Kes. 500 million in respect of Goods and Services. Suppliers/contractors be permitted to participate in open national procurement opportunities so long as they adhere to the set conditions of tender.
	7. National Law/Regulations require that Bid evaluation process is confidential and bid evaluation criteria are objective, relevant to the subject matter of the contract, and precisely specified in advance in the procurement	6	
	documents. 8.National Law/Regulations require that Quality is the basis for selection in consultancy services.	6	
	9. National Law/Regulations require "public" bid opening and disclosure of record of bid opening session	6	
	10. National Law/Regulations require neutral specifications based on international norms while admitting equivalent national standards, and provide for the use of functional /performance specifications where appropriate.	6	
	11. National SBDs are available and the contents of the such documents is sufficient for suppliers/contractors/service providers to respond to the procurement requirement on fair and non-discriminatory basis. National SBDs include provisions on Fraud and Corruption, IFAD's right to audit, SECAP standards and SH/SEA provisions equivalent to those in IFAD's SBDs. 12. National SBDs include standard contract conditions	5	National SBDs to be reviewed to include provisions on Fraud and Corruption, IFAD's right to audit, SECAP standards and SH/SEA provisions equivalent to those in IFAD's SBDs
	which are consistent with internationally accepted practice and which prescribe arbitration as an ultimate		

Pillars/Areas	Parameter/issue requiring QA scrutiny	Rating of	Justification
of Quality assessment		this	
		Parameter	
	forum for dispute settlement in case of contracts with		
	foreign vendors.		
	13. The national legal framework grants bidders the right	6	• International procedures will make use of
	to challenge Procuring Entity decisions through a two-tier		IFAD Standard Procurement Documents.
	bidders' complaint procedure, the second being		
	independent of the procurement operations and is empowered to grant remedies that are necessary to		
	enforce compliance with the law by Procuring Entities		
	14. The national legal framework prescribes record-	6	
	keeping rules (should cover the entire procurement		
	process, including contract management phase), and the		
	PDR addresses these rules in an effective and adequate		
	manner ensuring they are respected in practice		
	efficiently.		
	15. National Law/Regulations prescribe the need for a	6	
	Procurement Manual detailing all procedures for the		
	correct implementation of procurement regulations and laws and which is to be periodically updated.		
	16. National Law/Regulations allow for sustainability and	3	There is no policy in place to implement
	a national SPP (Sustainable Public Procurement) plan		Sustainable Public Procurement (SPP) in
	exists.		support of broader policy objectives.
	17.National Guidance documents exist to enable	3	
	Procuring Entities to introduce a well-balanced		• The specifications of the procurement
	application of sustainability criteria to ensure value for		requirements, bidders' qualifications and
	money		bid evaluation criteria must comply with
			IFAD SECAP standards.
	18. National Law recognizes precedence of international	6	
	obligations like those reflected in IFI's Financing Agreements		
	19. Presence and effectiveness of a central Procurement	4	The procurement authority is dependent
	Regulatory authority which is independent from	-	on central government for budgetary
	transacting public procurement and assumes its role in		support and has no independent avenues
	disseminating professional guidance and rules concerning		for revenue collection.
	prevention of conflict of interest and integrity in the work		Tor revenue collection.
	of bid evaluation committees		
	20. Definitions of fraud, corruption and other prohibited	6	
	practices in procurement Law/Regulations are consistent		
2. Implementation	with IFAD's and evidence of enforcement is presented. The assessment of quality for this Pillar will be based on under	dermentioned n	grameters which are meant to measure the
Capacity of the parent	capacity of the parent ministry and PIU to undertake projec	•	
	effective manner as per the prescribed design of the project		
Ministry (the	parent ministry's management systems and related interface	•	
Implementing Agency)	, , , , , , , , , , , , , , , , , , , ,	,	
and related management			
systems, the capacity of			
the Project's			
Implementation Unit			
(PIU) to undertake			
project procurement and			
contract management		T	
	1.The parent Ministry (or the Implementing Agency)	5	There has not been a deliberate
	possesses the 3 P's necessary for project		procurement strategy and evidence of
	implementation: (i) People (full range of technical and managerial expertise), (ii) Processes (Management		limited market research to inform planning.
	systems, delegation of authority, segregation of roles in		
	1 375 to the first of the first	1	1

Pillars/Areas of Quality assessment	Parameter/issue requiring QA scrutiny	Rating of this	Justification
,	hadata II. a da a da a da a da a da a da a da	Parameter	T
	budget allocation, procurement processing/approval and subsequent payments to vendors. (ii) and (iii) Product/Performance (as demonstrated by successful past experience and ability to deliver public services timely and at the right quality. Foreseen Mitigation measures in the PDR are to be assessed for sufficiency with respect to the 3P deficiencies. Examples of mitigation measures: • Creation of PIU • Hiring of Project Management and/or Technical consultants • Formulation of PIM with adequate interface between the project and parent ministry systems and with adequate internal control measures including avoidance of situations of conflict of interest. • Appointment of external auditors, as relevant. • Training of parent ministry staff connected with project activities.		 The regulator, PPRA, undertakes annual audits but on a sample basis. There are no prescribed thresholds for contract amendments. In practice payments gone beyond the 30-day payment terms There are key procurement and contract information missing from files such as contract awards, and contractual correspondence. Instances of Procurement officers not certified. Quality of procurement documents is mostly moderately satisfactory. Need for emphasis in needs analysis, defining requirements and packaging procurements to ensure optimal packaging and costing. Include contract amendment approval thresholds as part of the PIM and consistent with local framework. Close contract monitoring and receipt of complete deliverables. Retain consolidated procurement files with contract management records. IFAD BUILDPROC training and other procurement related trainings.
	2. PIU Director is issued a charter with clear reporting lines and well-defined and appropriate delegation of authority to transact project business and command timely provision of needed inputs from the parent ministry's various departments.	6	
	 PIU staffing levels, in case PIU is established: Number and range of expertise of PIU staff is adequate to cover all activities of the project (minimum 1 full-time Procurement Officer and 1 Assistant) Foreseen tasks of needed consultancy firms are clear and established in completed TORs Training allocations for PIU staff are foreseen especially when parent ministry staff are seconded to the PIU PIU personnel for Procurement and Contract Management are at adequate levels of past experience in similar activities The bulk of PIU personnel are selected based on fair and open competition in accordance with precise job descriptions.	N/A	
	4. Project budget includes adequate financial allocations (salaries, running expenses and per-diems etc.) and other resources (vehicles, decent office working area,	6	 Cost tabs at design have allocated budgets.

Pillars/Areas of Quality assessment	Parameter/issue requiring QA scrutiny	Rating of this Parameter	Justification
	equipment and tools etc.) needed by the PIU to deliver its tasks.		
	5. Payment, Quality Assurance and Change Management procedures are fully developed by the PIU or mitigation measures are foreseen to deal with any deficiencies as early as possible at project commencement. Examples: Measures to ensure timely authorization and actual processing of due payments to vendors.	4	 Financial Procedures are in place, but in practice, project procurement payments are delayed and beyond payment terms. Monitor timely payment of invoices and in case of delays interest for delayed payment to be made, not just penalty to the officer who delays or refuses to pay without reasonable ground. The PPS proposes KPIs to be adhered to by the project.
	6.Codes of Conduct and the consequences of breach of obligations are known to all parent ministry and PIU staff engaged in project activities on part-time or full-time basis.	6	
	7. The parent ministry's system for suspension/debarment of bidders ensures due process and is consistently applied.	3	There is a lack of specific guidance on how and when poor contract performance may lead to debarment, and debarment grounds
	8. The project builds-in third party or civil society and stakeholders' access to procurement information as a transparency safeguard and a precondition for effective monitoring of project's procurement operations.	3	linked to criminal activities and corruption are insufficiently specified. • Specific guidance needed to reduce discretion on these aspects and need to be addressed in the Regulations and/or user's guide for transparency and certainty.
3. National Market Competitiveness and Delivery Capacity	The assessment of quality for this Pillar will be based upon which the chosen optimal procurement strategies for the a following adequate market research which has fed into the	cquisition of the	project's procurement needs are established
	1.Market Research is the basis for formulation of the project's procurement strategy for the acquisition of each substantial procurement contract and evidence of: • comparison with alternative strategies is evident in the analysis presented in the PPS, at least for major contracts. market capacity to deliver at competitive rates is present	4	 There has not been a deliberate procurement strategy and evidence of limited market research to back planning. Need for emphasis in needs analysis, defining requirements and packaging procurements to ensure optimal packaging and costing.
	2.The identification of the project's procurement needs is done in consultation with the stakeholders and is objective without exaggeration or understatement of the procurement needs.	6	
	3.National sustainable development goals of as well as relevant IFAD mainstreaming themes (in particular Youth, Gender, Environment & Climate as relevant) have been considered in procurement strategy preparation.	4	 The PPS has not particularly taken into consideration reservation schemes to incorporate Youth and Gender. Access to Government Procurement Opportunities to be incorporated at the PP stage and identify specific contracting opportunities for youth, women, and person living with disabilities.
	Procurement strategy clearly demonstrates understanding of any constraints facing private firms in	6	

Pillars/Areas	Parameter/issue requiring QA scrutiny	Rating of	Justification
of Quality assessment		this	
		Parameter	
	their participation in public procurement competitions		
	(e.g. difficulties in obtaining bid securities, insurance		
	policies etc.). 5.Evidence of Market Engagement with respect to	5	There is no evidence of SECAR training
	advance dissemination of SECAP requirements and	5	There is no evidence of SECAP training plans for private sector.
	encouragement of the private sector to comply. Evidence		plans for private sector.
	of assessment of the capacity of the national market to		The SECAP risk is moderate and there are
	comply including any foreseen SECAP training plans for		no procurement activities that would
	the private sector.		require advance dissemination of SECAP
	6.Evidence that cost estimation of procurement contracts	6	requirements.
	are based on market research for Goods or alternatively	0	
	scientific estimation methods (like bottom-up, analogous		
	or parametric cost estimation methods) for Works and		
	Services.		
4. SECAP compliance	The assessment of quality for this Pillar will be based upon		
	SECAP standards have been implemented throughout all s		
	needs/specifications, bidders' selection and qualification crit	eria, bia evalua 6	tion enteria and contract terms and conditions:
	project's procurement requirements and evidence that	0	
	alternatives were considered.		
	2. SECAP and SH/SEA standards are incorporated in the	6	
	bidding documents especially where national SBDs are		
	used.	_	
	3.SECAP standards are implemented at all stages of the	6	
	procurement process: setting of bidders' selection and qualification criteria, bid evaluation criteria and contract		
	terms and conditions including mandatory Self-		
	Declarations by bidders.		
5. Fitness for Purpose of	The assessment of quality of this Pillar is based upon und		
the project's	procurement plan takes into consideration the findings of		
Procurement Plan,	Supervision Plan is commensurate with the complexity of implementing agency and the PIU (i.e. both procurement a		
Supervision	Implementing agency and the PIO (i.e. both procurement ar	ia supervision p	ians are jit jor purposej:
Arrangements and status			
of project design and its			
readiness for			
implementation			,
	1.The Procurement Plan incorporates the findings of all	6	
	above assessment parameters which have been arrived through the use of adequate management tools like		
	SWOT and PESTLE analysis or equivalent methods,		
	market research techniques and sound risk		
	prioritization/mitigation measures.		
	2. The Procurement Plan is conducive to facilitate the	6	
	project's timely completion and builds-in relevant time		
	contingencies depending on the project's readiness for		
	implementation 3. IFAD's Procurement Supervision Plan is commensurate	6	
	with the complexity of the project's procurement and the		
	assessed capacity of the implementing agency and the		
	PIU.		
	4. The provisions of the Financing Agreement and the	6	
	Letter to the Borrower support the findings of the design		
	of the project's procurement arrangements.		

A Six-Points Rating Scale for each parameter is to be assessed and filled-in in the rightmost column:

- **6 Highly Satisfactory**
- 5 Satisfactory
- **4 Moderately Satisfactory**
- 3 Moderately Un-Satisfactory
- 2 Un-Satisfactory
- 1 Highly Un-Satisfactory



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex: In Re Mp Pal

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

Date	Date		
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Project Procurement Arrangements Preamble to the Procurement Plan dated March 2024

Country (Full Name): Republic of Kenya
IFAD Financing (Loan and/or Grant Number(s)):
Project (Full Name of Project): Integrated Natural Resources Management Programme
(INReMP)

Excellency,

- 1. I refer to the Financing Agreement between Republic of Kenya ("Borrower/Recipient") and the International Fund for Agricultural Development (IFAD), dated [insert date of FA] ("Agreement"). The Agreement [entered into force as of that date]/[will enter into force when IFAD receives an instrument of ratification].
- 2. The instructions contained in these Project Procurement Arrangements govern the execution of project procurement operations with respect to the acquisition of goods, works and services under the Agreement. These arrangements replace and supersede any procurement guidance that has previously been issued to the project. In case these instructions conflict with those of the IFAD Project Procurement Handbook, the instruction of these Procurement Arrangements shall prevail.
- 3. Capitalised terms defined in the Financing Agreement and General Conditions shall have the same meaning in these Arrangements unless expressly defined otherwise in this document.
- 4. Section 7.05 of the General Conditions provides that the procurement of goods, works and services shall be carried out in accordance with the provisions of the borrower/recipient's procurement regulations, to the extent such are consistent with the IFAD Project Procurement Guidelines, as amended from time to time¹. Each Annual Work Plans and Budget must contain a Procurement Plan, which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure consistency with the IFAD Project Procurement Guidelines. National Procurement regulations apply to extent they are in compliance with the principles of IFAD's Project Procurement Guidelines and provide substantial equivalence to the procurement procedures and methods prescribed in IFAD's Procurement Guidelines and IFAD's Procurement Handbook. In addition, the national bidding documents must be supplemented as necessary in order to incorporate IFAD's SECAP standards and requirements. All consulting services procurement will be subjected to IFAD Project Procurement Guidelines and IFAD Procurement Handbook, as well as the use of IFAD's Standard Request for Proposal Documents.
- 5. The IFAD Simplified Project Procurement Procedures for Fragile and Conflict Affected Situations guidelines shall *not apply* to this project.
- 6. Each Annual Work Plan and Budget must contain a Procurement Plan, which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure

¹ Any reference to IFAD Project Procurement Guidelines also includes the IFAD Procurement Handbook. Ensuring that applicable procurement rules are consistent with IFAD's Project Procurement Guidelines is mandatory; the Handbook is used as a guidance document for the borrower/recipient. The regulations set out in these Procurement Arrangements supersede the Handbook in case of conflict. For both the Guidelines and the Handbook, the latest version shall always apply.

consistency with the IFAD Project Procurement Guidelines. The following procurement methods² shall be used³ for:

- a. Works and works-related Non-Consulting Services:
 - (i) International Competitive Bidding (ICB): This procurement method applies to contracts estimated to cost US\$ 1,000,000 or more. Under ICB, the borrower/recipient may apply a margin of domestic preference to local contractors of 7.5% excluding industrial plants;
 - (ii) National Competitive Bidding (NCB): might be applied to contracts estimated to cost less than US\$ 1,000,000. 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\$ 250,000 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 review⁴ or alternatively without prior IFAD's NO for low-value unforeseen purchases with estimated cost per each purchase of US\$ 500 or less up to an aggregate amount of US\$ 5,000 per annum.
- b. Goods and Goods-related Non-Consulting Services
 - (i) International Competitive Bidding (ICB): This procurement method applies to contracts estimated to cost US\$ 200,000 or more. Under ICB, the borrower/recipient may apply a margin of domestic preference of 15%;
 - (ii) National Competitive Bidding (NCB): might be applied to contracts estimated to cost less than US\$ 200,000. 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

² In case National Procurement Regulations apply and as far as these do not contradict with IFAD's Project Procurement Guidelines, the equivalent terminology for procurement methods may be used; for example, ICB is the method for a publicly advertised competition at the international level. The Project Implementation Manual (PIM) will map the procurement methods that should be applied in accordance with these Arrangements.

³ To know the applicable procurement method, the cost estimate shall be for the entire procurement activity whether it is divided into lots or not; in case of lots, the sum of the cost estimates of all lots shall be used for identifying the applicable procurement method for the procurement activity.

⁴ A sufficiently detailed justification shall be submitted to IFAD to obtain its NO 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 section 6, Module F1: Procurement Methods for Goods, Works and Non-consulting Services of the IFAD Procurement Handbook.

IFAD NO under prior review⁵ or alternatively without prior IFAD's NO for low-value unforeseen purchases with estimated cost of US\$ 500 or less per purchase up to an aggregate amount of US\$ 5,000 per annum.

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\$ 150,000 or more; International Advertisement is mandatory for consultancy contracts estimated to cost US\$ 300,000 or more, regardless of the selection method];
- (ii) Quality Based Selection (QBS): might be applied to contracts of any value if a proper justification is provided;
- (iii) Fixed Budget Selection (FBS), or Least Cost Selection (LCS)⁶: might be applied to contracts with firms estimated to cost less than US\$ 150,000.
 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\$ 70,000 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\$ 60,000 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 review⁷ and/or contracts estimated to cost US\$ 500 or less, up to an aggregate amount of US\$ 5,000 per annum; and
- (viii) Sole/Single Source Selection (SSS): applies to contracts with individuals designated under SSS in the Procurement Plan with due justification (as

⁵ A sufficiently detailed justification shall be submitted to IFAD to obtain its NO 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 section 6, Module F1: Procurement Methods for Goods, Works and Non-consulting Services of the IFAD Procurement Handbook.

⁶ 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.

⁷ Any request for SSS by the borrower/recipient must be accompanied by a 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 6, Module F2: Selection Methods for Consulting Services of the IFAD Procurement Handbook.

mentioned in the Handbook) subject to prior review⁸ 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\$ 5,000 per annum.

- d. Other Procurement Methods or Arrangements:
 - (i) The use of Force Account is allowed.
 - (ii) Extensions of contracts funded by IFAD for Goods, Works or related Non-Consulting Services to cover items of similar nature not listed in the original contract may not exceed 10% of the contract value and require IFAD's No Objection (such extension shall be considered as Direct Contracting). However, extensions of existing contracts, issued in order to increase/decrease items already listed in the original contract as a result of evolutionary changes during contract execution and subject to the contractual clauses governing such change may exceed 10%. In this case, the extension is subject to IFAD's No Objection.
 - (iii) Procurement with Community Participation is not allowed.
 - (iv) The award of Grants and Investment Agreements are subject to the prior review threshold for Consulting Services (firms). The packaging of Grants and Investment Agreements is encouraged, single awards to entities or individuals are discouraged.
 - (v) Procurement from United Nations Agencies is *not foreseen*.
 - (vi) Secondary Procurement (orders against existing Long-term Agreements, national e-catalogues etc.) follows the regulations and applicable thresholds of the national legislation. The prior review threshold of the respective procurement category (goods, works, consulting services and related non-consulting services) applies.
 - (vii) The borrower/recipient shall adopt and use the Standard Procurement Documents issued by *IFAD for ICB and (if applicable) for consulting services* and the ones issued by *National Authorities for other methods as long as the latter are supplemented/adapted to meet IFAD's SECAP standards and grievance mechanisms and the IFAD's Project Procurement Guidelines and IFAD Procurement Handbook. This includes adding the <i>IFAD self-certification form at bidding and at contract stage.* 9
- 7. In accordance with paragraphs 49, 66 and 67 of the IFAD Project Procurement Guidelines and IFAD's Procurement Handbook, the following will be subject to prior review by IFAD and requires IFAD's No Objection:

1	Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans;
2	General Procurement Notices
3	The first five procurement activities using National Competitive Bidding and International Competitive Bidding.
4	Any use of Force Account;

⁸ Any request for SSS by a borrower/recipient must be accompanied by a 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.

⁹ Further detail is available in Annex 4 to Volume 1 of IFAD's Social Environmental Climate Assessment Procedure (SECAP) 2020.

5	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
6	Award of any Memorandum of Agreement irrespective of its
	value
7	Award of any contract for goods and goods-related non-
	consulting services estimated to cost US\$ 70,000 or more;
8	Award of any contract for works and works-related non-
	consulting services estimated to cost US\$ 150,000 or more;
9	Award of any contract for consulting services provided by firms
	estimated to cost US\$ 60,000 or more;
10	Award of any contract for individual consulting services
	estimated to cost US\$ 30,000 or more;
11	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
12	cumulative threshold stated in the same paragraph; Award of any contract via Direct Contracting for Works above
12	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;
13	Award of any contract via Single/Sole Source Selection of
15	Consulting Services to firms above the threshold specified in
	paragraph 6. c. (vii). 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;
14	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.
1	

8. 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. 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	IFAD "NO" is required
1	Call/Request for Prequalification document and related advertisement	Yes
2	REOI (Request for Expression of Interest) document for consultancy services and related advertisement	Yes
3	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)

4	Technical Specifications for Goods/Works/NCS	Yes, usually as part of
		NO request for issue of
		the bid docs (step 9 below)
5	Composition of evaluation committees	Yes, usually as part of
	•	steps 9, 13 or 15
6	Prequalification report for Goods/Works/NCS	Yes
7	Shortlisting report for consultants' selection	Yes
8	The use of "prior lists" for shortlisting consultants	Yes
9	Complete Bidding Documents and RFPs and	Yes
	CfPs and related advertisement if applicable	
10	Use of a Performance Guarantee template if	Yes
	other than unconditional, irrevocable and on-	
	demand guarantee	
11	Amendments to the Bidding Documents and RFPs, CfPs	Yes
12	Opening bids/quotes/proposals that are less	Yes
	than 3 (excluding DC/SSS)	
13	Technical evaluation report (in two envelope	Yes
	procedures)	
14	The combined evaluation report (in two	Yes
	envelope procedures)	
15	The single evaluation report (in one envelope	Yes
	procedures) for Goods/Works/NCS/Consulting	
1.5	Services (SSS)	
16	Decisions concerning abnormally low bids	Yes
17	Draft contract	Yes
18	Minutes of negotiation at award for consultancy	Yes
	services (where applicable) or when using DC	
19	for Goods/Works/NCS Rejection of all bids/proposals and cancellation	Yes
19	of the procurement procedure	res
20	Failure of negotiations and proceeding to next	Yes
20	ranked consultant	165
21	Proceeding to next ranked bidder if top ranked	Yes
	fails to sign the contract in Goods/Works/NCS	
22	Determination to reject a bid/proposal because	Yes, usually as part of
	of cross-debarment	steps 13, 14 or 15
23	Amendments to contracts exceeding 10% in	Yes
	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.	,,
24	Extension of time to contracts exceeding 25%	Yes
	of the original contractual duration in	
2-	Goods/Works/NC Services/Consulting Services	
25	Termination of a contract in Goods/Works/NC	Yes
26	Services/Consulting Services	V
26	The use of Force Account	Yes

9. Award-related Protests and Appeals: For prior-review procurements, all protests, submitted by bidders to the borrower/recipient as a result of a Notice of Intent to Award, must be communicated to IFAD before a decision on the complaint is issued. IFAD reserves the right to provide inputs or comments to the borrower/recipient to help it

reach the decision. A copy of the decision must also be provided to IFAD. For post-review procurements, the borrower/recipient may - at its discretion – inform IFAD about the protest. The borrower/recipient shall inform IFAD of any related Appeal filed to competent national authorities immediately upon becoming aware of such an appeal.

- 10. IFAD must receive a duly completed Authorised User(s) Letter (see Annex 1), from the designated representative specified in Section E of the Agreement or his/her delegate, designating the name(s) of official(s) authorised to undertake actions in the IFAD's client project procurement systems which includes client project submitting electronic documentation, entering and updating fiduciary data and to request IFAD's No Objection. The designated representative of the Borrower/Recipient may from time to time change the name/s of the Authorised User(s) or add new ones by written notice to IFAD.
- 11. Requests for IFAD prior review and no objection, should be routed through OPEN, IFAD's End-to-End Procurement system. OPEN enforces a step-by-step documentation of the workflow for the process for the entire procurement process (expression of interest, IFAD No-Objection, to contract signature) according to the type (e.g. national competitive bidding, international competitive bidding) and object of procurement (e.g. civil works, goods, services). OPEN also has a function as a tracking system for non-procurement workflow (e.g. Project Implementation Manual PIM, Annual Workplan and Budget). Until this functionality is rolled out, these workflows will be tracked through NOTUS (IFAD No-Objection Tracking Utility System).
- 12. All contracts, Memorandums of Agreements, 10 purchase orders and related payments must be recorded in the Contract Monitoring Tool of the IFAD Client Portal. The register of contracts contained within the Contract Monitoring Tool replaces the requirement to complete the Forms C-10 (Register of Contracts) and C-11 (Contract Payment Monitoring Form). Instead, an extract of the register of contracts must be downloaded from the Contract Monitoring Tool for submission together with Withdrawal Applications. The register of contracts must be kept up-to-date on a continuous basis.
- 13. All the above-outlined procurement terms and conditions shall also apply to project implementing partners and implementing agents approved by IFAD.
- 14. The aforementioned terms and conditions may be modified by IFAD during the course of Project implementation.

Anticorruption Measures

- 15. IFAD-financed and IFAD-managed activities and operations are governed under the Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations; therefore, the Borrower/Recipient is required to familiarize itself with this Policy in order to comply with all applicable requirements therein.
- 16. Specifically, paragraphs 11 to 15 in Section II. D (iii) of the Policy states the actions that the Borrower/Recipient will take to prevent, mitigate and combat Prohibited Practices (i.e., fraud, corruption, collusion, obstruction and coercion, as defined by the Fund) in

 $^{^{10}}$ IFAD distinguishes between a Memorandum of Understanding, Memorandum of Agreement and a service contract in the following way:

Memorandum of Understanding: equivalent to a letter of intent, it cannot involve payments of any kind. Memorandum of Agreement: it can involve payments but is only applicable to the public sector. It needs IFAD NO regardless of the value.

Commercial (service) contract: should be used for all private sector entities including NGOs.

any IFAD-financed and/or IFAD-managed activity or operation. Borrowers/Recipients are instructed to, *inter alia*:

- a. Prior to the implementation of an IFAD-financed and/or IFAD-managed operation or activity, inform the Fund of the arrangements made for receiving and taking action in response to allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed activities and operations, in particular:
 - appoint and inform the Fund of the independent and competent national or local authority (or authorities, if the activities that follow fall under the jurisdiction of more than one authority) to be responsible for receiving, reviewing and investigating allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed activities and operations; and;
 - ii. provide the name(s), position(s) and contact information of a focal point within that authority (or those authorities, as appropriate) and inform IFAD of any potential changes of that focal point.
- b. Borrower/Recipients are also encouraged to have in place, in accordance with effective whistle-blower protection measures and confidential reporting channels in order to appropriately receive and address allegations of fraud and corruption relating to IFAD-financed and/or IFAD-managed operations and activities.

Sexual Harassment, Sexual Exploitation and Abuse

- 17. IFAD has no tolerance for acts of sexual harassment, sexual exploitation and abuse in relation to its funded activities or operations. In April 2018, IFAD released its Policy to preventing and responding to Sexual Harassment, Sexual Exploitation and Abuse (the IFAD Policy¹¹) to define obligations and responsibilities of all individuals who are holders of a contract with IFAD as well as third parties and recipients of IFAD funding.
- 18. According to Section 7.07 of the General Conditions, the Borrower/Recipient and the Project Parties shall ensure that the Project is carried out in accordance with the provisions of the IFAD Policy as may be amended from time to time. The Fund may take appropriate measures in line with such Policy.
- 19. In line with Section 34 of the Policy, the Borrower/Recipient shall ensure that contracts with Project Parties include: (i) provisions prohibiting acts of sexual harassment, sexual exploitation and abuse, (ii) obligation to immediately report incidents of sexual harassment, sexual exploitation and abuse to IFAD or to the Borrower/Recipient and (iii) provisions allowing for the immediate termination of the contract based on proven acts of sexual harassment, sexual exploitation and abuse.
- 20. Pursuant to Section 8.06. of the General Conditions, the Borrower/Recipient and Project Parties shall promptly inform the Fund of any non-compliance with the IFAD Policy. In accordance with Section 12.01 (xxv) of the General Conditions, the Fund may suspend, in whole or in part, the right of the Borrower/Recipient to request withdrawals from the Loan and/or Grant Accounts if, after consultation with the Borrower/Recipient, it determines that acts of sexual harassment, sexual exploitation and abuse were engaged in by representatives of the Borrower/Recipient or a Project Party or by any other recipients of the proceeds of the Financing without the Borrower/ Recipient having taken timely and appropriate action, satisfactory to the Fund, to address such acts when they occur.

¹¹ https://www.ifad.org/en/document-detail/asset/40738506

Borrowers/Recipients are also encouraged to have in place, effective whistle-blower protection against retaliation measures, victim support and assistance mechanisms and confidential reporting channels in order to receive, address and respond to allegations of soxual barassment, soxual exploitation and abuse relating to JEAD-financed and/or JEAD-
sexual harassment, sexual exploitation and abuse relating to IFAD-financed and/or IFAD-managed operations and activities.

Accept, Excellency, the assurances of my highest consideration.

Country Director



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex: In Re Mp Prm Part A And B

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

IFAD PRM - Part A Country Level

Based on MAPS II – ASSESSMENT OF NATIONAL PROCUREMENT SYSTEM

Indicator # and Sub- Indicator #	Sub-Indicator Description ¹	Findings regarding possible non- compliance with IFAD PPF	Inherent Risk of non-compliance with Project Objectives & IFAD PPF	Proposed Mitigation measure/s	Net Risk
Consolidate	d Findings at Country Level	 There are shortcoming of the framework in advertising rules, use of procurement methods, and reservations for local contractors, Regulator independence and absence of a system whereby analysis of information is routinely carried out, published, and fed back into the public procurement system, lack of citizen participation, . There is no procurement manual. In practice, reviewed activities for Goods and Works contain allocation of scores, and preliminary evaluation requirements akin to post qualification requirements. There are no ICB documents for Works/Goods, though documents can be customized for international competition. In practice, reviewed documents revealed use of contract forms and provisions not originally disclosed in bidding documents, contracts experience delays in implementation, and absence of fair payment provisions as a constraint as it does not help offset cost of doing business with the government. No Social/Labour or Environmental considerations of SPP. The same is not a requirement in the 	M M	 Adherence to IFAD procurement guidelines and SBDs when approaching the international market. Use of REOI for IFAD funded open market approaches. Make use of organization level framework agreements for common user items on condition they reflect current market prices. Incorporate OCDS for structured data dissemination to facilitate transparency and citizen engagement and support better use of data in policy decisions. Use of IFAD's procurement guidelines will require publication of contract awards on platforms where they were initially advertised such as UNDB online. Market research to be mandated to guide procurement strategy irrespective of method of procurement adopted (including competitive methods). Improve capability of contract officers on contract management and sector market analysis for determining optimum 	M

¹ The Indicators and Sub-Indicators are extracted from OECD-MAPS II of 2017 in order to harmonise with other MDBs and to save time and effort in conducting Part A assessments in case a recent MAPS II assessment has been conducted for the borrower's country system. The criteria to be applied in assessing each Sub-Indicator are those of OECD-MAPS II.

- prequalification and bidding processes.
- Regional agreements are not specifically reflected in procurement policy
- Financial Procedures are in place, but in practice, project procurement payments are delayed and beyond contracted payment terms.
- The professional body's independence (KISM) is compromised due to budget allocation from the Ministry.
- Transparency International's 2023 Corruption Perceptions Index, Kenya scored 31. Kenya ranked 126th among the 180 countries in the Index, where the country ranked first is perceived to have the most honest public sector.
- There is no mention of reporting mechanism for prohibited practices or unethical behaviour in the PPADA or PPADR. Neither is there a disclosed reporting mechanism in the standard bidding documents.

- contract size and to analyze if contractors fail due to their capacity to deliver, to improve capability of local construction companies, removing constraints of delayed payment, instituting a formal system of contract.
- Adoption of contract implementation plans for key contracts.
- Establish a formal mechanism and enhance its dialogue and partnership with private sector through training programs tailored to the needs of small businesses as well as to support supplier diversity. It should include a module on ethics and integrity in public procurement.
- Adopt a Project
 Procurement Strategy (PPS)
 that will be updated
 annually and inform
 procurement approaches
 for key project procurement
 activities.
- Adherence to contract award publication requirements
- PPRA and the OAG to carry out procurement audit (both on compliance and performance) which are coordinated and mutually reinforcing.
- Periodic training to project staff on IFAD project procurement principles and monitoring how they are integrated in the procurement cycle during project supervision.
- Invitations to Bid for all procurement for IFAD funded operations to identify the source of

				funding, the applicable rules, and the reporting channels for prohibited practices. Include as part of the solicitation documents, a secure mechanism for reporting prohibited practices or unethical behaviour. Use of the IAFD's SPD forms and contact addresses to report prohibited practices for project procurement solicitation documents.	
1.1.	The public proce	Pillar 1. Legal, Regulatory an urement legal framework achieves the			gations
1.1.	The public proc	arement legal framework achieves the	agreeu principies a	mu compnes with applicable obli	gations.
1.1.1.	Scope of application and coverage of the legal and regulatory framework	Complies. The Procurement framework in use is the Public Procurement and Asset Disposal Act, 2015; Public Procurement and Asset Disposal Regulations 2020. Provision 4 of the PPADA defines application of the Act to include all State organs and public entities. Participating agencies such as KALRO are covered under the Act. The provision also provides exceptions to include procurement and disposal of assets under bilateral or multilateral agreements between the Government of Kenya and any other foreign government, agency, entity or multilateral agency unless as otherwise prescribed in the Regulations. There is lack of clarity how such agency and he determined.			L
1.1.2.	Procurement methods	exceptions can be determined. Partially Complies. PPADA provides details of procurement methods in use. The methods are further elaborated in the PPADR. PPADA Provision 118 provides for request for proposal through advertisement without REOI.	M	Use of REOI for IFAD operations open market approaches. Adherence to IFAD's procurement guidelines and SPD provisions when approaching the international market.	M

		 Provision 131 sets a condition for BAFO procedures where the lowest evaluated price is in excess of available budget. No probity Auditor for BAFO procedures. 		BAFO not be used for reason of exceeding available budget and projects to put in place rigorous cost estimation procedures based on informed market research and defined in updated PPS.	
1.1.3.	Advertising rules and time limits	Partially Complies. PPADA provision 89 provides for the requirements of international advertising. Second schedule of the PPADR provides thresholds for advertising for which international tenders have no limit. Minimum period for International tender advertising provided as seven days in Regulation 83.	M	 Allow minimum 45 days for ICB. Preliminary evaluations to be consistent with IFAD guidelines and no barriers to competition for openly advertised procurement activities. 	M
1.1.4.	Rules on participation	Partially Complies. PPADA provision 157 provides for participation of candidates in preference and reservation. It requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents a mandatory requirement as preliminary evaluation criteria for all foreign tenderers participating in international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender. PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This may be interpreted that International based suppliers are excluded from IFAD financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.	M	Internationally based suppliers/consultants/servi ce providers be permitted to participate in open national procurement opportunities so long as they adhere to the set conditions of tender.	M

1.1.5.	Procurement	Complies.	L		L
	documentation and	 PPADA provision 68 and the Eight 	_		_
	specifications	schedule provides for 42			
		standard documents and forms.			
1.1.6.	Evaluation and award	Partially complies.	M	Adequate customization of	M
	criteria	 PPADA provisions 28,29,30,31,32 		solicitation documents.	
		establish adhoc evaluation		Application of prescribed	
		committees, composition,		procedures for evaluation	
		conduct, independence and		of Goods and Works, and	
		compliance to evaluation criteria.		disclosure of procedures in	
		PPADA Part VII set the basic		use at the stage of	
		procurement rules that contain		publishing invitations to bid	
		evaluation in three stages of		and REOI.	
		preliminary, technical and			
		financial evaluation.			
		 PPADA Part X details 			
		procurement of consultancy			
		services, evaluation of proposals			
		consistent with IFAD procedures			
		in the Procurement Framework.			
		• In practice, reviewed activities for			
		Goods and Works contain			
		allocation of scores, and			
		preliminary evaluation			
		requirements akin to post			
		qualification requirements.			
1.1.7.	Submission, receipt	Partially Complies.	M	 A copy of the record of 	M
	and opening of tenders	 Covered under Parts VII of basic 		Bid/Proposal opening	
		procurement rules and Part X on		promptly sent to all	
		procurement of consultancy		Bidders/Proposers/	
		services. PPADA provision 31 is		Consultants whose	
		on opening of financial proposals.		Bids/Proposals were opened	
		 Has a provision for opening of 		and, where subject to prior	
		tenders where eGP applies.		review also sent to IFAD.	
		PPADA provision 78 - The			
		accounting officer of a procuring			
		entity shall, on request, provide a			
		copy of the tender opening			
		register to a person submitting a			
110	511	tender.			
1.1.8.	Right to challenge and appeal	Complies.	L		L
	арреаг	Part XV provides for proceedings			
		of administrative reviews and			
		bidders have a right to appeal			
		when they feel aggrieved during			
		any part of the public			
		procurement process.			
		Specifically, a candidate or a			
		tenderer, who claims to have			
		suffered or to risk suffering, loss			

		T	T	T	1
		or damage due to the breach of a			
		duty imposed on a procuring			
		entity may seek administrative			
		review within fourteen days of			
		notification of award or date of			
		occurrence of the alleged breach			
		at any stage of the procurement			
		process, or disposal process as in			
		such manner as may be			
		prescribed.			
		 Forms to initiate administrative 			
		review by bidders are contained			
		in standard bidding documents.			
1.1.9.	Contract management	Complies.	L		L
		Part XI of the PPDA on			
		Procurement Contracts has			
		provisions on administration of			
		contracts and monitoring			
		requirements.			
1.1.10.	Electronic	Complies.	L		L
	Procurement (e-	PPADR provision 49 is on e-			
	Procurement)	procurement systems.			
1.1.11.	Norms for safekeeping	Complies.	L		L
	of records, documents	Adequately covered in different			
	and electronic data.	provisions including PPADR			
		provision 32 on forms of			
		procurement records and			
		assigning responsibility to head			
		of procurement.			
1.1.12.	Public procurement	N/A	N/A		N/A
	principles in	1471	,,, .		,
	specialised legislation				
1.2.		Implementing regulations and	d tools support th	e legal framework	
1.2.1.	Implementing	Complies	L		L
1.2.1.	regulations to define	Compiles	_		
	processes and				
	procedures conditions				
1.2.2.	Model procurement	Complies.	L		L
	documents for goods,				
1 2 2	works and services	Partially complies	N 4	- Hoo of IEAD CDDs for	N 4
1.2.3.	Standard contract	Partially complies.	M	Use of IFAD SPDs for international competitive	M
		 Contained in the Standard Bidding Documents. 		international competitive	
		There are no ICB documents for		procedures.	
		Works/Goods, though documents			
		can be customized for			
		international competition.			
		In practice, reviewed documents			
		revealed use of contract forms			
		and provisions not originally disclosed in bidding documents.			
		arctiocod in hidding documents	i		i e

		T		1	
		There is a short form of			
		agreement. It identifies the			
		documents comprising the			
		contract but does not identify all			
		documents required such as the			
		bid.			
1.2.4.	User's guide or manual	Partially Complies.	M	Development of	M
	for procuring entities	The Country has Public		Procurement Manual and	
	(insert link to manual if	Procurement and Asset Disposal		Contract Management	
	possible)	Act, 2015 and attendant		procedures. The use of	
		Regulations. There is no		IFAD's SBDs will largely limit	
		procurement manual.		the risks identified though	
				the review.	
1.3.	The legal and policy fra	ameworks support the sustainable de		ountry and the implementation of	international
		ob	ligations		
1.3.1.	Sustainable Public	Partially complies.	М	The specifications of the	M
	Procurement (SPP)	 This is a macro level indicator and 		procurement requirements,	
		the review is cognizant that there		bidders' qualifications and	
		could be other country level		bid evaluation criteria must	
		interventions that promote SPP		comply with IFAD SECAP	
		in terms of generating benefits		standards.	
		not only to the Corporation, but		Starradi as.	
		also to the society and the			
		economy whilst minimizing			
		damage to the environment.			
		There are reservation schemes			
		for Youth Women and Persons			
		with Disability.			
		There are aspects of			
		environmental protection under			
		disposal procedures.			
		 No Social/Labour or 			
		Environmental considerations of			
		SPP. The same is not a			
		requirement in the			
		prequalification and bidding			
		processes.			
1.3.2.	Obligations deriving	Regional agreements are not	L	Linkage to be established	L
	from international	specifically reflected in		between regional economic	
	agreement	procurement policy		integration and	
				procurement policies.	
1.4. Consolid	lated findings for Pillar 1.	PPADA Provision 118 provides for	М	• Use of REOI for IFAD	М
		request for proposal through		operations open market	
		advertisement without REOI.		approaches. Adherence to	
		• Provision 131 sets a condition for		IFAD's procurement	
		BAFO procedures where the		guidelines and SPD	
		lowest evaluated price is in		provisions when	
				i l	
		excess of available budget, but		approaching the	
		excess of available budget, but without a probity Auditor for		approaching the international market.	

- Minimum period for International tender advertising provided as seven days in Regulation 83.
- PPADA provision 157 provides for participation of candidates in preference and reservation. It requires that for the purpose of ensuring sustainable promotion of local industry, a procuring entity shall have in its tender documents mandatory preliminary requirement as evaluation criteria for all foreign tenderers participating international tenders to source at least forty percent of their supplies from citizen contractors prior to submitting a tender.
- PPADA Provision 151 permits for exclusive preference to national contractors and provision 163 provides thresholds for exclusive preference. This mav interpreted that International based suppliers are excluded from **IFAD** financed procurements within the thresholds of Kes.1 Billion for Work and Kes. 500 Million in respect of Goods and Services.
- In practice, reviewed activities for Goods and Works contain allocation of scores, and preliminary evaluation requirements akin to post qualification requirements.
- There are no ICB documents for Works/Goods, though documents can be customized for international competition.
- In practice, reviewed documents revealed use of contract forms and provisions not originally disclosed in bidding documents.
- There is no procurement manual.
- No Social/Labour or Environmental considerations of SPP. The same is not a requirement in the

- BAFO not be used for reason of exceeding available budget and projects to put in place rigorous cost estimation procedures based on informed market research and defined in updated PPS.
- Allow minimum 45 days for ICB.
- Preliminary evaluations to be consistent with IFAD guidelines and no barriers to competition for openly advertised procurement activities.
- Internationally based suppliers/consultants/servic e providers be permitted to participate in open national procurement opportunities so long as they adhere to the set conditions of tender.
- Adequate customization of solicitation documents.
 Application of prescribed procedures for evaluation of Goods and Works, and disclosure of procedures in use at the stage of publishing invitations to bid and REOI.
- A copy of the record of Bid/Proposal opening promptly sent to all Bidders/Proposers/
 Consultants whose Bids/Proposals were opened and, where subject to prior review also sent to IFAD.
- Use of IFAD SPDs for international competitive procedures.
- Development of Procurement Manual and Contract Management procedures.
- The specifications of the procurement requirements, bidders' qualifications and

2.1. 2.1.1.	The public procu	prequalification and bidding processes. Regional agreements are not specifically reflected in procurement policy. Pillar 2. Institutional Framework a rement system is mainstreamed and value. Complies.			t system L
	and the budget cycle	PPADR provisions 40, 41, 42, 43 detail procurement planning requirements, contents, format and requirement not to split contract.			
2.1.2.	Financial procedures and the procurement cycle	Partially complies. • Financial Procedures are in place, but in practice, project procurement payments are delayed and beyond payment terms.	М	Monitor timely payment of invoices and in case of delays interest for delayed payment to be made, not just penalty to the officer who delays or refuses to pay without reasonable ground.	М
2.2.		The country has an institution in cha	arge of the normati	ve/regulatory function	
2.2.1.	Status and legal basis of the normative/regulatory institution function	Partially Complies. Part II of the PPDA provide for Bodies involved in the Regulation of public procurement and assets disposal. However, the PPRA is dependent for its resources on the state finances, and it is not clear if the available finances ensure the function's independence and proper staffing. Complies.	L	There is a need to create sources of finances that provide some degree of independence to the PPRA to ensure proper staffing and resources to keep the services at the level of quality desired and to fulfill the mandate in the PPADA.	Ĺ
Z.Z.Z. 	normative/regulatory function	Compiles.	Ĺ		L
2.2.3.	Organisation, funding, staffing, and level of independence and authority	Complies.	L		L
2.2.4.	Avoiding conflict of interest	Complies. • PPADA Provision 66 expounds on actions resulting to Col in relation to an employee or agent of the procuring entity or a member of	L		L

Training, advice and assistance	Partially Complies.	M	A sustainable and intensive training program to be	M
	The make the manager		online.	
	, , , , , , , , , , , , , , , , , , , ,		advertised such as UNDB	
	procurement system		· ·	
procurement data	I -			
	·	L	· ·	L
Use of e-Procurement	Complies.	L	11 615151	L
	websites.			
	awards in platforms that include		decisions.	
	and publicising all contract		better use of data in policy	
technology	PPADA 138 requires publishing		engagement and support	
by information	•		transparency and citizen	
information supported	·		dissemination to facilitate	
procurement	' '	IVI		171
Publication of public	Partially Complies	M	Incorporate OCDS for	M
	Public procurement is embedded	l in an effective	information system	
	for other ministries/ PEs			
	items, including requirements			
	expertise who procure bulk			
			·	
	· ·		prices.	
	· ·			
	_			
procurement body				
		IVI	_	M
procuring entities	Postially associate			
formal powers of				
responsibilities and	Complies	L		L
Definition	Complies	ı		L
	Procuring entities and their	mandates are	clearly defined.	
	Questionnaires.			
	part of the Confidential Business			
	required to disclose any Col as			
	Bidders/proposers are also			
	level.			
	-			
	· ·			
	·			
	· ·			
	procuring entity who has a			
	Formal powers of procuring entities Centralised procurement body Publication of public procurement information supported by information technology Use of e-Procurement Strategies to manage procurement data Training, advice and	Bidders/proposers are also required to disclose any Col as part of the Confidential Business Questionnaires. Procuring entities and their Definition, responsibilities and formal powers of procuring entities Centralised procurement body Partially complies. Despite a provision in law, the actual functioning of such a centralized body does not exist. In practice, the lead for specialized procurement is taken by ministries/PEs with specific expertise who procure bulk items, including requirements for other ministries/ PEs Public procurement information supported by information technology Partially Complies. Practially Complies. Practially Complies. There lacks a system whereby analysis of information is routinely carried out, published, and fed back into the public procurement system The public procurement system has a Training, advice and Partially Complies.	to a procurement. Provides for remedy of contract awards resulting from Col. The PPADA also provides for separation of roles at a functional level. Bidders/proposers are also required to disclose any Col as part of the Confidential Business Questionnaires. Procuring entities and formal powers of procuring entities Centralised procurement body Partially complies. Despite a provision in law, the actual functioning of such a centralized body does not exist. In practice, the lead for specialized procurement is taken by ministries/PEs with specific expertise who procure bulk items, including requirements for other ministries/PEs Publication of public procurement information supported by information technology Partially Complies. Partially Complies. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with respect to among other items, publication of notices. Phace is a manage of ICT with	to a procurement. Provides for remedy of contract awards resulting from Col. The PPADA also provides for separation of roles at functional level. Bidders/proposers are also required to disclose any Col as part of the Confidential Business Questionnaires. Procuring entities and their mandates are clearly defined. Definition, responsibilities and formal powers of procuring entities Centralised procurement body Partially complies. Partially complies. Pospite a provision in law, the actual functioning of such a centralized body does not exist. In practice, the lead for specialized procurement is taken by ministries/PEs with specific expertise who procure bulk items, including requirements for other ministries/PEs Publication of public procurement is manually items, including requirements for other ministries/PEs Publication of public procurement is embedded in an effective information system Publication of public capertise who procure bulk items, including requirements for other ministries/PEs Public procurement is embedded in an effective information system Publication of public capertise who procure bulk items, including requirements for other ministries/PEs Public procurement is embedded in an effective information system Publication of public capertise who procure bulk items, including requirements for other ministries/PEs Public procurement is embedded in an effective information system Publication of public capertise who procure decisions. M Incorporate OCDS for structured data dissemination to facilitate transparency and citizen engagement and support better use of data in policy decisions. PADA 138 requires publishing and publicising all contract awards in platforms that include websites. Use of e-Procurement Strategies to manage procurement data Training, advice and Partially Complies. M Use of iPAD's procurement guidelines will require publication of contract awards on platforms where they were initially advertised such as UNDB online. The public procurement system has a strong capaci

		PPADA provision 157 is on		instituted to train key	
		guidelines for participation of		actors in procurement, in	
		candidates in preference and		particular private sector	
		reservation and operationalizes		and CSOs. These training	
		a Secretariat responsible for		should include integrity	
		training and capacity building of		training programs.	
		the target groups that are Youth		3 , 3	
		Women and Persons with			
		Disability.			
		 In practice, these are not 			
		upheld.			
2.5.2.	Pacagnition of	Partially Complies.	1	a The Association of	L
2.5.2.	Recognition of procurement as a		L	The Association of	L
	profession	Part I Preliminaries of the PPADA		Procurement Professionals	
	profession	recognizes procurement as a		needs to be financially	
		profession and requires		independent and	
		procurement function be staffed		sustainable	
		with procurement professionals.			
		 The professional body's 			
		independence (KISM) is			
		compromised due to budget			
		allocation from the Ministry.			
2.5.3.	Monitoring	Complies.	L		L
	performance to	PPADA provision 9 defines			
	improve the system	function of the PPRA that			
		includes monitoring			
		performance to improve the			
		public procurement system.			
2.6. Consolid	lated findings for Pillar 2.	• Financial Procedures are in place,	M	Monitor timely payment of	М
		but in practice, project	•••	invoices and in case of	
		procurement payments are		delays interest for delayed	
		delayed and beyond contracted		payment to be made, not	
		payment terms.		just penalty to the officer	
		PPRA is dependent for its		who delays or refuses to pay	
		resources on the state finances,		without reasonable ground.	
		and it is not clear if the available		There is a need to create	
		finances ensure the function's		sources of finances that	
		independence and proper		provide some degree of	
		staffing.		independence to the PPRA	
		 Despite a provision in law, the 		to ensure proper staffing	
		actual functioning of a		and resources to keep the	
		centralized contracting body		services at the level of	
		does not exist.		quality desired and to fulfill	
		• There lacks a system whereby		the mandate in the PPADA.	
		analysis of information is		 Make use of organization 	
		routinely carried out, published,		level framework	
		and fed back into the public		agreements for common	
		procurement system		user items on condition they	
		The professional body's		reflect current market	
		independence (KISM) is		prices.	
		,			

		compromised due to hudget		• Incorporate OCDS for	
		compromised due to budget allocation from the Ministry.		 Incorporate OCDS for structured data dissemination to facilitate transparency and citizen engagement and support better use of data in policy decisions. Use of IFAD's procurement guidelines will require publication of contract awards on platforms where they were initially advertised such as UNDB online. A sustainable and intensive training program to be instituted to train key actors in procurement, in particular private sector and CSOs. These training should include integrity training programs. The Association of Procurement Professionals needs to be financially independent and sustainable. 	
		Pillar 3. Public Procurement Operation	tions and Market Pr	actices	
3.1.		Public procurement prac	ctices achieve stated	l objectives	
3.1.1.	Procurement Planning	Partially complies. No appropriate market research that can lead the choice of methods and strategies. PPADR provisions 40, 41, 42, 43 detail procurement planning requirements, contents, format and requirement not to split contract.	М	Market research to be mandated to guide procurement strategy irrespective of method of procurement adopted (including competitive methods).	М
3.1.2.	Selection and contracting Contract management	 Partially Complies PPADA adequately defines selection methods. PPADA Provision 118 provides for request for proposal through advertisement without REOI. Partially Complies. 	M	 Use of REOI for IFAD funded open market approaches. Adherence to IFAD procurement guidelines and SBDs when approaching the international market. Improve capability of 	M
3.2.3.	in practice	 The contract management practices in place were not evident from the review. The 		contract officers on contract management and sector market analysis for	

	T	Manager Co. 151		determine of	
		Management confirmed there		determining optimum	
		being processes in place as		contract size and to analyze	
		defined in the procurement		if contractors fail due to	
		framework. Contracts are		their capacity to deliver, to	
		managed by User departments or		improve capability of local	
		hired consultants as may be		construction companies,	
		necessary.		removing constraints of	
		However, there are no contract		delayed payment, instituting	
		implementation plans or		a formal system of contract.	
		internally documented		Adoption of contract	
		procedures. The contract		implementation plans for	
		monitoring is undertaken as		key contracts.	
		required for periodic reporting to			
		PPRA.			
		Delays in implementation.			
3.2.		The public procureme	ent market is fully fu	nctional	
3.2.1.	Dialogue and	Lack of a formal mechanism on	M	Establish a formal	M
	partnerships between	partnership and absence of		mechanism and enhance its	
	public and private	ethics and integrity related		dialogue and partnership	
	sector	training programs		with private sector through	
				training programs tailored	
				to the needs of small	
				businesses as well as to	
				support supplier diversity. It	
				should include a module on	
				ethics and integrity in	
				public procurement.	
3.2.2.	Private sector's	In practice, there is absence of	M	More outreach and training	М
	organisation and	fair payment provisions as a		of private sector	
	access to the public	constraint as it does not help		participants is needed.	
	procurement market	offset cost of doing business		Policy level discussion with	
		with the government. There is a		private sector associations	
		preference for lowest cost		on constraints faced by	
		providers even where these are		them and take corrective	
		significantly below budget.		measures to improve	
				competition.	
3.2.3.	Key sectors and sector	No evidence of sector market	M	Adopt a Project	М
	strategies	analysis to determine sector		Procurement Strategy (PPS)	
		specific risks and government's		that will be updated	
		scope to influence specific		annually and inform	
		market segment.		procurement approaches	
				for key project	
				procurement activities	
3.3. Consolid	lated findings for Pillar 3.	No appropriate market research	М	Market research to be	М
		that informs the choice of		mandated to guide	
		methods and strategies.		procurement strategy	
		• There are no contract		irrespective of method of	
		implementation plans or		procurement adopted	
		internally documented		(including competitive	
		procedures. The contract		methods).	
			<u>I</u>	<u> </u>	

- monitoring is undertaken as required for periodic reporting to PPRA.
- In practice, contracts experience delays in implementation.
- Lack of a formal mechanism on partnership and absence of ethics and integrity related training programs
- In practice, there is absence of fair payment provisions as a constraint as it does not help offset cost of doing business with the government. There is a preference for lowest cost providers even where these are significantly below budget.
- No evidence of sector market analysis to determine sector specific risks and government's scope to influence specific market segment.

- Use of REOI for IFAD funded open market approaches.
- Adherence to IFAD procurement guidelines and SBDs when approaching the international market.
- Improve capability of officers contract on contract management and sector market analysis for determining optimum contract size and to analyze if contractors fail due to their capacity to deliver, to improve capability of local construction companies, removing constraints of delayed payment, instituting a formal system of contract.
- Adoption of contract implementation plans for key contracts.
- Establish a formal mechanism and enhance its dialogue and partnership with private sector through training programs tailored to the needs of small businesses as well as to support supplier diversity. It should include a module on ethics and integrity in public procurement.
- More outreach and training of private sector participants is needed.
 Policy level discussion with private sector associations on constraints faced by them and take corrective measures to improve competition.
- Adopt a Project Procurement Strategy (PPS) that will be updated annually and inform procurement approaches

				for key project procurement activities	
	Pillar 4. A	ccountability, Integrity and Transparen	cy of the Public	Procurement System	
4.1.	Tra	ansparency and civil society engagemer	nt strengthen in	tegrity in public procurement	
4.1.1.	Enabling environment for public consultation and monitoring	Lack of programmes to build the capacity of relevant stakeholders to understand, monitor and improve public	M	Government to take measures to enhance consultations.	M
4.1.2.	Adequate and timely access to information	procurement. Not all contracts are publicized.	M	Adherence to contract award publication	M
4.1.3.	by the public Direct engagement of civil society	The legal framework does not provide for citizens engagement in planning, selection, and	М	requirements Allow citizens to participate in the planning of their activities. In the execution	M
		implementation phases of procurement.		of the contract, citizens/CSOs should be invited to monitor the execution of the works contracts including through application of innovative techniques like geo-tagging and social audits.	
4.2.		The country has effectiv	e control and au	idit systems	
4.2.1.	Legal framework, organisation and procedures of the control system	The Office of the Auditor- General of Kenya is an Independent Office established under Article 229 of the Constitution of Kenya to audit Government Bodies and report on their management of allocated funds.	L		L
4.2.2.	Co-ordination of controls and audits of public procurement	Partially Complies. Provision 43 of the PPADA mandates the PPRA on Inspections, Assessments and Reviews relating to contracts, procurement and asset disposal proceedings. Specifically, to conduct procurement audits during the tender preparation, contract audit in the course of execution of an awarded tender; and performance audit after the completion of the contract in respect of any procurement or	М	PPRA and the OAG to carry out procurement audit (both on compliance and performance) which are coordinated and mutually reinforcing.	M

		accet disposal as many ba			
		asset disposal as may be			
		required.			
		In practice, only few institutions			
		are sampled.			
4.2.3.	Enforcement and	Complies.	L		L
	follow-up on findings				
4.2.4.	and recommendations Qualification and	Provision 43 of the PPADA	L	Auditors to be trained in the	L
4.2.4.	training to conduct		L		L
	procurement audits	mandates the PPRA on		area of public procurement	
	'	Inspections, Assessments and		with a specific course for	
		Reviews relating to contracts,		procurement audit in	
		procurement and asset disposal		addition to their general	
		proceedings. Specifically, to		training to conduct audit.	
		conduct procurement audits			
		during the tender preparation,			
		contract audit in the course of			
		execution of an awarded tender;			
		and performance audit after the			
		completion of the contract in			
		respect of any procurement or			
		asset disposal as may be			
		required.			
4.3.		Procurement appeals mech	anisms are effect	ive and efficient	
4.3.1.	Process for challenges	Part XV provides for proceedings	L		L
	and appeals	of administrative reviews.			
		 The PPADA establishes and 			
		mandates and independent			
		Review Board.			
4.3.2.	Independence and	Complies.	L		L
	•	·			
	capacity of the appeals				
	body				
4.3.3.	body Decisions of the	Complies.	L		L
	body	·			L
4.3.3. 4.4.	body Decisions of the	Complies. The country has ethics and a		neasures in place	L
	body Decisions of the appeals body Legal definition of	The country has ethics and a Complies.		neasures in place	L
4.4.	Decisions of the appeals body Legal definition of prohibited practices,	The country has ethics and a	anti-corruption n	neasures in place	
4.4.	Decisions of the appeals body Legal definition of prohibited practices, conflicts of interest,	The country has ethics and a Complies.	anti-corruption n	neasures in place	
4.4.	Decisions of the appeals body Legal definition of prohibited practices, conflicts of interest, and associated	The country has ethics and a Complies. PPADA provision 66 prohibits	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities,	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive,	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice,	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities,	The country has ethics and a Complies. • PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest.	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited practices.	anti-corruption n	neasures in place	
4.4.	Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited practices. Part XVI of the PPADA is on	anti-corruption n	neasures in place	
4.4.1.	Decisions of the appeals body Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and penalties	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited practices. Part XVI of the PPADA is on offences and sanctions.	anti-corruption n	neasures in place	L
4.4.1.	Decisions of the appeals body Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and penalties Provisions on	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited practices. Part XVI of the PPADA is on offences and sanctions. Complies. Form part of Standard	anti-corruption n	neasures in place	L
4.4. 4.4.1. 4.4.2.	Decisions of the appeals body Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and penalties Provisions on prohibited practices in procurement documents	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited practices. Part XVI of the PPADA is on offences and sanctions. Complies. Form part of Standard Bidding/Proposal documents.	anti-corruption n		L
4.4.1.	Decisions of the appeals body Legal definition of prohibited practices, conflicts of interest, and associated responsibilities, accountability and penalties Provisions on prohibited practices in procurement	The country has ethics and a Complies. PPADA provision 66 prohibits corrupt, coercive, obstructive, collusive or fraudulent practice, conflicts of interest. Part I of the PPADA provides definitions of the prohibited practices. Part XVI of the PPADA is on offences and sanctions. Complies. Form part of Standard	anti-corruption n	• Specific guidance needed to reduce discretion on these	L

4.4.4.	Anti-corruption framework and integrity training	 Part XVI of the PPADA is on offences and sanctions. There is a lack of specific guidance on how and when poor contract performance may lead to debarment, and debarment grounds linked to criminal activities and corruption are insufficiently specified. In Transparency International's 2023 Corruption Perceptions Index, Kenya scored 31 on a scale from 0 ("highly corrupt") to 100 ("very clean"). When ranked by score, Kenya ranked 126th among the 180 countries in the Index, where the country ranked first is perceived to have the most honest public sector. There's an Ethics and Anti-Corruption Commission (EACC), a public body established under Section 3 (1) of the Ethics and Anti-Corruption Commission Act, 2011. The commission is mandated to educate and create awareness on integrity related matters. PPADA recognizes principles of Integrity under the Leadership and Integrity Act, 2012. 	M	aspects and need to be addressed in the Regulations and/or user's guide for transparency and certainty. Periodic training to project staff on IFAD project procurement principles and monitoring how they are integrated in the procurement cycle during project supervision.	M
		 Mechanism for identification and detection of corruption risk and mitigating these in the procurement cycle is not available. 			
4.4.5.	Stakeholder support to strengthen integrity in procurement	• There is no evidence that civil society contributes to shape and improve integrity of public procurement. Neither is there any evidence that suppliers and business associations actively support integrity and ethical behaviour in public procurement, e.g. through internal compliance measures.	M	 Invitations to Bid for all procurement for IFAD funded operations to identify the source of funding, the applicable rules, and the reporting channels for prohibited practices. 	М
4.4.6.	Secure mechanisms for reporting prohibited practices or unethical behaviour	Does not comply. There is no mention in the PPADA or PPADR. Neither is there a disclosed reporting mechanism in the standard bidding documents.	S	 Include as part of the solicitation documents, a secure mechanism for reporting prohibited 	S

4.4.7. Codes of conduct/codes of ethics and financial disclosure rule	Complies. There is a Gazette Notice No.4274 publishing a code of ethics for person participating in public procurement and assets disposal in Kenya. Standard Bidding/Proposal document contains a declaration to adhere to code of ethics by bidders as part of the Form of Tender, and as a separate form.	L	practices or unethical behaviour. Use of the IAFD's SPD forms and contact addresses to report prohibited practices for project procurement solicitation documents.	L
4.5. Consolidated findings for Pillar 4.	 Lack of programmes to build the capacity of relevant stakeholders to understand, monitor and improve public procurement. Not all contracts are publicized. The legal framework does not provide for citizens engagement in planning, selection, and implementation phases of procurement. In practice, only few public institutions are sampled for procurement audits. There is a lack of specific guidance on how and when poor contract performance may lead to debarment, and debarment grounds linked to criminal activities and corruption are insufficiently specified. Transparency International's 2023 Corruption Perceptions Index, Kenya scored 31. Kenya ranked 126th among the 180 countries in the Index, where the country ranked first is perceived to 	IVI	 Government to take measures to enhance consultations. Adherence to contract award publication requirements Allow citizens to participate in the planning of their activities. In the execution of the contract, citizens/CSOs should be invited to monitor the execution of the works contracts including through application of innovative techniques like geo-tagging and social audits. PPRA and the OAG to carry out procurement audit (both on compliance and performance) which are coordinated and mutually reinforcing. Specific guidance needed to reduce discretion on these aspects and need to be addressed in the Regulations and/or user's guide for transparency and certainty. Periodic training to project staff on IFAD project procurement principles and monitoring how they are integrated in the procurement cycle during project supervision. 	IVI

have the most honest public
sector.
Machanism for identification

- Mechanism for identification and detection of corruption risk and mitigating these in the procurement cycle is not available.
- There is no evidence that civil society contributes to shape and improve integrity of public procurement. Neither is there any evidence that and business suppliers associations actively support integrity ethical public behaviour in procurement, e.g. through internal compliance measures.
- There is no mention of reporting mechanism for prohibited practices or unethical behaviour in the PPADA or PPADR. Neither is there a disclosed reporting mechanism in the standard bidding documents.

- Invitations to Bid for all procurement for IFAD funded operations to identify the source of funding, the applicable rules, and the reporting channels for prohibited practices.
- Include as part of the solicitation documents, a secure mechanism for reporting prohibited practices or unethical behaviour.
- Use of the IAFD's SPD forms and contact addresses to report prohibited practices for project procurement solicitation documents.

IFAD PRM - Part B Project Level

ASSESSMENT OF THE PROJECT'S PROCUREMENT IMPLEMENTATION ARRANGEMENTS

Assessment	Description of Assessment	Findings regarding possible	Inherent Risk of	Proposed Mitigation	Net Risk
Area #	Criterion	non-compliance with Project	non-	measure/s	
and # of related		Objectives & IFAD PPF	compliance		
criterion of			with Project		
assessment			Objectives &		
Overell Assessmen	unt of the wiele would be Dout D	-1	IFAD PPF		D.4
Overall Assessme	ent of the risk posed by Part B	The procurement profile	М	Use of procurement methods	М
		features largely standard		prescribed in the IFAD	
		items, though some		guidelines and handbook,	
		activities could be		and adherence to good	
		unfamiliar to some		specification practices.	
		procuring entities with		• IFAD Implementation	
		limited project procurement		support to lay emphasis on	
		such as Counties.		effective processing of	
		The procurement profile for		consultancy services.	
		the first 18 months features		Procurement for beneficiary	
		consulting services for		organization will be limited to non-complex items and	
		feasibilities, construction		approaches such as RFQ.	
		design, and project		International approaches	
		management a challenge to		and consolidated	
		sampled entities.		procurements will be	
		There are a number of		implemented by the PCMU.	
		procuring entities that will		 Need for emphasis in needs 	
		be relied upon in		analysis, defining	
		development of		requirements and packaging	
		specifications and		procurements to ensure	
		processing procurement of		optimal packaging and	
		items at evaluation and		costing.	
		contract management		 Soon to be launched eGP 	
		stages. Some agencies are new to IFAD project		system will ease sampling of	
				public institutions for the	
		procurement.There has not been a		procurement audits.	
				Schedule the project for	
		deliberate procurement strategy and evidence of		regular procurement audits	
		limited market research to		and follow ups to ensure	
		inform planning.		compliance under local	
		SDA has an internal audit.		framework	
		PPRA also undertakes		Include contract amendment	
		annual audits but on a		approval thresholds as part	
		sample basis.		of the PIM and consistent	
		There are no prescribed		with local framework.	
		thresholds for contract		Close contract monitoring	
		amendments.		and receipt of complete	
		In practice payments gone		deliverables.	
		beyond the 30-day payment		• Ensure timely release of	
		terms		budget allocations to enable	
		There are reported instances		procuring entity meet	
		of late payment especially		contractual obligations on	
		by Counties. Suppliers may		payments	
		not claim interest for fear of			
		not claim interest for leaf of			

		instances of late payment exceeding the contractually specified payment schedule. There are key procurement and contract information missing from files such as contract awards, and contractual correspondence. Contractual correspondence is kept separately from procurement file The increase procurement activity will require more space and office facilities. There is need for sustained procurement training. Procurement officers not certified Quality of procurement documents is mostly moderately satisfactory.		procurement files with contract management records. Retain copies of contractual correspondence on file. Ensure there are dedicated facilities for effective procurement. IFAD BUILDPROC training and other procurement related trainings. Training in customization of solicitation documents and use of IFAD project procurement framework.	
		1. ASSESSMENT OF PRO.	IECT COMPLEXITY		
1.1.	Project is new of its kind and introduces new procurement methodologies	The procurement profile features largely similar items, though this could be unfamiliar to some procuring entities such as Counties.	M	Use of procurement methods prescribed in the IFAD guidelines and handbook, and adherence to good specification practices.	M
1.2.	Project investment value is high and includes substantial inter-dependent procurement contracts that require advanced sequencing and coordination skills	The procurement profile for the first 18 months features consulting services for feasibilities, construction design, and project management staff that pose a challenge to sampled entities.	M	IFAD Implementation support to lay emphasis on effective processing of consultancy services.	М
1.3.	Project area is geographically spread in different locations	Project locations are accessible.	L		L
1.4.	Project includes a number of implementing partners and cooperating agencies	There are a number of procuring entities that will be relied upon in development of specifications and processing procurement of items at evaluation and contract management stages. Some agencies are new to IFAD project procurement.	S	Procurement for beneficiary organization will be limited to non-complex items and approaches such as RFQ. International approaches and consolidated procurements will be implemented by the PCMU.	S
1.5.	Project involves community participation in procurement activities which calls for detailed	N/A	N/A		N/A

	monitoring requirements by				
1.6.	IA Project is classified with High or Substantial SECAP risks (including security risks)	Not classified with high/ substantial SECAP risks.	L		L
1.7.	Project is in a Fragile State with weak governance structures	N/A	N/A		N/A
1.8. Overall A	ssessment of the risk posed by Criterion 1.	 The procurement profile features largely standard items, though some activities could be unfamiliar to some procuring entities with limited project procurement such as Counties. The procurement profile for the first 18 months features consulting services for feasibilities, construction design, and project management a challenge to sampled entities. There are a number of procuring entities that will be relied upon in development of specifications and processing procurement of items at evaluation and contract management stages. Some agencies are new to IFAD project procurement 	M	 Use of procurement methods prescribed in the IFAD guidelines and handbook, and adherence to good specification practices. IFAD Implementation support to lay emphasis on effective processing of consultancy services. Procurement for beneficiary organization will be limited to noncomplex items and approaches such as RFQ. International approaches and consolidated procurements will be implemented by the PCMU. 	M
	2. ASSESSMENT OF IMPLEM	procurement	nes/Dunnediumes D	ersonnel and Performance/Produc	4 2Del
2.1.	Z. ASSESSIVILITY OF INTELLIN		/PROCEDURES	ersonner and remorniance/ Froud	31 3)
2.1.1.	(Section 2.1.1 is to be filled on	Procurement Legal & Regulatory ly if the IA is an autonomous nat	Frameworks (Pro ional agency or a	curement Rules, Methods and Pro private entity which is allowed to hations which was assessed under Po	nave a separate
2.1.1.a.	IA procurement methods for Goods, Works and NCS (non-consulting services) are consistent with IFAD Project Guidelines	N/A			
2.1.1.b.	IA Procurement methods for Consulting Services are consistent with IFAD Guidelines and prioritize Quality.	N/A			

				1
2.1.1.c.	Access to IA bidding opportunities and bidding/procurement documents is un-restricted for foreign firms	N/A		
2.1.1.d.	Bidders, IA procurement staff and the general public have free access to the legal and regulatory framework documents	N/A		
2.1.1.e.	The mandatory Minimum number of received quotations/bids in competitive procurement methods is consistent with IFAD PPF ²	N/A		
2.1.1.f.	IA's standard Bidding /Procurement Documents and standard contracts (including contractual dispute resolution) are consistent with IFAD standard procurement documents in structure and contents	N/A		
2.1.1.g.	IA's standard Bidding/Procurement Document incorporate IFAD SECAP requirements (to what extent?)	N/A		
2.1.1.h.	IA's standard prequalification documents are consistent with IFAD's and qualification criteria reflect needed past experience, production capacity and financial/cash flow sufficiency	N/A		
2.1.1.i.	Bid evaluation criteria are objective, proportionate and based on VFM considerations in the case of Goods/Works/NCS (lowest evaluated cost, Merit Point, lowest price or life cycle cost) and emphasize Quality in the case of consultancy services consistent with IFAD's PPF.	N/A		
2.1.1.j.	Minimum number of days for advertised procurement under IA's competitive	N/A		

² PPF: Project Procurement Framework

	bidding processes is				
	consistent with IFAD PPF				
2.1.1.k.	Bidders' clarification	N/A			
	procedure by the IA is				
	consistent with IFAD PPF				
2.1.1.l.	Bids received by IA prior to	N/A			
	the deadline are securely				
	stored and a receipt is given				
	to the bidder				
2.1.1.m.	Bid securities are securely	N/A			
	stored				
2.1.1.n.	IA's Public bid openings are	N/A			
2.1.1.11.	conducted for advertised	1976			
	procurements immediately				
	after the submission				
	deadline (within an hour of				
	receipt of bids)				
2.1.1.0.	Minutes of bid opening	N/A			
	meetings are recorded and				
	sent to bidders who				
	submitted bids				
2.1.1.p.	No negotiations at award	N/A			
	stage are conducted with the successful bidder that				
	aim at changes in offered				
	bid price or scope unless				
	foreseen in the selected				
	procurement method and				
	stipulated in the bidding				
	documents				
2.1.1.q.	Under IA procurement	N/A			
	rules, bidders have access				
	to a Bidders' Complaint				
	mechanism consistent with				
	IFAD requirements				
2.1.1.r.	Contract awards are	N/A			
	advertised publicly by the IA				
	within reasonable time of				
244 0 "	contract signature.	21/2			
	Assessment of the risk posed y Criterion 2.1.1.	N/A			
2.1.2.	y Citterion 2.1.1.	IA's Procurement Strategy a	and Procurement P	anning Process	
				•	
2.1.2.a.	The IA's preparation of its	Does not comply.	S	Need for emphasis in needs	S
	annual procurement plan is	There has not been a		analysis, defining	
	preceded by	deliberate procurement		requirements and packaging	
	conceptualization of a	strategy and evidence of		procurements to ensure	
	Procurement Strategy	limited market research to		optimal packaging and	
	based on market research,	back planning.		costing.	
	previous experience and				
2126	own capacity assessments	Complies	L		1
2.1.2.b.	IA's procurement plans are prepared ahead of time and	Complies.	L		L
	in tandem with request for				
	budget appropriation to				
	MOF (or competent				
1	or to competent		1	1	I

	authority in case on autonomous bodies).				
2.1.2.c.	IA's procurement department staff participate in the annual work planning processes	Complies.	L		L
2.1.2.d.	The project's Procurement Strategy adequately addresses project complexity, IA's internal capacity and experience as well as market supply capacity	State department for Agriculture has previously implemented several IFAD funded operations. These had no documented procurement strategies, but one has been prepared under INReMP.	М	Update the project procurement strategy regularly to reflect the procurement environment and guide the planning.	М
2.1.2.e.	IA's procurement plan for the project is consistent with the project's annual work plan/budget (AWPB)	Complies.	L		L
2.1.2.f.	IA's Procurement Plans follow an effective format with planned and actual rows for tracking progress achieved across the 3 different categories of procurement	Complies.	L		L
_	Il Assessment of the risk posed by Criterion 2.1.2.	There has not been a deliberate procurement strategy and evidence of limited market research to inform planning.	М	Need for emphasis in needs analysis, defining requirements and packaging procurements to ensure optimal packaging and costing.	М
2.1.3.		1	•	nd internal control /audit procedure	
2.1.3.a.	IA's standard contracts for	The ongoing IFAD operations	L		L
	procurement of Goods, Works and Services generally consistent with IFAD contracts	use IFAD SPDs			
2.1.3.b.	Works and Services generally consistent with	use IFAD SPDs Complies	L		L
2.1.3.b. 2.1.3.c.	Works and Services generally consistent with IFAD contracts IA's standard contracts for procurement of Goods, Works and Services implement IFAD's SECAP		L		L

				compliance under local	
2.1.3.e.	IA has established contract management procedures and contract management forms for monitoring progress against Time, Cost, Quality and Scope of the signed contracts for Goods, Works and Services.	Complies.	L	framework.	L
2.1.3.f.	The IA develops a comprehensive Contract Management Plan for major contracts with clear indication of roles and responsibilities	Complies.	L		L
2.1.3.g.	IA's procedures for initiation and approval of Contract Variations are established and clear	Complies.	L		L
2.1.3.h.	Contract Amendments beyond a prescribed threshold (not exceeding 15% of time duration or contract value) require higher level approvals	Does not comply. There are no prescribed thresholds.	М	Include approval thresholds as part of the PIM.	М
2.1.3.i.	IA has established procedures for receipt/acceptance of contract outputs in Goods, Works and Services	Complies.	L		L
2.1.3.j.	IA has established procedures for receipt/approval of deliverables and approval of payments for Goods, Works and Services	Complies.	L		L
2.1.3.k.	IA's payment procedures lead to timely payments to the contracted parties in line with IFAD standard contracts	Partially complies. In practice payments gone beyond the 30-day payment terms	М	Close contract monitoring and receipt of complete deliverables.	M
2.1.3.l.	IA's Contractual Dispute Settlement procedures always provide for amicable settlement and stipulate arbitration for contracts with foreign contracted parties	Complies.	L		L
2.1.3.m.	The IA has well-developed claim assessment procedures for initiating own claims or for verification of validity and costing of contractual claims filed by the contracted parties	Partially complies. There are reported instances of late payment especially by Counties. Suppliers may not claim interest for fear of being victimized. There are instances of late payment exceeding the contractually specified payment schedule.	M	Ensure timely release of budget allocations on time so as to enable procuring entity meet contractual obligations on payments.	М

b	Assessment of the risk posed y Criterion 2.1.3.	 SDA has an internal audit. PPRA also undertakes annual audits but on a sample basis. There are no prescribed thresholds for contract amendments. In practice payments gone beyond the 30-day payment terms There are reported instances of late payment especially by Counties. Suppliers may not claim interest for fear of being victimized. There are instances of late payment exceeding the contractually specified payment schedule. 	M	 Soon to be launched eGP system will ease sampling of public institutions for the procurement audits. Schedule the project for regular procurement audits and follow ups to ensure compliance under local framework. Include contract amendment approval thresholds as part of the PIM and consistent with local framework. Close contract monitoring and receipt of complete deliverables. Ensure timely release of budget allocations to enable procuring entity meet contractual obligations on payments. 	M
2.1.4.		RECO	RD KEEPING		
2.1.4.a.	A serial-numbered procurement file is maintained for each procurement activity (with records from requisition to acceptance/receipt of goods/works/services)	Partially complies. Procurement records are maintained in separate files and kept chronologically. However, there are key procurement and contract information missing from files such as contract awards, and contractual correspondence.	M	Retain consolidated procurement files with contract management records.	M
2.1.4.b.	Original contracts secured in a fire and theft proof location	Complies.	L		L
2.1.4.c.	A separate contract file is maintained with a copy of the contract and all subsequent contractual correspondence e.g. contractual notices by supplier, contractor, purchaser or employer; a detailed record of all changes or variation orders issued affecting the scope, quality, timing or price of the contract; records of invoices and payments, progress reports, certificates of inspection, acceptance and completion; records of claim and dispute and their outcomes; etc.)	Partially complies. A separate contract file is maintained with a copy of the contract. However, contractual correspondence is kept separately.	M	Retain copies of contractual correspondence on file.	М

2.1.4.d.	The IA Procurement & Contract Files are maintained for at least 7 years beyond project closure in a secure place.	Complies.	L		L
2.1.4.e.	The IA maintains an up-to- date Contract Register that records all ongoing contracts (with names, prices and dates) per procurement category for ease of retrieval of contract data	Complies.	L		_
	ll Assessment of the risk posed by Criterion 2.1.4.	There are key procurement and contract information missing from files such as contract awards, and contractual correspondence. Contractual correspondence is kept separately from procurement file.	М	Retain consolidated procurement files with contract management records. Retain copies of contractual correspondence on file.	М
2.2.	IA'S PERSONNEL CAPABILIT	I FIES: IA's Procurement Personnel	Capabilities and P	rocurement resources (systems a	nd facilities).
2.2.1.	The IA has a dedicated Procurement Department/Unit with a Director and a team of experienced staff	Complies.	L		L
2.2.2.	The IA's Procurement Unit has previous experience with donor/IFI-funded procurement procedures	Complies.	L		L
2.2.3.	IA's regular annual procurement volume exceeds expected project procurement in value and complexity (i.e. the IA normally conducts more and more complex procurement than what is required as part of the project)	Complies.	L		L
2.2.4.	IA's procurement staff have Job Descriptions that cover all foreseen functions of the intended project procurement	Complies.	L		L
2.2.5.	The number and qualifications of the staff of the IA Procurement Department are sufficient to undertake the additional procurement that will be	Complies	L		L

	required under the				
	proposed project				
2.2.6.	The IA Procurement Department has adequate facilities such as PCs, internet connections, photocopy facilities,	Partially complies. The increase procurement activity will require more space and office facilities.	М	Ensure there are dedicated facilities for effective procurement.	М
	printers, safes etc. to undertake the foreseen project procurement				
2.2.7.	The IA's Procurement Department staff are certified practitioners or have attended relevant procurement training programs	Partially complies. There is need for sustained procurement training. Procurement officers not certified.	M	IFAD BUILDPROC training and other procurement related trainings.	M
2.2.8.	The IA's Procurement Department staff are capable of working in one of IFAD's official languages	Complies.	L		L
2.2.9.	The Project Director is issued a Project Charter granting him/her sufficient authority to control and authorize project activities (documented in PIM)	Complies.	L		L
2.2.10.	The IA has access to claim initiation or claim assessment experts either internally or externally especially for large value contracts with foreign vendors.	Complies.	L		L
2.2.11. Overa	Il Assessment of the risk posed	The increase procurement	M	Ensure there are dedicated	М
	by Criterion 2.2.	activity will require more		facilities for effective	
		space and office facilities.		procurement.	
		• There is need for		IFAD BUILDPROC training	
		sustained procurement		and other procurement	
		training.		related trainings	
		ŭ		related trailings	
		 Procurement officers not certified. 			
2.3.	IA's PERFORMANCE (PROD	OUCTS & PAST EXPERIENCE) - guid (based on performa		e indicators of Pillars II and III of O	ECD MAPS II
		1. KALR		, ,	
2.3.1.	% of the total annual IA	70%			
	contracts that are awarded in open and restricted bidding				
2.3.2.	Percentage and value of IA's annual contracts that are awarded under direct contracting (single source)	Euro 32,124.20 USD 41,117.66			
2.3.3.	IA's Efficiency in completing the bidding process (open and restricted) for Goods (measured in time from	100%			

	advertisement to contract			I
	advertisement to contract			
2.2.4	award and signature)	1000/		
2.3.4.	IA's Efficiency in completing	100%		
	the bidding process (open			
	and restricted) for Works			
	(measured in time from			
	advertisement to contract			
	award and signature)			
2.3.5.	IA's Efficiency in completing	100%		
	the competition process for			
	Services (measured in time			
	from advertisement to			
	contract award negotiations			
	and signature)			
2.3.6.	% of bidding documents for	None		
	Goods/ Non-Consulting			
	Services and Works in the			
	last one or two years where			
	more than one amendment			
	to the bidding documents			
	was issued			
2.3.7.	% of RFPs for consulting	None		
2.5.7.	services where more than	None		
	one amendment to the RFP			
	was issued			
2.3.8.	% of procurement	10%		
2.3.8.	-	10%		
	competitions in Goods			
	/Non-Consulting Services,			
	Works and Consulting			
	Services that failed or were			
	cancelled			
2.3.9.	Average number of	NCB 9 Bids,		
	responsive bids in	Shopping 5-7 Bids		
	Goods/Non-consulting			
	Services, Works and			
	Consulting Services			
	competitions			
2.3.10.	% of procurement	None		
	competitions for Goods/			
	Non-Consulting Services,			
	Works and Consulting			
	Services conducted			
	electronically			
2.3.11.	% of contracts awarded to	44%		
	SMEs in the previous year	- · · · -		
2.3.12.	% of procurement	None		
2.3.12.	competitions and contracts	None		
	that integrate sustainable			
	procurement			
	considerations (at least 1			
	social/labour plus 1			
	·			
2.2.42	environmental criteria)	***	-	
2.3.13.	Percentage of IA's contracts	4%		
	for Works with cost over-			
	runs above 10% of initial			
	contract price.			
2.3.14.	Percentage of IA's contracts	10%		
	for Works with time over-			

	runs above 10% of initial			
	contractual duration			
2.3.15.	Average number of	None		
	complaints received from			
	bidders as to the fairness of			
	biding documents or			
2215	contract award			
2.3.16.	% of bidders' appeal decisions that were	None		
	accepted and enforced			
	(with ruling against the IA)			
2.3.17.	% of Vendors Invoices paid	88%		
	on time in Goods/Non-			
	Consulting Services, works			
	and Consulting Services			
2.2.40	contracts.	Mandagatah, Cathafantan		
2.3.18.	Is the general quality of documents produced by the	Moderately Satisfactory		
	IA's Procurement			
	Department in line with			
	IFAD's expected quality			
	levels:			
	i. Quality of Bidding			
	Documents for			
	Goods/NCS and Works			
	ii. Quality of RFP for			
	Consulting			
	Services			
	iii. Quality of Bid			
	Evaluation			
	Reports			
	iv. Quality and			
	adequacy of responses to			
	bidders'			
	qualifications			
2.3.19.	Management /	None		
	Procurement Audit:			
	i. % of IA contracts			
	subjected to			
	specialized procurement audit			
	i. the IA timely			
	implements			
	recommendations			
		2. Elgeyo Marakı	wet County	
2.3.1.	% of the total annual IA	90%		
	contracts that are awarded			
	in open and restricted bidding			
2.3.2.	Percentage and value of IA's	10%		
	annual contracts that are	_3/5		
	awarded under direct			
	contracting (single source)			
2.3.3.	IA's Efficiency in completing	majority of the contracts are		
	the bidding process (open	completed on time		
	and restricted) for Goods			

advertisement to contract award and signature) 2.3.4. IA's Efficiency in completing the bidding process (open and restricted) for Works (measured in time from advertisement to contract award and signature) 2.3.5. IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature) 2.3.6. % of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued 2.3.7. % of RFPs for consulting services where more than one amendment to the RFP was issued 2.3.8. % of procurement competitions in Good / Non-Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in Goods/ Non-consulting	
2.3.4. IA's Efficiency in completing the bidding process (open and restricted) for Works (measured in time from advertisement to contract award and signature) 2.3.5. IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature) 2.3.6. % of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to to the bidding documents was issued 2.3.7. % of RPPs for consulting services where more than one amendment to the RPP was issued 2.3.8. % of procurement competitions in Goods /Non-Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
the bidding process (open and restricted) for Works (measured in time from advertisement to contract award and signature) 2.3.5. IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature) 2.3.6. % of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued 2.3.7. % of RFPs for consulting services where more than one amendment to the RFP was issued 2.3.8. % of procurement competitions in Goods /Non-Consulting Services, Works and Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
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advertisement to contract award and signature) 2.3.5. IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature) 2.3.6. % of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued 2.3.7. % of RFPs for consulting services where more than one amendment to the RFP was issued 2.3.8. % of procurement competitions in Goods /Non-Consulting Services, Works and Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
award and signature) 2.3.5. IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature) 2.3.6. % of bidding documents for Goods/, Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued 2.3.7. % of RFPs for consulting services where more than one amendment to the RFP was issued 2.3.8. % of procurement competitions in Goods / Non-Consulting Services, Works and Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
2.3.5. IA's Efficiency in completing the competition process for Services (measured in time from advertisement to contract award negotiations and signature) 2.3.6. % of bidding documents for Goods/ Non-Consulting Services and Works in the last one or two years where more than one amendment to the bidding documents was issued 2.3.7. % of RFPs for consulting services where more than one amendment to the RFP was issued 2.3.8. % of procurement competitions in Goods /Non-Consulting Services, Works and Consulting Services, Works and Consulting Services, Works and Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
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/Non-Consulting Services, Works and Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
Works and Consulting Services that failed or were cancelled 2.3.9. Average number of responsive bids in	
Services that failed or were cancelled 2.3.9. Average number of responsive bids in Not provided	
cancelled 2.3.9. Average number of Not provided responsive bids in	
2.3.9. Average number of Not provided responsive bids in	
responsive bids in	
Goods/Non consulting	
Services, Works and	
Consulting Services	
competitions	
2.3.10. % of procurement 98%	
competitions for Goods/	
Non-Consulting Services, Works and Consulting	
Services conducted	
electronically	
2.3.11. % of contracts awarded to 70%	
SMEs in the previous year	
2.3.12. % of procurement 50%	
competitions and contracts	
that integrate sustainable	
procurement	
considerations (at least 1	
social/labour plus 1	
environmental criteria)	
2.3.13. Percentage of IA's contracts 8%	
for Works with cost over-	
runs above 10% of initial	
contract price.	

2.3.14. 2.3.15. 2.3.16.	Percentage of IA's contracts for Works with time over- runs above 10% of initial contractual duration Average number of complaints received from bidders as to the fairness of biding documents or contract award % of bidders' appeal decisions that were accepted and enforced (with ruling against the IA)	10%		
	runs above 10% of initial contractual duration Average number of complaints received from bidders as to the fairness of biding documents or contract award % of bidders' appeal decisions that were accepted and enforced			
	contractual duration Average number of complaints received from bidders as to the fairness of biding documents or contract award % of bidders' appeal decisions that were accepted and enforced			
	Average number of complaints received from bidders as to the fairness of biding documents or contract award % of bidders' appeal decisions that were accepted and enforced			
	complaints received from bidders as to the fairness of biding documents or contract award % of bidders' appeal decisions that were accepted and enforced			
2.3.16.	bidders as to the fairness of biding documents or contract award % of bidders' appeal decisions that were accepted and enforced	2%		
2.3.16.	biding documents or contract award % of bidders' appeal decisions that were accepted and enforced	2%		U. Caracian de la Car
2.3.16.	contract award % of bidders' appeal decisions that were accepted and enforced	2%		
2.3.16.	% of bidders' appeal decisions that were accepted and enforced	2%		
2.5.10.	decisions that were accepted and enforced	۷%		
	accepted and enforced			
	•			
	(With runing against the IA)			
2.3.17.	% of Vendors Invoices paid	70%		
2.5.17.	on time in Goods/Non-	7076		
	Consulting Services, works			
	and Consulting Services			
	contracts.			
2.3.18.	Is the general quality of	Moderately unsatisfactory		
	documents produced by the	and an action decory		
	IA's Procurement			
	Department in line with			
	IFAD's expected quality			
	levels:			
	i. Quality of Bidding			
	Documents for			
	Goods/NCS and Works			
	ii. Quality of RFP for			
	Consulting Services			
	iii. Quality of Bid Evaluation			
	Reports			
	iv.Quality and adequacy of			
	responses to bidders'			
	qualifications			
2.3.19.	Management /			
	Procurement Audit:	400/		
	i. % of IA contracts	40%		
	subjected to specialized			
	procurement audit	The county always		
	ii. the IA timely implements recommendations	The county always implements all		
	recommendations	recommendation from audit		
		report		
		3. Kakamega	County	
2.3.1.	% of the total annual IA	Open tender – 60%		
	contracts that are awarded	Restricted - 0.1%		
	in open and restricted			
	bidding			
2.3.2.	Percentage and value of IA's	Percentage 1.7%		
	annual contracts that are	Value Ksh17 million		
	awarded under direct			
	contracting (single source)	Safaricom Ksh 2 million		
		Total Kenya – Ksh 10 million		
		Conference facilities – Ksh 3		
		million		
		Garages – Ksh 2 million		
2.3.3.	IA's Efficiency in completing	119 days		
	the bidding process (open			
2.3.3.	IA's Efficiency in completing the bidding process (open			

	1				1
	and restricted) for Goods				
	(measured in time from				
	advertisement to contract				
	award and signature)				
2.3.4.	IA's Efficiency in completing	119 days			
	the bidding process (open				
	and restricted) for Works				
	(measured in time from				
	advertisement to contract				
	award and signature)				
2.3.5.	IA's Efficiency in completing	90 days			
	the competition process for				
	Services (measured in time				
	from advertisement to				
	contract award negotiations				
	and signature)				
2.3.6.	% of bidding documents for	1%			
	Goods/ Non-Consulting				
	Services and Works in the				
	last one or two years where				
	more than one amendment				
	to the bidding documents				
	was issued				
2.3.7.	% of RFPs for consulting	0.01 %			
	services where more than				
	one amendment to the RFP				
	was issued				
2.3.8.	% of procurement	2%			
	competitions in Goods				
	/Non-Consulting Services,				
	Works and Consulting				
	Services that failed or were				
	cancelled				
2.3.9.	Average number of	4			
	responsive bids in				
	Goods/Non-consulting				
	Services, Works and				
	Consulting Services				
	competitions				
2.3.10.	% of procurement	90%			
	competitions for Goods/				
	Non-Consulting Services,				
	Works and Consulting				
	Services conducted				
	electronically				
2.3.11.	% of contracts awarded to	2%			
	SMEs in the previous year				
2.3.12.	% of procurement	Not provided			
	competitions and contracts	•			
	that integrate sustainable				
	procurement				
	considerations (at least 1				
	social/labour plus 1				
	environmental criteria)				
2.3.13.	Percentage of IA's contracts	+15 %			
	for Works with cost over-				
	runs above 10% of initial				
	contract price.				
	1		1	1	1

2.3.14. Percentage of IA's contracts for Works with time over-runs above 10% of initial	
runs above 10% of initial	
contractual duration	
2.3.15. Average number of 0	
complaints received from	
bidders as to the fairness of	
biding documents or	
contract award	
2.3.16. % of bidders' appeal 0	
decisions that were	
accepted and enforced	
(with ruling against the IA)	
2.3.17. % of Vendors Invoices paid 10%	
on time in Goods/Non-	
Consulting Services, works	
and Consulting Services	
contracts.	
2.3.18. Is the general quality of Moderately unsatisfactory	
documents produced by the	
IA's Procurement	
Department in line with	
IFAD's expected quality	
levels:	
v. Quality of Bidding	
Documents for	
Goods/NCS and Works	
vi. Quality of RFP for	
Consulting Services	
vii. Quality of Bid	
Evaluation Reports	
Quality and adequacy of	
responses to bidders'	
qualifications	
2.3.19. Management /	
Procurement Audit:	
iii.% of IA contracts i.None	
subjected to specialized	
procurement audit ii. 50%	
the IA timely implements	
recommendations	
4. Kisumu County	
2.3.1. % of the total annual IA Since the beginning of this FY,	
contracts that are awarded we've only done One open	
in open and restricted tender	
bidding 2.2.2. Research as a state of the control o	
2.3.2. Percentage and value of IA's Only two tenders done under	
annual contracts that are Direct Procurement	
awarded under direct	
contracting (single source)	
2.3.3. IA's Efficiency in completing The entire process takes one	
the bidding process (open month from advertisement to	
and restricted) for Goods contract signature in	
(measured in time from adherence to PPRA rules and	
advertisement to contract regulations and how fast the	
award and signature) requisitions and Bill of	
Quantities are generated	
from the user.	

2.3.4.	IA's Efficiency in completing	The entire process takes one	<u> </u>	
2.5.4.	the bidding process (open	month from advertisement to		
	and restricted) for Works (measured in time from	contract signature in		
	advertisement to contract	adherence to PPRA rules and		
		regulations and how fast the		
	award and signature)	requisitions and Bill of		
		Quantities are generated		
		from the user.		
2.3.5.	IA's Efficiency in completing	The entire process takes one		
	the competition process for	month from advertisement to		
	Services (measured in time	contract signature in		
	from advertisement to	adherence to PPRA rules and		
	contract award negotiations	regulations and how fast the		
	and signature)	requisitions and Bill of		
		Quantities are generated		
		from the user.		
2.3.6.	% of bidding documents for	None		
	Goods/ Non-Consulting			
	Services and Works in the			
	last one or two years where			
	more than one amendment			
	to the bidding documents			
	was issued			
2.3.7.	% of RFPs for consulting	None		
	services where more than			
	one amendment to the RFP			
	was issued			
2.3.8.	% of procurement	None		
	competitions in Goods			
	/Non-Consulting Services,			
	Works and Consulting			
	Services that failed or were			
	cancelled			
2.3.9.	Average number of	Three bids per competition		
	responsive bids in	under RFQs		
	Goods/Non-consulting			
	Services, Works and			
	Consulting Services			
	competitions			
2.3.10.	% of procurement	100%		
	competitions for Goods/			
	Non-Consulting Services,			
	Works and Consulting			
	Services conducted			
	electronically			
2.3.11.	% of contracts awarded to	47%		
	SMEs in the previous year			
2.3.12.	% of procurement	Not provided		
	competitions and contracts			
	that integrate sustainable			
	procurement			
	considerations (at least 1			
	social/labour plus 1			
	environmental criteria)			
2.3.13.	Percentage of IA's contracts	None		
2.3.13.	for Works with cost over-	None		
	runs above 10% of initial			
	contract price.			
	contract price.			

2 2 4 4	Dougoutous of IA/s souther to	Nege		1	
2.3.14.	Percentage of IA's contracts for Works with time over-	None			
	runs above 10% of initial				
	contractual duration				
2.3.15.	Average number of	None			
2.5.15.	complaints received from	None			
	bidders as to the fairness of				
	biding documents or				
	contract award				
2.3.16.	% of bidders' appeal	None			
2.5.10.	decisions that were	None			
	accepted and enforced				
	(with ruling against the IA)				
2.3.17.	% of Vendors Invoices paid	Not provided			
2.5.17.	on time in Goods/Non-	Not provided			
	Consulting Services, works				
	and Consulting Services				
	contracts.				
2.3.18.	Is the general quality of	Moderately unsatisfactory			
2.0.20.	documents produced by the	model attent amount acter.			
	IA's Procurement				
	Department in line with				
	IFAD's expected quality				
	levels:				
	i. Quality of Bidding				
	Documents for				
	Goods/NCS and Works				
	ii. Quality of RFP for				
	Consulting Services				
	iii. Quality of Bid Evaluation				
	Reports				
	iv. Quality and adequacy of				
	responses to bidders'				
	qualifications				
2.3.19.	Management /	None			
	Procurement Audit:				
	i. % of IA contracts				
	subjected to specialized				
	procurement audit				
	ii. the IA timely implements				
	recommendations				
		5. Migori C	ounty		
2.3.1.	% of the total annual IA	96%			
	contracts that are awarded				
	in open and restricted				
222	bidding	401			
2.3.2.	Percentage and value of IA's	4%			
	annual contracts that are				
	awarded under direct				
222	contracting (single source)	26dana fan NOD		+	
2.3.3.	IA's Efficiency in completing	36days for NOP			
	the bidding process (open	27days for RFQ and other			
	and restricted) for Goods	alternative methods of			
	(measured in time from	procurement			
	advertisement to contract	As guided by the PPADA,			
224	award and signature)	2015			
2.3.4.	IA's Efficiency in completing	36days for NOP			
	the bidding process (open				

	and restricted) for Warder	27days for DEO and ather	-	
	and restricted) for Works	27days for RFQ and other		
	(measured in time from advertisement to contract	alternative methods of		
		procurement		
	award and signature)	As guided by the PPADA, 2015		
2.3.5.	IA's Efficiency in completing	36days for NOP		
	the competition process for	27days for RFQ and other		
	Services (measured in time	alternative methods of		
	from advertisement to	procurement		
	contract award negotiations	As guided by the PPADA,		
	and signature)	2015		
2.3.6.	% of bidding documents for	0		
	Goods/ Non-Consulting			
	Services and Works in the			
	last one or two years where			
	more than one amendment			
	to the bidding documents			
	was issued			
2.3.7.	% of RFPs for consulting	0		
	services where more than			
	one amendment to the RFP			
2.2.0	was issued	40/		
2.3.8.	% of procurement	1%		
	competitions in Goods			
	/Non-Consulting Services,			
	Works and Consulting Services that failed or were			
	cancelled			
2.3.9.	Average number of	5		
2.3.9.	responsive bids in	3		
	Goods/Non-consulting			
	Services, Works and			
	Consulting Services			
	competitions			
2.3.10.	% of procurement	98%		
	competitions for Goods/			
	Non-Consulting Services,			
	Works and Consulting			
	Services conducted			
	electronically			
2.3.11.	% of contracts awarded to	65%		
	SMEs in the previous year			
2.3.12.	% of procurement	35%		
	competitions and contracts			
	that integrate sustainable			
	procurement			
	considerations (at least 1			
	social/labour plus 1			
	environmental criteria)			
2.3.13.	Percentage of IA's contracts	0		
	for Works with cost over-			
	runs above 10% of initial			
	contract price.			
2.3.14.	Percentage of IA's contracts	0		
	for Works with time over-			
	runs above 10% of initial			
	contractual duration			<u> </u>

1	2.15	Average number of	10/		1	Τ
2.	.3.15.	Average number of complaints received from	1%			
		bidders as to the fairness of				
		biding documents or				
		contract award				
2.	.3.16.	% of bidders' appeal	0			
		decisions that were				
		accepted and enforced				
		(with ruling against the IA)				
2.	.3.17.	% of Vendors Invoices paid	0			
		on time in Goods/Non-				
		Consulting Services, works				
		and Consulting Services				
		contracts.				
2	.3.18.	Is the general quality of	Madarataly unsatisfactory			
۷.	.3.18.		Moderately unsatisfactory			
		documents produced by the				
		IA's Procurement				
		Department in line with				
		IFAD's expected quality				
		levels:				
		i. Quality of Bidding				
		Documents for				
		Goods/NCS and Works				
		ii. Quality of RFP for				
		Consulting Services				
		iii.Quality of Bid Evaluation				
		Reports				
		iv.Quality and adequacy of				
		responses to bidders'				
		qualifications				
2.	.3.19.	Management /				
		Procurement Audit:				
		i. % of IA contracts	0			
		subjected to specialized				
		procurement audit	N/A			
		ii. the IA timely implements	•			
		recommendations				
			6. Trans Nzoia	County		
2	2.3.1.	% of the total annual IA	<5%			
		contracts that are awarded				
		in open and restricted				
		bidding				
<u> </u>	122		<5%			
4	2.3.2.	Percentage and value of IA's	<5%			
		annual contracts that are				
		awarded under direct				
		contracting (single source)				1
2	2.3.3.	IA's Efficiency in completing	14 days			
		the bidding process (open				
		and restricted) for Goods				
		(measured in time from				
		advertisement to contract				
		award and signature)				
7	2.3.4.	IA's Efficiency in completing	45 days		1	<u> </u>
-	2.3.4.		45 udys			
		the bidding process (open				
i		and restricted) for Works				
					1	1
		(measured in time from				
		(measured in time from advertisement to contract award and signature)				

	1.01 =00.		Т	1
2.3.5.	IA's Efficiency in completing	45 days		
	the competition process for			
	Services (measured in time			
	from advertisement to			
	contract award negotiations			
	and signature)			
2.3.6.	% of bidding documents for	<5%		
	Goods/ Non-Consulting			
	Services and Works in the			
	last one or two years where			
	more than one amendment			
	to the bidding documents			
	was issued			
2.3.7.	% of RFPs for consulting	<2%		
2.5.7.	services where more than	12/0		
	one amendment to the RFP			
	was issued			
2.3.8.		420/		
2.3.8.	% of procurement	<2%		
	competitions in Goods			
	/Non-Consulting Services,			
	Works and Consulting			
	Services that failed or were			
222	cancelled	7		
2.3.9.	Average number of	7 responses per bid		
	responsive bids in			
	Goods/Non-consulting			
	Services, Works and			
	Consulting Services			
	competitions			
2.3.10.	% of procurement	95%		
	competitions for Goods/			
	Non-Consulting Services,			
	Works and Consulting			
	Services conducted			
	electronically			
2.3.11.	% of contracts awarded to	Not provided		
	SMEs in the previous year			
2.3.12.	% of procurement	70%		
	competitions and contracts			
	that integrate sustainable			
	procurement			
	considerations (at least 1			
	social/labour plus 1			
	environmental criteria)			
2.3.13.	Percentage of IA's contracts	<5%		
	for Works with cost over-	2.2		
	runs above 10% of initial			
	contract price.			
2.3.14.	Percentage of IA's contracts	<2%		+
2.3.14.	for Works with time over-	\Z/0		
	runs above 10% of initial			
2245	contractual duration	0.0040/		
2.3.15.	Average number of	0.001%		
	complaints received from			
	bidders as to the fairness of			
	biding documents or			
	contract award			

2246	0/ of biddays' are all	0.40/			1
2.3.16.	% of bidders' appeal	0.1%			
	decisions that were				
	accepted and enforced				
	(with ruling against the IA)				
2.3.17.	% of Vendors Invoices paid	20%			
	on time in Goods/Non-				
	Consulting Services, works				
	and Consulting Services				
	contracts.				
2.3.18.	Is the general quality of	Moderately unsatisfactory			
	documents produced by the				
	IA's Procurement				
	Department in line with				
	IFAD's expected quality				
	levels:				
	i. Quality of Bidding				
	Documents for				
	Goods/NCS and Works				
	ii. Quality of RFP for				
	Consulting Services				
	iii. Quality of Bid Evaluation				
	Reports				
	iv. Quality and adequacy of				
	responses to bidders'				
	qualifications				
2.3.19.	Management /				
	Procurement Audit:				
	i. % of IA contracts	90%			
	subjected to specialized				
	procurement audit	65%			
	ii. the IA timely implements				
	recommendations				
2.3.20. Overall	Assessment of the risk posed	Quality of procurement	M	Training in customization of	М
	oy Criterion 2.3.	documents is mostly		solicitation documents and	
	,	moderately satisfactory.		use of IFAD project	
		ouerarery constructory.		procurement framework.	
2.4 Overell As	accompant of the viel, peed by	. Thoughou not been a	M		N.4
2.4. Overall As	sessment of the risk posed by Criterion 2.	• There has not been a	IVI	Need for emphasis in	М
	Criterion 2.	deliberate procurement		needs analysis, defining	
		strategy and evidence of		requirements and	
		limited market research to		packaging procurements	
		inform planning.		to ensure optimal	
		SDA has an internal audit.		packaging and costing	
		PPRA also undertakes			
		annual audits but on a		system will ease sampling	
		sample basis.		of public institutions for	
		There are no prescribed		the procurement audits.	
		thresholds for contract		Schedule the project for	
		amendments.		regular procurement	
				audits and follow ups to	
		In practice payments gone		·	
		beyond the 30-day		ensure compliance under	
		payment terms		local framework	
		• There are reported		• Include contract	
		instances of late payment		amendment approval	
		especially by Counties.		thresholds as part of the	
1		Suppliers may not claim			

	interest for fear of being		PIM and consistent with	
	victimized. There are		local framework.	
	instances of late payment		Close contract monitoring	
	exceeding the		and receipt of complete	
	contractually specified		deliverables.	
	payment schedule.		Ensure timely release of	
	• There are key		budget allocations to	
	procurement and contract		enable procuring entity	
	information missing from		meet contractual	
	files such as contract		obligations on payments	
	awards, and contractual		Retain consolidated	
	correspondence.		procurement files with	
	Contractual		contract management	
	correspondence is kept		records.	
	separately from		• Retain copies of	
	procurement file		contractual	
	The increase procurement		correspondence on file.	
	activity will require more		Ensure there are dedicated	
	space and office facilities.		facilities for effective	
	There is need for			
			procurement.	
	· ·		IFAD BUILDPROC training and ather procurement	
	training.		and other procurement	
	Procurement officers not		related trainings.	
	certified		Training in customization	
	Quality of procurement		of solicitation documents	
	documents is mostly		and use of IFAD project	
	moderately satisfactory.		procurement framework.	
3. Overall Assessment of the risk posed by	The assessment indicates a	M	Proposed mitigation	M
Parts A and B	moderate or acceptable risk		measures will be spread	
	towards achievements of		within the project	
	project objectives and/or compliance with IFAD's		implementation period and are predicated on hiring an	
	Project Procurement		experienced procurement	
	Framework. The risk matrix		specialist from the market for	
	identifies gaps in the country		project implementation. The	
	framework and capacity of		PCMU will be relied upon for	
	implementing partners that		consolidated project	
	will influence		procurement and when	
	implementation due to		approaching the international	
	inconsistency with IFAD		market. IFAD project	
	project procurement guidelines. Specifically, the		procurement guidelines will prevail over the local	
	presence of many procuring		framework.	
	entities will pose a challenge			
	in monitoring.			



Kenya

Integrated Natural Resources Management Programme
Project Design Report

Annex: In Re Mp Qe Meeting Compliance Note

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department

INReMP Design: QE Comments and compliance note 19 April 2024

Comments	PDT Responses
1. Revise Gender transformation in PDR to Gender transformative initiatives and approaches as promoted by IFAD. To meet the criteria for GT, in the M&E section of the design documents, an explicit commitment to undertake the project level index for the Women's Empowerment in Agriculture Index (Pro-WEAI) assessment when undertaking the project baseline study as well as completion is required, as a proxy outcome indicator on gender equality and women's empowerment (GEWE). This is important to consider given that one of the common lessons learned from previous projects in Kenya that participation of women in project activities does not necessarily directly translate into women's empowerment	Done The Pro WEAI was replaced with Empowerment Indicator with the new COI guidelines which is included in Logframe at baseline, mid and endline.
Component 1 -subcomponent 1.2 Payment for ecosystem services (PES) - clearly indicate on how it works using a diagram, i.e., tax credits, who gets the payment? Para 45: enhance the description of sub- component 2.2 to make it self- explanatory. - Rehabilitation of public infrastructure – Engagement with the Government for sustainability mechanisms such as budget allocation, cost recovery mechanism and operations and maintenance need to be outlined in the PDR	The relevant section on the PDR has been revised to provide clarification on how PES will work particularly in line with the recently passed Carbon Credit Trading and kenya's benefit Sharing Bill, 2023 (footnote 38 of the PDR). Additional details have been included in the PIM. For the para with three sets of infrastructures (43b – INRM support infra; 59 -irrigation and 60 – access roads), text has been added in the PDR to clarify the institutional arrangements and mechanisms to enhance continued functionality and sustainability.
Co-financing: Indicate the timelines and the process that informs the cost stab costing and how the risk in delayed financing will be managed. Add an annex of financier's contribution by year	Done in the COSTAB, one worksheet indicating financing by year by financers
Digital bundle service: unpack and explain linkage from	PDT has provided explanations starting with footnote 33 in the PDR (page 7), sentence in paragraph 45 and footnote 38 (PDR, pages 17-18) and further details in PIM (including photo image of the e-voucher solution versioning.
Indicators: compliance – look at women in agriculture index (comprehensive comments from ECG Director) Approved: consider adding a technical	ProWEAI is no longer used. Instead replaced with the mandatory Empowerment Indicator (COI) which has been used in the Log frame.
6. Annexes: consider adding a technical annex on experiences from Upper Tana on PES and KCEP CRAL E-	Done -a technical annex has been added. While the KCEP-CRAL full-scale independent impact assessment is be finalised, experience, lessons and outcomes

voucher impact survey results that informs scaling up.	have been <u>documented</u> and <u>shared</u> <u>widely</u> . KCEP-CRAL evoucher experience is one of the 12 Country case studies of the WB-AfDB-AGRA Report: <u>Design and Delivery Mechanisms of E-voucher Schemes: In Agriculture in Sub-Saharan Africa June 2021</u> (footnote 40 of the PDR). INReMP PIM has detailed further guidance on the digital bundled services approach and will largely adapt KCEP-CRAL E-voucher Implementation manual at start-up
7. Policy engagement included in the ToC but not with specific reference to GEWE	Done PDR updated
8. Logframe should include Pro-WEAI as an additional impact indicator to measure change in women's empowerment to meet requirements for gender transformative	The Log frame includes the Empowerment Indicator (which replaced Pro WEAI)
No reference to including staff with gender-specific terms of reference	A Community development, Gender and youth specialist ToR included in PDR and in PIM.
First Annual Work Plan and Budget (AWPB) not shared with review team so unsure if funds are allocated to deliver gender related activities (including Pro- WEAI) is Nutrition sensitive No reference to staff with nutrition- specific TORs Unclear if funds allocated to deliver nutrition-related activities as Annex 7 not available. Youth sensitive No reference to staff with youth-specific TORs or a suitable implementation partner is on board. Unclear if funds allocated to deliver youth-related activities as Annex 7 not available.	18 months AWP and PP was part of the package and a Community development, Gender and youth specialist; Nutrition technical support (component 2) included in PDR and PIM and COSTAB
10. Disabilities The project aims to target 5% persons with disabilities, but this is not currently being tracked. As raised at QAG review "Persons with disabilities" multiplier is mandatory for all people-based CI output and outcome. (e.g., CI1.1.4, CI1.2.8 lack the multiplier)	Not a mandatory. INReMP is not disability sensitive but includes PWDs in target group.
11. Other vulnerabilities PLWHAs and other vulnerable groups are targeted. The logframe indicators need better disaggregation of all targeted beneficiaries, as their tracking in the current logframe is unclear	This is not a mandatory requirement. However, PMU will be encouraged to collect data.
12. Generally, the integration between mainstreaming themes and how they relate to one another could be better articulated, specifically in terms of how the project's efforts on one theme may have benefits, consequences or trade-offs for the goals associated with the other themes	Integration is done in Component 1.2 on community empowerment, gender, youth and nutrition.



Kenya

Integrated Natural Resources Management Programme

Project Design Report

Annex: In Re Mp Design Escmf Version8 25062024

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE

East and Southern Africa Division Programme Management Department





ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT FRAMEWORK(ESCMF)



For the

Integrated Natural Resources Management Programme (INReMP) in Kenya

20th May, 2024

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ABBREVIATIONS AND ACCRONYMS

AEZs	Agro-Ecologcal Zones
BMUs	Beach Management Units
CFAs	Community Forest Associations
CIDPs	County Integrated Development Plans
CRA	Climate Risk Assessment
EAs	Environmental Assessments
EIA	Environmental Impact Assessment
ESCMF	Environmental and Social Management Framework
ESMPs	Environmental and Social Management Plans
FAO	Food and Agriculture Organization
FOs	Farmer Organizations
FPIC	Free, Prior and Informed Consent
GALS	Gender Action Learning System
GBV	Gender Based Violence
GoK	The Government of Kenya
GRM	grievance redress mechanism
IEC	Information, Education and Communication
IFAD	International Fund for Agricultural Development
INREMP	Integrated Natural Resources Management Programme
INRM	Integrated Natural Resource Management
NGOs	Non-government organization
NRM	natural resources management
OCB	Office of Climate Change, Biodiversity
PDO	Program Development Objective
PES	Payment for Ecosystem Services
PMCU	Programme Management and Coordination Unit
RSPO	Round Table on Sustainable Palm Oil
RTRS	Round Table on Responsible Soy Association
SEAH	Sexual Abuse and Sexual Harassment
SECAP	Social, Environmental and Climate Assessment Procedures
UNEP	United Nations Environment Programme
UTaNRMP	Upper Tana Catchment Natural Resource Management Project
WCCCs	Ward Climate Change Committees
WRUAs	Water Resources Users Associations

EXECUTIVE SUMMARY

Introduction

The Government of Kenya (GoK) and the International Fund for Agricultural Development (IFAD) are currently designing the Integrated Natural Resources Management Programme (INReMP) aimed at contributing to improved rural households' food, nutrition, and income security in a sustainable and resilient ecosystem. The Programme Development Objective (PDO) is to 'enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers as follows: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega (implementing the GEF funded Integrated Land and Water Management for Food, Water and Climate Security in the Dairy Food System to cofinance INReMP); and c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori.

INReMP's PDO will be achieved through the effective implementation of three interlinked components with the following outcomes:

- Outcome 1: Enhanced environmental sustainability and integrated natural resources management (INRM), ecosystem services and climate action;
- Outcome 2: Improved nutrition and inclusive and sustainable rural livelihoods;
- Outcome 3: Strengthened policies and institutions for sustainable and inclusive natural resources management and rural livelihoods.

INReMP's direct beneficiaries are estimated at 845,487 vulnerable rural households, equivalent to 4.2 million people. Direct beneficiaries will be selected from a)rural smallholder food insecure farmers; b) Rural Moderately Food Insecure Farmers; c) Rural Semi-Commercial and Commercial Producers. Selection of participating subcounties and wards will be guided by the following set of criteria: a) be within a targeted County micro-catchment area; b) degree of natural resource and environmental degradation; c) population and population density; d) poverty and vulnerability index; e) extent of land fragmentation; f) environmental risks presented by economic activities; g) vulnerability to climate change and extreme weather events h) potential for improved productivity, food security, nutrition status, and commercialization; and g) complementarity with other programmes and potential for co-financing.

Objectives of the Environmental and Social Management Framework

This Environmental and Social Management Framework (ESCMF) has been prepared because the location and design of the Program activities and sub-projects, and the magnitude of their impacts are not precisely known at the time of design stage, although the types of potential Program activities that could take place have been defined. The principal aim of this ESCMF is to provide a framework for addressing all environmental, social and climate (ESC) safeguards issues around INReMP sub-projects and activities from screening, preparation, review and approval, to implementation.

This ESCMF is the main decision-making instrument for Environmental, Social and Climate Safeguards for the programme and will be adopted for the various subprojects or supported with site specific Environmental Assessments (EAs) or Environmental and Social Management Plans (ESMPs) as the site-specific program and project implementation instruments. It is a dynamic instrument that will be reviewed and updated during the course of the project implementation, whenever it is deemed necessary, to include lessons learned and new information relevant for the environmental social and climate management of the project.

The ESCMF Process.

The ESCMF development process consisted of the following aspects: (i) establishment of baseline socio-environmental conditions, (ii) review of policy, regulations, institutional framework, (iii) development of the screening criteria/tool, (iv) assessment of potential environmental impacts, (v) assessment of potential social impacts (vi) preparation of the environmental and social mitigation plan and a monitoring plan and (vii) providing guidelines for the implementation of the ESCMF.

The process involved extensive review of related literature from published and unpublished documents, investigations and scanning of the potential project areas, and consultations with the various stakeholders. Field investigations provided an opportunity to collect primary information on biophysical conditions and socioeconomic setting of potential Programme areas and identify potential environmental, social and climate changes to be affected and/or generated by the programme. Fieldwork was conducted across ten counties and primarily involved: i) key informant interviews, ii) focus groups discussions and, iii) observation at selected possible sites.

The Consultants met with key national and county level stakeholders with the aim to have a deeper understanding of the existing situation at the proposed programme areas, the socio-economic and bio-physical setting and how these are likely to affect or be affected by the programme.

Policy, Legal and Institutional Framework

The preparation of this ESCMF has involved a review of existing Kenya policies, regulations and legislations that guide the environmental and social assessment for the INReMP activities, including relevant IFAD SECAP 21 and international conventions. The policy and legal review established that the INReMP will be supported by a host of laws, regulations and institutions that promote sustainable natural resources use, whilst protecting the environment and the well-being of the population of Kenya. All these instruments are guided by the Kenya Constitution which emphasizes on prudent management of the environment and accords future generations full rights to the environment and benefits thereof.

Screening, Approval and Implementation of Subprojects

Every sub-project that will be funded through INReMP will have to be screened for environmental, social and climate issues. The Environmental and Social Safeguards Specialist who will be part of the Programme Management and Coordination Unit (PMCU) will conduct the environmental and social screening at county level, using the Environmental and Social Screening Form (Annex 1) together with information on typical subproject impacts and mitigation measures in the environmental social and climate management plan (ESCMP). In some cases, independent site specific ESIAs will be required for some projects in line with Kenya Environmental Management and Coordination.

Environment And Social Category

The environmental and social category for the INReMP project is *Substantial*, recognizing that some activities can have adverse impacts on the environment and increase pressure on the natural resources. The potential social risks include conflicts over access and use of resources exclusion of Indigenous People (IPs) and other disadvantaged groups, sexual exploitation, gender-based violence especially at household levels, child labour and health and safety issues related to various activities along the value chains. Hence, the focus of the programme will be on employment creation for young men and women, household mentoring through Gender Action Learning System (GALS) to ensure gender-based violence is reported, reduced and/or eliminated, application of ILO guidelines on child labour when engaging youth in forestry and agricultural value chains, and grievance redress mechanisms. Nutrition and behavioural change and communication interventions will be undertaken towards increasing the consumption of nutritious foods.

The potential environmental risks involve the intensification of agricultural dairy production which will include discharge of poor-quality effluents from milk aggregation points and milk processing plants, Cow dung management at cow sheds, overgrazing of pastures, potential use of fertilisers and other agro-chemicals in horticulture, increased demand for water resources at particular times; diffuse pollution from increased use of agro-chemicals; vegetation removal and land use change as water supply infrastructure are being developed.

The pollution risks associated with the intensification of agriculture and dairy production and lack of appropriate waste management are important issues to be considered. Hence, the Program will adopt a climate-smart agricultural production approach. In addition, a Solid and Liquid Waste Management Plan has been developed to assist the project implementers and community to manage waste disposal.

Climate Risk Category

The climate risk category is **Substantial**. Kenya experiences environmental and land degradation in most parts of the country. Catchments within and around the project areas have over the years experienced severe land degradation resulting from deforestation, unsustainable farming practices, pollution, soil erosion, water abstraction and forest fires. INReMP will invest in catchment rehabilitation efforts, sustainable land management practices, agroforestry, and sustainable water management, soil erosion control, riparian conservation, wetland conservation and cooperationalisation of a payment for ecosystems services among other interventions.

A Targeted Adaptation Assessment (TAA) was developed for the programme to assist sub-projects and other stakeholders to determine relevant climate adaptation options throughout the programme. This will be updated and implemented at programme inception level.

Stakeholder Engagement Plan, Indigenous People's Plan and Grievance Redress Mechanism

At the design stage of the programme, a Stakeholders Engagement Plan has been prepared and submitted as Volume V documents. However, the PMU must continuously engage the project stakeholders throughout the programme cycle to achieve successful implementation and monitoring. The Stakeholder Engagement plan which describes the objectives of such a plan, the key stakeholders, information disclosure and consultation approach, grievance redress mechanism, feedback, and monitoring.

The Programme developed a stand-alone Indigenous People's Plan to outline culturally appropriate impact prevention and, where impacts on Indigenous Peoples are unavoidable, mitigation measures, as well as identify opportunities to maximise sustainable benefits to the indigenous community beyond the life of the INReMP.

As part of the continuous consultation process, a multi-level Grievance Redress Mechanism (GRM) has been developed and included as Volume II. The GRM will be a system by which queries or clarifications about the project will be responded to Programme and at community level, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively. The GRM will mainly serve the purpose of responding to the needs of beneficiaries, stakeholders and the public and addressing and resolving their grievances.

Environmental And Social Monitoring Plan

The INReMP programme management and coordination team with the help of relevant authorities will monitor the environmental, social and climate effects of project implementation and the success of mitigation measures. In addition to monitoring the implementation of mitigation measures proposed to address the identified impacts of the INReMP, the overall performance and effectiveness of the Program can be assessed through monitoring the following indicators:

Environmental Indicators.

- a) Reforested landscapes in hectares or square kilometers
- b) Recovered wetlands
- c) Protected watersheds
- d) Number and percentage of subprojects for which environmental issues are integrated into the project cycle.
- e) Number of dairy facilities with functioning waste management systems.
- f) Increased use of biodigesters
- g) Evidence of anti-soil erosion measures such as terraces,
- h) Re-planted vegetation on bare land,
- i) intercropping of nitrogen-fixing plants with staple crops
- j) protected riparian ecosystems

Social and Climate Indicators.

- a) Number, sex and type of target groups participating in the programme
- b) Number and objective of training and awareness creation programmes (ESCMF, IPMP, SEP and GRM etc).
- c) Number of grievances reported and solved at community, county and IFAD level

- d) Number and percentage of subprojects for which social issues are integrated into the project cycle.
- e) Representation in the community management committees,
- f) Equitable sharing of benefits from the programme interventions,
- g) Numbers of members attending programme planning and implementation meetings,
- h) Effect of programme implementation on local household incomes
- i) Number of farmers benefited from climate data and early warning systems.

Capacity Building and Training For ESC Management

Currently there is inadequate capacity at county and ward level to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the INReMP project activities. Thus, the ESCMF recommends various trainings in order to build capacity at such levels.

The Program Management and Coordination team is required to manage environmental and social risks. This includes training in environmental, social and climate risks and impacts of INReMP, Environmental and Social Impact Assessment of the specific Projects, Gender transformation, community health awareness, GRM, GBV and SEAH, Water and crop Management, and Agro-chemicals and Dairy facility Management. Total budget for capacity building and training is estimated at approximately USD 125,000.00

Funding For the Environmental Monitoring Activities

The estimated cost for the implementation of the monitoring plan which covers technical assistance in verification and testing of parameters in specific sites where implementation of sub-project will be taking place is estimated to cost USD 690,000.00

Conclusions and Recommendations

The proposed INReMP has potential to significantly enhance the agricultural productivity and improve the livelihoods of smallholder farmers and value chain players in the target ten counties. An improvement in the productivity of the Smallholder farmers will translate to improved livelihoods as they will have cash to secure other needs.

The envisaged environmental and social impacts will generally be temporary, predictable or reversible, and they can be entirely avoided or reversed. They are

potentially cumulative but are less severe and more readily avoided or mitigated than in a High-Risk project. The impacts also pose medium to low probability of serious adverse effects to human health or the environment, with known and reliable mechanisms to prevent or minimize such effects. Thus, to mitigate against these impacts it entails adhering to the requirements of this ESCMF which spells out the mitigation measures to prevent or minimize them. The Final benefits of this programme to Kenya will, by far outweigh any potential negative effects. The programme overall will not have any apparent significant environmental impacts if the recommended mitigations are fully implemented.

1. INTRODUCTION AND CONTEXT

1.1 INTRODUCTION

The Government of Kenya and IFAD are currently designing an 8-year programme titled "Integrated Natural Resources Management Programme (INReMP). The programme will scale-up results of the completed Upper Tana Catchment Natural Resource Management Project (UTaNRMP) to the Cherangany Hills and Mau West water towers to further enhance the sustainable use and management of natural resources. This will be done by supporting integrated natural resources management (NRM), access to payment for environmental services and improved nutrition-sensitive production and sustainable rural livelihoods. The INReMP will be implemented by the State Department for Crop Development, under the Ministry of Agriculture.

As one of the requirements of IFAD, an Environmental, Social and Climate Management Framework (ESCMF) must be developed in accordance with the Social, Environmental and Climate Assessment Procedures (SECAP). The ESCMF will be used by INReMP to ensure that all environmental and social safeguards are adequately addressed and that the relevant capacity building and training needs are established in order for the recommended measures to be implemented effectively. The ESCMF provides a guide for the integration of environmental and social considerations into the planning and implementation of the proposed project activities. It further provides a basis for environmental assessments of all sub-projects to be carried out under this proposed financing. It focuses on the nature and extent of significant adverse environmental and social impacts that may result from any rehabilitating, up-scaling, replication and development of new activities. The ESCMF also serves as a framework for screening environmental issues for all possible activities that will be undertaken. It establishes a unified process for addressing all environmental and social safeguards issues on sub-projects from preparation, through review and approval, to implementation. The ESCMF also describes a process that will ensure that the substantive concerns of the relevant IFAD's SECAP and Kenya legislation are addressed during the implementation of the selected activities.

1.2 THE PROGRAM DEVELOPMENT OBJECTIVE

The Program Development Objective (PDO) is to enhance integrated natural resources management, increase resilience to climate change and improve beneficiaries' livelihoods, particularly for women, youth and other vulnerable groups'

1.3 PROGRAMME SCOPE AND TARGETING

1.3.1 Geographic Targeting

INReMP will be implemented in ten counties of the Cherangany Hills and Mau West water towers: a) the Cherangany water tower counties of Elgeyo Marakwet, West Pokot, Trans Nzoia and Uasin Gishu; b) Cherangany downstream counties of Nandi and Kakamega; c) one upstream county of the Mau West Catchment and three downstream counties of the Lake Victoria basin of Kericho, Kisumu, Homa Bay and Migori.

1.3.2 Direct Targeting

INReMP's direct beneficiaries are estimated at 845,487 vulnerable rural households, equivalent to 4.2 million people. Direct beneficiaries will be selected from the following socio-economic groups: a) Rural Smallholder Food Insecure Farmers; b)Rural Moderately Food Insecure Farmers; c)Rural Semi-Commercial and Commercial Producers.

1.4 PROJECT COMPONENTS

INReMP's development objective will be achieved through the effective implementation of three Components: a)Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action and Component; b)Improved, Inclusive and Sustainable Rural Livelihoods; c)Institutional Strengthening, Policy Support and Programme Coordination to ensure effective Programme implementation. Following hereunder is of the а summary Components/Subcomponents focus areas.

1.4.1 Component 1

Component 1: Community-led Enhanced Environment and INRM, Ecosystem Services, and Climate Action will support community capacity building to empower communities and households through: a) mobilization and awareness raising, establishing and strengthening key community structures; b) development and implementation of community action plans; c) sustainable integrated natural resource management for improved water quantity and quality; d) improve dietary diversity; and e) capacity building of community-based organizations, such as Community Forest Associations (CFAs) and Water Resources Users Associations (WRUAs).

Subcomponent 1.1: Community Empowerment and Gender Transformative Approaches. This subcomponent will be informed by the County Integrated Development Plans (CIDPs) that specify community priorities per sub-county and

ward. Community empowerment will include community awareness creation, sensitization, prioritization of actions and development of Community action plans. Example community organisations to be targeted are Community Forest CFAs, WRUAs, Ward Climate Change Committees (WCCCs), Beach Management Units (BMUs), Farmer Organizations (FOs) and Common Interest Groups (CIGs) including those for women, youth, PWDs and vulnerable groups. INReMP will support establishment and strengthening of already existing community organizations and committees before creating new ones.

Subcomponent 1.2: Improve Environmental Sustainability, INRM, and Ecosystem Services. The objective of this subcomponent is to reduce degradation, rehabilitate, restore and sustainably manage available natural resources. The component will focus on forests, rangelands, arable land, wetlands and water resources using an ecosystem approach. Planned activities include: a) comprehensive mapping of natural resources (forests, water bodies, land, and wetlands etc); b) enhancement of critical infrastructure supporting Integrated Natural Resource Management (INRM), including for example, installation of river monitoring systems, meteorological weather stations, restoration of degraded lands and rivers, reforestation etc; c) safeguarding water sources, preserving environmental integrity (including the protection of riparian zones surrounding rivers and springs), implementing sustainable land management practices, erosion control through terracing, adoption of smart precision agriculture technologies, and promoting the sustainable utilization of land and water. This will include afforestation/reforestation efforts, establishment of tree nurseries, and the promotion of green energy solutions like solar energy, biogas and promotion of efficient cooking stoyes at the household level to combat forest degradation. In addition, initiatives for wetland restoration and integrated approaches like school greening programmes will be pursued; d) the project will also employ digital technologies such as Remote Sensing and GIS to support NRM through Geo-mapping and monitoring, soil and land management as well as establishment of a robust digital platform to facilitate the implementation and oversight of Payment for Ecosystem Services (PES); and e) conducting targeted studies to inform intervention selection, such as assessments of sediment flows, hydro-geological studies, and capacity-building initiatives.

1.4.2 Component 2

Component 2: Improved, Inclusive and Sustainable Rural Livelihoods seeks to support communities and households to improve and diversify their livelihoods and incomes through improved management of natural resources. These activities will serve as incentives for the communities to sustainably conserve their environment and reduce destructive practices. The following value chains have been prioritised: a) dairy; b) poultry; c) apiculture; d) fruit trees; and e) horticulture. Support activities will cover production, market linkages and value addition. The subcomponents are:

Subcomponent 2.1: Improve Productivity of Selected Nutrition- Sensitive Value Chains and Nature-based Enterprises. Activities will be value chain specific to address constraints to effective value chain integration. These include: a) supporting the setup of digitally enabled mobile-based e-voucher platform enabling targeted beneficiaries to access bundled inputs, technologies, services and facilities for improved crop and livestock productivity; b) support livestock feed and fodder production, pasture management and feed preservation; c) training of farmers in good and climate smart agricultural practices (agronomic, animal husbandry, disease control, efficient use of inorganic/organic inputs, green and water-efficient irrigation technologies etc.); d) enhance extension advisory through digital extension services to ensure farmers access information on agronomic practices, climate information and advisory services; e) organisation of farmers into farmer-led institutions (or strengthen the capacity of such groups) to facilitate access to technologies and collective production decisions, including organizational structures in irrigation schemes/systems; f) organising demonstrations as a way of scaling up adoption of new technologies and good agriculture practices; g) training on safe handling and disposal of chemicals; and h) investments in climate-proof infrastructure to support production. Such infrastructure will include improved livestock housing and handling facilities, multi-purpose community-based water supply systems based on gravity or solar power, rainwater harvesting, rehabilitation of small-scale irrigation systems, shade cloth/greenhouse infrastructures, etc.

Subcomponent 2.2: Improve Value Addition and Market Linkages of Selected Value Chains and Nature-based Enterprises. Planned interventions include: a) regular market opportunity assessments; b) organisation of farmers for commodity aggregation and collective marketing; c) strengthen capacity of farmer organizations (Cooperative, CIG) to effectively manage collective marketing activities; d) facilitate linkages with market intermediaries through formal win-win relationships (Memoranda of Understanding (MoUs), out grower and off-take contracts); e) improve access to market information through digital market information systems; f) training in post-harvest handling and provision of post-harvest equipment to preserve quality and reduce loss; g) investments in market access, market and marketing infrastructures and equipment (rehabilitation of feeder/access roads high production zones to markets, improving infrastructure for linking collection/aggregation centres, storage facilities, produce handling equipment, improvement of local market structures, developing of green energy infrastructure (such as bioenergy, solar energy, etc.); h) facilitate nutrition sensitive market standards and certifications to the private sector for supportive market systems and and f) support for local processing and value addition through infrastructure individual and/or collective efforts.

1.4.3 Component 3

Component 3: Institutional Strengthening, Policy Support and Programme Coordination. This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation. It will strengthen institutions for sustainable management of investments under the Programme. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for integrated natural resources management. Interventions for institutional strengthening and policy support will be informed by a needs assessment that will be undertaken to identify gaps. The subcomponents are:

Subcomponent 3.1: Institutional Strengthening and Policy Support – The subcomponent will have a dual focus: institutional strengthening and policy support.

Subcomponent 3.2: Programme Coordination and Implementation Support Services –will provide INReMP with efficient and effective coordination, including planning and implementation, financial management and control, procurement support, Digital Monitoring and Evaluation System, knowledge management, and progress reporting.

1.5 APPROACH TO THE PREPARATION OF THE ESCMF

The ESCMF has been prepared in accordance with applicable Kenya Environmental policies and procedures and IFAD SECAP (2021) requirements. Both primary and secondary sources of information were used to prepare the ESCMF. The methodologies adopted for the preparation of this ESCMF includes literature review, field visits, and stakeholder Consultations.

The focus of the ESCMF is to highlight the potential environmental, Social and Climate impacts for the planned future activities of the programme and recommend a management plan for addressing potential negative impacts. To achieve these targets, the ESCMF takes on board views from a cross section of people, at least from the local level, District level, County and National government level.

The strategies of preparing the ESCMF followed the following six steps:

- i. Review current conditions of the existing agricultural livelihood activities, and provide an assessment of their status and operation levels,
- ii. Review and analysis of the level of degradation of the landscapes and potential fields (Baseline Conditions) in the potential project areas.
- iii. Review of typical implementation approach and processes for the proposed development activities within the smallholder sector,
- iv. Identification and analysis of potential environmental and social impacts the implementation processes will likely trigger and generate within and around the agriculture activities,

- v. Development of a screening process for negative impacts for proposed programme sites and activities,
- vi. Identification of appropriate mitigation measures for the predicted impacts and compilation of a management plan for addressing environmental, social and climate impacts during implementation, operation, and maintenance of the programme activities.

vii. Analysis and evaluation of institutional capacity to determine capacity building requirements for effective implementation of the Environmental, Social and Climate Management Plan (ESCMP) and for addressing the impacts during the different project stages and activities.

In general, the study was then prepared in accordance with applicable IFAD's SECAP and policy documents and Kenya's Environmental Impact Assessment Guidelines.

1.5.1 Literature Review

Review on the existing baseline information and relevant literatures were undertaken to have better insight of the INReMP Program areas. Similarly, the national policies and legal framework and IFAD environmental, climate and social climate Assessment procedure (SECAP 21) were also reviewed.

1.5.2 Field Visits.

As part of the INReMP Design mission, visits were conducted to the ten counties to carry out consultations with the stakeholders and with the beneficiaries of INReMP and to inspect facilities for their compliance or capacities to comply with the environmental safeguards. The design mission met the relevant institutions and communities including women and youth at the county and district level.

The visits gave the project design team an insight into the environmental and social settings of the proposed project area and identified opportunities and challenges that are expected to be encountered during INReMP implementation.

1.5.3 Stakeholder consultations.

Comprehensive stakeholder consultations were conducted in the process of developing the PDR and this current ESCMF to solicit their views and concerns as regards the proposed value chains. The consultations were conducted at National, County and District levels. The strategy that was applied included the following:

- Physical meetings with some of the key stakeholder;
- Virtual (Zoom, Microsoft Teams) meetings with some of the key stakeholders

2. POLICY, REGULATORY AND ADMINISTRATIVE STRUCTURE FOR PROJECT IMPLEMENTATION

2.1 INTRODUCTION

This chapter describes the administrative, policy and regulatory framework relevant to environmental, social and climate change concerns in Kenya according to how they are relevant to INReMP. The objective is to ensure that project activities and implementation processes are consistent with local laws, policies and IFAD Safeguards Policies. The chapter also aims to point out possible gaps in local legislation in view of full compliance with IFAD Safeguards Policies. The proposed Programme will be subject to a number of these pieces of legislation. The following sections highlight some selected policies and laws which are applicable in the planning and implementation of the project:

2.2 POLICY, LEGAL AND REGULATORY FRAMEWORK Kenya Constitution

The Constitution of Kenya, 2010 Article 42 of Bill of Rights of the Kenyan Constitution provides that every Kenyan has a right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations through legislation and other measures. Part II of Chapter 5 of the Constitution 13 (Environment and Natural Resources) commits the State to adopt and support specific measures to safeguard the environment, which the project will abide by. (I) the State clearly undertakes to carry out the following:

- Ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits.
- ii. Work to achieve and maintain a tree cover of at least ten per cent of the land area of Kenya.
- iii. Protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities.
- iv. Encourage public participation in the management, protection, and conservation of the environment; Protect genetic resources and biological diversity.
- v. Establish systems of environmental and social impact assessment, environmental audit, and monitoring of the environment.
- vi. Eliminate processes and activities that are likely to endanger the environment. Part (II) "Every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. Chapter 5 on Land and Environment emphasizes on the following:
 - Land use and management shall by law benefit local communities
 - Community land is protected from encroachment by State.

- Law shall protect Rivers, forests, and water bodies.
- Equitable access to land.
- All lawful land rights are secured; only someone who has stolen land needs to worry.
- County governments will manage land in trust of the people in accordance with the constitution.

Kenya Vision 2030

Kenya's Vision 2030 aspires to transform Kenya into a newly industrialized middle-income country by 2030. The blueprint recognizes that Kenya is a water scarce country and that the economic and social development envisaged in the vision 2030 will require more high-quality water supplies. The water and sanitation sector goal in line with the Vision 2030 is "to ensure that improved water and sanitation are available and accessible to all" and increase both access to safe water and sanitation in both rural and urban areas beyond the present levels. Among strategies proposed is the construction of water and sanitation facilities to support industries and the growing population. Regarding environment, the Vision states that Kenya aims to be a nation living in a clean, secure, and sustainable environment by 2030.

The County Government Act, 2012

This is an Act of Parliament that gives effect to Chapter Eleven of the Constitution; to provide for county governments' powers, functions, and responsibilities to deliver services and for connected purposes. In the Fourth Schedule of the Kenyan Constitution 2010 Part 2 County governments, one of the functions of the County governments is stated as "County public works and services, including— (a) storm water management systems in built-up areas; and (b) water and sanitation services. "The Act also stipulates that the County Government is responsible for functions stipulated in Article 186 and assigned in the Fourth Schedule of the Constitution. These include control of air pollution, noise pollution, other public nuisances, and outdoor advertising. The County Staff in the Environment and Natural resources (Environment Officer, Water Officer and Forest Officers), among others, are responsible of guiding the community beneficiaries to guarantee proper implementation of the project including but not limited to pollution control, biodiversity conservation (planting of woodlots especially indigenous trees), among others.

Environmental Instruments

Environmental Management and Coordination Act (EMCA) 1999

The environment in general is managed under the Environmental Management and Coordination (Amended) Act, 2015. EMCA is implemented by the guiding principle

that every person has a right to a clean and healthy environment and can seek redress through the High Court if this right has been, is likely to be or is being contravened. Section 58 of the Act makes it a mandatory requirement for an ESIA study to be carried out by proponents intending to implement projects specified in the Second Schedule of the Act. Such projects have a potential of causing significant impacts on the environment. Similarly, section 68 of the same Act requires operators of existing projects or undertakings to carry out Environmental Audits (EA) to determine the level of conformance with statements made during the ESIA study. The proponent is required to submit the EIA and EA reports to National Environmental Management Agency (NEMA) for review and necessary action.

The EMCA (Amendment), 2015 has repealed some of the sections in the principal Act. EMCA provides for the establishment of appropriate legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto. EMCA outlines the requirements for EIA, environmental audits, monitoring procedures and environmental-quality standards.

There are specific regulations that would be of interest to this project including:

- EMCA (Noise and Excessive Vibration Pollution Control) Regulations, 2009
- Environmental Management and Co-Ordination (Air Quality) Regulations, 2014
- Environmental Management and Coordination (Water Quality) Regulations, 2006
- Environmental Management and Coordination (Waste Management) Regulations, 2006 Legal Notice No. 121
- Environmental (impacts Assessment and Audit) Regulations, 2003 as amended in 2016 which is one of the main regulations under EMCA providing detailed legal process for conducting ESIA and EA in the country.

EMCA in its Second Schedule classifies projects that must undergo ESIA into **Low**, **Medium** and **High** risks. Each risk level has defined minimum regulatory environmental assessment requirements which are defined in the Environmental (Impact Assessment and Audit) (Amendment) Regulations of 2016. Low risk, medium risk and high risks projects respectively require submission of Summary (ESIA) Project Report, Comprehensive Project report and Full ESIA Study Report.

As per the amended Second Schedule of EMCA, community water projects including boreholes, water pans, sub-surface dams, as envisaged in the INReMP programme, are classified as low risk projects. On the other hand, drilling for purposes of utilising ground water resources as well as water distribution infrastructure are classified as medium risk projects. According to IFAD SECAP, when there are more than one set of ESC policies/guidelines, the programme will adopt the most stringent set.

National Environment Policy (NEP)

The revised draft of the National Environmental Policy, dated April 2012, sets out important provisions relating to the management of ecosystems and the sustainable

use of natural resources. In addition, it recognizes that natural systems are under intense pressure from human activities particularly for critical ecosystems including forests, grasslands, and arid and semiarid lands. The objectives of the Policy include developing an integrated approach (including water sector) towards environmental management, strengthening the legal and institutional framework for effective coordination, and promoting environmental management tools.

The Public Health Act (CAP. 242)

Part IX Section 8 & 9 of the Act states that no person/institution shall cause nuisance or condition liable to be injurious or dangerous to human health. Any noxious matter or wastewater flowing or discharged into a water course is deemed as a nuisance. Part XII Section 136 states that all collections of water, sewage, rubbish, refuse and other fluids which permits or facilitates the breeding or multiplication of pests shall be deemed nuisances The Act addresses matters of sanitation, hygiene and general environmental health and safety. By providing for guidelines on water quality, this Act provides a useful tool for regulating the activities of groups or individuals with potential to pollute the water resource base.

Environment and Development (Sessional Paper No. 6 of 1999)

The Kenya's policy paper on the Environment and Development was formulated in 1999. The policy defines approaches that will be pursued by the Government in mainstreaming environment into development. The policy harmonized environmental and developmental objectives with the broad goal of achieving sustainable development. The policy paper also provided guidelines and strategies for government action regarding environment and development. The policy reemphasized government's commitment towards involving local communities and other stakeholders in wildlife conservation and management, allowing them to benefit from the natural resources in their proximity. The policy also advocates for the establishment of zones that allow for the multiple use and management of wildlife. This policy is relevant to the proposed developments under INReMP as the counties have the highest biodiversity (wildlife) outside the gazetted wildlife reserves, the projects' potential impacts on the environment and the need for the involvement of the public in project planning.

The Draft National Building Code, 2020

This by-law recognizes county governments as the leading planning. It compels potential developers to submit development applications for approval. The county governments are hence empowered to approve or disapprove any plans if they do or do not comply with the law, respectively. Any developer who intends to erect a building must give the respective local authority a notice of inspection before the erection of the structure. On completion of the structure, a notice of completion shall be issued by the local authority to facilitate final inspection and approval.

Land ownership and land Use Instruments

Physical and Land use Planning Act, 2019

The Act states that a regional physical development plan may be prepared by the Director with reference to any Government land, trust land or private land within the area of authority of a county council for the purpose of improving the land and providing for the proper physical development of such land, and securing suitable provision for transportation, public purposes, utilities and services, commercial, industrial, residential and recreational areas, including parks, open spaces and reserves and also the making of suitable provision for the use of land for building or other purposes. It also states that the objective of a county physical and land use development plan shall be to enhance environmental protection and conservation; The Act also states that a county government may, on its own motion or as may be requested by the national government or the National Physical and Land Use Planning Consultative Forum, declare an area as a special planning area if (a) that area has unique development, natural resource, environmental potential or challenges and if the development of that area raises significant urban design and environmental challenges; The Act also specifies that development control can be carried out with an objective to protect and conserve the environment. The national planning authority is mandated to control development on the basis of the environmental impacts on ecologically sensitive areas by the implementation of strategic projects. The Act requires any development activity that will have injurious impact on the environment, the applicant shall be required to submit an environmental impact assessment report as well as being accountable to the local authorities within the respective project jurisdictions.

National Land Policy

The National Land Policy in Chapter 3 under section 3.4, Environmental Management Principles, provides for the policy actions for addressing the environmental problems such as the degradation of natural resources, soil erosion, and pollution of air, water, and land. The policy advocates for environmental assessment and audit as a land management tool to ensure environmental impact assessments (EIAs) and audits are carried out on all land developments that may degrade the environment and take appropriate actions to correct the situation.

Environment and Land Court Act

This is an Act of Parliament to give effect to Article 162(2) (b) of the Constitution to establish a superior court to hear and determine disputes relating to the environment and the use and occupation of land. The land and environment court has jurisdiction to hear any other dispute relating to environment and land. While preference in addressing grievances encountered during implementation of the project will be using the GRM to be developed by project, those not satisfied will be free to seek justice through the land environmental court.

The Valuers Act (Cap 532), 1985

The revised edition 1985 of the Valuers Act Cap 532 makes provisions for the relevant charges and conducts of valuers in relation to valuation of assets and provides relevant regulations and guidelines in valuation works. The Act requires that adequate valuation is carried out to help meet the actual compensation measures and the market rates and reduce any acts of malice in the exercise. The Act also specifies that a competent valuer will have to be deployed to site to carry out the professional valuation of assets for compensation. This will apply in the case of land acquisition for infrastructure purposes for the INReMP.

The Community Land Act, 2016

The Act recognizes collective ownership of traditional commonly used land. The Act provides that community groups registered as owners of community land shall receive compensation in the event of compulsory acquisition. Where community land is not registered, the Act requires affected county governments to hold any such compensation in trust for the affected groups until registration of land titles in the community's favour materializes. The Act recognizes customary occupancy as constituting communities' land rights to community land and stipulates the said proprietary rights.

Climate Change Instruments

Climate Change (Amendment) Act, 2023

The Act is slated to come into force on 15th September 2023, and builds upon the foundations laid by the Climate Change Act, 2016. the Act provides for the establishment of a carbon registry that would be accessible to the public with registers on information relating to carbon credit projects and the amount of carbon credits issued or transferred from Kenya. The carbon registry will boost climate financing activities in the country by reassuring investors in carbon markets. A designated national authority as established by the Act will be the custodian of the Registry. Whilst the importance of climate financing cannot be overemphasised, it is equally important to safeguard the environment from further degradation. In this regard, the Act requires that before commencing a carbon trading project an environmental impact assessment must be carried out in compliance with international obligations. The Act also entrenches the need for carbon projects to specify the anticipated environmental, economic or social benefits of the project which includes the extent to which the project will contribute to the removal of greenhouse gases from the atmosphere in order to contribute to meeting Kenya's greenhouse gases emissions targets.

In addition to this, the Act goes further to protect community resources by requiring that every land-based project carried out under the Act must be put into action through a Community Development Agreement that outlines the connections and responsibilities of the project's proponents on the public and community land where the project is being developed. This provision works to cushion the impacted communities as the project is required to take into consideration Kenya's international commitments and aim to improve the environmental, economic, social and cultural wellbeing of the community around the project. Community Development Agreements are required to be recorded in the National Carbon Registry and should include the following provisions:

- the stakeholders of the project;
- the annual social contribution of the aggregate earnings of the previous year of the community to be disbursed and managed for the benefit of the community;
- the manner of engagement with local stakeholders;
- sharing of benefits from carbon markets and carbon credits between the project proponents and impacted communities;
- the proposed socio-economic development around community priorities; and
- the manner in which a review or amendment of the agreement can be undertaken which ought to be at least every five (5) years.

The Act also makes provision for dispute resolution mechanisms for disputes arising from carbon markets projects. The Act has also introduced offences such as;

- Conducting unauthorized carbon trade willingly;
- Giving false or misleading information knowingly for environmental or financial gains in the carbon market investment;
- Manipulating carbon credit measurements to claim additional measurements;
- Engaging in money laundering through carbon trading;

Knowingly selling carbon credits to unauthorised entities; and Failing to maintain carbon records. The penalty for the offences upon conviction is a fine not exceeding five hundred million shillings (KES 500,000,000) or imprisonment for a term not exceeding ten (10) years, or both.

The Kenya National Climate Change Response Strategy, 2010

This strategy provides measures that the GoK is taking to address issues related to the impact of climate change on various sectors of the economy. The proposed INReMP programme aims to mitigate effects of climate change and variability within the project areas by increasing the resilience of the targeted communities with regard to sustainable management of natural resources.

Water Management Instruments

The Water Act, 2016

The Kenya Constitution acknowledges access to clean and safe water as a basic human right and assigns the responsibility for water supply and sanitation service provision to the 47 counties. The 2016 Water Act aligns the water sector with the Constitution's primary objective of devolution and recognizes that water-related

functions are a shared responsibility between the National and County Governments. It also gives priority to use of abstracted water for domestic purposes over irrigation and other uses. The construction of water infrastructure will require the acquisition of water abstraction permits.

The Act sets in place the Water Resources Authority (WRA) whose main objective of is to protect, conserve, control and regulate use of water resources through the establishment of a national water resource strategy. In addition, the WRA is responsible for:

- i. Formulation and enforcement of standards, procedures and regulations for the management and use of water resources;
- ii. Policy development;
- iii. Planning and issuing of water abstraction permits; and
- iv. Setting and collecting permits and water use fees.

The National Water Policy, 2021

The National Water Policy was endorsed in July 2021 as Sessional Paper No. 1 of 2021. It calls for promotion of an inclusive and integrated approach to the management of water resources by ensuring measures are put in place for the water management, catchment protection and conservation, the development and application of appropriate technology and monitoring and evaluation and information systems.

Other Natural Resources Related Instruments

The National Biodiversity Strategy, 2000

The National Biodiversity Strategy and Action Plan (NBSAP) was formulated to enable Kenya to address national and international commitments defined in Article 6 of the Convention on Biological Diversity (CBD). The strategy is a national framework of action for ensuring that the present rate of biodiversity loss is reversed, and current levels of biological resources are maintained at sustainable levels for posterity. The general objectives of the strategy are to conserve Kenya's biodiversity; to sustainably use its components, to share the benefits arising fairly and equitably from the utilization of biological resources among the stakeholders; and to enhance technical and scientific cooperation nationally and internationally, including the exchange of information in support of biological conservation.

Wildlife Policy of 2011

The wildlife policy is aimed at promoting protection and conservation of wildlife in Kenya, both in protected and non-protected areas. The policy is implemented by the Kenya Wildlife Service (KWS). INReMP will need to be consistent with this policy. Where wild animals will be disturbed during the construction and operation of the infrastructure, appropriate mitigation measures must be implemented to minimize disturbance to wildlife.

Forestry Policy of 2014

The Forest Policy aims to ensure forests in the country are protected from destruction with a goal to increase the area under forest cover to 10 percent of the total land area in the country. Where clearance of forests or sections of forests is anticipated for the project, appropriate mitigation measures should be specified in the ESIAs and the subproject ESMPs.

Wetlands Policy, 2013

The wetlands policy is intended to promote protection of wetlands in Kenya. The policy sets out strategic measures for the protection of existing wetlands in Kenya. The policy also promotes the conservation and protection of wetlands because some are important historical sites that comprise important components of Kenya's cultural heritage.

Social Development Labour and Health Management Instruments

National Policy on Gender and Development, 2019

The overall objective of the Gender and Development Policy is to facilitate the mainstreaming of the needs and concerns of men and women in all areas in the development process in the country. It provides a framework for advancement of women and an approach that seeks greater efficiency in resource allocation and utilization to ensure empowerment of women. The Policy compliments the Government's efforts of spurring economic growth to reduce poverty and unemployment, by considering the needs and aspirations of all Kenyans of all gender across economic, social, and cultural lines.

Occupational Health and Safety Policy, 2012

This policy is intended to protect safety and health of workers in workplaces. The proposed programme will provide employment opportunities to many workers at various categories. The contractors will be expected to comply with the requirements of this policy when engaging workers in various construction activities. Site specific and/or contractors ESMPs and Site Health and Safety Plans will be prepared to ensure compliance with the requirements of this policy.

HIV/AIDS Policy, 2009

The policy identifies HIV/AIDS as a global crisis that presents a formidable challenge to development and social progress. HIV/AIDS has been considered a significant potential impact due to labour influx associated with projects of such magnitude and adequate mitigation measures should be proposed and implemented. HIV/AIDS awareness campaign for the project staff as well as community members within the project area of influence will be done periodically throughout the programme implementation period. Other services to be considered will include linkages to health

facilities for voluntary counselling and testing (VCT) and/or anti-retroviral treatment as necessary.

The Penal Code (Cap. 63)

The Penal Code (Cap. 63) chapter on —Offences against Health and Conveniences, strictly prohibits the release of foul air into the environment, which affects the health of other persons. Under this code, any person who, for trade or otherwise, makes loud noise or offensive awful smell in such places and circumstances as to annoy any considerable number of persons in the exercise of their rights, commits an offence, and is liable to be punished for a common nuisance, i.e., imprisonment not exceeding one year with no option of fine.

The Employment Act, 2007

The Employment Act, 2007 defines the fundamental rights of employees including the basic conditions of employment. It also regulates employment of children. The contractor on site will be encouraged to employ casual labourers from the communities where the water project traverses during construction. The basic conditions of employees should be observed to avoid unnecessary conflicts during the construction works. The Contractor shall pay the entire amount of the wages earned by or payable to the workers. Payment of such wages should be done at the end of a working day at or near the place of work. The Contractor shall also ensure that all statutory deductions are submitted without delay to appropriate government agencies e.g., Kenya Revenue Authority, NSSF, NHIF, among others. All workers shall sign a code of conduct (CoC) as provided for the Labour Management Procedures (LMP) for this project. The contractor should also ensure equity employment, giving opportunity to women and PWDs.

Children Act, 2022

The law under the Employment Act, 2007, and the Children Act, defines a child in Kenya as a person below the age of 18 years. The Employment Act, Part VII provides for protection of children including protection from the worst forms of child labour. Section 56 prohibits employing a child below 13 years to any form of undertaking. However, it allows employment of children from the ages of 13 to 16 years for light work and defines those of 16 to 18 as employable. The Act does not clearly define the parameters for this employment. It does not define light work and does not provide protection for children in such employment, but leaves it at the discretion of the minister. In section 58 and 59, the minimum age for employment in an industrial undertaking is 16, unless he/she is an apprentice under the Industrial Training Act (Cap. 237, Laws of Kenya). The law also puts a time limit for a child in an industrial undertaking to between 6.30am to 6.30pm. his minimum age restriction does not apply to employees who belong to the same family as the employer - unless the undertaking is dangerous to the life, health or morals of the persons employed. There is no legal minimum working age in the agricultural and services sectors, or for domestic work

The Sexual Offences Act, 2006 and its amendment, 2012

The Act requires workers to observe a standard work ethic to ensure persons from both genders are not subjected to sexual offences. A conducive working environment should prevail in all workplaces in the project, to be enhanced through implementation of a Sexual Misconduct Policy. All workers to be employed at infrastructure construction sites shall sign the CoC with clear provisions over the breach of the code. This shall be translated in the language familiar with each worker.

Persons with Disability Act, 2003,

This Act protects the rights of PWDs ensuring they are not marginalized and that they enjoy all the necessities of life without discrimination. The Act guarantees that: (1) No person shall deny a person with a disability access to opportunities for suitable employment; (2) A qualified employee with a disability shall be subject to the same terms and conditions of employment and the same compensation, privileges, benefits, fringe benefits, incentives, or allowances as qualified able-bodied employees; and (3) An employee with a disability shall be entitled to exemption from tax on all income accruing from his employment. A PWD is entitled to exemptions which apply with respect to exemptions and deductions as described in Schedule 42 subsection (2) of the Act, among other provisions, within this Act that should be complied with all parties involved.

Occupational Safety and Health Act (OSHA) 2007

This legislation provides for protection of workers during construction and operation phases of any project. This act will provide some of the mitigation measures for any negative impacts in particular those concerning the workers within the site. Under this Act, the duties of the Occupier are provided thus in Section 6: Every occupier shall ensure the safety, health, and welfare at work of all persons working in his workplace. Among others, the duty of the occupier includes:

- i. The provision and maintenance of plant and systems and procedures of work that are safe and without risks to health
- ii. Arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances
- iii. The provision of such information, instruction, training and supervision as is necessary to ensure the safety and health at work of every person employed
- iv. The maintenance of any workplace under the occupier's control, in a condition that is safe and without risks to health and the provision and maintenance of means of access to and egress from it that are safe and without such risks to health
- v. The provision and maintenance of a working environment for every person employed that is, safe, without risks to health, and adequate as regards facilities and arrangements for the employee's welfare at work

vi. Informing all persons employed of any risks from new technologies; and imminent danger; and ensuring that every person employed participates in the application and review of safety and health measures.

Every occupier shall carry out appropriate risk assessments in relation to the safety and health of persons employed and, on the basis of these results, adopt preventive and protective measures to ensure that under all conditions of their intended use, all chemicals, machinery, equipment, tools and process under the control of the occupier are safe and without risk to health and comply with the requirements of safety and health provisions in this Act.

Every occupier shall send a copy of a report of risk assessment carried to the area occupational safety and health officer; Every occupier shall take immediate steps to stop any operation or activity where there is an imminent and serious danger to safety and health and to evacuate all persons employed as appropriate. It is also the duty of every occupier to register his workplace unless such workplace is exempted from registration under this Act.

OSHA has various regulations and rules to aid in achieving its objectives, among which include:

- OSHA Fire-Risk-Reduction-Rules 2007
- OSHA First Aid Rules
- OSHA Medical-Examination-Rules 2005
- Health and safety committee rules etc

These provisions of the Act are to be enforced by the Department of Occupational Health and Safety under the Ministry responsible for Labour services.

Work Injury Compensation Benefit Act (WIBA), 2007

The WIBA 2007 provides guidance for compensating employees on injuries and diseases contracted during employment. The Act also requires provision of compulsory insurance for all employees. The Act defines an employee as any worker on contract of service with employer. It will be important for the contractors of the proposed project to ensure that all workers contracted during the project implementation phase are provided with appropriate insurance covers so that they can be compensated in case they get injured while working. Compensation for temporary partial disablement shall consist of a proportionate amount of the periodical payment calculated as terms of employment.

Contractor employees engaged in civil works for infrastructure are subject to this legislation, and are entitled to compensation, access to medical aid, and insurance cover in the event of work-related injuries and ailments.

Labour laws in Kenya are aligned with international labour laws, and Kenya has ratified seven of the eight core ILO conventions, including:

- Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
- Forced Labour Convention, 1930 (No 29)
- Abolition of Forced Labour Convention, 1957 (Mo 105)
- Minimum Age Convention, 1973 (No 138)
- Worst Forms of Child Labour Convention, 1999 (No 182)
- Equal Remuneration Convention, 1951 (No 100) and
- Discrimination (Employment and Occupation) Convention, 1958 (No 111)

National and Cultural Heritage Instruments

Museums and Heritage Act, 2006

The National Museums Heritage Act sets out the overarching administrative processes for protecting and preserving cultural heritage and management by the National Museums of Kenya (NMK). It provides for the establishment, control, management and development of national museums and the identification, protection, conservation, and transmission of the cultural and natural heritage of Kenya.

Public Participation Provisions

The Constitution of Kenya (CoK) 2010 has several provisions for stakeholder engagement under public participation pronouncements. The national values and principles of governance (Art. 10 of CoK 2010), sets the foundation for stakeholder engagement among other aspects. It binds all State organs, State officers, public officers, and all persons whenever any of them applies or interprets the Constitution; enacts, applies, or interprets any law; or makes or implements public policy decisions. Art. 10 provisions are: (a) patriotism, national unity, sharing and devolution of power, the rule of law, democracy, and participation of the people; (b) human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination, and protection of the marginalised; (c) good governance, integrity, transparency, and accountability; and (d) sustainable development.

Other key constitutional provisions on public participation are on sovereignty of the people that can be exercised directly or indirectly; participation in public financial management; intergovernmental relations; objectives of devolution; values and principles of public services, participation in legislative processes, among others. There are also Acts of Parliament that have operationalized the constitutional provisions on public participation. The key ones are devolution related laws including: The County Government Act (CGA) 2012, Public Finance Management Act (PFMA) 2012, and Urban Areas and Cities Act (2011).

The laws require public participation in many aspects of National and County Government functions, including developing new legislation, setting national and county planning and budget priorities, reviewing public sector performance and expenditures, and submitting grievances. Public participation is required in all stages of the planning and budget cycle. County Governments are required to create structures, mechanisms, and guidelines for public participation, promote access for minorities and marginalized groups, establish mechanisms for wide public communication and access to information, and submit an annual report on citizen participation to the County Assembly.

2.3 INTERNATIONAL CONVENTIONS AND TREATIES

Kenya is a signatory and party to international conventions, treaties, and protocols. The following international instruments listed in table 2.1 are relevant to the implementation of INReMP.

Table 2.1: Overview of the relevant International Conventions and Treaties.

N.	TAITEDNIATIONAL	INTERRETATION	DELEVANCE TO INDEME
No.	INTERNATIONAL	INTERPRETATION	RELEVANCE TO INREMP
	CONVENTIONS		
1	Convention on Biological Diversity (CBD1992)	Aims to conserve biological diversity, promote the sustainable use of the components of biological diversity, and ensure fair and equitable sharing of the benefits arising out of the utilization of genetic resources.	Some sub-activities may require some level of the clearing of vegetation thus affecting biodiversity.
2	Cartagena Protocol on Biosafety to the Convention on Biological Diversity	Aims to ensure the safe handling, transport, and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.	Will be relevant in instances where modified pasture seed is to be used on the pasture farms.
3	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization	A supplementary agreement to the Convention on Biological Diversity which provides a legal framework for the effective implementation of the fair and equitable sharing of benefits arising out of the utilization of genetic resources. The Protocol addresses traditional knowledge associated with genetic resources with provisions on access, benefit-sharing, and compliance. It also addresses genetic resources where indigenous and local communities have the established right to grant access to them.	May be relevant if traditional legumes are to be replaced by non-native pasture species, and where plants traditionally used for medical or cultural practices may be destroyed due to conversion of wetlands or Catchments.

No.	INTERNATIONAL CONVENTIONS	INTERPRETATION	RELEVANCE TO INREMP
4	Convention on the Conservation of Migratory Species of Wild Animals (CMS)	A framework convention which provides a global platform for the conservation and sustainable use of migratory animals and their habitats.	Relevant if sub-project activities will affect marshlands/wetlands where migratory fowl frequent, across wetlands
5	UN Framework Convention on Climate Change (UNFCCC)	Provides a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change and coping with its impacts.	INREMP focusses on sustainable dairy value chains and requires a climate risk assessment to be undertaken in order to guide detailed sub-project designs in coping with climate-related impacts on livelihoods
6	Paris Agreement to the UNFCCC (2015)	Seeks to accelerate and intensify the actions and investment needed for a sustainable low carbon future. Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change	INReMP focusses on sustainable agriculture and dairy value chains and requires a climate risk assessment to be undertaken in order to guide detailed subproject designs in coping with climate-related impacts on livelihoods
7	United Nations Convention to Combat Desertification (UNCCD, 1994)	Aims to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements. It specifically addresses the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.	INReMP focuses on agricultural and dairy productivity with a view to minimize incidents of poor resource management.
8	The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (the Basel	Designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). It does not, however, address the movement of radioactive waste. Also intended to minimize the amount and toxicity of wastes generated, to ensure their	INReMP subscribes to provisions that assist in the avoidance of hazardous and other wastes

No.	INTERNATIONAL CONVENTIONS	INTERPRETATION	RELEVANCE TO INREMP
	Convention, 1989)	environmentally sound management as closely as possible to the source of generation, and to assist LDCs in environmentally sound management of the hazardous and other wastes they generate.	
9	Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention, 1972)	Requires state parties to recognize that the duty of ensuring the identification, protection, conservation, presentation, and transmission to future generations of the cultural and natural heritage situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and cooperation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.	INReMP will have no interaction with these. As such, requirements under the convention will not be triggered.
20	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Washington Convention, 1975).	Aims to protect endangered plants and animals and to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild. It accords varying degrees of protection to more than 35,000 species of animals and plants.	Under INReMP, selection of sites for sub-project will avoid areas close to National parks and conserved areas for wildlife.
11	The Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa (Bamako Convention, 1991).	Prohibits the import of any hazardous Relevant in the event that expired (including radioactive) waste into Africa agrochemicals and their containers are taken to other countries for disposal.	INReMP will ensure that the environment is well protected against hazardous wastes by avoiding their application and extending the same concept to project beneficiaries and stakeholders
12	Malabo Declaration on Accelerated Agricultural Growth and	Commitment to Enhancing Investment Finance in Agriculture. Commitment to Ending Hunger in Africa. Commitment to Halving Poverty through	These commitments are in line with INReMP's objectives

No.	INTERNATIONAL CONVENTIONS	INTERPRETATION	RELEVANCE TO INREMP
	Transformation for Shared Prosperity and Improved Livelihoods. Malabo, Equatorial Guinea June 26- 27, 2014.	Inclusive Agricultural Growth and Transformation. Commitment to Enhancing Resilience of Livelihoods and Production Systems to Climate Variability and other related risks. Commitment to Mutual Accountability to Actions and Results	
13	United Nations Convention on the Rights of the Child (CRC).	A legally binding international agreement setting out the civil, political, economic, social and cultural rights of every child, regardless of their race, religion or abilities.	In line with the revised GCF Environmental and social policy and IFAD's social safeguarding principles

2.4 RELEVANT IFAD POLICIES

INReMP has been designed and informed by IFAD's Climate Change Strategy, Environment and Natural Resources Management Policy, Indigenous Peoples Policy, Gender and Targeting Policy and Land Policy. The Programme has also been designed in compliance with IFAD's guidelines on Social, Environmental and Climate Assessment Procedures (SECAP 21). To ensure an integrated approach to environmental and social management, the SECAP presents guidance statements. The following is a summary of the relevant pieces of policies.

a) IFAD Environment and Natural Resources Management Policy

Accelerating environmental degradation is eroding the natural asset base of poor rural people. Environmentally damaging agricultural and other economic activities are the drivers of these challenges. The goal of the ENRM policy is: "To enable poor rural people to escape from and NEMAin out of poverty through more productive and resilient livelihoods and ecosystems". Its purpose is: "To integrate the sustainable management of natural assets across the activities of IFAD and its partners".

The policy sets out 10 core principles to guide IFAD's support for clients in environment and natural resources management. The principles include both the core issues to be addressed and suggested approaches (section II.A). In summary, IFAD will promote:

- (1) Scaled-up investment in multiple-benefit approaches for sustainable agricultural intensification,
- (2) Recognition and greater awareness of the economic, social, and cultural value of natural assets,
- (3) 'Climate-smart' approaches to rural development,
- (4) Greater attention to risk and resilience to manage environment and natural-resource-related shocks,
- (5) Engagement in value chains to drive green growth,
- (6) Improved governance of natural assets for poor rural people by strengthening land tenure and community-led empowerment,

- (7) Livelihood diversification to reduce vulnerability and build resilience for sustainable natural resource management.
- (8) Equality and empowerment for women and indigenous peoples in managing natural resources.
- (9) Increased access by poor rural communities to environment and climate finance; and
- (10) Environmental commitment through changing its own behaviour.

b) IFAD's Strategy and Action Plan on Environment and Climate Change (2019-2025)

The speed and intensity of climate change are outpacing the ability of poor rural people and societies to cope. The natural environment and climate change influence the lives of poor rural people in critical ways. Sustained agricultural productivity and economic success depend on reliable access to environmental goods and services, as well as the assets and capacities to withstand environmental and climate hazards and shocks.

IFAD has formulated this strategy in order to address environment and climate change issues across all its policies, strategies and operations. The main objective of the strategy is to enhance the resilience of smallholder farmers and rural communities to environmental degradation and climate change impacts.

Thus, IFAD is enhancing its approach to rural development in the context of increasing environmental threats, including climate change. As IFAD will continue to target its investments at the poorer and often most climate-change affected people – whose livelihoods depend largely on agriculture and natural resources – particularly at women as producers and indigenous people as stewards of natural resources, it has put in place measures to address the adversarial climate changes. The Strategy recognises that climate-related risks, and potential opportunities, can be addressed more systematically within the different projects and policy advice. This will be done by being alert to new sources of risk, and exploring more opportunities like rewarding emissions reductions.

c) IFAD Indigenous Peoples' Policy

This Policy on Engagement with Indigenous Peoples aims to enhance IFAD's development effectiveness in its engagement with indigenous peoples' communities in rural areas. It sets out the principles of engagement IFAD will adhere to in its work with indigenous peoples, and the instruments, procedures and resources IFAD will deploy to implement them.

Indigenous people account for an estimated 5 percent of the world's population, but 15 percent of those people live in poverty. In many countries, rural poverty is increasingly concentrated in indigenous and tribal communities.

IFAD's Strategic Framework identifies indigenous peoples as an important target group because they face economic, social, political, and cultural marginalization in the societies in which they live, resulting in extreme poverty and vulnerability for a disproportionate number of them. To reach them requires tailored approaches that

respect their values and build upon their strengths. In its engagement with indigenous peoples, IFAD will be guided by nine fundamental principles: (a) cultural heritage and identity as assets; (b) free, prior and informed consent; (c) community-driven development; (d) land, territories and resources; (e) indigenous peoples' knowledge; (f) environmental issues and climate change; (g) access to markets; (h) empowerment; and (i) gender equality. The formulation of the ESCMF document recognises these principles so that they can be implemented throughout the project cycle.

d) IFAD Gender and Targeting Policy

Poverty targeting, gender equality and empowerment are cornerstones of IFAD's work to reduce rural poverty and food and nutrition insecurity. This puts people – rural women, men, youth, and indigenous peoples – at the centre of IFAD's development projects and policy engagement. This unique approach aims to support the development of inclusive, equitable, sustainable and resilient rural societies and agriculture sectors that are food secure and able to take advantage of the opportunities provided by growing markets, thus providing a springboard to rural transformation. Thus, IFAD has developed a deliberate Policy to address this issue.

e) IFAD Land Policy

Secure access to productive land is critical to the millions of poor people living in rural areas and depending on agriculture, or forests for their livelihood. It reduces their vulnerability to hunger and poverty; influences their capacity to invest in their productive activities and in the sustainable management of their resources; enhances their prospects for better livelihoods; and helps them develop more equitable relations with the rest of their society, thus contributing to justice, peace and sustainable development (IFAD, 2008)

The Fund's first strategic objective is to help "ensure that, at the national level, poor rural men and women have better and sustainable access to natural resources (land and water), which they are then able to manage efficiently and sustainably." Land access and tenure security issues are linked, directly or indirectly, to all the strategic areas of IFAD's interventions.

The IFAD Policy on Improving Access to Land and Tenure Security has been formulated to: (a) provide a conceptual framework for the relationship between land issues and rural poverty, acknowledging the complexity and dynamics of evolving rural realities; (b) identify the major implications of that relationship for IFAD's strategy and programme development and implementation; (c) articulate guiding principles for mainstreaming land issues in the Fund's main operational instruments and processes; and (d) provide the framework for the subsequent development of operational guidelines and decision tools.

f) IFAD SECAP, 2021

In the policy, land refers to farmland, wetlands, pastures, and forests. Land tenure refers to rules and norms and institutions that govern how, when and where people access land or are excluded from such access. Land tenure security refers to

enforceable claims on land, with the level of enforcement ranging from national laws to local village rules, which again are supported by national regulatory frameworks. It refers to people's recognized ability to control and manage land – using it and disposing of its products as well as engaging in such transactions as the transferring or leasing of land.

Social, environmental and climate sustainability is critical for achieving IFAD's mandate. Projects and Programs that foster social, environmental and climate sustainability rank among the Fund's highest operational priorities. To meet these objectives, in 2021 IFAD updated its 2017 Social, Environmental and Climate Assessment Procedures (SECAP). This updated edition of SECAP lays out an improved framework and process for managing risks and impacts and integrating mainstreaming priorities into new IFAD-supported investments. SECAP will: (i) help 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 Programs. (ii) help to 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. (iii) Support borrowers/recipients/partners and IFAD in improving decision-making and promoting the sustainability of project and Program outcomes through ongoing stakeholder engagement. (iv) Assist borrowers/recipients/partners in fulfilling their own international and national social, environmental and climate commitments. (v) Ensure that IFAD's practices are aligned with its own policies and the procedures of other multilateral financial institutions and (vi) enable IFAD to continue accessing environmental and climate financing.

g)IFAD's Environmental and Social Standards

IFAD's Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects (Table 2.2).

Table 2.2: Standards most relevant to INReMP

STANDARDS		RELEVANCE TO INREMP		
	Not Relevant	Less relevant	More Relevant	
Standard 1: Biodiversity conservation			Х	
Standard 2: Resource efficiency and pollution prevention			Χ	
Standard 3: Cultural heritage		Х		
Standard 4: Indigenous peoples			Х	
Standard 5: Labour and working conditions			Х	
Standard 6: Community health and safety			Χ	
Standard 7: Physical and economic resettlement			Χ	
Standard 8: Financial intermediaries and direct investments	Χ			

STANDARDS	RELEVANCE TO INREMP		
	Not Relevant	Less relevant	More Relevant
Standard 9: Climate change			Χ

IFAD SECAP standards are explained in details in Annex 3

h)Free, Prior and Informed Consent in IFAD Investment Projects (FPIC)

Free, prior and informed consent (FPIC) is an operational instrument that empowers local and indigenous peoples' communities, ensuring mutual respect and full and effective participation in decision-making on proposed investment and development programmes that may affect their rights, their access to lands, territories and resources, and their livelihoods (IFAD, 2021). FPIC is solicited through consultations in good faith with the representative institutions endorsed by communities. It ensures that they participate in decision-making processes concerning a given development project. The Consent should be sought in a way that is "free, prior and informed".

- Free implies no coercion, intimidation, or manipulation.
- Prior implies that consent has been sought sufficiently in advance of any decision point or commencement of activities.
- Informed implies that information provided covers all relevant issues to make the decision maker fully enlightened.
- Consent is the expected outcome of the consultation, participation, and collective decision-making process by the local communities.

IFAD requires the application of FPIC in two scenarios:

- When IFAD-funded projects are likely to have an impact on the land access and use rights of rural communities. In this case the FPIC is applied to the local communities in a broad sense. Hence, during project design and in application of the Social, Environmental and Climate Assessment Procedures (SECAP), design teams need to identify the local communities that would potentially be affected.
- 2. When IFAD-funded projects are targeting rural areas that are home to indigenous peoples. In areas that are home to indigenous and tribal peoples and ethnic minorities, there is a general requirement for FPIC.

The full FPIC Document for INReMP will be prepared and included as Annex 5

Institutional Framework

The following institutions have been preliminarily identified to have a role and/or stand to benefit from the ESCMF. Some institutions are the custodians of the laws and policies that impact on the environment, social and climate sector whilst other are responsible for implementation including capacity building and monitoring. In

line with the Stakeholder Engagement Plan, the Programme shall engage the different institutions as and when required for policy guidance, administrative and technical expertise and contributions. Some institutions will have a direct role whilst others will be consulted as and when necessary. The Programme shall continue to update the list as deemed necessary for the ESCMF.

Table 2.3: key Institutions in Environmental, Social and Climate Management

Institution	Role
National	The responsibility of the NEMA is to exercise general supervision
Environment	and co-ordination over all matters relating to the environment
Management	and to be the principal instrument of Government in the
Authority (NEMA)	implementation of all policies relating to the environment. In addition to NEMA, the EMCA provides for the establishment and enforcement of environmental quality standards to be set by NEMA which governs the discharge limits to the environment by the proposed project.
State Department for Irrigation	National Irrigation Policy and Management; Water Harvesting and Storage for Irrigation; Management of Irrigation Schemes; Water Storage and Flood Control Management; Mapping, Designating and Developing Areas ideal for Irrigation Schemes; Development of irrigation infrastructure; and Land Reclamation.
State Department for Wildlife	Wildlife Conservation and Protection Policy; Protection of Wildlife Heritage; Management of National Parks, Reserves and Marine Parks. Wildlife Biodiversity Management and Protection; Sustainable Wildlife Biodiversity Economy; Wildlife Conservation Training and Research and Wildlife Conservation Education and Awareness; Wildlife Biodiversity International Obligations and Multilateral Agreements; Human-Wildlife Conflict Mitigation and Response Policy; and Wildlife Sector Governance and Coordination.
State Department for Crop Development	National Agricultural Policy and Management; Agricultural Crops Development, Regulation and Promotion; Agriculture Financing; Policy on Agricultural Training; Agricultural Land Resources Inventory and Management; Agricultural Mechanization Policy Management; Policy on Land Consolidation for Agricultural Benefit; Agricultural Insurance Policy; Agricultural Extension policy and Service Standards; Capacity Building Policy for Agricultural Staff; Crop Research and Development; Support in administration of Irrigation Schemes; Agriculture Seed

Institution	Role
	Research and Development; Crop Genetic Research; and Biosafety Management.
State Department for Livestock Development	Livestock Policy Management; Veterinary Services and Disease Control Policy; Range Development and Management; Promotion of Dairy Industry; Livestock Insurance Policy; Promotion of Bee Keeping and apiculture; § Promotion of quality of Hides and Skins; Leather Sector Development and Promotion of Value Chain. Livestock Research and Development; Animal Genetic Research; and Tsetse Fly and Trypanosomiasis Research and Control.
State Department for the Blue Economy and Fisheries	Fisheries and Aquaculture Policy; Co-ordination of Development of Policy, Legal, Regulatory and Institutional Framework for the Fisheries Industry and the Blue Economy; Development of Fisheries; Promote Fish Consumption; Fish Quality Assurance; Capacity Building for Sustainable Exploitation of Agro-Based Marine Resources; Protection of Aquatic Ecosystems;
State Department for Lands and physical planning	National Lands Policy and Management; Physical Planning for Land Use; Land Transactions; Survey and Mapping; Land Adjudication; Land Registration; National Spatial Infrastructure; Land and Property Valuation Services Administration; Land Information Systems; Maintenance of a Public Land Bank; Administration of Public Land as Designated by the Constitution; Land Settlement Policy and Management; Land Settlement Matters; Rural Settlement Planning.
State Department for Mining	Mineral Exploration and Mining Policy Management; Management of Health Conditions and Health and Safety in Mines;
State Department for Co-Operatives	Co-operative Policy, Standards and Implementation; Promotion of Co-operative Ventures; Co-operative Production and Marketing; Supervision and oversight over Co-operative Societies; Co-operative Savings, Credit and other Financial Services Policy; Co-operative Legislation and Support Services; Co-operative Education and Training; Co-operative Audit Services; Co-operative Financing Policy.
State Department of Public Health	Public Health and Sanitation Policy, Food Quality, Hygiene and Nutrition Policy;
State Department of Water and Sanitation	Water Resources Management Policy and Standards; Water Catchment Area Conservation, Control and Protection; Water and Sewerage Services Management Policy; Waste Water

Institution	Role
	Treatment and Disposal Policy; Water Quality and Pollution Control; Sanitation Management; Management of Public Water Schemes and Community Water Projects; and Water Harvesting and Storage for Domestic and Industrial Use
State Department for Gender and Affirmative Action	Gender Policy Management; Special Programmes for Women Empowerment; Gender Mainstreaming and Community Mobilization on Gender Issues; Domestication of International Treaties/Conventions on Gender; Policy and Programmes on gender-based violence
State Department for Youth Affairs	Youth Policy and Empowerment;
State Department for Social Protection and Senior Citizen Affairs	Social Protection Policy; Senior Citizens Policy; Policy and Programmes for Persons with Disabilities; Policy and Programmes for Older Persons; Community Development Policy; Community Mobilization; Registration of Self Help groups; Social Assistance Programmes; Family Protection Policy;
State Department of labour and skills development	National Labour and Employment Policy Management; Labour and Social Protection Policy and Programme Implementation; Industrial Training; Child Labour Policy and Regulations Management; Workplace Inspection; Workman's Compensation Policy; Promotion of Occupational Health and Safety at Work; Industrial Relations Management;
Kenya Water Towers Agency (KWTA	, , , , , , , , , , , , , , , , , , ,
Kenya Forest Services (KFS)	KFS is a state corporation created through the Forest Act (2005) although now repealed. The KFS is mandated to conserve, protect and manage all public forests and to manage water catchment areas in relation to soil and water conservation, carbon sequestration and other environmental services in collaboration with relevant stakeholders.

Institution	Role
Kenya Wildlife	The KWS is responsible for the conservation and management
Service (KWS)	of water towers that fall under national parks and reserves.
Kenya Forestry Research Services (KEFRI)	KEFRI is an agency responsible for forestry research and development. Its main role in water tower conservation os to offer expert advice on appropriate tree species for each water tower.
National Environmental Complaints Committee (NECC)	The National Environmental Complaints Committee (NECC) was established under Section 31 of the Environmental Management and Co-ordination Act, 1999. It was formerly known as the Public Complaints Committee (PCC) but its name changed in the EMCA (Amendment) No. 5 of 2015. It is an important institution in the assessment of the condition of the environment in Kenya. It plays an important role in the facilitation of alternative dispute resolution mechanisms relating to environmental matters. The NECC makes recommendations to the Cabinet Secretary and thus contributes significantly to the formulation and development of environmental policy.
National Environmental Tribunal (NET)	The NET is established under Section 125 of EMCA for the purpose of hearing appeals from administrative decisions by organs responsible for enforcement of environmental standards. An appeal may be lodged by a project proponent upon denial of an EIA license or by a local community upon the grant of an EIA license to a project proponent. NEMA may also refer any matter that involves a point of law or is of unusual importance or complexity to NET for direction.
Kenya Meteorology departments	Provision of meteorological and climatological services to agriculture, forestry, water resources management, for the better exploitation and utilization of natural resources for national development
Directorate of Occupational Safety and Health Services (DOSHS)	The mandate of the Directorate is to ensure compliance with the provisions of the Occupational Safety and Health Act 2007 and promote safety and health of workers. The programme shall work with the DOSHS officers at the County levels to help oversee that the necessary workplace safety and health requirements are observed, and any related issues are promptly addressed
Environment and Land Court	The Kenya Constitution establishes Environment and Land Court. Article 162 of the constitution provides for the creation

Institution	Role
	of specialized courts to handle all matters on land and the environment. The court has the status and powers of a High Court in every respect. Section 20, of the Environment and Land Court Act, 2011 empowers the Environment and Land Court, on its own motion, or on application of the parties to a dispute, to direct the application of including traditional dispute resolution mechanisms.
State Department for Social Protection	The Department is responsible for sectoral oversight and management of all matters concerning children, older persons and PWDs, including related policies, social development, and management of statutory institutions. The State Department has officers in all counties and most of sub-counties across the country. Since they focus on children, older persons and PWDs, the officers are key resource in the monitoring the project's social impacts. There is also a newly established Social Risk Management (SRM) Unit (2019) under this department that will provide social safeguards support to the implementing teams.
National Council for Persons with Disabilities (NCPWD)	The NCPWD oversees all matters relating to PWDs, including: statutory responsibility for facilitation of disability mainstreaming programmes; formulating and developing measures and policies designed to achieve equal opportunities for PWDs; recommending measures to prevent discrimination against PWDs; and registering persons with disabilities and institutions and organizations giving services to PWDs. NCPWD could also support the process of translating documents and communicating with PWDs (e.g., sign language and braille).
County Environmental Committees	The County Environmental Committees contribute to decentralized environmental management and enable the participation of local communities. These environmental committees consist of the following:
	Representatives from all the ministries;
	Representatives from local authorities within the county;
	Two farmers/pastoral representatives;
	Two representatives from NGOs involved in environmental management in the province/district; and
	A representative of each regional development authority.

Institution	Role
Water Resources Authority (WRA)	WRA is another state corporation established under the Water Act (2016). It is mandated to, on behalf of the national Government, safeguard the right to clean water by ensuring that there is proper regulation of the management and use of water resources to ensure sufficient water for everyone no and in the future.
Ward Administrators	 facilitating inter-governmental relations and conflict resolutions; Overseeing safe custody of county government assets in the ward; coordinating and liaising with other directorates and departments in the ward; ensuring compliance with legal, statutory and regulatory requirements; enhancing administrative capacity for effective functions and governance at the local level;
	 identifying development projects; disseminating information to the public; and providing linkage between the office and the community.
Chiefs / Assistant chiefs have played a central role in the implementation policies, the provision of order, and mobilization of posupport.	
Village Elders	The contemporary village elders are involved in solving disputes among conflicting members in the village they oversee, enforcing government regulations at the local levels, and security related issues as well as enforcing health interventions such as immunization and vaccinations for children. Village elders oversee villages and work under the guidance of chiefs and assistant chiefs, and are the only cadre of public leaders in Kenya who work as volunteers (i.e. are non-salaried)
Agro- dealers (inputs and	Provide support in market systems facilitation, capacity building and strengthening of farmer organisations and producer associations,
markets)	Ensuring farmers, groups and producer associations have access to inputs, markets and other business development services (including extension support), enabling them to produce for the market
Water Resource User Associations (WRUAs)	Community level water management

Institution	Role	
Community	NRM Conservation and restoration	
Forestry		
Associations		
Community	Directly Affected parties / primary Programme beneficiaries	
Beneficiaries		

3. ENVIRONMENTAL AND SOCIO-ECONOMIC BASELINE

3.1 ENVIRONMENTAL BASELINE

a)Agro-ecological zones (AEZs)

Agro-ecological zones (AEZs) are land units defined on the basis of combinations of soil, landform and climatic characteristics. Agro-ecological zoning (AEZ) refers to dividing an area of land into smaller units with similar characteristics related to land suitability, potential production, and environmental impact. In Kenya, two systems are used to describe agro-ecological zones: 1)The FAO classification for tropics, which is a general classification system used worldwide.2.2)An older Kenya-specific classification system applicable only in Kenyaⁱ.

Kenya has a total area of about 582,646 square kilometers, with approximately 1.9% (11,230 square kilometers) covered by water. The dry land mass is divided into seven agro-ecological zones as shown in Table 3.1:

Table 3.1: Agro-ecological zones of Kenya

Zone	Approximate Area (km²)	% Total
I. Agro-Alpine	800	0.1
II. High Potential	53,000	9.3
III-IV. Medium Potential	53,000	9.3
V. Semi-Arid	48,200	8.5
VI. Arid	300,000	52.9
VII. Very arid	112,000	19.8
Rest (waters etc)	15,600	2.6

Source: Sombroek, et al., 1982.

b)Agro-climatic zones of Kenya

Agro-climatic zones focus primarily on climatic factors as determinants of agricultural potential and suitability. These zones are primarily based on climatic variables such as temperature, rainfall, and growing periods. Agro-climatic zones provide insights into the specific climatic conditions required for different crops and agricultural practices. They are useful for understanding the climatic limitations and opportunities for agricultural activities within a particular region.

There are 7 Agro-climatic zones in Kenya based on moisture index as follows:

Zone I: Humid

This zone has no direct importance in agricultural production other than being the source of rain and some rivers/streams. It is confined to mountains and immediate surrounding such as Mt. Kenya and Mt Elgon.

Zone II: Sub-humid

This zone is generally restricted to the highlands of Kenya between 1980 and 2700 m and occurs as a forest or open grasslands. This zone is found in the surrounding of Mt Kenya (parts of Meru, Embu, Kirinyaga and Nyeri), isolated parts of the Rift Valley around Mau and Aberdares mountains (e.g around Kericho and Nyahururu respectively) and the surrounding of Mt Elgon (e.g around Kitale and Webuye). The minimum rainfall is 1000 mm.

Zone III: Semi-humid

This zone occurs mainly at elevations between 900-1800 m with annual rainfall between 950 and 1500 mm. Trees are numerous here and somewhat of shorter stature than in Zone II. This zone is the most significant for agricultural cultivation and several legume fodders are found here in crop-livestock systems. It is also the most resettled by human. It occurs in the vast parts of Nyanza, Western and Central part, good proportion of Central Rift-Valley (Nandi, Nakuru, Bomet, Eldoret, Kitale) and a small strip at the Coastal area.

Zone IV: Semi-humid to semi-arid

This zone occupies more or less the same elevation (900-1800 m) as the previous or may be at times lower. However, it has lower rainfall of about 500-1000 mm. This is typically represented in surroundings of Naivasha, vast parts of Laikipia and Machakos, vast parts of central and southern Coastal areas.

Zone V: Semi-arid

This zone is much drier than Zone IV and occurs at lower elevations. Annual rainfall is 300-600mm. This Zone is prevalent in northern Baringo, Turkana, lower Makueni and vast parts of North Eastern part of Kenya.

Zone VI: Arid

This zone is considered as semi desert and is the driest part of Kenya. Annual rainfall is 200-400 mm and is quite unreliable. The zone is found in Marsabit, Turkana, Mandera and Wajir counties.

Zone VII: Very arid

This is represented by Chalbi desert in Marsabit county. The Chalbi is a salt desert with very sparse salt bushes as the only vegetation found. It is vast and of beautiful scenery. Pastoralists use it as a source of mineral lick for livestock, particularly during the rainy season.

c) Water Towers

Water towers in Kenya consist of five major ecosystems that serve most of the country's drainage systems. These drainage systems are the major sources of water (75 percent) that support key sectors of the economy which include agriculture, tourism, energy, industry and health. Gazetted water towers comprise of five major towers namely; Mt Kenya, Aberdare Ranges, Mau Forest complex, Cherangany Hills and Mt Elgon. There are thirteen other minor but critical water towers.

These ecosystems influence river flow regulation, flood mitigation, water storage and purification, recharge of groundwater, reduction of soil erosion and siltation, protection of biodiversity, carbon sequestration and climate regulation. Cherangany Hills and Mau Forest complex water towersn (2 and 3 in Fig.. below), are a lifeline to millions of people across many counties. The water towers are also a habitat to numerous biodiversity species and are regarded as historic and cultural sites. Despite their critical importance, these water towers have been seriously degraded and continue to be impacted by irregular and ill-planned settlements, overgrazing, uncontrolled and illegal forest resource extraction, and the conversion of forest land to agriculture. The degradation of these forests contributes to a growing water crisis and poverty in the region.

For instance, between 1990 – 2015, the Country lost 311,000 ha of forestlands to settlement, crop farming and infrastructural development. Water Towers continue to face numerous threats and challenges. Global warming, climate change, rapid population growth and unsustainable land management practices is threatening this fragile ecosystem. Other threats include encroachment for settlement and farming, rampant charcoal burning, illegal logging of indigenous trees and forest fires. The result has been adverse environmental impacts such as drying up or reduced water quantity and quality in rivers, dams and springs, loss of biodiversity, changes in microclimatic conditions, increase in soil loss, reduced forest cover, reduction in agricultural production and increased community conflicts as resources become limited in space and time. Moreover, the loss of biodiversity and increased carbon emissions from deforestation and forest degradation are exacerbated by climate change.

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¹ Kenya Water Tower Report, 2021 and 2023

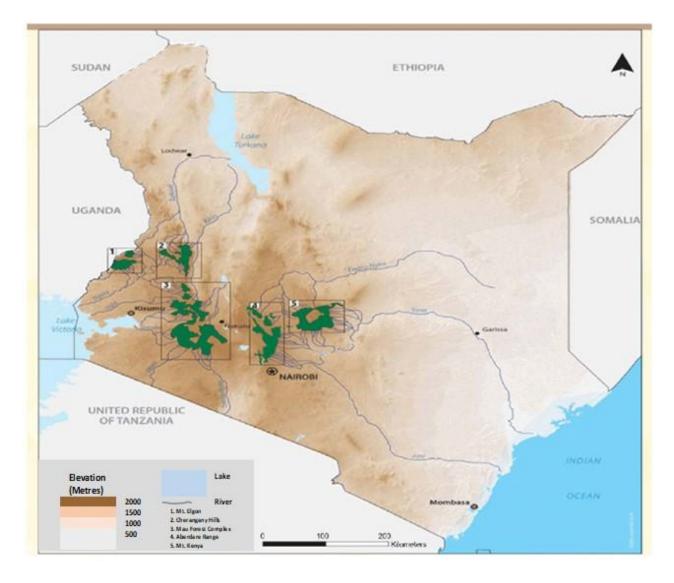


Figure 3.1: Gazetted Water Towers

d)Specific County bio-physical information

i)Elgeyo Marakwet

Elgeyo Marakwet County has three distinct topographic zones, the Highlands, Lowlands (Valley), and Escarpment (Hanging Valley), which are separated by the Elgeyo Escarpment. Each of these zones has attracted a different pattern of settlement. The highlands, which make up 49% of the county's total land area, are heavily populated due to their fertile soils and reliable rainfall. In contrast, the Escarpment and Lowlands, which constitute 11% and 40% respectively, have low rainfall and are vulnerable to natural disasters such as drought, rockfalls, and landslides.

Elgeyo Marakwet County has a relatively cool climate with varying levels of rainfall across the county. This is due to the county's geomorphology and topography, which is characterized by three distinct agro-ecological zones, the Highlands to the west, the Escarpment (Hanging Valley), and the Lowlands (Valley) to the east. The altitude varies greatly within the county, from 900 m above sea level in the Valley to over 3000 m above sea level in the Highlands, resulting in significant differences in climatic conditions. The average maximum temperature in the county ranges from 25 to c to 28 degrees Celsius, while the average minimum temperature ranges from 18 to 22 degrees Celsius. The average annual rainfall ranges from 700 mm in the semi-arid Valley to 1700 mm in the Keiyo and Marakwet Highlands (Cherangany Hills). The County shows a trend of decreasing rainfall from west to east, and it is the eastern lowlands of the county that have lower and less reliable rainfall, making it more susceptible to droughts and floods. The relative humidity in the county ranges from 53% to 69%, and the wind speed is around 8 knots (15 km per hour)².

ii) Homa Bay

Homa Bay Cunty is divided into two main relief regions, namely the lakeshore lowlands and the upland plateau with a number of rivers, namely Awach Kibuon, Awach Tende, Maugo, Kuja, Rangwe and Riana rivers, most of which originate from Kisii and Nyamira counties. The climate is inland equatorial, with temperatures ranging from a mean annual minimum of 17.1°C to a mean maximum of 34.8°C, with rainfall amounts of between 250mm and 700mm per annum.

The lakeshore lowlands lie between 1,163 – 1,219 metres above sea level and comprise a narrow stretch bordering Lake Victoria, especially in the northern parts of the County. The upland plateau starts at 1,219 metres above sea level and has an undulating surface resulting from an ancient plain's erosion. It is characterized by residual highlands such as Gwassi and Ngorome hills in Suba, Gembe and Ruri Hills in Mbita, Wire Hills in Kasipul, and Homa hills in Karachuonyo. Kodera forest in Kasipul and the Kanyamwa escarpment that runs along the borders of Ndhiwa and Mbita, also form part of the upland plateau. To the west of the County lies the Lambwe Valley, where Ruma National park is located. The County is dissected by a number of rivers, namely Awach Kibuon, Awach Tende, Maugo, Kuja, Rangwe, and Riana rivers, most of which originate from Kisii and Nyamira counties. There are also several seasonal rivers and streams that originate from the highlands within the County. The County has 16 islands with unique fauna and flora and an impressive array of physiographic features with great aesthetic value as well as breath-taking scenery

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² Elgeyo Marakwet County Integrated Development Plan, 2023

and forested landscape, particularly those around the islands and the coast of Lake Victoria and a peninsula like Sikri of Mbita sub-county³.

iii) Nandi

Nandi County comprises of five (5) distinct topographic features: the rolling hills to the West, the Kapsabet plateau, the Tinderet Volcanic mass, the King'wal Swamp and the Nyando escarpment on the Southern border. The Kapsabet plateau stands at 2,020m above the sea level; and comprises of an undulating land surface traversed by various rivers among which is rivers Kipkaren, kimondi and Birei. The Tinderet highlands are an extension of the Kenya highlands and have in some places, rocks jutting out to height of 2,500m. Various rivers in the Tinderet highlands include Kipkurere, Kibos, Kundos and Ainabng'etuny which flow through forming deeply incised valleys. Some of these rivers produce substantial waterfalls and rapids that have potential for harnessing hydroelectric power. Lastly, the Nyando escarpment comprises of extremely rugged terrain that consists of granite and volcanic rocks. The Equator runs alongside the scarp-line.

Agricultural activity in the County depends on rainfall and altitude amongst other factors. 12 percent of the total land area comprises of forests. They include Tinderet, Serengonik, Nandi South and Nandi North forest which is an extension of the tropical Kakamega Forest. It is characterized by high rainfall and diverse species of trees. The forests comprise of mixed indigenous hardwoods and exotic plantations at Kimondi and Serengonik forests measuring besides the 2,635.8 Ha. The total boundary length of forest in the county is about 363.8km. The medium potential areas are covered by shrubs and bushes and are mainly found on the eastern plateau parts and portions lying below the scarp on the Nyando plains.⁴

iv)Kakamega

Kakamega County is located at an altitude of between 1240 meters and 2000 meters above sea level. The county is characterized by a rugged topography that varies from place to place with the Nandi escarpment forming a major feature on the eastern border. Its main escarpment rises from 1700 meters to 2000 meters. On the southern side, there are several hills with a general elevation that rises up to 2000 meters. The county is also comprised of several hills such as Misango, Imanga, Eregi, Butieri, Shikhokhochole, Mawe Tatu, Lirhanda, Kiming'ini hills among others. Some of the

³ Homa Bay County Integrated Development Plan, 2023

⁴ Nandi County Integrated Development Plan, 2023

main rivers traversing the county include Nzoia, Yala, Lusumu, Isiukhu, Shiastala, Firatsi, Kipkaren and Sivilie.

Kakamega's climate is classified as tropical and experiences rainfall throughout the year. This is mainly attributed to the existence of Kakamega rain forest which is the only remaining tropical forest in Kenya. The annual rainfall in the county ranges from 1280.1mm to 2214.1mm per year. The rainfall pattern is evenly distributed all year round with March and July receiving heavy rains while December and February receives light rains. he temperatures range from 18 degrees Celsius to 29 degrees Celsius. The months of January, February and March are the hottest with rest of the months having relatively warm temperatures except for July and August which have relatively cold spells. The county has an average humidity of 67 per cent. Since early 1960s both minimum (night) and maximum (day) temperatures have been on the warming trend throughout Kenya. Current projection indicates increase in temperature. Recent trends show a marked increase in inter-annual variability and distribution of rains, with an increase in the number of consecutive dry days and shorter but more intense periods of rainfall resulting in an increase in frequency of floods.

There are two main ecological zones in the County namely, the Upper Medium (UM) and the Lower Medium (LM). The upper medium covers the central and northern parts of the county such as Ikolomani, Lurambi, Malava, Navakholo and Shinyalu where intensive maize, tea, beans and horticultural production is practiced mainly on small scale; and Lugari and Likuyani where large scale farming is practiced. The second ecological zone, the LM, covers a major portion of the southern part of the County which include Butere, Khwisero, Mumias East, Mumias West and Matungu. In this zone, the main economic activity is sugarcane production with some farmers practicing maize, sweet potatoes, tea, ground nuts and cassava production⁵.

v) Kisumu

Kisumu county's topography is undulating and characterized by Kano-Plains which is a flat stretch lying on the floor of the Rift Valley, the Nyabondo Plateau and the overhanging huge granite rocks at Riat hills, Maseno and Seme areas. Due to flash flooding, the Kano-Plains have rich alluvial soils which favour agricultural production in horticulture and rice. Granites on the other hand, find their use essentially in the building and road construction industry. The county is endowed with the second largest freshwater lake in the world; Lake Victoria with two major rivers; Nyando and Sondu-Miriu and seven permanent rivers, Awach-Kano, Oroba/Ombeyi, Kibos, Awach-Seme, Kisian, and Mugru, in its catchment. These resources provide a big

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⁵ Kakamega County Integrated Development Plan, 2023

potential for development of blue economy. Impala sanctuary, Ndere is land, the legendary Luanda Magere and Kit-Mikayi sites are among the unique topographical features.

The climatic conditions in Kisumu County are generally warm and humid. The county has a tropical climate, with temperatures ranging from an average high of 33 degrees Celsius to an average low of 23 degrees Celsius. The county experiences two rainy seasons, the long rains from March to June and the short rains from October to December. The dry seasons are from July to September and January to February. The county also experiences high humidity levels throughout the year, with an average humidity of around 80%.

Kano Plains is predominantly black cotton soil which is poorly drained and unstable though suitable for rice, horticulture and sugarcane production. Seme and the lower parts of Nyakach Sub-counties are dominated by lake sediments, commonly sand and clay soils while Kisumu West Sub- County and upper-Nyakach are predominantly red-loamy soils suitable for agricultural production. The lake shores are generally swampy and offer fertile ground for horticulture and fish breeding⁶.

vi) Migori

Migori county covers a land area of 2596.5 square kilometers, of which 11.4385 square kilometers is gazetted forest reserve while 45.53 square kilometers is nongazetted forest. The total forest cover for the county is 0.03 percent and tree cover is 10.76 percent. This is lower than the national forest cover which stands at 8.83 percent. The county's altitude ranges between 1140m above sea level at the shores of Lake Victoia in Nyatike Sub- County to 4625m above sea level in Uriri Sub-County. Undulating hills cover most of the county's landscape with few stretches of flat lands. Some of the hills found in the county in Nyakune (4625m), Ogengo (4300m) and God Sibwoche (1475m) in Uriri sub-county, God Kwer (1420m), Mukuro (1454m) and Nyabisawa (1489m) in Suna West Sub-County, God Kwach (1340m) in Nyatike Subcounty, Renjoka (1592m) in Kuria West Sub-county, and Maeta (1733m) in Kuria East Sub-county The county is home to one of the largest freshwater lakes in Africa, Lake Victoria. With a surface area of approximately 59,947 km², Lake Victoria is Africa's largest lake by area, the world's largest tropical lake, and the world's second largest freshwater lake by surface area after Lake Superior in North America. This lake is also shared among Kenya, Uganda and Tanzania. The main rivers in the county are Kuja, Migori and Riana, all of which originate from the highland regions of the neighbouring Kisii and Narok Counties while the smaller and mainly seasonal rivers include Ongoche, Oyani, Sare Tebesi and Nyangoto. Rivers Migori, Ongoche, Oyani and Sare eventually drain into River Kuja at various locations within the county while Nyangoto and Tebesi drain into river Migori which in turn finally drains int Lake Victoria. Other spectacular features found in the county is the Gogo Falls along River

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⁶ Kisumu County Integrated Development Plan, 2023

Kuja, Mugabo Cave in Muhuru Bay and the Crying Stone at Chinato in Kuria East. The county's topography is underlain by relatively 'acidic' parent rock and Granite covering most parts of Kuria East, Kuria West, Nyatike and some parts of Rongo and Migori Sub-counties with the rest being covered by the Nyanzian and Bukoban rocks. The low-lying areas of Nyatike experience flooding from run off from the hilly areas. However, the areas also provide favourable area for irrigation which is already being done under Lower Kuja Irrigation Project.

Annual temperatures vary between a mean minimum of 24 degrees Celsius and maximum of 31 degrees Celsius, with high humidity and a potential evaporation of 1800mm to 2000 mm per year. Migori County has two main rainy seasons. The long rains fall between March and May while the short rains occur between September and November. Dry seasons are experienced in two annual phases: December-February and June-September. The total annual rainfall trends showed a slight decrease since 1985 and is expected to continue until 2040 for the long rainy season. In the opposite, the short rainy season will see a sharp increase in the precipitation. The annual mean temperature has increased since 1985 and will continue to do so until 2040 and then 2060 for both rainy seasons. The start of the growing season is estimated based on when the climatic conditions become suitable for crop growth. Historically the start of the growing season in the county ranged between early February to late March. In future, there was a strong spatial gradient where the entire county had an early start of the season apart from a small pocket in the northwestern regions. The change shows early starting of the first growing season of around 1 month in central regions. Climate advisory services will become critical to inform farmers about the optimum planting window and avoid crop loss.

The county has six agro-ecological zones ranging from Upper Midlands (UM 1-4) to Lower Midlands (LM 1-5). UM 1-4 covers parts of Rongo, Kuria East, and Kuria West sub-counties; LM 1-5 covers parts of Rongo, Suna East, Suna West and Nyatike sub-counties. These zones determine the types of agricultural activities undertaken in each area as shown below. The county experiences an inland equatorial climate, modified by the effects of altitude, topographical relief, and the influence of Lake Victoria. Nyatike, Karungu, Kegonga, and Muhuru areas have harsher climatic conditions compared to the rest of the County. The lakeshore areas of Nyatike, Muhuru, Karungu, and parts of Kegonga experience unreliable and poorly distributed rainfall (County Government of Migori, 2013). Regions of high agricultural potential in Uriri, Awendo, Kuria East, Rongo, Suna East and Kuria West sub-counties are used for food and cash crop production, thanks to their fertile soils and favourable conditions. The percentage of farmers in the county who hold title deeds is 45 percent

while the average land holding size in the county is 3 acres for small-scale farmers and 7 acres for the large-scale farms.⁷

vii)Trans Zoia

Trans Nzoia County is generally flat with gentle undulations rising steadily towards Cherang'any Hills to the east and Mt. Elgon in the northwest. Mt Elgon is the second highest mountain in Kenya with an important ecosystem shared between Trans Nzoia and Bungoma Counties and Bukwo district in the Republic of Uganda hence it is a unique resource for environmental and wildlife conservation. The altitude ranges from the lowest point 1660 in Sikhendu ward at 34.811877°E and 0.812766°N at to 4299 metres above sea level at the peak of Mt. Elgon in the Kenya with undulating terrain across the County. There are 15 rivers in the County with the main ones being Sabwani, Rongai, Noigamaget, Suam Kaptega and Losourwa rivers. Nzoia rivers draining into Lake Victoria and Lake Turkana. Tributaries of river sabwani are Kiptogot, Kaibei. Kimothon, Sinyerere, Tongaren and Kabuyefwe, while tributaries to Noigamaget (Kapolet) are River seum, and Kapterit. The water from the rivers is utilized for domestic consumption, small scale irrigation and also have potential for hydroelectric power generation to support rural electrification, industrialization and fisheries. These activities could be mitigation towards floods in the County. River Nzoia catchments and its tributaries are however threatened by encroachment, agriculture and other human activities. The largest natural forest cover in the County is found in Mt. Elgon and the Cherang'any Hills, however, continued pressure from human activities significantly affects negatively the forest cover which continued to reduce from 17% in 2013 to the current 15.1%. The forests are critical to the climatic conditions of the territorial boundaries of the County and beyond as they are the water catchments.

The County has a cool and temperate climate with mean maximum (day time) temperatures ranging between 23.4°C and 29.2°C and mean minimum (night time) temperatures ranging between 11.0°C and 13.5°C. The maximum and minimum extreme temperature are recorded in February (about 34.2°C) and January (about 6.5°C) respectively. The mean monthly relative humidity is 67%, ranging from a maximum of 97% in July and a minimum of 35% in January. The mean wind speed within the county is 66.79 km/h or 36.06 knots.

The County is divided into three major agro-ecological zones which include: the Upper Highland Zones, Upper Midland Zones and the Lower Highland Zones: The Upper Highland Zone covers the hills and slopes of Mt. Elgon, Cherang'any hills and the boundary zone towards West Pokot County. The zone lies between altitude 2,400 and 4,299 metres above sea level and constitutes about 16 percent of the County land

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⁷ Migori County Integrated Development Plan, 2023

area. The area is covered with high vegetation, shallow stony soils and rocky outcrop. Mt. Elgon National Park situated in this zone is a major tourist attraction. Establishment of a transition zone around the Mount Elgon National Park would play a significant role as a buffer zone for the protected area and mitigation against human-wildlife conflicts. The area also has limited potential for sheep and dairy farming especially at the transition area.

The Lower Highland Zone covers the slopes of Mt Elgon and Cherang'any Hills with an altitude ranging from 1,800-2,400 metres above sea level. This zone covers 848.64 square kilometres and it constitutes 34 percent of the total area of the County. The soils found in this zone are red and brown clay derived from volcanic ash. These soils are fertile with a high content of clay mineral which gives a continuous supply of plant nutrients. This zone supports agricultural and livestock activities. The farming activities in this region include cultivation of pyrethrum, wheat, tea, maize, barley, sunflower, coffee and horticulture as well as rearing of cattle and sheep. Despite the high potentiality of these areas, there is poor transport network that hinders efficient transportation of the farm produce to markets.

The Upper Midland Zone covers 1,248 square kilometres which is approximately 50 percent of the total area of the County. It lies between altitudes 1,700 and 2,000 metres above sea level. The mean annual rainfall in this zone is between 900 to 1,400mm per annum. The region includes the Endebess Plains stretching east of the Kitale Plains and further towards the areas below the slopes of Cherang'any Hills. The zone stretches to the border of Tongaren Scheme in Bungoma County to the south and West Pokot County towards the north. The Zone is covered with well drained deep red and brown clays and sandy clays derived from the basement complex. There is a considerable size of land with black cotton soil along the Koitobos River in the Endebess Plains. Farming activities in this region include cultivation of maize, sunflower, coffee, wheat and barley as well as dairy, beef, sheep and horticulture production⁸.

viii)Uasin Gishu

Uasin Gishu County is a highland plateau. Altitudes fall gently from 2,700m above sea level at Timboroa in the East to about 1,500m above sea level at Kipkaren in the West. The County can be divided into two broad physiographic regions, with Eldoret (2,085m) forming the boundary between the regions. The topography is higher in the east and declines towards the western borders. The plateau terrain in the County allows easier construction of infrastructure such as roads and use of modern machinery for farming. The County is within the Lake Victoria catchment zone and therefore all the rivers from the County drain into Lake Victoria. Major rivers in the

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⁸ Trans Zoia County Integrated Development Plan, 2023

County include: Moiben, Sergoit, Kipkarren, Chepkoilel and Sosiani. The rivers provide water for livestock, domestic and industrial use.

The County is divided into three zones namely: the upper highlands, upper midlands and Lower highlands. These zones have greatly influenced the land use patterns in the County as they determine the climatic conditions of an area. The geology of the County is dominated by tertiary volcanic rock, with no known commercially exploitable minerals. There are four main soil types in the County; red loam, red clay, brown loam and brown clay soils. The red loam soils are found mainly in the northern part of the County in Turbo, Moi's Bridge and lower Moiben and this type of soils mainly supports maize, sunflower, and cattle farming. The red clay soils occur around Soy, upper Moiben, and Nandi border areas and they support wheat and maize growing, and the natural vegetation is similar to that of the areas with red loam soil. The brown clay soils occur mainly on the plateau and cover most of the upper Lessos plateau areas and are good for rearing livestock. Deep brown loam soils occur in high altitude areas of the County around Ainabkoi and Kaptagat that are good for forestry, dairy farming and wheat, pyrethrum, potato, oat and barley farming.

As regards climatic conditions, the County experiences a high and reliable rainfall with an average annual rainfall ranging between 624.9mm-1560.4mm. It occurs between the months of March and September with two distinct peaks in May and August. The areas with relatively higher rainfall are found in Ainabkoi, Kapseret and Kesses whereas Turbo, Moiben and Soy receive relatively lower amounts of rainfall. The dry spells starts in the month of November and end in February. Average temperatures range between 7 degrees celsius and 29 degrees celsius. The rainfall and temperatures in the County are conducive for both agriculture and livestock farming⁹.

ix) West Pokot

West Pokot county is characterized by a variety of topographic features. On the northern and north eastern parts are the dry plains, with an altitude of less than 900 m above sea level. On the southeastern part are Cherangani Hills with an altitude of 3,370 m above sea level. Landscapes associated with this range of altitude include spectacular escarpments of more than 700 m. The high altitude areas have high agricultural potential while medium altitude areas lie between 1,500 m and 2,100 m above sea level and receive low rainfall in addition to being predominantly pastoral land. The low altitude areas include Alale, Kacheliba, Kongelai, Masol and parts of Sigor. These areas are prone to soil erosion due to flash floods.

⁹ Uasin Gishu County Integrated Development Plan, 2023

The main forests in the county are found in Cherangani Hills. The gazetted forest, which forms part of the Cherangani Hills in Lelan, covers an area of 20,857 ha. The un-gazetted forest covers 15,719 ha and consists of rain forests blocks scattered all over the county. These are natural forests dominated by tree species like cedar (Juniperous procera) and bamboo (Aredinaria alpina). Plantation forests cover an area of 662 ha of which approximately 34 ha are indigenous and the rest exotic. The main rivers in the county are Suam, Kerio, Weiwei and Muruny. Cherangani Hills are the main source of Muruny and Weiwei rivers, while Mt Elgon is the main source of river Suam. River Muruny, Kerio and Weiwei drain northwards into Lake Turkana, while other small rivers join and drain into River Nzoia which in turn drains into Lake Victoria. River Suam drains into Turkwel dam that generates hydro-electric power.

The county has a bimodal type of rainfall. The long rains fall between April and August while the short rains fall between October and February. There is, however, great variation in the total amount and distribution of the rainfall received in the county. The lowlands receive 600 mm per annum while the highlands receive 1,600 mm per annum. The county also experience great variations in temperature with the lowlands experiencing temperatures of up to 300 C and the highlands experiencing moderate temperatures of 150 C. These high temperatures in the lowlands cause high evapotranspiration which is unfavourable for crop production. The high altitude areas with moderate temperatures experience high rainfall and low evapo-transpiration hence suitable for crop production¹⁰.

x) Kericho

Kericho county is characterized by undulating topography. The overall slope of the land is towards the West, consequently drainage is in that direction. The county forms a hilly shelf between the Mau Escarpment and the lowlands of Kisumu County. To the North West are the hilly areas of Kipkelion rolling towards Koru. The Kericho plateau forms the central part of the county sloping gently from 2,500m to about 1,800m above the sea level. The county is surrounded by Tinderet Hills to the North and to the North-East is the Mau Escarpment and between them is the gently rolling land which forms Londiani hills (Tuluap-sigis). The central part of the county rises eastward towards 3,000m above sea level. The county is well drained with a good number of rivers that include Chemosit, Kiptaret, Kipsonoi, Timbilil, Maramara, Itare, Nyando, Kipchorian and Malaget. Some of these rivers are characterized by rapids and falls which could be harnessed for hydroelectric power generation. Some of the rivers with the waterfalls include Maramara, Itare and Kiptaret.

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¹⁰ West Pokot County Integrated Development Plan, 2023

Kericho County lies in the Lake Victoria Basin. Its geology is characterized by volcanic rocks as well as igneous and metamorphic complexes. The county is predominantly underlain by tertiary lavas (phonolites) and intermediate igneous rocks. A small part of the county is dominated by undifferentiated basement

system rock (granites), volcanic ash admixture and other prolific rocks. The hilly nature in some parts of the county encourages soil erosion. This problem is however minimized by the presence of a dense vegetation cover, except in a few areas like Sigowet in Soin-Sigowet subcounty, Chilchila in Kipkelion west and partly the lower zones covering Koitaburot in Ainamoi subcounty.

The county enjoys favorable climate and receives relief rainfall, with moderate temperatures of 170C and low evaporation rates. Temperatures range between 100C - 290C. The rainfall pattern is such that the central part of the county, where tea is grown, receives the highest rainfall of about 2,125mm p.a while the lower parts of Soin and parts of Kipkelion receive the least amount of rainfall of 1,400 mm p.a. The county experiences two rainy seasons: the long rainy season between April and June and the short rainy season between October and December. The dry season starts in January and progresses through March although weather shocks have changed the patterns. The variations in the temperatures and rainfall are mainly determined by the altitude of the place¹¹.

3.3 SOCIO-ECONOMIC BASELINE

Demography - The population of Kenya is estimated at 56,203,030 with average population density of 96.84 per Km² on a total land area of 569,140 Km², a two percent increase from 2023¹². Population growth has averaged 2.7 percent annually since 2000, with the urban population growing at 4.4 percent, reaching over 27 percent in 2020. However, a vast majority of Kenyans (73 percent) continue to reside in rural areas where they depend to a larger extend on natural resources for a living. This has put pressure on land resources, leading to widespread degradation and deforestation and worsened land access issues with smallholder land holdings being about 1.2 ha per household. The average household size in Kenya was 3.9 members according to the last census done in the country in 2019. West Pokot County had the highest household size of 5.3 followed by Migori (4.6) and Elgeyo Marakwet (4.5). The current life expectancy for Kenya stands at 66.95 years. Standard of living is at 61.5 percent, the highest in the region although it is not equally distributed across the country. Settlement patterns are determined by climatic conditions, infrastructure, food availability and proximity to urban centres.

¹¹ Kericho County Integrated Development Plan, 2023

¹² https://www.macrotrends.net/countries/KEN/kenya/population-density

Consultations with stakeholders revealed that most people have settled in the upper zones where agricultural potential is high.

Ethnicity - Kenya has a great diversity in ethnicity with a total of 43 officially recognised tribes in the country. Languages, customs and lifestyle differ from tribe to tribe and region to region. The 3 main tribes of Kenya are the Bantu, Nilote and Cushite. Each one has a variety of sub-tribes which are all unique in their particular culture. The five largest ethnic affiliations which are the Kikuyu, Luo, Luhya, Kamba and Kalenjin account for 70 percent of the total population. While a recognized asset, Kenya's ethnic diversity has also led to disputes despite the 2010 national constitution. Interethnic rivalries and resentment over Kikuyu dominance in politics and commerce have hindered national integration13. The Kikuyu people make up the largest contingent (Central Kenya), where they grow crops such as coffee, maize and sugar. The commonly spoken languages include English, Swahili, and numerous other indigenous languages. Close to 86 percent of Kenyans are Christians while Muslims account for 11 percent.¹⁴

Education and Literacy - The Kenyan Government introduced Free Primary Education (FPE) in 2003 and Free Day Secondary Education (FDSE) in 2008. The objectives of these programmes were to increase access, quality, equity and relevance in basic education and to cushion poor households by abolishing school fees. To date, Kenya stands at 83 percent literacy rate for the total population, 89 percent for youth and 80 percent for women above 15 years of age.¹⁵

Administrative structure - The Kenyan Constitution provides for 47 devolved county Governments which are distinct from, but interdependent with the national Government, each with a governor and a county assembly. The counties are in turn subdivided into sub-counties, wards and villages. Each county elects its own governor, a change introduced by the Constitution to enhance accountability to the grassroots. Each county elects ward representatives to its county assembly whose role is to legislate locally and to monitor the performance of the governor's county executive committee.

Poverty situation: Overall poverty situation - Kenya is a lower-middle income economy, but 36.1percent¹⁶ of its population lives below the international poverty line despite the effort made towards poverty reduction over the past 16 years. This is a sharp decline from a poverty rate of 46.8 percent in 2006 and is mostly attributed to annual GDP growth rates of 5.3 percent higher than other sub-Saharan African countries¹⁷. Despite these gains, economic growth has not always translated equally into poverty reduction. The "Kenya Poverty and Equity Assessment 2023" by the World Bank reports that Kenya has seen robust GDP growth, positively impacting

¹³ East Africa Living Encyclopaedia

¹⁴ KNBS (2019), Volume IV

¹⁵ https://data.worldbank.org/indicator/SE.ADT.1524.LT.ZS?locations=KE

¹⁶ Defined as living below the international poverty line (US\$1.90 per day in 2011 PPP)

¹⁷ Kenya Poverty Assessment, 2023 Infographic

living standards, but this progress is unevenly distributed across the country. Rural and arid areas, particularly, face higher poverty rates and limited access to services such as water, sanitation, and education. Poorer households have limited strategies to cope with the shocks and as a result, adverse weather shocks are associated with an increase in both monetary and non-monetary poverty.

Table 3.2: Summary of Socio-economic information

County	Total (based on KNBS 2023 projections)	Density per km ²	Overall Headcount Poverty Rate	Key Challenges / Vulnerabilities (based on stakeholder consultations)
Elgeyo Marakweti	495,239	163.3	47.3%	Poverty, inequality, climate change impacts, insecurity, limited access to water, natural resource conflicts (internal intra clan and inter county especially in the Kerio Valley), discouragement of farmers as a result of market bottlenecks, human -wildlife conflicts, poor reception of technology during the transition from rainfed to irrigation, high malnutrition levels, poor representation of women, Maasai female genital mutilation practice,
Homa Bay	1,231,659	390.7	26.6%	Floods, drought, rising temperature, Erratic rainfall pattern, rising lake water levels They also often lead to adverse knock-on effects such as: Soil erosion, land degradation, crops and livestock pest and disease breakouts, decreasing productivity and increasing crop failure
Nandi	951,460	333.2	35.7%	Low farm productivity, Climate change effects, Unpredictable climatic conditions, High farm input prices (seeds and agro-chemicals), High cost of land preparation, Crop Pests and Diseases e.g. Fall armyworm infestation, etc, High post-harvest losses, Poor storage facilities
Kakamega	2,002,435	663.1	39.6%	High vulnerability to adverse effects of land degradation and climate change effects, high population pressure, low agricultural productivity and inadequate off-farm income

County	Total (based on KNBS 2023 projections)	Density per km ²	Overall Headcount Poverty Rate	Key Challenges / Vulnerabilities (based on stakeholder consultations)
				opportunities, Poor post-harvest handling, Low production of crops, livestock, fish and natural resources, Weak marketing and value addition, Inadequate extension services and trainings
Kisumu	1,248,474	598.7	36.3%	Reduced water quantity: due to reduced flow from catchment areas, Poor water quality; resulting from pollution of water upstream due to agriculture and industrial activities, Encroachment (farming on river banks); causing pollution and degradation, Soil erosion; due to surface run-off, encroachment, overstocking and overgrazing, Flooding; Water scarcity; in areas without access to water, Dwindling fish stocks
Migori	1,234,082	472.2	48.0%	Encroachment from (infrastructure/settlement, farming, brick-making), Deliberate introduction of invasive species, Land use change, Pollution/Dumping, Siltation, Climate change – drought, Over-exploitation of wetland resources, Planting of eucalyptus trees Use of herbicides in rivers, Invasive species – water hyacinth, Unregulated fishing, river pollution (heavy metals from mining, sewage and solid waste), Siltation
Trans Nzoia	1,069,039	428.4	36.3%	Land degradation – Acidity, soil erosion, deforestation, Siltation of dams, Land fragmentation, Effect of climate change- draught ,flooding, Pest and diseases, High cost of farm inputs, High Pest and diseases incidences, Reducing water table levels, Poor Research- extension-Linkages, Weak enforcement on laws and regulationsissues concerning NRM, food safety standards/quality, Aging farming community- low involvement of youth in farming, Inadequate market infrastructure-storage facilities, Poor governance in market organization, Encroachment on riparian land and wetlands, Planting of eucalyptus trees along water catchment areas, Increase

County	Total (based on KNBS 2023 projections)	Density per km ²	Overall Headcount Poverty Rate	Key Challenges / Vulnerabilities (based on stakeholder consultations)
				in invasive species e.g. elephant grass, Japanese dodder (<i>Cascuta spp</i>), Limited Funding- budgetary allocation, Prolonged dry spell, Floods, Increased incidents of vector, invasive species, pests and diseases
Uasin Gishu	1,257,330	370.7	40.4%	Climate change effects - inadequate rainfall thus threatening agriculture crops, fisheries and livestock production, environmental degradation, gaps in compensation for climate mitigation efforts by actors, continued use of non-clean cooking technologies, siltation of dams, expensive water distribution and or irrigation systems, inadequate pastures for livestock coupled with increased livestock pests and diseases due to climate change, raw sale of produce, declining agricultural productivity and unmanaged postharvest losses, inadequate ready markets for agricultural produce, unsustainable electricity bills in agricultural/livestock processing/storage facilities, diminishing quality of plant and animal genetic resources
West Pokot	676,326	74.13	61.4%	Water scarcity/drought, environmental degradation, unemployment, food security, and poor infrastructure. Other challenges include Retrogressive Cultural Practices. These include female genital mutilation (FGM), gender- based violence (GBV), forced and early marriage, and abductions.
Kericho	954,896	392.0	39.8%	Rising temperatures and increased precipitation over the last two decades, deforestation of the Mau Forest, degraded hilltops especially in the lower altitude areas, landslides, encroachment and sub-segment destruction of wetlands, encroachment to road reserves by land owners leading to several court cases resulting in delays in road construction, Open quarry sites left under mining

Source: Kenya National Bureau of Statistics (2023 Projection) and Stakeholder Engagement for the development of this ESCMF

Poverty in Cherangany Hills and Mau West Water Towers Catchment - In the Cherangany Hills and Mau West water towers catchment area, the main causes of poverty have a strong linkage to the environment. Change in environmental conditions has led to reduced agricultural production which supports a majority of the population in the catchment. This has in turn, led to reduced incomes and as well as un-certainties in food security. The Water Towers face various challenges that threaten its ability to provide ecosystem goods and services. These challenges include charcoal production, encroachment, tree cutting and illegal logging. These have led to degradation of the water towers. On the flip side, poverty equally impacted on the environment. A large section of the population lives from hand to mouth, and below a United States Dollar a day. As such, investments in terms of time and resources towards environmental conservation is secondary, unless when supported. This has led to an unceasing cycle of poverty that immensely results into serious environmental degradation.

Other key factors that have contributed to poverty in the catchment, include poor physical infrastructure that increases the cost of transportation and marketing of agricultural produce, reduced cash and food crop production, poor farming methods, and low returns from main cash crops and products such as coffee, tea and milk among others.

The situation has further been aggravated and compounded by increased subdivision of land into numerous un-economical units that cannot support meaningful production. Across the county, culture requires that young people inherit land from their forefathers, who had also received the land from their forefathers. The demand for land by young people from their parents has become so high therefore leading to massive land subdivisions, sometimes to units that cannot support meaningful production. Pressure resulting from settlements on such small parcels of land has been detrimental to the environment, food and livelihoods security.

It is also key to note that Poverty in the catchment has a gender dimension. Women are the majority of the agricultural producers. They till, plant, manage and harvest the farm produce and yet, majority of them do not own the land they produce on. Further, they lack control over what they produce and harvest. To a large degree, it is men who control the income from crops and livestock and other products derived from them, although women have a say in how the income is spent.

Efforts to address poverty continue, and it's crucial to build on past successes to make growth more inclusive and sustainable.

National Poverty Status by County - The counties with the highest absolute number of people living in poverty are Kakamega, Mandera, Turkana, Nairobi, and Bungoma as shown in fig 2 and 3 below.

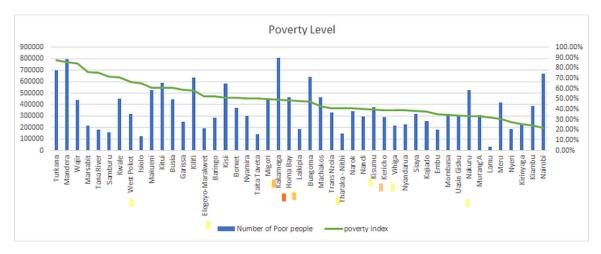


Figure 3.2: Poverty Level per County (Source-KNBS, Center for Development and Environment (2016)

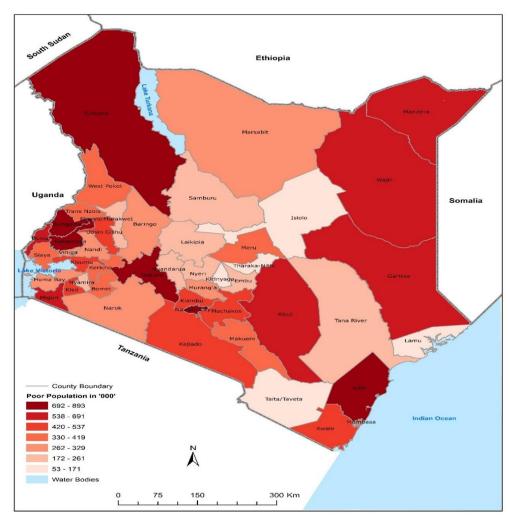


Figure 3.3: No. of Overall Poor at Country Level

Employment profile - Although the overall unemployment in Kenya is at 12.7 percent, Youth (15 – 34 years), who form 35 percent of the Kenyan population, have the highest unemployment rate of 67 percent. Over one million young people enter into the labour market annually without any skills some having either dropped out of school or completed school and not enrolled in any college. Youth unemployment and lack of sustainable livelihood opportunities in both rural and urban counties remain a serious challenge contributing to criminal activities among the youth in Kenya. Criminal activities such as drug abuse, gangsterism, banditry and terrorism are commonly practiced by the unemployed youth in Kenya.

Information and Technology - the number of Kenyans accessing mobile information and communication services, mobile money services, e-commerce, high-speed Internet/ broadband services, and other ICT services have continued to grow catapulted by the continued uptake of mobile communication services. The number of active mobile money transfer agents has also increased. Kenya boasts over 98 percent population coverage of mobile broadband networks of 3G and higher, an estimated 73 percent smartphone adoption rate (one of the highest in Africa), 69 percent mobile money penetration among adults (the highest in the world), and a thriving tech ecosystem¹⁹.

Land and land use - The total surface area of Kenya is about 580,367km², out of which the land area is about 569,150 km² and the remainder is under water. Approximately seventy-five per cent (75%) of the country's population lives within the medium to high potential (20% of land area) and the rest in the vast Arid and Semi-Arid Lands (ASALs). The size and distribution of land varies quite widely as does population density which ranges from as low as 2 persons per km². in the ASALs to a high of over 2000 in high potential areas.

In the rural areas, the high to medium potential zones are dominated by small farm holdings. In some cases, insecure land-tenure systems have led to low investment in land improvement and productivity. Many smallholder areas are suffering continuous fragmentation of holdings into uneconomic sizes, and farms are getting smaller in the high rainfall areas and in the drier zones. In addition, many large state farms that used to produce seed and breeding stock have been sub-divided and transferred to private ownership.²⁰

The high and medium potential lands are dominated by crop and dairy farming, both of which occupy 31 percent and 30 percent, respectively, of the land area. The remaining land is devoted to forest (22 percent), parks (12 percent) and urban development, homesteads, and infrastructure (5 percent).

¹⁸ www.knbs.or.ke/download/quarterly-labour-force-report-2021 quarter 1/

¹⁹ Communications Authority, Annual Report, 2018-2019

²⁰ Republic of Kenya, 2012

The major economic activity in the arid and semi-arid lands is nomadic pastoralism, which occupies about 50 percent of the ASAL landmass, while ranching and other forms of livestock keeping utilize 31 percent and the remaining 19 percent can support some agriculture, including agro-pastoralism. There are very few incidences of landlessness because the land is mostly community owned.

Majority of the local communities live in informal settlements in urban centres where infrastructure is well developed and accessible while in the rural areas, the settlement patterns are highly dispersed and scattered, primarily influenced by access to water, land productivity, proximity to roads and other services like security.

Agriculture - The agricultural sector is the backbone of the economy, contributing approximately 33 percent of Kenya's Gross Domestic Product (GDP) one of the highest shares in Africa. The agriculture sector employs more than 40 percent of the total population and 70 percent of the rural population. In 2022, mainly due to the overall economic impacts caused by the coronavirus (COVID-19) pandemic, the agricultural sector slightly declined with 1.9 percent in comparison to 2021.

The agricultural sector is mostly formed by small to medium farmers who own small pieces of land averaging 0.2 to 3 ha which makes it very difficult to produce to scale and leverage on both local and international markets let alone feeding the whole family until the next harvest. The small-scale production is the 75 percent of the total market and up to 70 percent of the marked agricultural production. The entire agricultural sector of the country is dependent of the bimodal rainy season. 80 percent of the country is considered to be arid and semi-arid; this means that the average yearly rain is 400mm. Droughts are very frequent, and they take away one every three seasonal crops.

Key challenges faced in the sector are as follows; climate change, use of outdated technology, depreciating soil nutrients, pests and diseases and poor infrastructure.

The country strategic opportunities programme for 2020-2025 aims to improve:

- Climate-resilient and community-based natural resource management
- Access to productivity-enhancing assets, technologies, finance and services
- Access to post-production technologies and markets.

Alternative Livelihoods – rural communities across Kenya tend to pursue diversified and alternative livelihoods for three major reasons: first, to meet income and consumption needs; second, to circumvent livelihood shocks produced by drought and famine, political turmoil and insecurity (in the ASALS), animal disease and market failure, as well as longer-term factors, such as population growth, loss of common property resources, and commoditization of the economy. the forms and types of diversification activities and opportunities differ for men, women and youths. It is critical for INReMP to do an in-depth analysis of these alternative livelihoods for the purposes of supporting communities as a cushion against climate related effects

on mainstream agriculture. Fruit and milk selling, Arts and craft as well as ecotourism are some of the lucrative livelihoods being practiced by women.

Women and Gender - Like other parts of the country, the roles, responsibilities and activities of women and men in the catchment are distinct yet inter-dependent. Men dominate the public sphere, in areas of leadership, decision making and politics. Even though, women and men may have equal access to productive resources including land, water, livestock and wildlife, the control of and benefits from these resources remains with men. Decisions on the use of income are one of the factors for the high level of GBV across the country and contribute to women's poverty. Commercialization also tends to reduce women's control over resources they previously managed, such as dairy production as men prefer to take charge of the process.

Culturally, women are mostly not allowed to own or inherit property and property is distributed only to sons and not daughters. On the death of a husband, wives are often disinherited of their husband's land and property. A woman may be forced to be remarried by the late husband's brother or close relative to remain on the land.

Without support from their spouses, women have limited avenues for economic empowerment. Their domestic chores restrict them around the family land which they do not control. Requirements for collateral, which they don't own, in order to access credit is a big hindrance to women entrepreneurs. Consultation with stakeholders noted that the main resource for women is in local self-help and welfare groups formed to primarily address the welfare needs of the members. Potential of these self-help groups is limited. Very few women are able to form larger Community Based Organisation (CBOs) that have capacity to access and utilize financial support services. Women generally lack the time and capacity to engage within larger CBOs. These factors in one way or another immensely affect economic development and ability to reduce poverty.

The welfare of women and girls is also directly threatened by environmental problems, which increase the pressures of providing for the household, particularly water and fuel-wood collection. High levels of unemployment and few opportunities to generate income mean youth, especially young men, are challenging traditional power and decision-making systems, which have previously resided with elderly men.

Gender Based Violence and SEAH - In Kenya, the forms of GBV vary across traditions/cultures, economic backgrounds and regions. Gender-based violence is rooted in unequal power relations - social, economic, cultural, and political between males and females. It takes many forms, and can include physical, emotional, or sexual abuse. While both males and females can suffer from GBV, studies show that women, young women, and children of both sexes are most often the victims. The most pervasive form of GBV is violence committed against a woman by her intimate

partner. some of the common GBV/SEA in across the Mau Forest and Cherangany Hills catchment include:

- Sexual violence, in forms such as sexual exploitation/abuse and forced prostitution
- Domestic violence
- Forced/early marriages
- Intimate partner violence including rape and
- Family disputes and widow inheritance

Sexual and Gender Based Violence in Kenya has its roots in 'a historical and cultural context of traditional patriarchal domination, colonial rule and attendant introduction of new economic and social structures that disrupted kinship relations. GBV/SEA cases are increasing in diversity and magnitude across the country. The lack of support for survivors emboldens perpetrators²¹.

Youth - The youth across the country have limited access to productive resources such as land and livestock because it takes time to accumulate through intergenerational transfer. Majority of them are therefore vulnerable to negative project impacts and risks such as exclusion.

Like other parts of the country, youth in the catchment have few opportunities to engage with the labour market. This has also greatly propelled the cycle of poverty. The few youths who are lucky to join the labour market do so either unskilled or ill equipped. They therefore only fit in low skill jobs where they are underpaid and overworked. Stakeholders consulted lamented the lack of opportunities for skills learning. Lack or shortage of job opportunities for the youth has been blamed for the increased propensity among youth to engage in criminal activities and other antisocial behaviours. Like other parts of the county, many young people in the catchment are engaged in uncontrolled alcohol consumption and drug abuse. Many young people drop from school mid-way while others fail to transit to higher levels of learning. Yet, opportunities for learning within the Technical, Industrial Vocational and Entrepreneurship Training (TIVET) institutions are limited and poorly understood. Youth shy away from them due to costs, while others see TIVET training as belonging to those who failed their formal examinations.

INReMP should thus involve the youth in development activities through capacity building and other targeted interventions to enable them benefit from projects.

Social decay - Drug and substance abuse, teenage pregnancy, STI and HIV/AIDS, abortions, malnutrition, poor sanitation band hygiene, sexual gender-based violence

²¹ Njeri & Ogola, 2014

(SGBV), and malaria were reported as health issues affecting young people across all counties.

Indigenous Peoples - In Kenya, the Sengwer, Ogiek, Waliangulu, and Waata are identified as part of the marginalized groups²².

The Sengwer are an indigenous and marginalized community in Kenya who traditionally inhabit the Cherangany Hills and the Embobut Forest in the Rift Valley region. The Sengwer have a rich cultural heritage that includes unique traditions, practices, and oral history. They have a deep spiritual connection to their land and forests, which play a vital role in their cultural identity and traditional way of life. Historically, the Sengwer have practiced a semi-nomadic lifestyle, combining hunting, gathering, and small-scale agriculture for subsistence. They rely on the forest for food, medicine, and other essential resources.

The Ogiek mostly live at Marioshoni ward of Molo constituency in Nakuru County. The land they inhabit was forest land and has been cleared for settlement in the last twenty years. The Ogieks' livelihoods revolve around bee keeping and honey. Honey is critical to their religion and belief systems and is a central item in their rituals and ceremonies. They have placed beehives in the forests around them and on their farms and they sell surplus honey through cooperatives and self-help groups. They also grow maize, beans, vegetables, and potatoes for domestic consumption and for sale to the rest of the country through middlemen who transport it. The Ogiek rear dairy cattle and sell most of the milk in nearby towns. Some of them conduct business activities in the trading centres in their territory and beyond. The Ogiek are a patriarchal society. They have a strong council of elders that holds sway in most community-wide decisions. All members of the council are men, but women participate in local community meetings and contribute to discussions without hindrance.

The Waata, also known as the Wata or Sanye, are an indigenous hunter-gatherer community in Kenya. They are part of the larger Cushitic-speaking Oromo ethnic group and primarily inhabit the coastal forests and arid regions of north-eastern Kenya, particularly in the Tana River, Lamu, and Garissa counties. The Waata have a distinct cultural heritage and traditional way of life. Historically, they were nomadic hunter gatherers who relied on the forest for their livelihoods, gathering wild fruits, honey, and medicinal plants, and hunting small game. They have a rich oral tradition, with storytelling and music playing important roles in their culture.

The Programme developed a stand-alone Indegeous People's Plan to outline culturally appropriate impact prevention and, where impacts on Indigenous Peoples are unavoidable, mitigation measures, as well as identify opportunities to maximise sustainable benefits to the indigenous community beyond the life of the INReMP.

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²² Kang'ethe L, Ontita E, Mwangi E. 2000. Forestry and food security in Kenya: The case of South-West Mau forest

Other Marginalised Groups - In most cases, women, children, the unemployed, households and communities with limited assets are least able to cope with the effects of negative development impacts due to their socio-economic position in society. Some individuals and groups, are more vulnerable than others to the negative consequences of economic, political, and social trends, cyclical changes or 'shocks'. Specifically targeted efforts should be made to enhance the participation and access to project benefits for these types of groups of people in the project sites. Free, Prior and Informed Consultation (FPIC) is the best way to ensure inclusion and mitigate vulnerability of certain social groups who are faced with social exclusion and vulnerability.

Nutrition - The major drivers of the poor nutrition in Kenya include low food access, poor dietary intake, high morbidity, disease outbreaks, poor delivery of health and nutrition services, insecurity, poor child and maternal care practices and poverty. Many children are affected by poor development and iodine, iron and Vitamin A deficiencies. Out of the 7 million population of children under 5 years, 26 percent suffer from chronic malnutrition (stunting or low height-for-age)²³. In addition, although malnutrition indicators are improving, it is estimated that from 2010–2030 undernutrition will cost Kenya approximately US\$38.3 billion in GDP due to losses in workforce productivity²⁴.

29.7% of the rural population having access to improved sanitation facilities.70.3% of the rural population having unimproved access to sanitation facilities.

Cooperatives - Co-operatives play an important role in improving smallholder farmers' livelihoods and reducing poverty by enabling economic growth, skills development, partnership building and creating employment. Amongst smallholder farmers, co-operatives can mitigate market failures which lead to high transactions costs. Co-operatives facilitate collective purchase of inputs and marketing of produce, which lower the cost of production, enhance bargaining power for favourable prices and build resilience²⁵.

Co-operatives also provide services such as credit to smallholder farmers at fairer rates. Moreover, co-operatives enable commercialisation of agricultural production by improving technical efficiency, innovation and adoption of new technologies. Agricultural co-operatives are appropriate for smallholder farmers because they are owned and managed by members and focus on meeting their socio-economic and cultural needs (ICA, 2022). Smallholder farmers operate in areas with incomplete or

²³ Kenya National Bureau of Statistics, Ministry of Health, National AIDS Control Council, Kenya Medical Research Institute, National Council for Population and Development and ICF International (2015)

²⁴ USAID. 2017a. "Country Profile: Kenya."

²⁵ Nugusse et al., 2013, Oforiet al., 2019; Ingutia and Sumelius, 2022

missing markets, incur high transaction costs, are unable to bargain for better terms and face difficulties accessing information.

In Kenya, several county governments aim at co-operative development as a key strategy to improving livelihoods of their residents. Due to limited resources, to reach many smallholder farmers, they encourage them to join co-operatives or form new ones. The county governments also view increased membership in co-operatives key in strengthening smallholder farmers' participation and sustainability of the co-operatives. Co-operatives are voluntary organisations, and decisions about membership are influenced by the expected social or economic benefits. In the literature, membership in co-operatives is associated with social, economic, cultural and institutional factors of individuals, households or communities²⁶ which has been described as the "middle-class effect" where, on the one hand, farmers with very small land holdings are likely to be resource deprived and find the cost of membership unaffordable. On the other hand, those with very large holdings are likely to be wealthier and less likely to require co-operatives to solve their production and marketing challenges²⁷.

Membership in co-operatives is likely to be higher amongst farmers who are more commercially oriented and have something to offer on the table.

One of the ways of boosting co-operative membership is through training and providing information to farmers. Especially, reaching out to those with lower levels of education or located in areas with little access to information or training opportunities is essential. For INReMP to intervene through co-operatives, identification of the farmers' information needs, the costs of accessing information and training and providing this through appropriate channels that consider the context of the farmers will be essential.²⁸

Cultural Heritage - The IFAD SECAP Standard 3 sets out general provisions on risks and impacts to cultural heritage from project activities. The national Museums and Heritage Act Chapter 216 (revised 2012), defines "cultural heritage" as: (a) monuments; (b) architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of universal value from the point of view of history, art or science; (c) groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding value from the point of view of history, art or science; (d) works of humanity or the combined works of nature and humanity, and areas including archaeological sites which are of outstanding value from the historical, aesthetic, ethnological or anthropological point of view, and includes objects of archaeological

²⁶ Ibid

²⁷ Fischer and Qaim (2012)

²⁸ Miroro Obadia et al, (2022), Determinants of smallholder farmers' membership in co-operative societies: Evidence from rural Kenya

or palaeontological interest, objects of historical interest and protected objects. The project will need to identify and protect these items based on the provisions provided.

4. POTENTIAL ENVIRONMENTAL, SOCIAL, AND CLIMATE RISKS AND IMPACTS

4.1 INTRODUCTION

This chapter outlines the description of the potential Environmental impacts that will be caused by the implementation of the project, including their significance. The INReMP is envisaged to result in more positive than negative environmental and social impacts. With appropriate design, adequate management and monitoring, negative impacts can be kept to a minimum. On the other hand, if that is not done, the project may have negative impacts some of which can have ripple effects making it difficult to apply remedial actions.

Early identification of potential risks is of extreme importance taking cognisance of the three stages within the project cycle: a) the project's overall design and planning, b) construction/setting up and c) operational stage. Construction works will be short/medium term, while operation will be long term. Weak or inadequate capacity for designing, planning, execution and monitoring the project and its components can lead to low environmental and social performance, exacerbating adverse impacts and limited enhancement of the positive impacts.

4.2 ENVIRONMENT AND SOCIAL CATEGORY

The environmental and social category for the INReMP project is Substantial, recognizing that some activities can have adverse impacts on the environment and increase pressure on the natural resources. The potential social risks include conflicts over access and use of resources exclusion of disadvantaged groups, GBV and SEA especially at household, cooperative and market levels, child labour, youth frustration from increased unemployment and health and safety issues related to various activities along the agro value chains. Hence, the focus of the Project will be on employment creation for young men and women, household mentoring through Gender Action Learning System (GALS) to ensure holistic involvement of men and women, ensure that gender-based violence is reported, reduced and or eliminated, application of ILO guidelines on child labour when engaging youth, and Grievance Redress Mechanisms. Nutrition and behavioural change and communication interventions will be undertaken towards increasing the consumption of dairy products.

The activities that involve the intensification of agricultural dairy production will have various environmental impacts associated with them. These will include discharge of poor-quality effluents from milk aggregation points and milk processing plants, Cow dung management at cow sheds, overgrazing of pastures, potential use of fertilisers and other agro-chemicals in horticulture, increased demand for water resources at

particular times; diffuse pollution from increased use of agro-chemicals; vegetation removal and land use change as water supply infrastructure are being developed.

The pollution risks associated with the intensification of agriculture and dairy production and lack of appropriate waste management are important issues to be considered. Hence, the Program will adopt a climate-smart agricultural production approach.

4.3 CLIMATE RISK CATEGORY

The climate risk category is Substantial. Kenya experiences environmental and land degradation in most parts of the country. Catchments within and around the project areas have over the years experienced severe land degradation resulting from deforestation, unsustainable farming practices, pollution, soil erosion, water abstraction and forest fires. INReMP will invest in catchment rehabilitation efforts, sustainable land management practices, agroforestry, and sustainable water management, soil erosion control, riparian conservation, wetland conservation and operationalisation of a payment for ecosystems services among other interventions.

4.4 OVERALL POSITIVE IMPACTS OF THE PROGRAMME

INReMp is expected to have more positive impacts based on its design which is mitigative in nature and because the targeted communities and farmers will have been provided with capacity to improve production and productivity as well as appropriate management of natural resources. These will contribute towards promoting the development of individual farmers, the communities and county development at large.

Improved incomes and livelihoods: Incomes and livelihoods will improve from increased food production through the adoption of soil and water conservation measures in farmers' fields, from improved irrigation, adoption of Income Generating Activities (IGAs). Incomes and livelihoods will also increase as a result of improved capacity of communities arising from training. Incomes will also increase from the opportunities to develop eco-tourism enterprises, and other non-consumptive uses of natural resources like bee keeping and processing, and fish farming (including along rivers).

Improved Environment: The thrust of the programme is to improve both community's livelihoods, and the natural environment. This is because poverty contributes to environmental degradation which in turn reduces sustainable livelihood opportunities. The project thus simultaneously addresses both social and environmental objectives. The improved environment will arise as a result of direct investments in the environment including rivers, wetlands, forests, hill top rehabilitation, on-farm soil conservation, on-farm tree planting, school greening,

protection of springs and wetlands, protection of river banks, and rehabilitation of environmental hot spots. Additionally, an improved environment will arise as a result of improved and heightened environmental awareness within the Cherangany hills and Mau Forest Communities. The awareness will be complimented with capacity building in sustainable management of natural resources through training which will in turn assist communities to play an active role in reversing the degradation already underway.

Improved water resources management: INReMP is expected to realize overall environmental and social benefits in improved water resources management. These include enhancement of water-use efficiency and rationalization of water abstractions from rivers and springs; improved water supply; sound management practices in the river basins by WRUAs and communities; springs protection; river banks stabilization; remedial work on pollution and environmental hotpots; and protection of wetlands. All these will translate into cleaner water, improved water supplies; less water related conflicts, and improved sanitation and subsequently better health to communities. Overall, small holder fatmers are set to benefit from the programme, mainly through improved water access arising from the protection and construction of springs and boreholes.

Households will benefit from improved water saving irrigation technologies like microirrigation techniques and piped conveyance systems. The programme will upgrade existing irrigation systems, creating savings in water use.

Enhanced conservation of forests, wetlands, soils, and other natural resources: The Programme is also expected to realize environmental benefits from enhanced conservation of natural resources. This will effectively reverse environmental degradation taking place in the project area and promote sustainable management of the natural resource base on which the communities depend on for their livelihoods. This will translate into improved tree cover, reduced soil erosion, rehabilitation of degraded areas, and improved conservation practices. This will also have benefits to downstream water users, associated with reduced reservoir siltation rates and increased dry season stream flows which will translate to improved availability of water. Enhanced conservation will also be greatly boosted by the capacity building of communities, and community-based institutions responsible for natural resources management like CFAs, WRUAs, and farmer groups and using the same capacitated persons and institutions to manage and serve as custodians of the natural resources.

Maintenance of biodiversity: Rehabilitating degraded areas using indigenous trees, and promoting natural regeneration where possible will help conserve biodiversity. Biodiversity conservation will also arise from restoration of forest habitats. The maintenance of biodiversity will also assist communities fully comprehend and internalize the concept of participatory forest management.

Climate change mitigation and adaptation: Forest restoration and overall tree planting will lead to improved carbon sequestration, thereby helping reduce the accumulation of CO₂ in the atmosphere. Coupled with improved water flow, this will also enhance the capacity of local people to cope with climate change through

livelihood adaptation. Amelioration of climate change will also arise from the use of efficient energy technologies, and other renewable energy technologies like biogas.

Reduced Human-Wildlife conflicts: restoration of forests and improved management will benefit both human and wildlife. Conflict over access and use of resources will be minimized.

Economic Opportunities Employment (job creation): Currently there are limited economic opportunities beyond subsistence-based agriculture in the proposed project areas. Communities have expressed high expectations for employment and business opportunities associated with this Project, and they anticipate that these opportunities will bring about improvements to their standard of living.

During the operational phase, there will be several employment opportunities associated with the Project. The work will require both skilled and unskilled labour. It is expected that all the labour will initially be sourced locally in the sub-project areas and only unavailable skilled labour will be sourced from elsewhere in Kenya.

Most of the consulted stakeholders stated that one of the positive impacts of the proposed project is that there will be jobs created for them during the construction and implementation phases of the INReMP. They indicated that they would like to see the contractors as well as the INReMP hire the people from the villages in the project Areas. They pointed out that they would like the contractor to look for skilled labour in the project area before they hire outside people. The same should happen during the operational phase of the project.

The benefits that will be experienced as a positive impact, at the local level, will be long-term to permanent, of medium intensity and the probability of happening is high. The impacts will most likely be high beneficial – the communities regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of medium significance.

4.5 ACTIVITIES AND SOURCES FOR ESC IMPACTS.

The critical components for environmental related negative impacts are derived from intensification of agriculture and dairy production, rehabilitation of old infrastructure, construction of new ones and their operation. The list of activities to be undertaken during implementation of INReMP include but not limited to:

- Development of rain water harvesting infrastructure for schools
- School greening programme (establishment of tree nurseries to support tree planting programs)
- Rehabilitation of forest degraded areas through tree planting
- Rehabilitate river banks through installation of gabions and Planting of vetiver grass

- Supporting NEMA to undertake water quality and quantity monitoring in rivers
- Development /rehabilitation of micro dams, springs and shallow wells
- Promote income generating activities & NRM through common interest groups through provision of matching grants to community groups to establish income generating activities
- Promotion of energy saving technologies (energy saving cooking stoves; efficient charcoal kilns, bio-gas and bio-plants)
- Training of horticultural farmers on agronomy and marketing
- Extension services for technology transfer through: clean seed multiplication
- Capacity building of community groups (WRUAs and CFAs) through training and learning visits
- Establishment of soil and water conservation demonstration plots
- Undertake study to determine extent of deforestation in all 10 counties
- Undertake study to determine extent of degradation of riparian ecosystem and pollution in main rivers in all 10 counties
- Undertake study to determine the health of wetlands in all 10 counties
- Conduct an assessment study on the state of key infrastructure that support INRM such as meteorological stations, river gauging systems, soil and water quality assessment laboratories
- Conduct periodic assessments (annual) of the key indicators on the key natural resources to quantify changes caused by project interventions
- Establishment of Soil Testing laboratories at county level
- Rehabilitation of identified wetlands/riparian and development of water collection or access points
- Training of farmers om sustainable land use management practices to prevent erosion and siltation and conservation of forests, rangelands and wetlands
- Training of smallholder dairy farmers on climate-smart livestock farming practices such as rotational grazing and improved feeding practices
- Train farmers on organic farming methods that avoid synthetic fertilisers and pesticides
- Establish a robust and digital platform for implementing and overseeing Payment for Ecosystem Services (PES) by Establishing a MRV processes to link conservation activities with payment for ecosystem services
- Establishing baseline assessments for carbon and biodiversity to measure and incentivize impactful conservation efforts
- Rangelands Rehabilitation
- Support the dairy value chain through provision of processing equipment for Dairy Processing plants
- Avocado Aggregation centers
- Supporting establishment of poultry processing facilities
- Agricultural produce marketing infrastructure facilities like construction of Warehouses

The potential environmental, social and climatic risks emanating from these activities will include vegetation clearance to give way for construction of storage facilities for agricultural produce, construction of soil testing labs, generation of solid waste during construction, inappropriate use of agrochemicals leading to pollution, improper liquid and solid waste management from dairy and poultry processing facilities. These activities may cause pollution of environmental media such as water, soil, etc and pose occupational health hazard. Socially, the activities and related functions may result in exclusion and conflicts over resource allocation; increased burden on women; GBV & SEA and child labour.

Most of the impacts are expected to be localized to the project sites, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures as prescribed in this ESCMF.

4.6 SIGNIFICANCE RATING METHOD

The significance of adverse impacts from project activities will be rated on the basis of their magnitude, duration and probability. The scales of rating are 1 to 5 with 1 being low and 5 being high. Where an aspect is affected by more than one impact, the highest rating is taken as the applicable significance of the impact. Details on significance rating is shown in Annex 2

4.7 ENVIRONMENTAL IMPACT ANALYSIS

The potential environmental impacts that will be generated by the implementation of the INReMP activities have been grouped as follows:

4.7.1 Environmental Impact Analysis at Planning Phase

a) Vegetation Clearing for cutlines and site clearance.

Vegetation will be cleared during the topographical surveys of project site and pegging for cut lines and visibility. This impact will be a direct impact to the environment

Assessment of the impact

The impact will be minimal and temporary as only vegetation disturbing visibility in the cutlines and selected project sites will be affected. As such the result of this impact will be of low significance

Residual Impact

Post mitigation- it is expected that the impact of vegetation clearing for cutlines and selected project sites (i.e. potential dust generation, soil erosion) on local environment will be reduced to one of low significance for whole project area

4.7.2 Environmental Impact Analysis – Construction Phase

a) Vegetation Clearing

There will be limited clearing of Vegetation that will occur at all construction sites to include, excavations for foundations and Construction of agro-processing and storage facilities, preparations of farmlands and pastures. All will involve localized land clearing, removal of trees and shrubs. This will result in habitat fragmentation and small wildlife disturbance. Loss of plant cover leads to compaction of soil, exposure of topsoil and possibility for erosion, weakening and degradation of soils, disturbance of the natural landscape and disfiguring of the natural morphology.

Assessment of the impact

The impacts of vegetation clearing will be short to medium term in nature and will occur for the duration of construction and land preparations. These impacts have a regional effect as they will not only be a problem to the footprint area but will also reach all the nearby residences. It is expected that the intensity of these impact will be medium.

The disturbances from the vegetation clearance will be negative and direct in nature albeit limited in scope. The consequence of the impact is anticipated to be moderate detrimental because of the short to medium duration that the impact will be experienced. For the people residing nearest to the project site it is considered to be of moderate significance. The moderate detrimental and definite probability result of this impact being of moderate significance.

Residual Impact

Post mitigation. It is expected that the impact of vegetation clearance (i.e., dust, noise, and traffic) on local communities could be reduced to one of low significance for all people.

b) Temporary Visual Intrusion (Marred landscape).

Construction of micro dams or water harvesting tanks and other possible facilities will change the aesthetics of the project areas and has potential to leave marred landscapes impacting on the appearance of the surrounding areas.

It is expected that there will be some extraction of building materials for facilities construction. Efforts must be made to minimise the damage, cover/rehabilitate the pits, and intensify reforestation.

Assessment of the impact

This will result in potential changes in the landscape, leaving a defaced and scarred landscape from borrow pits and other excavations, negatively impacting small game and natural habitats, sediment loads, etc. The assessment of this impact is of moderate significance

Residual Impact

Post mitigation. It is expected that the impact of Temporary Visual Intrusion (Marred landscape) on local landscapes could be reduced to one of low significance.

c) Impacts on Soil

Although construction work will be limited to local areas, the establishment of pastures, including the rehabilitation of existing ones will expose the soils to erosion and also compact it and break down the soil structure which will potentially decrease the drainage of the areas. This will generally result in soil erosion, defacing of the countryside and generation of dust.

Assessment of the impact

During the construction phase, all soil forms will be susceptible to erosion to some extent because the vegetation cover will be cleared before construction or replanting of pastures takes place.

The main direct potential consequences of soil erosion are the reduction in soil quality, the gully formation and the reduced water-holding capacity of many eroded soils. The indirect consequences of soil erosion include disruption of riparian ecosystems and sedimentation leading to reduced water quality. Given the short duration and low intensity, this is impact is of moderate significance.

Residual Impact

Post mitigation. It is expected that the impact of soil erosion on the local landscapes could be reduced to one of low significance.

d) Solid waste nuisance

Substantial amounts of solid wastes are normally generated from construction activities. Such wastes include stones, wood, broken glasses, containers, rods of metal, pieces of iron sheets etc. The sub-project proponents will be expected to design and institute appropriate measures for the collection and disposal of the various wastes produced by their operations. Animals may suffocate from ingesting the solid waste materials. Solid waste can also be dangerous to aquatic animals if washed into water courses.

Assessment of the impact

The disturbances from Solid Waste will be medium – long term in nature and will occur for the duration of construction. These impacts have a regional effect as they will not only be a problem to the footprint area but can be transported downstream and pollute water courses. It is expected that the intensity of this impact will be of moderate to high significance.

The disturbances from the solid waste will be negative and direct in nature. This impact will definitely occur during the construction phase and will be medium – long term in nature. The consequence of the impact is anticipated to be moderate detrimental because of the medium duration that the impact will be experienced. For the people surrounding environment nearest to the project site it is considered to be of high significance. The moderate detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post-mitigation. Through implementation of mitigation measures presented in the Solid and Liquid Waste Management Plan (Volume IV), which is prepared as part of SECAP documentation, it is expected that the impact of solid waste management could be reduced to one of moderate significance

e) Habitat loss and biodiversity disturbances.

The construction of dairy infrastructure like cow sheds, warehouses for crops storage, micro dams etc will generate considerable noise and vibrations which will cause small wild animals to migrate away from the project sites. The small game may migrate back once the construction is done. During construction and operations, there could be contamination of rivers and water bodies and may cause fish kills and destruction of other aquatic life.

Assessment of the impact

The Habitat loss and biodiversity disturbances caused by the activities of this project will be short -medium term in nature and will occur for the duration of mostly during the construction period. These impacts have a regional effect as they will not only be a problem to the footprint area but will cause small game to migrate away from the projects site and less animals will be found in the area.

This impact will be negative and direct in nature and its consequences are anticipated to be moderate detrimental because of the medium duration that the impact will be experienced. For the people surrounding environment nearest to the project site it is considered to be of Low significance. The moderate detrimental and definite probability result in this impact being of moderate significance.

Residual Impact

Post mitigation - it is expected that the impact of solid waste management could be reduced to one of low significance.

f) Ambient air pollution

Air quality will be impacted by dust emissions mainly from the construction of infrastructure which includes the Erosion control structures, warehouses and processing plants, micro dams etc. Increased dust emissions may affect habitats for various species if not controlled. These dust emissions will require dust control measures to bring air quality within the national environmental standards and World Health Organization (WHO) recommended guideline levels.

The dust generation result in the pollution of air, increases in bronchial disorders, impaired visibility on the roads, and disturb normal developments of vegetation.

Assessment of the impact

The air pollution disturbances will be short to medium term in nature and will occur for the duration of construction. These impacts have a regional effect as they will not

only be a problem to the footprint area, but it will also reach all the nearby residences. It is expected that the intensity of this impact for most people will be medium to high

The disturbances will be negative and direct in nature. The impact will be experienced at the regional level. This impact will definitely occur during the construction phases and will be short to medium term in nature. The consequence of the impact is anticipated to be moderate detrimental because of the short to medium duration that the impact will be experienced. For the people residing nearest to the project sites it is considered to be of high significance. The highly detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post mitigation- it is expected that the impact of construction nuisances (i.e., dust, noise, and traffic) on local communities could be reduced to one of moderate significance for all people.

g) Ambient Water pollution

Quality of water especially rivers and groundwater may be affected negatively by discharges of poor-quality effluents from Milk processing plants and debris from civil works and other pollutants generated from construction works. Groundwater contamination occurs from percolation of oil and lubricants spills into the soil. Surface water pollution may result from uncontrolled discharges into freshwaters. There are still many people relying on river water as a source for drinking water.

Assessment of the impact

The Ambient Water pollution disturbances will be short to medium term in nature and will occur for the duration of construction. These impacts have a regional effect as they will be carried downstream and will not only be a problem to the footprint area, but it will also reach all the downstream residences where some people use the river water for drinking and for their animals. It is expected that the intensity of these impact for most people will be medium to high.

The disturbances from the Ambient Water pollution will be negative and direct in nature. The impact will be experienced far and in a wider area. This impact will definitely occur during the construction phases and will be short to medium term in nature. The consequence of the impact is anticipated to be highly detrimental even when the duration is medium. The highly detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post-mitigation. Through the implementation of Solid and Liquid Waste Management Plan prepared as part of SECAP documentation, it is expected that the impact of Ambient Water pollution could be reduced to one of moderate significance.

4.7.3 Environmental Impact Analysis – Operation Phase

a) Soil Erosion

During the operation phase, the potential for soil erosion will be much less. However loose soil at the sides of the erosion control structures, levelled fields for horticulture as well as roads on steep slopes will still be susceptible to erosion.

The main potential consequences of soil erosion are the reduction in soil quality and the reduced water-holding capacity of many eroded soils. The indirect consequences of soil erosion include disruption of riparian ecosystems and sedimentation leading to reduced water quality.

Assessment of the impact

During the operation phase, all soil forms will be susceptible to erosion to some extent because the vegetation cover will be cleared before construction takes place at project sites, and infrastructure areas.

The main direct potential consequences of soil erosion are the reduction in soil quality and the reduced water-holding capacity of many eroded soils. The indirect consequences of soil erosion include disruption of riparian ecosystems and sedimentation leading to reduced water quality. The impact from soil erosion is of High significance.

Post mitigation- it is expected that the impact of soil erosion on the local landscapes could be reduced to one of moderate significance.

b) Solid waste Generation.

Less quantities of solid wastes are normally generated during the operation phase. However, such wastes like domestic wastes, agricultural waste and plastic containers, etc are likely to be generated. The sub-project proponents will be expected to design and institute appropriate measures for the collection and disposal of the various wastes produced by their operations. Animals may suffocate from ingesting the solid waste materials. Solid waste can also be dangerous to aquatic animals if washed into water courses.

Assessment of the impact.

This impact is medium to long term in nature and will occur for the duration of the operation phase. These impacts have a wider area effect as they will not only be a problem to the footprint area but can affect the wider surrounding community if not managed. It is expected that the intensity of this impact for most people will be moderate to high.

The solid waste disposal impact will be negative and direct in nature. The impact will be experienced at the wider area. Some indirect impacts could be experienced because of the presence of higher number of people in the area resulting in pressure on social services and infrastructure.

The consequence of the impact is anticipated to be highly detrimental. For the people residing nearest to the project site it is considered to be of high significance. The high detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post-mitigation. Through implementation of mitigation measures presented in the Solid and Liquid Waste Management Plan(Volume IV), which is prepared as part of SECAP documentation, it is expected that the impact of solid waste pollution on local communities could be reduced to one of moderate significance.

c) Effluent Discharges

Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent besides the solid waste. Places like the milk aggregation points and milk processing plants generate substantial amounts of liquid effluent. The effluent has potential to pollute soil and water resources.

Assessment of the impact

Effluent Discharges during the operation phase will be long term in nature and will occur for the duration of the operations. These impacts have a regional effect as they

will not only be a problem to the footprint area, but it will flow downstream and pollute the water resources in the process. It is expected that the intensity of these impact for the environment will be medium-high, necessitating the installation of some form of treatment before effluent discharges.

The disturbances from the effluent discharges will be negative and direct in nature. The impact will be experienced at the regional level. The consequence of the impact is anticipated to be highly detrimental. For the people residing nearest to the project site is considered to be of High significance. The highly detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post mitigation. Through implementation of mitigation measures presented in the Solid and Liquid Waste Management Plan(Volume IV), which is prepared as part of SECAP documentation, it is expected that the impact of effluent discharge on local communities could be reduced to one of moderate significance once proper effluent treatment plants are installed and are running properly.

d) Agro-Chemical Pollution

Up-scaling of dairy production and horticulture will induce an increased use of more agro- chemicals to realise better yields and control pests and diseases. The agro chemicals include herbicides, vaccines etc. The farmers must be made aware of the poisonous nature of the chemicals, should employ recommended disposal methods, and apply the agro chemicals correctly. Poor handling of the agro chemicals, exacerbated by potential accidental spillages, can expose the farmers to these toxic chemicals resulting in the poisoning of farmers, aquatic animals, and soils.

The inappropriate disposal of unwanted or expired pesticides, pesticide packaging and the cleaning of application equipment can also cause pollution. Pesticides and some of their degradation products may accumulate in soils, leach to groundwater and can be transported by runoff to surface water bodies.

Assessment of the impact

Agro-Chemical Pollution can be medium to long term in nature and will occur for the duration of the operation phase. These impacts have a regional effect as they will not only be a problem to the footprint area but can be washed into the streams and affect water resources.

This disturbance will be negative and indirect in nature. The impact will be experienced at the wider area. For the people residing nearest to the project site the impact is considered to be of high significance. The highly detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post mitigation- Through implementation of mitigation measures presented in the Integrated Pest Management Plan (IPMP)- Volume II, which is prepared as part of SECAP documentation, it is expected that the impact of Agro-chemical pollution on local communities could be reduced to one of moderate significance.

e) Ambient Water pollution

Poor quality Effluents from washing the receiving milk bays and processing plants are usually prevalent. If not well contained this effluent can be washed into water ways and end up polluting the water resources. Such products contain detrimental elements to the environment since they contain traces of heavy metals, and they pollute water resources. Chemicals in oils are detrimental to the biodiversity if not managed. Groundwater contamination occurs from percolation of oil and lubricants spills into the soil.

Assessment of the impact

The Ambient Water pollution disturbances will be medium to long in term in nature and will occur for the duration of the operations phase. These impacts have a wider area effect as they will be carried downstream and will not only be a problem to the footprint area, but it will also reach all the downstream residences. It is expected that the intensity of these impact for most people will be medium to high.

The disturbances from the Ambient Water pollution will be negative and direct in nature. The impact will be experienced at the wider geographical area. This impact will definitely occur during the operations phase and will be medium to long term in nature. The consequence of the impact is anticipated to be highly detrimental because of the long duration that the impact will be experienced during operation phase. The highly detrimental and definite probability result in this impact being of high significance.

Residual Impact

Post mitigation- Through implementation of mitigation measures presented in the Solid and Liquid Waste Management Plan(Volume IV) prepared as part of SECAP documentation, it is expected that the impact of Ambient Water pollution could be reduced to one of moderate significance

f) Revegetation

During the operations phase, this will be the order of the day. This will greatly enhance the revegetation process and will protect and conserve the environment in the process.

Assessment of Impact

The revegetation of the project sites will be of a long-term nature occurring throughout the operation phase. The impact will be site specific as it will affect the footprint of the rehabilitated project areas only.

The benefits will be experienced as a positive impact, at the local level, will be long-term to permanent, of medium intensity and most likely to happen. The impacts will most likely be of moderate beneficial – the community regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of mederate significance.

4.7.4 Summary of the Magnitude of Potential Environmental Impacts

Tables 4.1 below presents an analysis of the probability of the identified impacts occurring, and thus giving an indication of the magnitude of the risk. The magnitudes are determined using the Impact Magnitude Scoring Table in Annex 2.

Table 4.1 Summary of Magnitude of Potential Environmental and social Impacts

No	PARAMETER U	INDER CONSIDERATION	N	CRITERIA	A FOR ASSESSI	MENT OF POTEN	ITIAL RISK			
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
2.6.1	PLANNING PHA	ASE								
(a)	Vegeta tion clearing for Site Surveying and Pegging	-Clearing vegetation for visibility -Opening Cut-lines for survey purposes	-Removal of vegetation coverExposure of topsoil and possibility for erosionLoss of biodiversity and habitat changesDisturbances of small wildlife	Negati ve	2	2	2	2	8 Low	8 Low
2.6.2	CONSTRUCTIO									
(a)	Limited clearing of vegetation for infrastructu re developme nt	Preparation of land for Agriculture excavations for pipelines and foundations, Construction of Erosion	-Removal of vegetation cover. Exposure of topsoil and possibility for erosion. Loss of biodiversity and habitat changes.	Negati ve	3	2	1	5	11 Modera te	9 Low

No	PARAMETER L	JNDER CONSIDERATIO	N	CRITERIA	FOR ASSESSI	MENT OF POTEN	ITIAL RISK			
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		Control Structures. Construction of irrigation systems, Construction of agro- processing and storage facilities, Construction of access roads.	-Disturbances of small wildlife Compaction of soil. Pollution of soil and water from oil leakage. Dust and noise generation.							
(b)	Temporary Visual Intrusions (Marred landscape)	Extraction of building materials like sand, gravel and brick moulding resulting in borrow pits and scurred landscapes.	-Construction of agricultural facilities like irrigation systems, warehouses, and other possible facilities will change the characteristics of the area and leave a marred landscape.	Negati ve	4	4	1	4	13 Modera te	8 Low
(c)	Soil Erosion.	· All Construction Activities, Erection of soil erosion structure trenching Intensive farming techniques, inappropriate Irrigation and drainage management,	-Soil and water pollution. Soil erosion Soil salinization Loss in soil fertility Loss of crop productivity Scarring of the landscape due to sand mining	Negati ve	4	4	4	4	16 High	10 Moderate

No	PARAMETER UNDER CONSIDERATION CRITERIA FOR ASSESSMENT OF POTENTIAL RISK SEVERITY / SEVERITY / PROBABILL SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR SECURIOR									
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		Inappropriate use of farm machinery, Accidental discharge of hazardous substances, Sand and quarry stone for construction, Gravel for road construction, extraction of building materials	and borrow pits.							
(d)	Solid waste nuisance.	 Agricultural waste and processes generating waste, e.g., from milk processing plant. Spoils from infrastructur e construction wastes generated from construction activities, such as stones, wood, broken glasses, containers, rods of 	 Pollution of soil and water resources Littering and indiscriminate dumping. Deterioration of the aesthetics of the areas. 	Negati ve	4	4	4	4	16 High	10 Moderate

No	PARAMETER U	INDER CONSIDERATIO	N	CRITERIA	A FOR ASSESSI	MENT OF POTEN	ITIAL RISK	(
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
(e)	Habitat loss and	metal, pieces of iron sheets etc. Digging of trenches for	Noise and vibrations	Negati ve	4	3	2	2	11	8
	biodiversit y disturbanc es	foundations Digging of micro dams Excavations will temporarily disrupt the natural habitats.	cause wild animals to migrate. contamination of the rivers may cause fish kills and destruction of other aquatic life. riverine ecosystems modifications due to over- abstraction for irrigation purposes						Modera te	Low
(f)	Ambient Air Quality	Dust generated from construction activities. •Pesticides used in pests and diseases control	Pollution of air Increases in bronchial disorders. Impaired Visibility on the roads Disturbs normal developments of vegetation.	Negati ve	4	4	4	4	16 High	10 Moderate
g)	Ambient	 Waste 	 Effluent 	Negati	3	5	4	4	16	10
	Water Quality	generated from	pollutes soil and water	ve	ground water		(gro und	(groun dw	high	Moderate
	(surface and	110111	resources.		water		unu	ater)		

No	PARAMETER	UNDER CONSIDERATIO	N	CRITERIA	FOR ASSESSI	MENT OF POTEN	ITIAL RISK	(
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	ground water)	agricultural activities. Effluents from Milk receiving bays, and milk processing plants. Effluents (drainage water) from agriculture land Agro-chemicals run-off from the fields if not properly applied. Accidental discharge of hazardous substances, Erosion processes introduce pollutants and particulates into the water.	 Littering and indiscriminate dumping of solid waste pollutes land and water resources. Poisoning of aquatic and inland ecosystems. Ecosystem's imbalance and destruction of flora and fauna 		4 (Surface water)		wat er) 4 (surfac e water)	3 (surface water)		
2.6. 3	OPERATION P	HASE								
2.6.	OPERATION P	HASE								

No	PARAMETER I	JNDER CONSIDERATIO	N	CRITERIA	A FOR ASSESSI	MENT OF POTEN	ITIAL RISK	(
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
(a)	Soil Erosion	Bare ground around the pipelines and erosion control structures. Bare ground along the access roads.	Much less potential for soil erosion loose soil at the sides of levelled irrigation pipelines as well as roads on steep slopes will still be susceptible to erosion	Negati ve	5	4	4	3	16 High	10 Moderate
(b)	Solid waste pollution.	ELess quantities of solid wastes generated include domestic wastes, and plastics.	Pollution of the water ways.Littering the neighbourhood	Negati ve	4	4	4	4	16 High	10 Moderate
(c)	Effluent Discharges	EMost agricultural, agro- processing, packaging, and marketing operations produce liquid effluent.	Pollution of water resources Destruction of habitats	Negati ve	5	4	4	3	16 High	10 Moderate
d	Agro- chemicals Pollution	 Poor disposal methods being employed. Washing of equipment in rivers. Poor application methods being used. 	 Poisoning of farmers by chemicals. Poisoning of aquatic and inland cosystems by the chemicals. Poisoning of the soil by the 	Negati ve	4	5	3	4	16 High	10 Moderate

No	PARAMETER UNDER CONSIDERATION CRITERIA FOR ASSESSMENT OF POTENTIAL RISK CATEGORY CAUSE IMPACT OUT PROPABILITY FYTEN DURATION MAGNIT RESIDUAL									
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		 Poor handling of the chemicals. Accidental discharge of hazardous substances. 	chemicals. Poisoning of farm products consumers by chemicals.							
е	Ambient Water pollution	Leak and spills prevalent in most work areas like the farm sheds. Leaks can be washed into water ways and end up polluting the water resources. Accidental dischargeof hazardous substances.	Pollution of water resources Destruction of habitats	Negati ve	5	4	4	3	16 High	10 Moderate
f)	Revegetation	Proper Catchment management will encourage restoration and enhancemen t of the vegetation.	environment protected and conserved. revegetation by planting required species. In the process of establishing proper Catchment	Positiv e	4	3	4	4	15 High	19 Very High

No	PARAMETER U	INDER CONSIDERATION	N	CRITERIA	A FOR ASSESSI	MENT OF POTEN	ITIAL RISK			
	CATEGORY	CAUSE	IMPACT	QUALI TY	PROBABILI TY	SEVERITY / SIGNIFICANC E	EXTEN T	DURATIO N	MAGNIT UD EOF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		Rehabilita tion of degraded lands afforestation. Fencing off the project site	management the vegetation will be restored and enhanced							

4.8 SOCIAL AND HEALTH IMPACT ANALYSIS

4.8.1 Planning Phase

a) Limited Stakeholder Participation

The level of participation of all relevant stakeholders during project planning and designing is of paramount importance as a buy in process. Unclear roles and responsibilities and inadequate information may lead to limited participation of critical Stakeholders. Generic roles of state, counties and other stakeholders are well known but there is need for clarity in terms of the programme specifically to avoid leaving gaps, duplication of efforts and possible conflicts.

Adequate stakeholder consultation is required as the beneficiary communities are not in favour of top-down approaches being imposed on them. Poor stakeholder participation could result in the lack of ownership of the programme by locals, poor participation in project implementation and low chances of sustainability of the project. Poor stakeholder management can result in a lack of support from key decision-makers, hindering the project's ability to secure necessary resources and approvals. Ultimately, the failure to engage and manage stakeholders effectively jeopardizes the project's overall success

Proper stakeholder management involves regularly updating stakeholders on project progress, discussing any obstacles or changes that do arise so expectations can be managed, and handling misunderstandings with expectations or timelines — all of which contribute to positive stakeholder relationships. A detailed Stakeholder Engagement Plan and Gievance Redress Mechanism to guide proper stakeholder engagement have been developed as part of SECAP documentation.

Assessment of Impact

Limited stakeholder participation may occur at project inception. The intensity of this impact on project stakeholders is rated as moderate, and can be low after mitigative actions

b) Stakeholder Anxiety and Anticipation

The planning stage brings a lot of anxiety and anticipation. Both officials and communities from the ten counties visited during the stakeholder consultation exercise showed a lot of anxiety and anticipation as to when the programme would start and how much will be allocated to them. Prolonged inception/planning period will only increase anxiety and anticipation. Lack of proper plan of action with timelines and full disclosure create anxiety among stakeholders who would then hold the whole process with suspicion and would not want the planning phase to drag for too long.

Assessment of Impact

Poor Project inception mostly results in the local institutions not fully cooperating with the project preparation team and not disclosing all the relevant information during consultations. They may hold the whole process with suspicion. The intensity of the Poor project inception impact on households is rated as moderate.

When adequately mitigated through meaningful stakeholder engagement coupled with timeous implementation of agreed activities and regular follow-ups, the residual effect becomes low.

c) Potential exclusion of disadvantaged and vulnerable groups

Exclusion is both a process and a state that prevents individuals or groups from full participation in social, economic and political life and from asserting their rights. In the INReMP programme, there is the potential for exclusion (in its various forms) of disadvantaged and vulnerable groups from decision making, planning and sharing of benefits from the programme activities particularly for minority groups, women, youths and PWD. Harmful cultural social norms are likely to exclude women from participating fully.

Exclusion may result from restricted or denied access to factors of production (land and agro-inputs), limited access and use of project infrastructure, services and other amenities, access to markets and from a wide range of livelihood opportunities. There is a possibility of exclusion from cooperatives because of social and economical status. Unemployed youth group and poor women may be excluded because for being unable to contribute matching grants. The nature and extent of the project in terms of its approach may also result in some stakeholders being excluded e.g. ability of Indigenous People to access culturally appropriate project services and the manner in which targeting has been designed in terms of men, women and youths.

There is need for appropriate stakeholder engagement and consultation with the host communities in order to understand and establish the adequacy of the approaches being proposed. Risk may be reduced through;

- Conducting initial and periodic and specific field identification of key issues of exclusion, discrimination and marginalization of women and other vulnerable groups through social inclusion analysis and impact assessment
- Utilizing community structures and local traditional administration to mobilize minority groups to participate in meetings and consultations
- Provide local language interpreters to ensure understanding and ability to give feedback during engagement as a risk reduction measure
- Ensuring involvement of women, youths, PWD and IPs in the design of mechanisms/approaches and also event-based surveillance/monitoring activities.

Assessment of Impact

This impact is negative, high severity and of regional importance and may occur throughout the programme duration. The programme may fail to reach its intended outreach and improvement of lifestyle for women, youth and PWD target. Due to culture within the local community, the impact may reduce in terms of magnitude but will remain medium. Furthermore, an Indigenous People Plan has been prepared as part of the SECAP documentation to guide management of all issues pertaining to Indigenous people.

d) Formation and/or Strengthening of Community Based Organisations

The stakeholders fully support the approach of implementing development initiatives through associations and cooperatives, a phenomenon that is common among communities. Both national and county Government approach for development is pro-cooperatives for the sake of consolidating resources for a greater good. However, the major issues of concern with the CBOs especially cooperatives are;

- Poor financial planning and management given the fact that most members may not be financially literate
- Lack of access to capital or credit if the programme does not make a sizable contribution which kills the momentum initially gained
- Failure to access sustainable markets (The assumption that each cooperative is capable of meeting market quantity and quality requirements may not be true in some cases)
- Lack of democratic control of the cooperatives as a result of elite capture by powerful members of the community
- Fraud and misuse of property especially for personal gain
- Lack of transparency on the part of the project on what benefits it will bring to the community and
- Inadequate participation of women especially in leadership positions in VCs

Sub-projects may need to consider the following:

- Carry out an assessment to determine current status in all the beneficiary areas
- Support improved policies and appropriate legal framework for CBOs
- Facilitate a clear line of communication between the CBOs and County structures through the programme SEP
- Promote community empowerment and co-management through the CBOs with an emphasis on inclusive participation
- Train and offer mentorship/counselling to CBOs on financial management, market positioning and operation and maintenance among other topics
- Promote and facilitate information sharing and co-operation

Assessment of Impact

This affects economic viability of the cooperatives and their capacity to operate efficiently as well as the ability to invest in infrastructure, equipment and to expand the enterprises. The impact is rated as High.

a) Disputes over Land

INReMP sub-projects will not displace people to pave way for the project, but will require land to develop water infrastructure, small scale irrigation etc. which will be community owned and managed. Identification of suitable land may cause conflicts within the community as it may cut off some households from their source of livelihoods. The current perception among communities is that when one owns land adjacent or contiguous to a wetland, that part of wetland and/or river bank is automatically theirs which is a clear misinterpretation of the wetlands Management Regulation (2012)²⁹. This sense of entitlement will result in conflict regarding where to position communal project infrastructure. There is bound to be personalization of project benefits by elite community members who think they own the land. The probability of identifying land that does not belong to someone is very low given the average density of 388 people per km² across the ten counties.

In case where community members volunteer their land, possible disputes may happen in future especially when there is no proper documentation. In some areas, land is undergoing registration as community land, a process that has been subject to land grabbing and a range of legal claims.

Sustainability of programme initiatives is highly unlikely when there are disputes over land. Investing in fixed infrastructure on disputed land may be a challenge to community members. Sharing of benefits may also cause problems as some members may claim a bigger share because they own the land.

Analysis of Impact

The impact will be of local nature but a common challenge across the ten counties. The impact is rated as High.

b) Conflicts over water

Various programme water interventions (e.g. dams, boreholes, water pans) may result in over abstraction of water leading to severe shortages downstream resulting in conflicts between communities and between counties. Some investments in the catchment areas may be affected and likely to trigger conflicts. Sustainable and equitable sharing of water including environmental flows should be a key aspect of this programme. The sub-projects will have to carry out in-depth assessment on the

²⁹ Every owner, occupier or user of land which is adjacent or contiguous to a wetland shall, with advice from the Authority, have a duty to prevent the degradation or destruction of the wetland, and shall maintain the ecological and other functions of the wetland https://faolex.fao.org/docs/pdf/ken101313.pdf

key potential areas of conflicts which are well known by the community members. Conflict resolution methods that community members employ will come in handy in avoiding and resolving any conflicts that may emerge.

Analysis of Impact

The impact is both local (between communities) and regional (between counties) with long term effects. The impact is rated as High and can be low after mitigation.

c) Challenges with Carbon Trading

Carbon trading is one of the benefits that will emanate from INReMP. However, this is a fairly new experience on the part of community and on the administration side as well. There are very few cases of success to learn from at national level. This may be rather an ambitious goal of the programme but with huge positive benefits if it is executed successfully. The possible downside, however is failure to adopt on the part of both communities and administration. The execution process may result in community conflicts, particularly in places where resource ownership including land status is not clear. Carbon payments also have the potential to initiate conflicts within community-based organisations if there is no clear formula for sharing the benefits. Communities may also get a raw deal from intermediary private sector/service providers.

Sensitisation and education is required for all stakeholders including setting clear rules of engagement to ensure equitable distribution of carbon payments, particularly for women and youth. Proper guidance is required on the best ways to optimize community land/forests for carbon sequestering and also help them get carbon credits to sell and make money. County administration also need to facilitate private sector partnerships with the community after careful investigation of the companies.

Analysis of Impact

The impact is positive if the process is done well but negative when due diligence and internalization process is not carried out properly. The impact will be of regional extent with medium significance given the fact that the greater good of carbon sequestration would have been achieved.

d) Procurement of goods and services

There is possible risk of failure to consider environmental, social and climate impacts during resource extraction, design development, transportation and storage. Impacts may include irreparable damage to the environment, increased carbon emission, contaminated air, toxic and hazardous waste polluting land and water, deterioration of community health and perpetuation of disadvantaged group's exploitation.

Careful consideration should be made by the project at national, county and subproject level to ensure that raw materials, goods and services are procured from sources with environmental, social and climate management procedures in place both in theory and in practice. All sub-projects will be required to integrate environmental, social and climate requirements as guided by national and SECAP into the procurement process through:

- Developing a framework for sustainable natural resource procurement to guide the project
- Supporting staff and suppliers through sustainable procurement training
- Develop an evaluation criterion for service providers/suppliers that includes commitment to environmental sustainability, minimum environmental standards that should be met (documented or project specific)

Analysis of Impact

The impact is of regional nature with high significance and long-term effects. The impact is rated as High and can be low after mitigation.

4.8.2 Construction/Operations Phase

a) Conflict between Community and Projects

Conflicts between the subprojects and communities may arise however, due to inadequate consultations with the local community, importation of unskilled labourers, loss of access to productive assets including blockage of access as a result of infrastructure construction, ineffective grievance redress mechanism, incidences of SEA/SH, GBV, and non-provision of equal opportunities to women. This will result in conflicts with the project leading to possible disruptions.

Mitigation may include adequate consultation with the host community and relevant stakeholders, involvement of area Chiefs, Ward administrators and village elders in the recruitment of local unskilled labour and to develop and disseminate the project GRM, in which potential project beneficiaries/project affected communities have reasonable representation.

Analysis of Impact

The impact will be localized with high significance and long-term effects. The impact is rated as High and can be low after mitigation.

b) Labour and Working Conditions

It is important to note that while the labour laws exist, there are issues with regards to their implementation. Also due to the lack of employment in Kenya, workers are willing to sacrifice their rights to secure employment. There is therefore the risk that the contractors will not operate in line with international best practice if measures to manage such risks are not enforced.

In order to avoid operational costs, contractors may not consider proper labour and working conditions, including occupational health and safety, which may result in occupational incidents and/or injuries. Issues that need to be considered include: fair treatment of workers, non-discrimination, equal opportunities, as well as the provision of a safe and healthy working environment. Weak technical capacity and/or negligence on operation of vehicles and machinery could result in temporary and permanent physical injuries, Bronchial diseases from dust, and diseases, and/or loss of life. These issues should be considered for all employees of contractors including sub-contractors during the construction phase and community members operating equipment e.g. fodder making machine or milk processing machines during operational phase.

Without careful OHS management, the workforce employed may be exposed to OHS risks, potentially resulting in occupational accidents and injury or death. Contractors will be required to adhere to IFAD's Standard 5: Labour and working conditions that aims to ensure that IFAD investments to promote rural employment respect the fundamental rights of workers, Kenyan Labour Law and Occupational Health and Safety Act as well as the ratified ILO conventions. In addition, the following are required;

- Labour and Employment Plan, conditions of employment and Worker Grievance Mechanism
- All contractors should develop and implement an Occupational Health and Safety Management System (OHSMS) in line with good industry practice
- Hazard identification, OHS risk assessment and control for different tasks (identify OHS control measures that include the mitigation hierarchy: (a) elimination/substitutions; (b) engineering controls; (c) administrative controls; (d) OHS training and supervision at the field level) and (e) use of Personal Protection Equipment (PPE), incident investigation and reporting, reporting and tracking of near misses, incidents, etc
- Include an emergency response plan that tie in with existing emergency response procedures for the programme

Analysis of Impact

The impact is local with long term effects. The impact is rated as High with potential to become low after mitigation.

c) Community Health and Safety

The safety of the local population trying to access construction sites may be at risk during the construction period. The operation of various equipment and machinery and the actual construction activities will expose local community to accidents and injuries. Pollutants such as dust and noise could also have negative implications for

the health of workers and nearby communities such as bronchial diseases from dust and hearing impairments due to prolonged working under noisy conditions. Stagnant waters which aid breeding of disease vectors will result in the increase in the prevalence of water- borne diseases (intestinal and urinary bilharzia and malaria). Personal Protective Equipment (PPE) is required at all times during construction and operation of machinery as well as applying pesticides and other agro-chemicals in accordance with relevant national guidelines. Food and water may be poisoned from poor handling of agro-chemicals.

Analysis of Impact

The risk of poor public health will be medium to long term in nature and will occur for the duration of constructions/operations phases. With the implementation of safety and health plan, the residual impact is expected to be low.

d) Sexually transmitted diseases among workers and community

Construction phase of the proposed programme may lead to an increase in communicable and sexually transmitted diseases including HIV/AIDS, mainly because of interactions between workers as well as those between workers and the local community. However, for the proposed programme, most of the workers will be recruited from the local communities thus limiting labour influx which would exacerbate this issue.

In addition to increases in disease prevalence related to direct interactions with the workforce, absence of adequate safe drinking water and improved sanitation could contribute to an increased incidence of infectious diseases, in particular, water borne diseases.

Construction activities, if resulting in increased dust levels, may exacerbate respiratory illnesses.

The risk of Poor Public Health will be medium to long term in nature and will occur for the duration of Constructions/Operations phases. The receptors of increased disease transmission will be the local communities at subproject sites as well as project workers. Vulnerability will be dictated by the local people not having adequate access to healthcare services including sexual and reproductive health. The Programme needs to:

- Follow the project labour management guidelines
- Project workers to sign a code of conduct that promotes good behavioral practices
- Conduct awareness campaigns on HIV/AIDS among the workers and the locals through Barazas (village meetings), ward meetings, agro-trainings etc. This can be undertaken by the various partner NGOs and government agencies in the Counties
- Erect billboards to sensitize locals on the need to practice safe sex to help in the fight against HIV/AIDS and provision of free condoms to the workers

 Encourage all farmers to have a latrine and promote safe water management at point of use

Analysis of Impact

The risk of poor public health will be medium to long term in nature and will occur for the duration of constructions/operations phases. With the implementation of safety and health plan, the residual impact is expected to be low.

e) Impact of Extreme events on communities

Extreme climatic events have long posed a significant risk to regions in Kenya, and they have contributed to making it one of the most disaster-prone countries globally. Of particular concern for INReMP are floods and droughts, with major droughts occurring about every 10 years, and moderate droughts or floods every three to four years resulting in forced economic displacements, loss of life and adverse effects economically and loss of productive assets including infrastructure and equipment.

Flood plains are the most affected by floods and drought as the extent and severity is also influenced by land use practices. There is need to conduct flood risk assessment for the project and incorporate findings into programme design, repair stormwater drainages (affected during civil works), build infrastructure resilient to flooding and prioritise implementing nature-based solutions (NBS) such as reforestation and afforestation, wetland restoration, and green infrastructure (e.g. solar energy, permeable pavements, etc.), to mitigate flooding risk. Plans to promote small scale rainwater harvesting at household and institutional level should be intensified to mitigate against drought.

Analysis of impact

The impact is of high significance for the communities and project at large and could have a regional effect. The events are mostly unpredictable with high impact and can become medium if both community and the counties manage to implement the emergency response plan effectively (Targeted Adaptation Assessment).

f) Impact on Sexual Exploitation and Abuse, and Sexual Harassment (SEA/SH) and Gender Based Violence (GBV)

One in three Kenyan females has experienced sexual violence before attaining the age of 18, and between 39 percent and 47 percent of Kenyan women experience GBV in their lifetime. Research has shown that change of economic status at household level is the main cause for GBV emanating from sharing of benefits. Access and use of productive assets also result in GBV against women. The project is expected to

have civil works across the ten counties from which the risk of SEA/SH is high as well as in schools and hospitals.

If not well controlled, there could be rampant exploitation of women and girls in the project area. Programme activities may result in the increase of teenage pregnancies which is already on the rise in Kenya because of economic hardships experienced by mostly women and girls. Assessment of exposure and appropriate preventive actions must be carried out to avoid gender-based violence at all costs. In addition, the programme must ensure that;

- GBV and SEA/SH training for county staff, supervision consultants' staff and the contractor's workers will continue throughout project implementation
- GBV and SEA/SH mitigation measures will be incorporated into the Environmental and Social Management Plans (ESCMPs) for all sub-projects
- The project GRM will provide multiple channels to initiate complaints, including specific procedures for GBV and SEA/SH related complaints including confidential reporting with safe and ethical documentation of SEA/SH and
- The project will maintain GBV and SEA/SH staff for PIMU, supervision consultants and contractors

Analysis of Impact

The risk of GBV and SEA/SH will be negative and direct in nature and will be medium to long term in nature and will occur for the duration of Constructions/Operations phases with detrimental residual effects such as divorces, unwanted pregnancies, HIV and AIDS among other sexually transmitted diseases. The impact will be experienced at the sub-project sites and at the households of project beneficiaries. The consequence of the impact is anticipated to be detrimental. The detrimental and definite probability result in this impact being of high significance.

o) Child Labour

This involves the engagement of underage children in adult work. The chances are high that underage children will be engaged in such work as cattle man, collection of water for animals, and other farm chores. Due to high poverty levels in the rural areas, school going children quickly graduate to being bread winners for the family and will be engaged in all sorts of menial jobs at the farms.

The IFAD Environmental and Social Exclusion list will be applied for all the subprojects which means no project will be funded when there is evidence of child labour. The Counties will need to partner with ministry and department responsible for child labour to monitor and ensure that no child labour take place. The project will also need to train Government and Implementing Partners/service providers on child labour in relation to IFAD and national laws

Assessment of the impact

The risk of child labour will be medium to long term in nature and will occur for the duration of Constructions/Operations phases. The consequence of the impact is anticipated to be detrimental but with potential to be low after mitigation and continuous monitoring.

g) Economic Displacements or shifts of livelihood activities

The INReMP is not expected to disrupt the current agricultural activities of the beneficiaries, displace or disadvantage any persons. The communities in the proposed project areas depend on agricultural production for their livelihood and are highly dependent on crop production for household sustenance and survival.

However, programme infrastructure and regularization process is expected to alter some livelihoods sources to pave way for project infrastructure and regularization process to allow regeneration of wetlands, forests rangelands etc. the project may cut off usual footpaths or routes to social and economic service centres and forcing communities to use longer routes. The loss may be temporary or permanent depending with the integrated management plan agreed upon by all stakeholders but women are likely to be the worst affected by the changes as they are the ones mostly doing small scale nutrition gardens in the wetlands.

Efforts should be made to ensure minimum disruptive effect on the day-to-day life of the locals and to come up with the best alternatives.

Assessment of Impact

Communities will be affected but the project will look into alternative livelihoods first before disrupting people's livelihoods completely e.g. the project will find ways of bringing water to the people away from the wetlands and springs so that they can continue growing their crops. Compensatory activities will also be introduced for the communities relying on forests for hunting, gathering and collection of medicinal plants. Therefore, the sensitivity of the receptors is rated as low.

h) Threats on Local Security

Security risks may involve theft of and/or vandalization of infrastructure and equipment, cattle rustling and community conflict over access to natural resources. This may be a result of Lack of ownership, community conflict over access to natural resources and poverty.

In low-risk environments, security arrangements will simply consist of fencing, signposting, and perhaps a night watchman. Contractors may need to hire or contract public or private security personnel to protect their employees, facilities, assets, and operations.

Analysis of impact

This is low to medium risk and may have regional implications especially livestock rustling.

i) Impact on Cultural Heritage

It is not anticipated that tangible and non-tangible cultural material will be encountered but, however, this ESCMF has included a 'Chance Finds Procedure' to be included on all contracts undertaking the civil works. Contractors must ensure that provisions are put in place so that any "chance finds" encountered in excavation or construction are noted and registered, and responsible authorities contacted, and works activities delayed or modified to account for such finds.

In addition, the ESCMF has included an exclusion list for avoidance of significant impacts and risks, such as opening new paths/access roads that will potentially impact cultural heritage.

Analysis of Impact

The likelihood of chance finds is low given that the project will not be implemented in completely new areas. The impact is low.

j) Impacts from Decomissioning Phase

There is possible risk that after the 8-year programme period may coincide with the final phase of the infrastructure lifecycle (end-of-life). If there is no sustainability plan built into the programme, community may remain with obsolete infrastructure and equipment which will result in the cycle of poverty that INReMP is trying to cut off. The Programme may consider the following;

- Replace all components that have a shorter lifespan such as solar power backup systems and vehicles etc. to ensure that the facilities will continue to function. This provision should be made in the project design.
- Prepare an appropriate decommissioning plan at least one year in advance.
 The decommissioning plan should put into consideration advances in technology as there may be need to upgrade some components
- Gradually encourage communities to be self-sufficient so that they will be able to operate and maintain project infrastructure including procurement of required worn out parts

Analysis of Impact

The impact will be experienced at local level across all the sub-projects. The impact is high but can be reduced to low with adequate sustainability and decommissioning plan in place.

4.8.3 Summary of the Magnitude of Potential Social Impacts

Tables 4.2 below presents an analysis of the probability of the identified impacts occurring, and thus giving an indication of the magnitude of the risk. The magnitudes are determined using the Impact Magnitude Scoring Table in Annex 2.

Table 4.2: Magnitude of Potential Social Impacts

No.	PARAMETER U	JNDER CONSIDERATIO	N .	CRITERIA F	OR ASSESS	SMENT OF	POTENTIAL	RISK		
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBA BILITY	SEVERI TY / SIGNIFI CANCE	EXTENT	DURAT ION	MAGNIT UDE OF IMPACT	RESIDUAL SIGNIFICAN CE AFTER MITIGATIO N
	PLANNING PH	ASE								
(a)	Limited Stakeholder Participation	Unclear roles and responsibilities and inadequate information Communities are not in favour of top-down approaches being imposed on them.	 limited participation of critical Stakeholders. lack of support from key decision-makers lack of ownership of the project by the locals, poor participation in project implementation and low chances of success and sustainability of the project. 	Negative	3	4	4	3	14 High	8 Low
(b)	Stakeholder Anxiety and anticipation	 Poor project Inception/Introduction, Lack of transparency from the project, Lack of proper timelines for the different phases of the project, Dragging the planning phase too long. 	 Anxiety and anticipation Limited cooperation Suspicion and hence concealing of important information 	Negative	4	3	2	1	Moderat e	7 Low

No.	PARAMETER L	JNDER CONSIDERATIO	N	CRITERIA F	OR ASSESS	SMENT OF	POTENTIAL	RISK		
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBA BILITY	SEVERI TY / SIGNIFI CANCE	EXTENT	DURAT ION	MAGNIT UDE OF IMPACT	RESIDUAL SIGNIFICAN CE AFTER MITIGATIO N
(c)	Potential exclusion of disadvantage d and vulnerable groups	 Unequal land ownership arrangements lack of information to current developments, harmful cultural normative practices inappropriate / insensitive development approaches denied access to factors of production including project infrastructure being unable to contribute matching grants 	 Programme may fail to reach its intended outreach target Continued poverty cycle No improvement of lifestyle for women, youth and PWD target 	Negative	3	5	3	3	14 High	8 Low
(d)	Formation and/or Strengthenin g of Community Based Organisation s	Poor financial planning and management Lack of access to capital or credit Failure to access sustainable markets Elite capture Fraud and misuse of property lack of transparency	- Unsuccessful cooperatives/CBOs and failure to operate efficiently as well as the ability to invest in infrastructure, equipment and to expand their enterprises.	Negative	3	3	3	3	12 Moderat e	6 Low
(e)	Disputes over land	Unclear land ownership rightsUnclear boundaries	- Disputed ownership of project infrastructure	Negative	3	4	3	4	14 High	8 Low

No.	PARAMETER L	JNDER CONSIDERATIO	N	CRITERIA F	OR ASSES	SMENT OF	POTENTIAL	RISK		
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBA BILITY	SEVERI TY / SIGNIFI CANCE	EXTENT	DURAT ION	MAGNIT UDE OF IMPACT	RESIDUAL SIGNIFICAN CE AFTER MITIGATIO N
		- Limited information on land rights	Disturbances from legal claimsFailure to share benefits equally							
(f)	Conflicts over water	 Over abstraction of water upstream creating scarcity downstream as a result of project 	 Shortages of water downstream affecting reducing productivity 	Negative	3	4	4	3	14 High	8 Low
(g)	Challenges with Carbon Trading	 fairly new experience few cases of success to learn from at local level Raw deal from intermediary private sector/service providers Community failing to adopt 	 Conflicts with service providers/ private sector Community conflicts due to unequal distribution of proceeds 	Negative	3	2	5	3	13 Moderat e	8 Low
(h)	Procurement of Goods and Services	- Failure to consider environmental, social and climate aspects during resource extraction, design development, transportation and storage	 Irreparable damage to the environment Increased carbon emission, contaminated air Toxic and hazardous waste polluting land and water Deterioration of community health and perpetuation of exploitation of women and other disadvantaged groups 	Negative	3	4	4	3	14 High	6 Low
	CONSTRUCTIO	N AND OPERATION PI	· ·							
(i)	Conflict between	 Inadequate consultations with local community 	Conflict with the project and possible disruption	Negative	3	3	3	3	12	6 Low

No.	PARAMETER I	UNDER CONSIDERATIO	N	CRITERIA F	OR ASSES	SMENT OF	POTENTIAL	RISK		
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBA BILITY	SEVERI TY / SIGNIFI CANCE	EXTENT	DURAT ION	MAGNIT UDE OF IMPACT	RESIDUAL SIGNIFICAN CE AFTER MITIGATIO N
	Community and Projects	 importation of unskilled workers loss of access to productive assets as a result of infrastructure construction Ineffective GRM Incidences of GBV and SEA/SH, Unequal opportunities 							Moderat e	
(j)	Labour and Working Conditions	- Weak implementation of legislation - High Unemployment - Contractors cutting corners to avoid costs - Failure to operate vehicles and machinery - Inadequate safety gear - Weak security measures in the project area	 Exposure to OHS risks occupational accidents and injury or death Temporary and permanent physical injuries. Bronchial diseases from dust. Loss of life 	Negative	4	5	4	3	16 High	9 Low
(k)	Community Health and Safety	Risk from construction activities stagnant waters which aid breeding of disease vectors	 Accidents and injuries Bronchial diseases from dust and hearing impairments due to prolonged working under noisy conditions Food and water poisoning Increase in the prevalence of water- borne diseases 	Negative	4	5	4	3	16 High	9 Low

No.	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBA BILITY	SEVERI TY / SIGNIFI CANCE	EXTENT	DURAT ION	MAGNIT UDE OF IMPACT	RESIDUAL SIGNIFICAN CE AFTER MITIGATIO N
			(intestinal and urinary bilharzia and malaria)							
(1)	Sexually Transmitted Diseases	 Presence of contract workers from outside the area and interaction with locals. Influx of people to the areas in search of employment opportunities 	- Spread of STIs such as HIV/AIDS	Negative	3	3	3	5	14 High	10 Moderate
(m)	Impact of Extreme events on communities	 Floods and droughts Loss of productive assets including infrastructure and equipment 	 possibility of forced economic displacements loss of life 	Negative	4	4	5	3	16 High	13 Moderate
(n)	Gender Based Violence (GBV), Sexual Exploitation and Abuse, and Sexual Harassment (SEA/SH) and	 Harmful gender norms that disadvantage women/girls Economic hardships and Poverty which leads to women being exploited by men Limited voice to negotiate Men taking advantage of vulnerable women and girls 	 Physical body harm Increased teenage pregnancies Sexually transmitted disease incidences 	Negative	5	5	5	3	18 High	13 Moderate
(0)	Child labour	 Economic hardships and Poverty which leads to children 	 Children missing or dropping out of school Exploitation of children 	Negative	4	5	4	3	16 High	12 Moderate

No.	PARAMETER UNDER CONSIDERATION				CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBA BILITY	SEVERI TY / SIGNIFI CANCE	EXTENT	DURAT ION	MAGNIT UDE OF IMPACT	RESIDUAL SIGNIFICAN CE AFTER MITIGATIO N	
		becoming breadwinners at an early stage - Contractors running away from labour costs by hiring children									
(p)	Economic Displacemen ts or shifts of livelihood activities	 Alteration of some livelihood sources to pave way for project infrastructure and regularization process to allow regeneration of wetlands, forests rangelands 	 Removal/alteration of usual source of livelihood Migration to alternative livelihoods 	Negative	4	4	1	4	Moderat e	7 Low	
(q)	Threats on Local Security	 Lack of ownership community conflict over access to natural resources poverty 	 Theft of and/or vandalization of infrastructure and equipment, cattle rustling 		4	4	1	4	13 Moderat e	7 Low	
(r)	Impact on Cultural Heritage	- Chance finds during construction	- Loss of cultural artefacts		3	2	1	3	9 Low	4 low	
(s)	Impacts from Decomissio ning Phase	 Inadequate sustainability including decommissioning plan 	 Failure to break out of poverty cycle White elephant syndrome 		4	4	3	4	15 High	9 Low	

5. PROCEDURE FOR SCREENING ASSESSMENT AND MANAGEMENT

5.1 INTRODUCTION

This chapter documents the approaches of conducting Environmental, Social and Climate (ESC) assessments for potential subprojects under the INReMP programme. The PIUs will carry out ESC assessments of the programme sub-activities to assess the environmental, social and climate risks and impacts consistent with the national and IFAD SECAP requirements. The assessment should be proportionate to the potential risks and impacts of the subproject, and will assess, in an integrated way, all relevant direct, indirect, cumulative, and residual ESC risks and impacts throughout the programme lifecycle, including those specifically identified in applicable SECAP standards (Annex 3). In summary, the specific steps will include:

- Screening: Collecting Sufficient ESC information in order to screen against excluded activities (see exclusion list as Annex 4), to categorise the risk level of subprojects and assess the potential ESC risks of a sub-projects against international ESC standards using the screening form presented in Annex 1. Key issues to be assessed include Biodiversity Conservation and Sustainable Natural Resource Management; Community Health, Safety and Working Conditions; Social, Gender and human rights and opportunities; Resettlement and land acquisition; Cultural Heritage; resource efficiency; climate risk and impact pollution; and indigenous peoples.
- Sub-project Approval: Includes conditions to ensure E&S risk management practices by beneficiaries, which may include the development of additional Environmental Assessment instruments like site specific ESMPs.
- Implementation and Capacity Building: Measures to ensure implementation of the ESMP including capacity building, training as required and E&S monitoring and reporting requirements.



Figure 5:1 The INReMP risk assessment process

5.2 STEP 1: ENVIRONMENTAL, SOCIAL AND CLIMATE SCREENING OF SUB-PROJECTS

All subproject to be funded under INReMP will require environmental and social risk screening. The screening of sub-projects will be done using the Environmental and Social Screening Checklist (Annex 1), SECAP nine safeguard standards and information on typical subproject impacts and mitigation measures in the environmental and social management plan (ESMP) (Table 5.1)

In some cases, special planning reports may have to be developed and implemented. These will require extra resources to prepare, and this may require amendments to the sub-project design.

The sections below detail the stages of the environmental and social screening process (the screening process) leading towards the review and environmental and social approval of any sub-project that will be undertaken under INReMP. Each sub-project that will be funded through INReMP will have to undergo the Environmental and Social Screening Process, as outlined in Figure 4.2 below.

a) SECAP Screening Requirements

SECAP 2021 requires that each project that is funded by IFAD be screened first, in order to determine its significant environmental and social consequences. The screening results are used to determine environmental and social category, and climate risk classification for the sub-project, together with the necessary actions to address the associated environmental, social and climate risks, and their expected impacts. The screening tool and checklist (Annex 1) should be used.

The screening is aimed at identifying the major social, environmental and climate impacts and risks associated with the sub-project, defining the necessary steps for further analysis and identifying measures to enhance development opportunities and minimize risks and negative impacts. Specifically, the screening would identify E&S risks related to the proposed subproject and determine the type of impact assessment documentation needed for the subproject implementation.

b) Stages of Environmental and Social Screening.

i) Desk Appraisal of the planned activities

Each selected sub-project site will be subjected to a rigorous environmental and social screening process. The initial stage is a desk appraisal of the planned activities, including designs. The Environmental and Social Safeguard Specialist will undertake the desk appraisal to ensure that all pertinent environmental and social issues are identified.

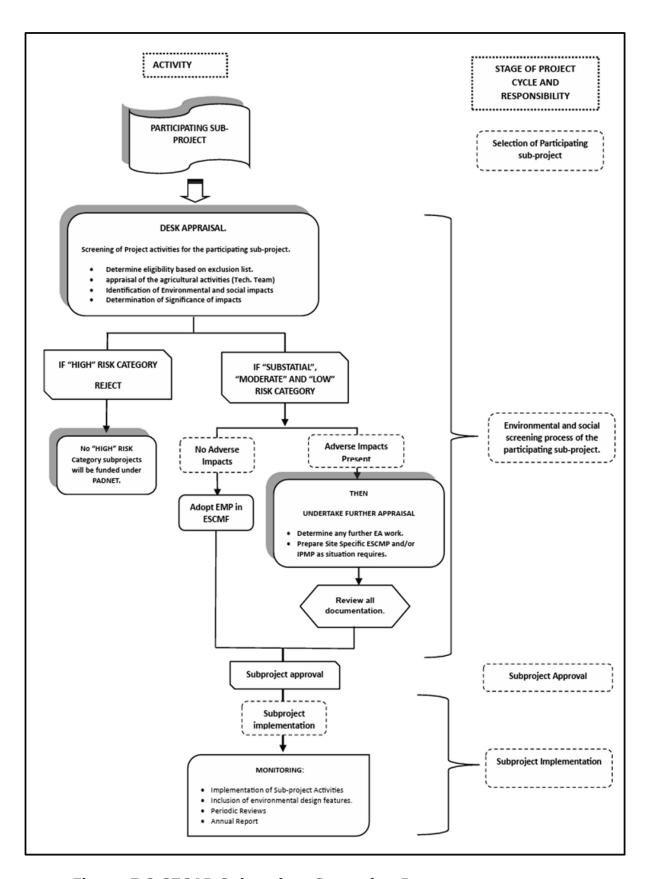


Figure 5.2 SECAP Subproject Screening Process

c) Assigning the Environmental and Social Categories

The assignment of the appropriate environmental and social category to a particular sub-project will be based on the information provided in The Environmental and Social Screening checklist (Annex 1). The Environmental and Social Safeguard Specialist will be responsible for categorizing the sub-project activity either as High, Substantial, Moderate or Low.

Most of the sub-projects and activities of the INReMP Programme are likely to be categorized as substantial Risk, meaning that their potential adverse environmental and social impacts are mostly temporary, predictable or reversible, and the nature of the project makes it possible to entirely avoid or reverse them.

5.2.1 IFAD's environmental and social categorization

IFAD's environmental and social categorization of projects/programmes comprises the following categories: (See SECAP 2021 version for Details)

High Risk:

The programme/project may have most or all of the following significant adverse environmental and/or social characteristics:

- Result in sensitive, irreversible, or unprecedented significant risks and impacts (for example, resulting in loss of major natural habitat or conversion of wetlands),
- Result in risks and impacts that are significant in magnitude and/or spatial extent (large geographical area or size of the population likely to be affected),
- iii. Have significant risks and impacts that affect an area much broader than the sites or facilities subject to physical interventions,
- iv. Result in significant adverse cumulative or transboundary impacts,
- v. High probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal),
- vi. Risks and potential impacts are not readily remedied by preventive actions or mitigation measures.

No high-risk projects will be funded by INReMP.

Substantial Risk:

A project should be classified as Substantial Risk when it is not as complex as a High-Risk project and its environmental and social scale is not in such a sensitive area but may pose significant risks and impacts if not adequately managed. These potential risks and impacts have most or all of the following characteristics:

i. They are mostly temporary, predictable, or reversible, and the nature of the project makes it possible to entirely avoid or reverse them,

- ii. There are concerns that the project's adverse social impacts and associated mitigation measures may give rise to a limited degree of social conflict, harm or impacts on human security,
- iii. The geographical area and size of the population likely to be affected are medium to large,
- iv. There is some potential for cumulative or transboundary impacts, but they would be less severe and more readily avoided or mitigated than in a High-Risk project,
- v. There is medium to low probability of serious adverse effects to human health or the environment (e.g., due to accidents, toxic waste disposal), and there are known and reliable mechanisms to prevent or minimize such incidents,
- vi. The project's effects on areas of high value or sensitivity are expected to be lower than for High-Risk projects,
- vii. Mitigation or compensation measures may be designed more easily and be more reliable than those of High-Risk projects.

While no formal ESIA is required for Substantial Risk programmes/projects, in many cases further environmental analysis could be undertaken during project preparation or implementation. Abbreviated Environmental, Social and Climate Management Framework/Plan or Abbreviated Environmental and Social Impact Assessment will be carried out.

Moderate Risk:

A project should be classified as Moderate Risk when potential adverse risks and impacts on human populations or the environment are not likely to be significant. This may be because the project is not complex or large, does not involve activities with high potential for harming people or the environment, and is located away from environmentally or socially sensitive areas. The potential risks and impacts are:

- i. Predictable and expected to be temporary or reversible,
- ii. Low in magnitude,
- iii. Site-specific, without the likelihood of impacts beyond the project life cycle,
- iv. Low probability of serious adverse effects to human health or the environment (e.g., they do not involve the use or disposal of toxic materials, or routine safety precautions are expected to be sufficient to prevent accidents),
- v. The project's risks and impacts can be easily mitigated in a predictable manner.

Environmental, Social and Climate Management Plan should be undertaken for moderate risk projects.

Low Risk:

A project should be classified as Low Risk if it will have negligible or no environmental or social implications. Examples include:

- i. Technical assistance grants for agricultural research and training,
- ii. Research,
- iii. Extensions,

- iv. Health,
- v. Nutrition,
- vi. Education and
- vii. Capacity- and institution building.

No social and environmental assessment required.

5.2.2 Climate Risk Screening

According to IFAD SECAP, in the context of the climate assessment, the term "risk" often refers to the potential for adverse consequences of a climate-related hazard (or adaptation or mitigation responses) on lives, livelihoods, health and well-being, ecosystems and species, economic, social and cultural assets, services (including ecosystem services) and infrastructure. Risk results from the interaction of vulnerability (of the affected system), its exposure over time (to the hazard), as well as the (climate-related) hazard and the likelihood of its occurrence. The climate risk assessment comprises four main elements:

- (i) Hazard identification: Identify the historical (in the last 30 years or more), current observed and projected future (2050-2100) weather-related hazards that are likely to affect agricultural systems (including crops, livestock, fisheries, livestock forests, value chains and agricultural livelihoods) in the project's location.
- (ii) Exposure assessment: Identify the project area's exposure to these hazards based on information related to presence of: people; agricultural livelihoods, species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in settings that could be adversely affected.
- (iii) Sensitivity assessment: Identify the degree to which a system is susceptible to and unable to cope with adverse effects of climate change, including climate variability and extremes. Individuals and communities are differentially vulnerable to climate change depending on factors such as wealth, education, gender, age, nutrition, disability and health.
- (iv) Adaptive capacity and climate resilience: Assess the degree to which an ecosystem or community is able to adapt to the adverse effects of climate change, including climate variability and extremes.

The outcomes of the four elements are used to calculate the climate risk classification according to the following formula: Climate Risk = Hazards + Exposure + Sensitivity – Adaptive Capacity

High Risk

The outcome of the project will be jeopardized by climate change, with the potential for severe impacts of significant irreversibility. Climate-related risks and impacts are likely to result in financial, environmental or social underperformance or failure. Adaptation measures are likely to be ineffective, extremely costly, socially unacceptable or may increase risk and reduce resilience. Adaptation limits may be reached or loss and damage may occur.

For all climate high risk subprojects, a Vulnerability Impact and Adaptation Assessment.

Substantial Risk

There is the potential for widespread impacts from climate change. Outcomes may be undermined by climate change and adaptation measures may not be readily available. Financial, environmental and social underperformance or failure cannot be excluded. However, risk-management activities are likely to increase the resilience and adaptive capacity of households, infrastructure, communities and ecosystems.

A Targeted Adaptation Assessment will be conducted for substantial climate risk subprojects. A generic TAA for this ESCMF have been developed since the preliminary climate risk classification for INReMP is Substantial. Sub-projects are required to customize it based on the specific locations and nature of enterprise.

Moderate Risk

Impact from climate change may occur, but will be limited, transient or manageable. Financial, environmental and social underperformance or failure is unlikely. The system has the capacity to manage volatility, shocks, stressors or changing climate trends

Only Literature review of climate assessments will be required for moderate climate risk projects to have an appreciation of the past, current and future climate change context.

Low Risk

No negative impact from climate change is expected based on the best available data. Financial, environmental and social underperformance or failure appear very unlikely

No climate assessment is required for low climate risk projects.

5.3 STEP 2: SUB-PROJECT APPROVAL

The completed screening form along with any additional planning reports, will be forwarded to the Project Management Team. The PMT will review the recommendations in the screening form, review the proposed mitigation measures, and conduct public consultations. It will further determine whether (a) the application of simple mitigation measures outlined in the Environmental and Social Screening Form will suffice; or whether further Environmental and social Management Plan need to be prepared.

The Sub-projects which did not require the preparation of additional management plans will automatically be approved on the basis of the screening form and will be required to go ahead and use the screening form together with the requirements of the ESCMF as its Safeguards instruments.

If the desk appraisal indicates that the proposed subproject may have environmental or social concerns that are not adequately addressed in the current documentation, the PMT may require the preparation of additional mitigation plans as the situation may require. The additional management plans may include site specific ESCMPs, site specific ESIAS etc. Once all documentation is in place these will then be synchronized with the main ESCMF and/or approval. Generally, most of the subprojects that will be financed by INReMP will not need any further EA work beyond just the site specific ESMPs to guide the implementation of the ESCMF.

Additional Triggered Safeguards, Assessments and Plans

In addition to this ESCMF, INReMP proposed sub-projects has triggered several thematic issues, therefore, prompting additional plans to be put in place as follows:

Table 5.1: INReMP Triggered Safeguards

No.	Context	Triggered Safeguard/Plan
1	Practical tool during project formulation, design, implementation and monitoring describing steps involved in identifying and mitigating potential environmental social and climate impacts of future investment activities	Environmental, Social and Climate Framework ESCMF Volume I (Current Document)
2	To ensure that impacts, risks and liabilities identified are effectively managed during the construction, operation and closure of the proposed project	Environmental, Social and Climate Plan (ESCMP) Volume I (Current Document)
3	To achieve a transparent decision-making process with greater input from stakeholders and their support in a coordinated manner	Stakeholder Engagement Plan (SEP) Volume V
4	Genuine inclusion, disclosure, and respect for Indigenous Peoples decision-making processes.	Free, Prior and Informed Consent Implementation plan (FPIC) Annex 5
5	Possibility of diverging and/or contradicting views during implementation requires a formal procedure to receive and facilitate resolution of concerns and complaints	Grievance Redress Mechanism (GRM) Volume V
6	To promote the use of a combination of environmentally and socially friendly	Integrated Pest Management Plan (IPMP)

No.	Context	Triggered Safeguard/Plan
	practices in managing pests and use of pesticides in sub-projects	Volume II
6	To assist sub-projects and other stakeholders determine relevant climate adaptation options throughout the project	Targeted Adaptation Assessment (TAA) Volume III

5.4 STEP 3: IMPLEMENTATION OF ESC ACTIONS

The End-Beneficiaries will be required to implement the E&S actions identified in the site specific ESMPs or site-specific E&S Checklists within the timeframes specified. Action items in the ESMPs will likely need to be added/adjusted over time, based on changes in operations or risks of the portfolio/sub-projects.

As part of the implementation process, the End-Beneficiaries may be required to participate in capacity building/training exercises covering E&S best practices, ESMPs implementation, and/or the identification and management of E&S risks related to specific activities in their portfolio.

Monitoring and reporting on E&S risks and impacts, commensurate with risk of the sub-project will be undertaken during the whole Programme period.

6. ABBREVIATED ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN

This chapter outlines the Abbreviated Environmental, Social and Climate Management Plan (ESCMP) for the INReMP. The ESCMP provides guidelines for the management of potential environmental and social aspects at the project sites. The ESCMP matrix also identifies parties responsible for monitoring actions, and the frequency of monitoring.

Mitigation measures have been identified to reduce present and potential impacts associated with both the existing and new value chain activities on the proposed project. In addition, mitigation measures are identified as either social or physical measures. Social mitigation includes the measures that will be to mitigate effects such as noise, land use, and other effects to the human environment. Physical mitigation includes measures that address impacts to the physical environment, such as biological communities, vegetation, air quality, and others

Table 6.1: Environmental, Social and Climate Management Plan (ESCMP).

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
1.0	ENVIRONMENTAL IMPACTS						
1.1	MOBILIZATION PHASE						
a)	 Vegetation Clearance during site surveys and pegging for establishment of new infrastructure. Dust generation and soil erosion during mobilization at construction sites 	 Cutline clearance is to be minimized as far as possible to reduce the potential for dust generation and other impacts. Dust suppression measures are to be implemented, which shall include Water sprinklers and covering mounds with nets. 	Stakeholder engagement and participation during meetings and field visits	The program Management Unit (PMU) With the assistance of: - Local Leadershi p Beneficiari es Contracto rs.	Site Inspection reports, visual observation s, pictures, geo- mapping	Monthly during mobilization	50,000
1.2	CONSTRUCTION PHASE						
a)	Vegetation Clearing Limited Vegetation clearing may occur during the establishment of the INReMP project as new infrastructure will be erected. Preparation of land for Agriculture Construction of Sheds, Warehouses, Construction of Erosion Control Structures. Establishment of new and rehabilitation of old water infrastructure. Etc.	 Sensitive habitats should be avoided. (Wetlands and river banks) Clearing should be limited to working areas only, and these include areas for foundations of infrastructure Revegetation and reforestation must be prioritized. (e.g., Planting grass, and trees as appropriate) Over abstraction of construction materials like sand and gravel should be avoided. Habitat restoration must be done where effects have 	Stakeholder engagement and participation during meetings and field visits	INReMP PMU. With the assistance of: -Local LeadershipBeneficiariesContractors	Site Inspection reports, visual observation s, pictures, geo- mapping	Monthly during Construction	20,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or	Public	Responsible in	Means of	Frequency of	Estimated
		Enhancement Measures	Consultation Activities	Implementation	Verification	Verification	cost(USD)
b)	Temporary Visual Intrusions (Marred landscape), erosion control infrastructure, Construction of micro dams and irrigation infrastructure, agricultural infrastructure, and other possible facilities will change in the characteristics of the area and leave a marred landscape.	been caused i.e., refilling burrows pits and regressing bare areas. - Sustainable Catchment management must be practiced. - Dust suppression: - Dust suppression measures are to be implemented, which shall include covering soil mounds, - Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts Water sprinklers to be used, especially on the roads leading to the project sites Contractors should ensure minimum footprint of construction activities All altered landscapes (Sand pits, borrow pits, brick moulding sites etc) should be rehabilitated by the contractor, i.e., filled and re-grassed.	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: - Local Leadershi p Beneficiari es Contracto rs - County Agricultur e Office.	Site Inspection reports. Contractors reports	Monthly during Construction	20,000
c)	Impacts on soil and Point source contamination from diesel,	- Solid and liquid Waste Management Plan	Stakeholder engagement and participation	PMU With the assistance of:	Site Inspection reports.	Monthly during construction	20,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
	lubricants etc. around working areas. - Increased soil erosion due to vegetation clearing, soil trampling and compaction. - Increased rapid runoff due to vegetation clearing and soil compaction diminishing infiltration capacity during construction phase. - Deterioration of soil characteristics due to increased erosion.	 Appropriate containment measures for all operational areas and proper disposal of used lubricants. Soil erosion control measures (e.g., revegetation, reseeding of grasses, land preparation, terracing, use of gabions, stabilization of banks etc.) Restoration of borrow pits, sand and quarry stone abstraction sites and. Revegetation, re-grassing of all bare surfaces Minimization of vegetation clearing to working areas only Installing soil erosion control structures like, gabions, contour ridges, swells and catch dams. Use existing roads to access the fields and farm sites and employ drainage control measures and culverts to control natural runoff and overland flow. 	during meetings and field visits	- Local Leadership Beneficiaries Contractors	Contractors reports		
d)	Solid waste nuisance - Pollution of soil and water resources from construction sites.	 Solid and liquid Waste Management Plan Seek guidance of local environmental officers to identify acceptable disposal sites. 	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipContractors.	Site Inspection reports. Contractors reports	Monthly during construction	20,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
	 Littering and indiscriminate dumping. Deterioration of the aesthetics of the areas. 	 Collection of all construction debris for proper disposal at designated landfills. 		-County environmental officers			
e)	Habitat loss and biodiversity disturbances. - Noise and vibrations cause small wild animals to migrate, - contamination of the rivers may cause fish kills and destruction of other aquatic life.	 Targeted Adaptation Assessment Use of low noise equipment, Avoid contamination of soil and water Noisy operations should be conducted at certain times of the day. Always use well serviced equipment that will be less noisy. Noise management measures are to be implemented and shall include maintenance of vehicles and equipment to run quietly, and avoidance of leaving engines running unnecessarily. Avoid repair of equipment near water sources Environmental flows must be reserved at all times 	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipBeneficiariesContractorsLocal Environment Officers at County Level	Site Inspection reports. Contractors reports	Monthly during construction	20,000
f)	Ambient air pollution - Pollution of air increases bronchial disorders.	- Dust suppression measures must be instituted at all sites which shall include covering soil mounds and	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipBeneficiariesContractors.	Site Inspection reports. Contractors reports	Monthly during Construction	20,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
	 Impaired Visibility on the roads. Disturbs normal developments of vegetation. 	spraying bare areas with water. - Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts. - Minimize dust during transportation of construction materials by using covers and/or control equipment. - Manage and control emissions from vehicles transporting construction material by operating in compliance with relevant vehicle emission standards and regular maintenance to minimize air pollution. - Rehabilitate quarry sites to		-Local Environment Officers at County Level Local Environment Officers.			
g)	Ambient Water pollution - Water quality may be impacted by Construction activities including onsite sewage and rainwater run-off will also impact on water quality. - Soil and water pollution resulting from the accumulation of solid and liquid waste at construction sites.	its original status - Solid and Liquid Waste Management Plan - Contractors to erect proper sanitary facilities Toilets at convenient locations throughout the project area. - Pollution from lubricants and other wastes to be avoided. - Contain all oil leaks at workshops and equipment	Stakeholder engagement and participation during meetings and field visits	PMU With the assistance of: -Local LeadershipBeneficiariesLocal Environment Officers at county level	Site Inspection reports. Contractors reports	Monthly during Construction	20,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
		and surfaces by collecting in oil separators. - Controlled disposal of wastes and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, use of cleaner technologies, proper storage of materials, awareness campaigns. - Waste must be recycled and reused to avoid dumping in waterways. - Polluted water shall be treated prior to disposal to watercourses. - Maintain all vehicles and equipment to avoid oil and grease leaks. - Install oil and grease separators to collect rain runoff around workshops	rearries				
1.3	OPERATION PHASE	and parking areas.					
a)	Soil Erosion - Much less potential for soil erosion - loose soil at the sides of construction sites, steep slopes will still be susceptible to erosion	 Taking good care of Revegetated areas, regrassing of all bare surfaces, Installing soil erosion control structures like, gabions, contour ridges, swells and catch dams. 	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesLocal Environment Officers - Officers at County level	Project Monitoring reports	Quarterly	60,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
		 Establishment of grassed drainage systems to prevent erosion. 					
b)	Solid waste generation - Less quantities of solid wastes generated include domestic wastes, plastics, etc.	 Solid and Liquid Watse Management Plan Collection of all solid waste in a systematic manner for disposal at designated landfills. Placing of waste collection bins at strategic positions throughout the project area. Solid waste should never be burnt on site. develop a solid waste management plan and implement it. 	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesCounty Environment Officers	Project Monitoring reports	Quarterly	50,000
c)	Effluent Discharges - Most agricultural, agroprocessing, packaging, operations produce liquid effluent	- Solid and Liquid Watse Management Plan - Installation of appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc Collecting and channeling all effluent to a properly constructed effluent treatment plant, which could be oxidation ponds, septic tanks or biogas digesters - Monitoring the quality of the effluent that is	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesLocal Environment Officers at county level	Project Monitoring reports	Quarterly	50,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
d)	Agro chemical Pollution	ultimately discharged to the environment so that it meets the national effluent discharge standards. - Train farmers on	Meetings with	PMU With the	Observation	Quarterly	50,000
d)	- Poisoning of farmers by chemicals Poisoning of aquatic and inland ecosystems by the chemicals Poisoning of the soil by the chemicals Poisoning of farm products consumers by chemicals.	appropriate use and disposal of agrochemical products - Provision of PPEs to agrochemical handlers - Encourage organic farming and limit the use of Agrochemicals like inorganic fertilizers. - Use integrated Pest Management approaches to minimize pesticide use. - Conduct awareness training & workshops on safe handling of chemicals. - Erect separate storerooms for all agrochemicals so that they are always under lock and key away from food staffs. - Use split application of fertilizer to avoid excess being washed away. - No application before major storms - Don't store fertilizers and agrochemicals and food in the same sore room.	stakeholders and undertaking field visits	assistance of: -Local LeadershipBeneficiariesWater Resources Users Associations -Local Environment Officers at County level	, inspection, existence and implementa tion of a pesticides managemen t plan, reports of respiratory or skin illnesses by farmers	Quarterly	30,000

No.	Potential Impacts/Risks/Issues	Recommended Mitigation or Enhancement Measures	Public Consultation Activities	Responsible in Implementation	Means of Verification	Frequency of Verification	Estimated cost(USD)
		 All workers to use appropriate PPE every time. Use the least potent variants of pesticides to minimize poisoning. 					
e)	Ambient Water pollution - Oil and grease leak and spills prevalent in most work areas like the farm sheds. - Leaks can be washed into water ways and end up polluting the water resources.	 Solid and Liquid Watse Management Plan Contain all oil leaks at workshops and surfaces. Maintain all vehicles and equipment to avoid oil and grease leaks. Install oil and grease separators to collect rain runoff around workshops and parking areas. 	Meetings with stakeholders and undertaking field visits	PMU With the assistance of: -Local LeadershipBeneficiariesWater Resources Users Associations -Local Environment Officers at County level	Water quality Reports	Quarterly	50,000
f)	Greenhouse gas emissions	Refer to Targeted Adaptation Assessment Have in place	Meetings with stakeholders and undertaking field visits	PMU with assistance of County environmental officers	FAO EX-ACT tool	Semi- Annually	20,000

Table 6.2: Social and Health Management Plan

No.	Potential Risks/Impacts or issues	Recommended Mitigation or enhancement measures	Public Consultation Activities	Responsible in Implementatio n	Means of verification	Frequency of Verification	Cost Estimates (USD)
a)	Limited Stakeholder Participation	 Use the Stakeholder Engagement Plan and refer to Indigenous People's Plan Engage, outline, agree and disseminate clear roles and responsibility of all stakeholders Sign result-based MoU/agreements/contracts with all partners and enhance performance monitoring system Make use of clear channels of communication 	-Start-up workshop with all the stakeholders -SEP dissemination -GRM dissemination	PMU	-Workshop report -Updated Stakeholder database	Project inception and quarterly	50,000
b)	Stakeholder Anxiety and anticipation	 Use the Stakeholder Engagement Plan Timeous implementation of agreed activities and Regular follow-ups 	Start-up workshop with all the stakeholders	PMU	Workshop report	Project inception and quarterly	
c)	Potential exclusion of disadvantage d and vulnerable groups	 Indigenous People's Plan Stakeholder Engagement Plan Conducting social inclusion analysis and impact assessment of key issues of exclusion, discrimination and marginalization of vulnerable groups Utilize community/traditional structures to mobilize minority groups to participate in meetings and consultations Apply only agreed and acceptable approaches Provide local language interpreters to ensure understanding and ability to give feedback during engagement as a risk reduction measure 	-Stakeholder Consultation workshop -SEP dissemination -GRM dissemination	PMU	GRM and SEP communicatio n/outreach strategy, guidelines, gender and age disaggregated data, project beneficiary records	Annual	
d)	Formation and/or Strengthening of Community Based Organisations	 Carry out an assessment to determine current status in all the beneficiary areas Support improved policies and appropriate legal framework for CBOs Facilitate a clear line of communication between the CBOs and County structures through the programme SEP 	-Stakeholder Consultation workshop -Training and mentorship	PMU	-Workshop report -Detailed Inventory list of CBOs	Annual	Main Project

No.	Potential Risks/Impacts or issues	Recommended Mitigation or enhancement measures	Public Consultation Activities	Responsible in Implementatio	Means of verification	Frequency of Verification	Cost Estimates (USD)
		 Promote community empowerment and comanagement through the CBOs with an emphasis on inclusive participation Train and offer mentorship/counselling to CBOs on financial management, market positioning and operation and maintenance among other topics Promote and facilitate information sharing and cooperation 					
e)	Disputes over land	 Conduct an in-depth assessment on the key potential areas of conflicts Engage the County Government, local/traditional leadership and the community Activate Indigenous People's Plan Activate project GRM 	-Start-up workshop with all the stakeholders -Participatory mapping -GRM dissemination	PMU	-Workshop report -Project maps	Project inception and Annually	20,000
f)	Conflicts over water	 Conduct an in-depth assessment on the key potential areas of conflicts which are well known by the community members. Engage the County Government, local/traditional leadership and the community Activate Indigenous People's Plan Activate project GRM 	-Start-up workshop with all the stakeholders -GRM dissemination	PMU	Water use agreements	Project inception and Annually	20,000
g)	Challenges with Carbon Markets	 Sensitisation and education of all stakeholders Provide Guidance on how to optimize community land/forests for carbon trading Set out clear rules of engagement to ensure equitable distribution of carbon payments and conduct regular monitoring Facilitate private sector partnerships with the community after careful investigation of the companies 	-Sensitization and Training -Participatory development of Carbon trading guidelines	PMU	-Training report -Guidelines developed	Project inception	Main Project

No.	Potential Risks/Impacts or issues Recommended Mitigation or enhancement measures measures or issues		Public Consultation Activities	Responsible in Implementatio	Means of verification	Frequency of Verification	Cost Estimates (USD)
		- Emphasise on the greater benefit of carbon sequestration					
h)	of Goods and Services Develop a framework for sustainable natural resource procurement to guide the project Support staff and suppliers through sustainable procurement training Develop an evaluation criterion for service providers/suppliers that includes commitment to environmental sustainability, minimum environmental standards that should be met (documented or project specific)		Procurement policy dissemination workshops	PMU	Workshop report	Annually	Main project
i)	Conflict between Community and Projects	- Activate SEP and GRM - Activate Indigenous People's Plan	SEP and GRM dissemination workshops	PMU	Workshop report	Continuous	Budgeted in (a) above
j)	j) Labour and Labour and Employment Plan and Worker Grievance S Working Mechanism p Conditions - Contractors should develop and implement an		Sensitization and participatory hazard identification	PMU	Sensitization reports -Hazard map	Continuous	20,000

No.	Potential Risks/Impacts or issues	Recommended Mitigation or enhancement measures	Public Consultation Activities	Responsible in Implementatio n	Means of verification	Frequency of Verification	Cost Estimates (USD)
		Include an emergency response plan that tie in with existing emergency response procedures for the programme					
k)	Community Health and Safety	 Extensive occupational health and safety training for community members PPE during site visits Adequate signage at construction sites Include an emergency response plan that tie in with existing emergency response procedures for the programme 	Sensitization and participatory hazard identification	PMU	Sensitization reports Hazard map	Continuous	20,000
1)	Sexually Transmitted Diseases	 Follow the project labour management guidelines Conduct awareness campaigns on HIV/AIDS among the workers and the locals through Barazas (village meetings), ward meetings, agro-trainings etc. This can be undertaken by the various partner NGOs and government agencies in the Counties Project workers to sign a code of conduct that promotes good behavioral practices Erect billboards to sensitize locals on the need to practice safe sex to help in the fight against HIV/AIDS and provision of free condoms to the workers Encourage all farmers to have a latrine and promote safe water management at point of use 	- Education and awareness raising Training of implementation and county personnel	PMU	- Number of awareness raising sessions - Number of training workshop - Number of participants trained	Monthly	50,000
m)	Impact of Extreme events on communities (floods and droughts)	 Targeted Adaptation Assessment Conduct flood risk assessment for the project and incorporate findings into programme design, Repair stormwater drainages (affected during civil works) Build infrastructure resilient to flooding and Prioritize implementing nature-based solutions (NBS) such as reforestation and afforestation, wetland 	Participatory assessment of risk - Education and awareness raising	PMU	Risk mapping Training reports	Monthly	20,000

No.	Potential Risks/Impacts or issues	Recommended Mitigation or enhancement measures	Public Consultation Activities	Responsible in Implementatio n	Means of verification	Frequency of Verification	Cost Estimates (USD)
		restoration, and green infrastructure (e.g. solar energy, permeable pavements, etc.) - Intensify plans to promote small scale rainwater harvesting at household and institutional					
n)	Gender Based Violence (GBV), Sexual Exploitation and Abuse, and Sexual Harassment (SEA/SH) and	 Train and mentor and monitor staff on GBV and SEA/SH throughout project implementation Incorporate GBV and SEA/SH mitigation measures into in all project related training Provide multiple channels to initiate complaints, including specific procedures for GBV and SEA/SH related complaints including confidential reporting with safe and ethical documentation of SEA/SH 	- Education and awareness raising Training of implementation and county personnel	PMU	- Number or awareness raising sessions - Number or training workshop - Number or participants trained	,	50,000
0)	Child labour	 Apply IFAD Environmental and Social Exclusion list Communicate International Labour recommended practices. Train Government and implementing partners/service providers on child labour in relation to IFAD and national laws Sensitize communities on child rights and ensure that there is no child labour on project. Partner with ministry and department responsible for effective child labour monitoring 	- Education and awareness raising Training of Government personnel	PMU	- Number or awareness raising sessions - Number or training workshop - Number or participants trained	:	20,000
p)	Economic Displacement s or shifts of livelihood activities	 Stakeholder Engagement Plan and Indigenous People's Plan Conduct an in-depth assessment of current livelihoods and their main sources including possible alternatives Efforts should be made to ensure minimum disruptive effect on the day-to-day life of the locals based on context and 	Participatory assessment of livelihoods including alternative options	PMU	Livelihoods assessment report	Project inception	Main Project

No.	Risks/Impacts or issues		Public Consultation Activities	Responsible in Implementatio n	Means of verification	Frequency of Verification	Cost Estimates (USD)
		Provide the next best alternatives and/or compensation to affected communities					
q)	Threats on Local Security	 Facilitate a security management plan commensurate with envisaged risks per each sub-project Consider fencing, signposting, and perhaps a night watchman Consider hiring or contracting public or private security personnel to protect employees, facilities, assets, and operations for high-risk assets 	Sensitization and community planning workshops	PMU	Security Management Plan	Project inception	Main Project
s)	Impacts from Decomission ing Phase	 Include decommissioning plan in the project design Recommend the project to replace all components that have a shorter lifespan such as solar power backup systems and vehicles etc. Gradually encourage communities to be self-sufficient so that they will be able to operate and maintain project infrastructure including procurement of required worn out parts Prepare an appropriate decommissioning plan at least one year in advance. The decommissioning plan should put into consideration advances in technology as there may be need to upgrade some components 	Participatory decommissioning planning	PMU	Decommission ing plan	Programme completion	Main Project

7. INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

7.1 INTRODUCTION

The State Department for Crop Development, under the Ministry of Agriculture will be the Lead Implementing Agent for the INReMP project with the assistance of the Programme Management Team of INReMP. It is important that these institutions be capable of carrying out the ESCMF recommendations.

The following is an outline of the capacity building and training needs that were identified for the implementors and stakeholders of the INReMP to enhance their environmental and social management capacity.

7.2 CAPACITY BUILDING NEEDS

The successful implementation and monitoring of the Environmental, Social and Climate Management Framework (ESCMF) together with its environmental and social management plans (ESMPs) will require that target groups and stakeholders who play a vital role in its implementation be provided with appropriate training and awareness. Currently, there is little capacity within Counties to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the proposed activities of INReMP.

i. National Level

The Program Management Team will be responsible for completing the Environmental and Social Screening Form (Annex 1) to be able to identify and mitigate the potential environmental and social impacts of rolling out the dairy and various agricultural value chains. In the event that a project activity under INReMP fall under the Second Schedule of the Environmental Management and Coordination Act, the PMT will review the recommendations from the counties and undertake the process of seeking the approval of the EIA through the National Environment Management Authority (NEMA). In addition, strategic decisions on the direction of rolling out the project will be undertaken at this level, and therefore those decision makers must be aware of potential risks and impacts. The groups that will need training will include:

- Staff of the State Department for Crop Development, under the Ministry of Agriculture
- National Environment Management Authority (NEMA)
- County officers in charge of environment
- INReMP Steering Committee
- Other collaborating institutions.

ii. County and District Level

At County and district level, the groups that will receive environmental and social training include the following:

- County agricultural officers
- the Farmers Organizations members

- Water Resources Users Associations
- Community Forest Associations
- Extension workers in project impact areas
- Beach Management Units

7.3 TRAINING REQUIREMENTS

The proposed INReMP activities will be numerous and challenging. Successful implementation of the programme activities will require dynamic and multi-disciplinary professionals. Therefore, regular short and tailor-made training courses and seminars will be required to reinforce the capacity and skills of the stakeholders and farmers, farmers and dairy cooperative societies and Water users associations during the entire project period. Training activities and target groups are presented in Table 7.1 below.

7.3.1 Capacity Building Needs for implementing institutions

The key experts from the INReMP implementation institutions are highly skilled in the relevant fields for which they are responsible. However, there are some areas in Environmental, social and climate aspects for which they will need some training and sensitisation in order to improve effectiveness in the implementation of the project. They will need to be sensitised on the specific requirements of the project, including IFAD's SECAP, 2021, Climate, Land and Disclosure Policies for IFAD as well as on the findings and recommendations of the ESCMF. This will be geared at bringing them to the same level of understanding as INReMP PMT so that they can offer their services from an informed position.

7.3.2 Capacity Building needs for INReMP Project Management Team

The INReMP PMT will be responsible for the day-to-day environmental, social and climate interactions on the ground and how existing management actions are being implemented. It is therefore important that the capacity within INReMP PMT management office be strengthened in order to ensure that adequate staff is available for the sustainable implementation of the various project activities from an environmental and social perspective, also taking into consideration any climate related issues that may arise from time to time in the different locations for subprojects.

7.3.3 Capacity Building needs for beneficiary communities in groups

The training needs for the groups of beneficiary communities have been identified and they will need to be trained to prepare and capacitate them for sustainable implementation of the subprojects that they will be engaged with. The training will target the Water Resources Users Associations, Farmers Organizations and Community Forest Associations as well as the village leaderships in areas where sub projects will be implemented.

7.3.4 Necessary training to support business farming

INReMP PMT, in collaboration with the State Department for Crop Development, under the Ministry of Agriculture, counties leadership and other strategic partners, will continue to sensitise beneficiary communities (farmers, Fodder and Feed producers, Fodder seed producers, Dairy Cooperatives) in using technological advancements to improve productivity and quality of produce.

7.3.5 Training on business management.

INReMP PMT will provide capacity building for dairy, fodder and feed farmers on important aspects of farming such as the construction of appropriate facilities for processing the products, as well as handling of waste generated from processing the products.

7.3.6 Training on the use and interpretation of early warning systems.

INReMP PMT, in collaboration with the Kenya Meteorological Department, will also encourage the communication and dissemination of meteorological bulletins tailored to climate risks and vulnerabilities specific to selected crops grown in those areas.

7.3.7 Training of all farmers on watershed management issues

Every farmer is key in ensuring compliance with the ESMPs that has been developed by this ESCMF process, it will be important for them to have a good understanding of how the activities they will carry out under INReMP will affect and/or be affected by environmental, social and climate change aspects, occurring in the rest of the watershed. They will need to be trained on what measures are required to address these watershed management issues.

7.3.8 Capacity building for gender equity

Gender balance should be promoted in order to increase awareness of gender roles in the households and communities by improving the capacity of vulnerable groups such as household heads who are female and single parents of either gender, to negotiate their needs and interests. These Households will be capacitated on how to effectively participate in livelihoods planning and value chain development through gender-equitable solutions.

7.3.9 Social and psychosocial support for communities

INReMP PMT should acknowledge that the implementation of the project is likely to trigger some culture shocks within the participating communities and therefore make the necessary plans to provide support.

 Put in place support structures for the social and psycho-social needs of affected communities.

- Sensitise communities to prepare them for the likely changes in their way of life
- Establish structures for the control and resolution of conflicts related to the impacts of INReMP on family fabric.

7.3.10 Training on health, safety and environmental quality issues

- Farm workers should be trained on how to handle and store agrochemicals.
- Farm workers should be sensitised and educated on how to avoid accidental contact with pesticides and agrochemicals.
- Sensitisation on the usefulness of Safety data sheets and how to keep and use them.
- Training of farm workers on occupational health and safety issues, relevant Personal Protective Equipment necessary for each sub-project, including guidelines that need to be followed to prevent the transmission of communicable diseases

7.4 SUMMARY OF TRAINING REQUIREMENTS

Table 7.1 provides a summary of the training needs for the INReMP including the target groups and trainers for each training activity and its cost estimates:

Table 7.1: Environmental and Social Training

SN	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
1.	High Level Environmental, Social and Climate	TARGET GROUP:	- 40 high level	\$ 5,000.00 one session
	Risks and Impacts of INREMP	- 3 State Departments	decision makers,	during the entire project
	 INReMP and linkage to Safeguards 	- 10 Country department of	managers,	period)
	policies	environment	coordinators	
	- Typical issues	 NEMA sub offices in countties 	trained	Length: 1 day
	 Mitigation requirements 	- INReMP coordinator and		
	- Management plans	management		Total cost: \$ 5,000.00
	 Monitoring requirements 	 Sub-project management 		
	 Management review 	 Other collaborating institutions. 		
	 Budgeting for E&S risk management 	TRAINER:		
	 early warning systems 	 NEMA senior staff 		
	- health, safety and environmental			
	quality.			
2.	Environmental and Social Impact Assessment of	TARGET GROUP:	- 20 Members of	(Three sessions during
	the sub-Projects:	- County Agriculture Officers	County	the entire
	- Screening process.	- County Environment	Agriculture	project period)
	- Use of checklists	departments	Department Team	
	- Preparation of terms of reference.	- Extension workers in project	are trained.	Length: 5 days per session
	- Identification of Impacts	impact areas.	- 20 County	
	- ESIA report preparation and processing	TRAINER:	Environment	Total cost: \$ 15,000.00
	- Policies and laws in Kenya	- NEMA senior staff	departments	
	- IFAD safeguard policies		members are	
	- early warning systems		trained.	
	- health, safety and environmental		- 20 Extension	
	quality		workers in project	
			impact areas	
		TARCET CROUP.	trained.	/Thursday
		TARGET GROUP:	- 30 members of	(Three sessions during
		Cascading training to lower levels:	the	the entire
				project period)

SN	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
		 Associations/cooperatives/far mers. The rest of the Sub county/District Forestry staff Sub county/District teams TRAINER: NEMA staff at county level 	Associations/coop eratives/farmers 30 Extension Workers - 20 Sub county/District/Ex tension workers	Venue: In project areas Length: 5 days per session Total cost: \$15,000.00
3.	Watershed Management - Rehabilitation of mountain sides and gullies. - Reforestation/ revegetation. - Control of alien Invasive Species. - General Catchment management. - River bank restoration	TARGET GROUP: - County Agriculture department Team - Sub-county and District Environment teams - Extension workers in project impact areas. TRAINER: - National Environmental Management Authority (NEMA) - TARGET GROUP: Cascading training to lower levels:	- 20 members of County Agriculture department Team are trained 20 Sub county/district Environment team members are trained 20 Extension workers in project impact areas trained 30 members of the	(Three sessions during the entire project period) Length: 3 days per session Total cost: \$ 15,000.00 (Three sessions during the entire project period)
		 Associations/cooperatives/far mers The rest of the District Agriculture staff District Councils and Extension workers TRAINER: National Environmental Management Authority (NEMA) 	Associations/coop eratives/farmers - 30 Extension Workers - 20 District Council/Extension workers	Venue: In project areas Length: 5 days per session Total cost: \$15,000.00
4.	Facilitate Gender, HIV/AIDS awareness - Impacts of HIV/AIDS on social wellbeing, livelihood and projects - Mitigation measures - Sensitization on GBV/SEAH	TARGET GROUP: - Extension workers in project impact areas - Associations/cooperatives/far mers.	- 20 Extension workers in project impact areas trained.	To use Private consultant (Two sessions during entire project period) Venue:

SN	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES	
5.	- Care of victims - Social and psychosocial support - Sensitisation on child labour Water Management - When to irrigate - How much water to apply? - For how long - Water rights Crop Management - Fodder management - Cropping calendar - How to apply fertilizer - Use of organic manure / compost - Weeding - Crop harvesting & storage	TRAINER: - Private Consultant TARGET GROUP: - Extension workers and Farmers TRAINER: - Private Consultant	- 30 Cluster members/Farmer s trained - 20 Extension Workers - 60 Farmers from various trial farms trained	Length: 3 days Total cost: \$20,000.00 (Three sessions during the entire project period) Venue: Farms Length: 4 days per session Total cost: \$25,000.00	
6.	For Agricultural activities - Pesticide Management - Pesticides Types and Use - Packaging, labelling and Handling - Storage, Stacking and Release - Pesticides Record Maintenance Pesticides Application and Disposal - Types and Handling of Equipment - Pesticides Toxicity - Safety of Applicators (OSHA) - First Aid - Care, Cleaning and Disposal of Pesticides and Equipment Agro-facility Management - disposal of wastes, - biosafety, - security - emergency response.	TARGET GROUP: - Store Keepers - Pesticide Transporters - Pesticide Users - Agro-dealers - All Farmers - Farm Management Committee - Agro facilities, e.g., warehouses, etc. TRAINER: - Senior staff from State department-Agriculture	- 20 members of farmers - 20 Extension Workers - 30 Cluster members/Farmer s trained	(Three sessions for the entire project period) Venue: Farms Length: 5 days per session Total cost: \$15,000.00	
7.	TOTAL ESTIMATED BUDGET			125,000.00	

7.5 PROPOSED APPROACH IN EXECUTING TRAINING ACTIVITIES

INReMP will adopt a strategy of running workshops and refresher courses to disseminate the SECAP related studies and reports. It will also use the training of trainers and community exchange visits approach.

It will be important that key decision makers, the INReMP coordinator and management staff and other high-level persons are sensitized in the potential environmental and social risks and impacts due to the proposed INReMP activities. This training may be conducted by a private consultant or by the EIA Department of National Environmental Management Authority (NEMA).

7.6 FUNDING REQUIREMENTS FOR ENVIRONMENTAL AND SOCIAL TRAINING

The proposed environmental training activities for the programme will be funded directly by the programme resources in accordance with the proposed plan laid out in Table 7.1 above.

8. MONITORING PLAN AND ARRANGEMENTS

8.1 INTRODUCTION

Monitoring is an important part of managing the impacts of the project. The PMT for INReMP with the help of relevant authorities and county leadership will monitor the environmental and social effects of project implementation and the success of mitigation measures. The environmental and social monitoring will be the responsibility of the Environmental and social Safeguard specialist who will be coordinating all safeguards issues.

The objective for monitoring is threefold:

- **E&S monitoring** This involves gathering scientific data to establish the progress in implementation of the mitigation measures, the extent to which they are effective in maintaining environmental and social integrity and if any changes are required to improve the ESCMF implementation. E.g. water quality, soil chemistry/fertility, noise, dust, clinic records. To be carried out according to a very specific protocol by field officers or consultants
- **Site inspections** these should be routine inspections to make observations about issues such as waste management, erosion control (supplemented by Water Quality analysis), area of disturbance, spoil management, etc. This would be done on a routine basis by trained field officers.
- **Compliance auditing** this involves checking compliance with all legally required permit conditions and the requirements set out in the approved ESCMP. Usually done once per year by a member of PMCU/IFAD.

8.2 AREAS TO BE MONITORED

This component will be comprised of monitoring activities to ensure that proposed mitigation measures are effective and desired results are achieved. The two main areas that will be monitored during construction and implementation phases of the project are environmental and social issues.

8.2.1 Environmental issues

a) Soils

Soil degradation may occur as the soils are exposed and or compacted during the construction of infrastructure and agricultural activities, potentially affecting the drainage of the areas. The beneficiary communities must ensure that no gullies or rills develop in the programme areas. This can be avoided by taking such soil erosion control measures as construction of embankments and designing drainage along work areas. The absence of gullies and rills will be used as a measure of the success of the control measures.

The soil can also be scotched by agro-chemical spillages. This will render the soil poisonous and it must be discouraged at all cost.

b) Vegetation

Unnecessary vegetation clearing and grass fires must be prevented at all costs. The trees should not be gathered for firewood or cut for other purposes. The local residents must be monitored to ensure that firewood is not excessively collected.

c) Wildlife

Under such situations, farmers may want to snare small animals. All wildlife should be treated in accordance with the existing legislations and regulations.

d) Fragile ecosystems

Fragile ecosystems must be protected against abuse.

e) Pollution from Agro-Chemicals

A great likelihood of chemical pollution from agroc-chemicals and pesticides on the water sources and the soil exists and in order to monitor the amount of pollutants in the soil or water, samples must be taken regularly from them for pollution testing.

f) Water resources

Both quality and quantity of water resources in the rivers must be properly managed for sustainable irrigation activities to persist.

g) Ambient air quality

All air polluting activities need to be checked regularly to minimise their effect on air quality.

h) Climate Resilience

It will be important to regularly inspect agricultural infrastructure for its resilience to climate change and variability and also any agricultural practices, if they are still relevant in the given climatic conditions.

8.2.2 Social Issues

a) Loss of natural and cultural heritage

The rehabilitation/construction of water infrastructure, micro dams, warehouses and other agricultural infrastructure and fields may affect some natural features, antics and relics in the programme area. Measures must be put in place for chance finds and any such incidences must be treated as required by the relevant Act and Regulations.

b) Socio-Cultural Issues

Regular health checks of the work force/farmers are a way to monitor disease patterns of the members of the community to ensure that no new strains of diseases are being introduced.

c) Noise and Vibrations

It will be important to routinely monitor noise levels from the machinery to ensure that it conforms to the limits recommended for noise levels.

It is recommended that all environmental and social parameters mentioned above be monitored during the implementation and operation stages and any impacts should be mitigated as soon as possible. In the course of monitoring, if and when any significant impacts are detected, the monitoring team should meet and address the issue. All team members should keep records of such meetings.

8.3 ENVIRONMENTAL AND SOCIAL MONITORING PLAN

Screening will ensure that no activities in the exclusion list (Annex 4) will be accommodated under INReMP. Thus, the first action by the Environmental Officers will be to monitor whether any subprojects:

- i. Require acquisition of land and displacement of people,
- ii. Block the access to or use of land, water points and other livelihood resources used by others,
- iii. Encroach onto fragile ecosystems, marginal lands or important natural habitats,
- iv. Impact on physical cultural resources of national or international importance and conservation value.

The following is an outline of the proposed environmental and social monitoring plan and associated cost for the INReMP.

Table 8.1 Monitoring Activities and Indicators

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES	ESTIMATED COST(US \$)
Soil erosions	In the process of constructing water infrastructure, micro dams and other agriculture infrastructure, the contractors should make a daily inspection of earth works and ensure that slopes are suitably graded.	 Soil erosion Conservation activities Run off to water bodies 	An absence of rills, gullies or other erosion features occurs	Daily and ongoing as project is implemente d	Env and social safeguard socialist (INReMP-PMT) assisted by: - County Environment department	15,000.00
	Once earthworks are complete the Implementing Agent should monitor the restoration measures implemented by the Contractor, such as re-vegetation					
Soil Fertility	In the process of conducting agricultural activities, soils may lose their fertility. soil samples should be collected on an annual basis to determine soil fertility	- Soil Fertility	Soil nutrient levels satisfactory.	Annually	- State Department of crop production- Ministry of Agriculture	20,000
Vegetation	The farmers must clear areas to be used and site works only.	 Clearing of the project sites and disturbance of animals. flora and fauna 	No unnecessary vegetation cleared	Weekly and ongoing as project is implemente d	National Environmental Management Authority assisted by: - County Environmental department - State Department Crop production - Environmental and Social safeguards specialist (INReMP-PMT)	20,000
Small mammals habitat loss	Ensure that no unnecessary habitat loss occurs, and that poaching is curtailed.	- Animal habitats - Poaching	No Mammals are displaced from their habitats. Number	Weekly and ongoing as project is	Kenya Wildlife Service assisted by:	20,000

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES	ESTIMATED COST(US \$)
			of poaching incidences reduced or eliminated.	implemente d	 County Environmental department Environmental and Social safeguards specialist (INReMP-PMT) 	
Noise	Noise monitoring should be carried out on an ad-hoc basis by the Environmental Monitor or the INReMP-PMT to establish noise levels in the work areas.	- Noise Levels	Noise levels at the nearest sensitive receiver would be kept to a minimum.	Weekly and ongoing as project is implemente d.	NEMA assisted by: - Environmental and Social safeguards specialist (INReMP-PMT)	40,000
Health	INReMP-PMT must ensure that education and awareness campaigns are implemented and must mainstream HIV/AIDS issues into the project implementation programme.	 Public health Waste management at Sub-project sites. Disease outbreak due to concentration of people at the Sub- project sites. Disease outbreak due to dust and water pollution. 	Reduction in number of cases of such diseases as AIDS/STD related diseases recorded at hospital and medical clinic	Monthly and ongoing as project is implemente d	NEMA assisted by: County Health department Environmental and Social safeguards specialist (INReMP-PMT)	30,000
Air Pollution	Observations should be made on the level of dust generated during the construction and Agricultural activities by the Environmental Monitor or INReMP PMT.	- Levels of dust emissions - Ambient air quality	Deposition of dust on surfaces should decrease with increased dampening.	Daily	NEMA: - Environmental and Social safeguards specialist (INReMP- PMT)	50,000

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES	ESTIMATED COST(US \$)
	Use dust buckets to monitor dust fall outs in the vicinity of the construction sites. Dampening should be carried out if levels are unacceptable.					
Water resources	 Water resources should be managed well NEMA should test borehole water quality in the area to ascertain the suitability for human consumption. 	- Watercourses and impoundment s - Surface and ground water quality - Recommende d distances from watercourses Possible micro dam sites construction	 Water made available for environmental concerns. Pollution of water resources monitored/dete cted early and remedial measures taken on time 	Tests for water quality to be done Monthly.	NEMA: assisted by: - Ministry of Water, Sanitation and irrigation, - Environmental and Social safeguards specialist (INReMP- PMT) - County Environmental department	80,000
Landscape	The INReMP-PMT should make visual inspection of earth works to ensure that excessive excavation is not being carried out. Temporary screening may be appropriate in some cases.	- Visual intrusions - Aesthetics	Landscape alteration reduced to a minimum	Monthly	NEMA assisted by: - Environmental and Social safeguards specialist (INReMP- PMT) - County Environmental department	20,000
Grievances	The INReMP-PMT should inspect the record of complaints made by local the community and should check that action is taken quickly and that the number of complaints do not rise significantly.	- Exclusion and unequal sharing of resources and benefits from the project	Number of complaints decreases.	Monthly	- Environmental and Social safeguards specialist - NEMA - County department on social welfare	15,000
GBV-Sexual Exploitation	Periodic surveillance Reports from the community	Women facing GBV at the points of	Reduction of reported cases	Quarterly (but open to	- PMU	30,000

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES	ESTIMATED COST(US \$)
and Abuse and Sexual Harassment (SEA/SH)	Reports at nearby health centres Discussions with community leaders	access to productive resources	Reduction of teenage pregnancies	reports all the time)		, , , ,
Child Labour	Regular inspection at worksites Reports from the community Discussions with community leaders	Under age children being forced and/or subjected to hard labour with little compensation	Absence of child labour	Quarterly	- PMU	15,000

8.3.2 Environmental and Social Monitoring Indicators

Several environmental and social monitoring indicators and parameters can be used to track the performance of the ESCMF of INReMP. The goals of environmental and social monitoring indicators include (i) to verify the accuracy of the environmental and social impact predictions; (b) to determine the effectiveness of measures to mitigate adverse effects of projects on the environment and the community; (iii) to determine whether interventions have resulted in dealing with negative impacts; (iv) to verify that the required capacity building activities have been done in the identification, planning and implementation of the environmental and social impacts of the project. Some of these indicators and parameters include:

- Number, sex and type of target groups participating in the programme
- Number and objective of training and awareness creation programmes (ESCMF, IPMP, SEP and GRM etc).
- Number of grievances reported and solved at community, county and IFAD level
- Number and percentage of subprojects for which social issues are integrated into the project cycle.
- Representation in the community management committees,
- Equitable sharing of benefits from the programme interventions,
- Numbers of members attending programme planning and implementation meetings
- Effect of programme implementation on local household incomes
- Number of farmers benefited from climate data and early warning systems.

9. CONCLUSIONS AND RECOMMENDATIONS

The proposed INReMP has potential to significantly enhance the productivity of dairy and agricultural value chains and improve the livelihoods of smallholder farmers in the target counties. An improvement in the productivity of the Smallholder farmers will translate to improved livelihoods as they will have cash to secure other needs.

The envisaged environmental and social impacts include disturbance of soil from infrastructure construction, agricultural activities, digging of pits and foundations, irrigation, water supply and value addition infrastructures construction activities, Solid and liquid waste generation, general vegetation clearing, emission of dust and generation of noise. These envisaged environmental impacts will generally be temporary, predictable or reversible, and they can be entirely avoided or reversed. They are potentially cumulative but are less severe and more readily avoided or mitigated than in a High-Risk project. The impacts also pose medium to low probability of serious adverse effects to human health or the environment, with known and reliable mechanisms to prevent or minimize such effects.

Thus, to mitigate against these impacts it entails adhering to the requirements of the current ESCMF which spells out the mitigation measures to prevent or minimize them. The Final benefits of this programme to the nation will, by far outweigh any potential negative effects. The programme overall will not have any apparent significant environmental impacts if the recommended mitigations are carried out.

It is therefore recommended that:

- All dairy and agricultural value addition infrastructure must include the requisite waste disposal or handling systems.
- It is important that stakeholder organisations, implementing partners, government institutions like Kenya Wildlife Services, Kenya Forest Services, Research Institutions, NGOs and other interested parties are consulted and kept informed of the implementation progress so that they can play their part.
- Reduction and control of noise levels to minimize any disruption to the living conditions of wildlife be strictly adhered to.
- Bush clearance should be confined to the absolutely necessary part, buffer strips be maintained and huge indigenous trees in the area should be preserved as much as possible.
- Labour intensive methods should be encouraged as they benefit the local community in terms of job creation. For this the project should employ locals as much as possible to ensure that benefits remain in the area where development is taking place.

The programme overall will not have any adverse significant environmental and social impacts if the recommended mitigations are carried out

10. REFERENCES

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11. ANNEXES

Annex 1: ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST/FORM

(Guidelines: Site inspec	ction of project site. The evaluation results to be a consensus of at least three officials
Sub-Project Name: .	
Name of Evaluator: .	
Signature of Evaluat	or:
Date of Field Evaluate	tion:

		Appraisal		Significance			Potential Mitigation
		Yes	No	Low	mediu m	high	Measures
1.0	Type of activity – Will the sub-projects:						
1.1	Involve the construction or rehabilitation of any small dams, weirs or reservoirs?						
1.2	Support irrigation schemes?						
1.3	Build or rehabilitate any rural roads?						
1.4	Build or rehabilitate any electricity power generating system?						
1.5	Involve food processing?						
1.6	Build or rehabilitate any structures or buildings?						
1.7	Support agricultural activities?						

		Appraisal		Significance			Potential Mitigation
		Yes	No	Low	mediu m	high	Measures
1.0	Type of activity – Will the sub-projects:						
1.8	Be located in or near an area where there is an important historical, archaeological or cultural heritage site?						
1.9	Be located within or adjacent to any areas that are or may be protected by government (e.g. national park, national reserve, world heritage site) or local tradition, or that might be a natural habitat?						
1.10	Depend on water supply from an existing dam, weir, or other water diversion structure?						
	answer to any of questions $1.1 - 1.10$ is "Yes", ple ce on how to avoid or minimize typical impacts an		ndicated Res	source Sheet	ts or section	ons(s) of the Es	SCMF for
2.0	Biodiversity Conservation and Sustainable Natur impacts.	al Resource I	Management	t - Will the p	roject ger	erate the follow	wing negative
2.1	Affect the quantity or quality of surface waters, or groundwater						
2.2	Soil erosion/siltation in the area						
2.3	Removal of native trees						
2.4	Loss of trees/vegetation						
2.5	Be located within or nearby environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?						
2.6	Pollution to land- e.g., from diesel, oils						
2.7	Cause soil salinity						

		Appraisal	sal Significance			Potential Mitigation	
		Yes	No	Low	mediu m	high	Measures
1.0	Type of activity – Will the sub-projects:						
2.8	Borrow pits and pools of stagnant water						
2.9	Rubble/heaps of excavated soils						
2.10	Alien / Invasive species						
2.11	Loss of soil fertility						
	enswer to any of questions 2.1 - 2.11 is "Yes", ple ce on how to avoid or minimize typical impacts ar		ndicated Re	source Shee	ts or secti	ons(s) of the E	SCMF for
3.0	Community Health, Safety and Working Condition	ns - Will the	project gen	erate the fol	lowing neg	gative impacts	
3.1	contamination of drinking water						
3.2	Dust emissions						
3.3	Solid and liquid wastes e.g., open defecation						
3.4	Spread of HIV/Aids and other STI						
3.5	Spread of water borne diseases e.g., Malaria.						
3.6	Contamination from agrochemicals and pesticides						
3.7	Nuisance from smell or noise						
3.8	Reduced water quality and quantity						
3.9	Health hazards to workers and communities						
3.10	Project resulting in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)						

		Appraisal		Significance			Potential Mitigation
		Yes	No	Low	mediu m	high	Measures
1.0	Type of activity – Will the sub-projects:						
3.11	elements of Project construction, operation, or decommissioning pose potential safety risks to local communities.						
3.12	health and safety issues due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. pesticides, fuel and other chemicals during construction and operation)						
	answer to any of the questions 3.1 - 312 is "Yes", SEP) and a Health and safety Plan (HSP)	please consu	ılt the ESCM	F and, if nee	eded, prep	are a Stakehol	der Engagement
4.0	Social, Gender and human rights- Will the projection	ct generate th	ne following	negative im	pacts		
4.1	Disruption of marriages.						
4.2	adverse on gender equality and/or the situation of women and girls.						
4.3	Cause discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits						
4.4	limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and Services.						
4.5	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups						

		Appraisal		Significand	e		Potential
		Yes	No	Low	mediu m	high	Mitigation Measures
1.0	Type of activity – Will the sub-projects:						
4.6	inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups.						
4.7	restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups						
4.8	Exclusion of any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them						
4.9	Exacerbation of conflicts among and/or the risk of violence to project- affected communities and individuals.						
If the a	answer to any of the questions 4.1 – 4.9 is "Yes", SEP)	please consu	ılt the ESCM	F and, if nee	eded, prep	are a Stakehol	der Engagement
5.0	Resettlement Screening - Will the project general	ate the follow	ing negative	e social and	economic	impacts?	
5.1	Require that land (public or private) be acquired (temporarily or permanently) for its development?						
5.2	Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests)						
5.3	Temporary or permanent and full or partial physical displacement of individuals, families or businesses.						

		Appraisal		Significand	e		Potential Mitigation
		Yes	No	Low	mediu m	high	Measures
1.0	Type of activity – Will the sub-projects:		•	•			
5.4	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)						
5.5	Risk that the Project will lead to forced evictions						
5.6	Project affecting land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources						
5.7	Loss of land by households						
5.8	Loss of properties -houses, structures						
5.9	Loss of trees by households						
5.10	Loss of crops by people						
5.11	Loss of access to river/forests/grazing area						
5.12	Loss of cultural site, graveyard land						
5.13	Conflicts over use of local water resources						
5.14	Disruption of important pathways, roads						
5.15	Loss communal facilities -churches						
5.16	Result in the involuntary restriction of access by people to legally designated parks and protected areas						

			Appraisal		Significance		
		Yes	No	Low	mediu m	high	Mitigation Measures
1.0	Type of activity – Will the sub-projects:						
It the a Plan (R	answer to any of the questions 5.1 – 5.16 is "Yes" (AP)	, please cons	sult the ESCI	MF and, if ne	eeded, pre	pare an Resett	lement Action
6.0	Climate Change Mitigation and Adaptation- Will t	the project ge	enerate the	following ne	gative soc	ial and econom	ic impacts?
6.1	Significant greenhouse gas emissions						
6.2	Exacerbate climate change.						
6.3	Incidence of flooding						
6.4	Potential outcomes of the Project being sensitive or vulnerable to potential impacts of climate change						
6.5	Project directly or indirectly increase social and environmental vulnerability to climate change now or in the future (maladaptive practices)? For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding						
It the a	enswer to any of the questions 6.1 – 6.5 is "Yes",	please consu	It the ESCM	F and, if nee	eded, prep	are a Climate F	Risk Assessment
7.0	Cultural Heritage- Will the project generate the f	following neg	ative social	and econom	ic impacts	?	
7.1	interventions potentially adversely impacting sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)?						

		Appraisal Significance			Potential Mitigation		
		Yes	No	Low	mediu m	high	Measures
1.0	Type of activity – Will the sub-projects:						
7.2	Project utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes.						
It the a	answer to any of the questions $7.1 - 7.2$ is "Yes",	please consu	It the ESCM	F and, if nee	eded, prep	are a Chance F	inds Procedure

ANNEX 2: METHODOLOGY FOR SIGNIFICANCE RATING OF IMPACTS

The significance of adverse impacts from project activities will be rated on the basis of their magnitude, duration and probability as Table 2A shown below. The scales of rating are 1 to 5 with 1 being low and 5 being high. Where an aspect is affected by more than one impact, the highest rating is taken as the applicable significance of the impact. The ESCMP in Chapter 9 only considers the impacts that have been rated moderate and high significance as these present impacts that need attention.

Table 2A: Methodology for significance rating of impacts (adapted from Ryan Edwards, 2011)

No.	CRITERIA	DESCRIPTION	SCORING
1.0	Impact Assessment Criteria	The criteria used for the assessment of the potential impacts of the proposed project are described here in:	
	Nature	Includes a description of what causes the effect, what will be affected and how it will be affected	
	Duration	Lifetime of the impact is measured in relation to the lifetime of the project	
	Extent	Physical and spatial scale of the project	
	Intensity Extent	Examining whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment	
	Туре	Description of the type of impact as positive, negative or neutral, and direct or indirect	
	Consequence	Combination of duration, extent and intensity of impact in relation to the type	
	Probability	This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the lifecycle of the activity, and not at any given time	
	Significance severity	Synthesis of the characteristics described above and assessed as low, medium or high. Distinction will be made for the significance rating without the implementation of	

No.	CRITERIA	DESCRIPTION	SCORING
		mitigation measures and with the implementation of mitigation measures	
	Nature	Includes a description of what causes the effect, what will be affected and how it will be affected	
2.0	Quality	Nature of Environmental Change	
	Positive	Beneficial impacts	N/A
	Negative	Adverse Impacts	N/A
3.0	Probability	the likelihood of the impact actually occurring	
	Improbable	Possibility of the impact occurring is none, due either to the circumstances, design or experience. The chance of this impact occurring is thus zero (0%).	1
	Possible	Possibility of the impact occurring is very low, either due to the circumstances, design or experience. The chances of this impact occurring is defined as 25%.	2
	Likely	There is a possibility that the impact will occur to the extent that provisions must therefore be made. The chances of this impact occurring is defined as 50%.	3
	Highly Likely	It is most likely that the impact will occur at some stage of the development. Plans must be drawn up before carrying out the activity. The chances of this impact occurring is defined as 75%.	4
	Definite	Impact will take place regardless of any prevention plans, and only mitigation actions or contingency plans to contain the effect can be relied upon the chances of this impact occurring is defined as 100%.	5
4.0	Severity	The degree of disturbance	

No.	CRITERIA	DESCRIPTION	SCORING
	Very Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.	1
	Low	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a slightly modified way and maintains original integrity (no/limited impact on integrity).	2
	Moderate	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity.	3
	High	Impact affects the continued viability of the system/component, and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.	4
	Very High	Impact affects the continued viability of the system/component, and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation often impossible. If possible, rehabilitation and remediation often infeasible due to extremely high costs of rehabilitation and remediation.	5
5.0	Extent	the spatial influence of the effects produced by the impact.	
	Footprint	Impacted area extends only as far as the activity, such as footprint occurring within the total site area	1
	Site	Impact could affect the whole, or a significant portion of the site	2
	Regional	Impact could affect the area around the site including neighbouring farms, transport routes and adjoining towns	3
	National	Impact could have an effect that expands throughout the country (South Africa)	4
	International	Impact has international ramifications that go beyond the boundaries of South Africa	5

No.	CRITERIA	DESCRIPTION	SCORING
6.0	Duration	Period when the Impact is Expected to Occur	
	Short-term	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).	1
	Medium-Short- term	The impact and its effects will continue or last for the period of a relatively long construction period and/or a limited recovery time after this construction period, thereafter it will be entirely negated (2 – 5 years).	2
	Medium-Long- term	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (5 – 15 years)	3
	Long-term	The impact and its effects will continue or last for the entire operational life of the development but will be mitigated by direct human action or by natural processes thereafter (15 – 50 years).	4
	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).	5
7.0	Intensity	The assessment of the intensity of the impact will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project.	
	Low	Impact alters the affected environment in such a way that the natural processes or functions are not affected	
	Low-Medium	Impact alters the affected environment in such a way that the natural processes or functions are slightly affected	

No.	CRITERIA	DESCRIPTION	SCORING
	Medium	Affected environment is altered, but functions and processes continue, albeit in as modified way	
	Medium-High	Affected environment is altered, but functions and processes are modified immensely	
	High	Function or process of the affected environment is disturbed to the extent where the function or process temporarily or permanently ceases	
8.0	Consequence	The Consequence of issues will be determined using the following formula:	
		Consequence = Type x (Duration + Extent + Intensity)	
	Extreme Detrimental	A very serious negative impact which may be sufficient by itself to prevent implementation of the Project. The impact may result in permanent change. Very often these impacts are immitigable and usually result in very severe effects. The impacts will be irreplaceable and irreversible should adequate mitigation and management measures not be successfully implemented.	-18 to 20
	High Detrimental	A serious negative impact which may prevent the implementation of the Project. These impacts would be considered by society as constituting a major and usually a long-term change to the (natural and/or social) environment and result in severe effects. The impacts may result in the irreversible damage to irreplaceable environmental or social aspects should mitigation measures not be implemented.	14 to > - 17
	Moderate Detrimental	An important negative impact which requires mitigation. The impact is insufficient by itself to prevent the implementation of the project but which in conjunction with other impacts may prevent its implementation. These impacts will usually result in negative medium to long-term effect on the social and/or natural environment.	-10 to 13
	Slight Detrimental	A small negative impact. The impact will result in medium to short-term effects on the social and/or natural environment.	-6 to 9

No.	CRITERIA	DESCRIPTION	SCORING
	Negligible	An acceptable negative/positive impact for which mitigation is desirable but not essential. The impact by itself is insufficient even in combination with other low impacts to prevent the development being approved. These impacts will result in negative/positive medium to short-term effects on the social and/or natural environment. The impacts are reversible and will not result in the loss of irreplaceable aspects.	-5 to 5
	Slight Beneficial	A small positive impact. The impact will result in medium to short-term effects on the social and/or natural environment.	6 to 9
	Moderate Beneficial	An important positive impact. The impact is insufficient by itself to justify the implementation of the Project. These impacts will usually result in positive medium to long-term effect on the social and/or natural environment.	10 to 13
	High Beneficial	A beneficial impact that may help to justify the implementation of the Project. These impacts would be considered by society as constituting a major and usually a long-term positive change to the (natural and/or social) environment.	14 to 17
	Extreme Beneficial	A very beneficial impact which may be sufficient by itself to justify implementation of the project. The impact may result in permanent positive change.	1 to 20
9.0	Magnitude	Effect on Environmental and Social Processes	
		Magnitude = Probability + Severity + Extent + Duration	
	negligible	not serious: Changes are barely perceptible.	< 6
	low	acceptable, mitigable	6-9
	moderate	undesirable but mitigable	10-13
	high	very serious	14-17
	very high	totally unacceptable	>17

ANNEX 3: IFAD SECAP STANDARDS & RISK CATEGORISATION.

3A: SECAP Standards

The nine SECAP standards are as shown in the table below

Table 3A: The summary of IFAD SECAP Standards

ENVIRONMENTAL	OBJECTIVES	SCOPE OF APPLICATION
AND SOCIAL		
STANDARDS		
Standard 1: Biodiversity conservation	 Maintain and conserve biodiversity. Ensure the fair and equitable sharing of benefits from the utilization of genetic resourcesRespect, preserve, maintain, and encourage knowledge, innovations and practices of indigenous peoples and local communities relevant for the conservation and sustainable use. of biodiversity, and their customary use of biological resources. And Adopt a precautionary approach to natural resource conservation and management to ensure opportunities for environmentally sustainable development. 	This Standard and its associated requirements apply to all IFAD-supported projects that are: - Located in modified, natural or critical habitats. - Located in areas providing ecosystem services upon which project stakeholders depend for survival, sustenance, livelihoods, or primary income, or that are used for sustaining the project. - Extracting renewable natural resources, i.e. projects that include the generation of living natural resources (e.g. plantation forestry, commercial harvesting, agriculture, aquaculture). Or - Using and commercializing an indigenous knowledge system. This Standard also applies to situations where the livelihoods of affected communities – including those of indigenous peoples – whose access to or use of biodiversity, ecosystem services or living natural resources may be affected by project activities.
Standard 2: Resource efficiency and pollution prevention	Avoid, minimize, and manage the risks and impacts associated with hazardous substances and materials, including pesticides. Avoid or minimize project-related emissions of short- and long-lived climate pollutants.	This Standard applies to any IFAD-supported projects that: - Significantly consume or cause consumption of water, energy, or other resources. - Aim to improve existing waste-management practicesGenerate or cause generation of solid, liquid, or

ENVIRONMENTAL	OBJECTIVES	SCOPE OF APPLICATION
AND SOCIAL STANDARDS		
	Promote more sustainable use of resources, including energy, land, and water. and Identify opportunities for improving resource efficiency. This Standard applies to any IFAD-supported projects that: Significantly consume or cause consumption of water, energy, or other resources. Aim to improve existing waste management practices. Generate or cause generation of solid, liquid, or gaseous waste or emissions. Or Use, cause the use of, or manage the use, storage or disposal of hazardous materials and chemicals, including pesticides and fertilizers	gaseous waste or emissions. Or - Use, cause the use of, or manage the use, storage or disposal of hazardous materials and chemicals, including pesticides and fertilizers.
Standard 3: Cultural heritage	 Preserve and safeguard cultural heritage. Ensure that active efforts are made to prevent IFAD-supported projects from altering, damaging, or removing any tangible or intangible cultural heritage. Promote the equitable sharing of benefits from the use of cultural heritage. And Promote meaningful consultation on matters related to cultural heritage. 	Tangible cultural heritage may be defined as movable or immovable objects, sites, structures, groups of structures, natural features and landscapes that have archaeological, historical, religious, spiritual, or other cultural significance. Tangible cultural heritage can be found almost anywhere: in urban or rural settings, above or below ground, and even under water. Tangible cultural heritage derives its significance from various sources, whether as part of a community's cultural identity and heritage, as assets for economic or social development, or as a source of valuable scientific or historical information. As a result, its cultural significance may be local, provincial, national, or even international. Intangible cultural heritage can be defined as practices, representations, expressions,

ENVIRONMENTAL	OBJECTIVES	SCOPE OF APPLICATION
AND SOCIAL STANDARDS		
STANDARDS		knowledge, skills, and associated instruments, objects, artifacts, and cultural spaces, that communities and groups recognize as part of their cultural heritage. Intangible heritage is transmitted from generation to generation, and constantly recreated in response to changes in their environment, their interaction with nature and their history. The Standard applies to projects that may create risks and/or result in adverse impacts on cultural heritage, including those that may be in – or in the vicinity of – a cultural heritage site, or that propose to utilize tangible or intangible forms of cultural heritage for commercial or other purposes.
		IFAD is committed to identifying and protecting cultural heritage that borrowers/ recipients/partners could impact upon. Even smallholder agriculture and rural development projects on marginal lands may, depending on their location, involve resources of archaeological (e.g., ancient ruins, monuments, prehistoric caves), historical (e.g., original structures, architectural works, historic sites), religious (e.g., churches, mosques, temples, sacred grounds) or cultural (e.g., cemeteries, traditional meeting places) significance. Of particular concern are IFAD projects: (i) involving significant excavations, demolition, movement of earth, flooding, or other environmental changes and (ii) located in – or in the vicinity of – cultural heritage sites. IFAD will use the SECAP to ensure that any

ENVIRONMENTAL	OBJECTIVES	SCOPE OF APPLICATION
AND SOCIAL STANDARDS		
		cultural heritage site involved in or potentially affected by an IFAD-supported project is identified and adequately protected.
Standard 4: Indigenous peoples	Support indigenous peoples to determine priorities and strategies for exercising their right to development. Ensure that each project is designed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC. Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project supported activities in a culturally appropriate and inclusive manner. and Recognize and respect the rights of indigenous peoples to the lands, territories, waters and other resources that they have traditionally owned, used or relied upon.	Consistent with international best practices49 and with respect for the right of self-determination, IFAD's Policy on Engagement with Indigenous Peoples defines indigenous peoples based on the following criteria: Priority in time, with respect to occupation and use of a specific territory. The voluntary perpetuation of cultural distinctiveness, which may include aspects of language, social organization, religion and spiritual values, modes of production, laws, and institutions. Self-identification, as well as recognition by other groups, or by state authorities, as a distinct collective and An experience of subjugation, marginalization, dispossession, exclusion, or discrimination
Standard 5: Labour and working conditions	Promote direct action to foster decent rural employment. Promote, respect, and realize fundamental principles and rights by: Preventing discrimination and promoting equal opportunities for workers. Supporting freedom of association and the right to collective bargaining. and Preventing the use of child labour and forced labour. Protect and promote the safety and health of workers. Ensure that projects comply with national employment and labour laws, and international commitments.	 The following requirements should be applied in line with the unique nature of each project, its specific activities, the associated social and environmental risks and impacts, and the contractual relationships with workers engaged in the project. These requirements apply to all project workers directly engaged by borrowers/recipients/ partners to work on a project or perform work essential to the project, and to people employed or engaged through third parties (e.g. contractors, subcontractors, brokers, agents and

ENVIRONMENTAL	OBJECTIVES	SCOPE OF APPLICATION
AND SOCIAL STANDARDS		
	Leave no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g., maternity protection), young workers, migrant workers, workers in the informal economy and workers with disabilities.	intermediaries) to perform work essential to a project.61 When a project engages community workers, relevant provisions of the requirements will be applied in a proportionate manner, recognizing the potential risks and impacts. Paragraphs 23 and 24 apply to primary supplier workers. The full requirements apply to full-time, part-time, temporary, seasonal, and migrant workers. Government civil servants working in connection with IFAD-supported projects NEMAin subject to the terms and conditions of their existing public sector employment arrangements
Standard 6: Community health and safety	Ensure quality and safety in the design and construction of programming-related infrastructure, preventing and minimizing potential safety risks and accidents. Avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with project activities. Ensure that the safeguarding of personnel and property minimizes risks to communities and is carried out in accordance with international human rights standards and principles. Have in place effective measures to address emergency events, whether human-made or natural hazards.	This Standard applies to projects that may pose significant risks to and adverse impacts on human health, nutrition, and safety. The applicability of this Standard will be determined during the environmental, social and climate risk screening and assessment phase, as outlined in Chapter 3. Measures to ensure occupational health and safety are covered in Standard 5: Labor and working conditions. Further requirements to avoid or minimize impacts on human health and the environment from pollution are included in Standard 2: Resource efficiency and pollution prevention.
Standard 7: Physical and economic resettlement	Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring alternative project designs and sites. Avoid forced eviction.	This Standard applies to all IFAD-supported projects that involve any displacement or need for resettlement. The displacement may be full or partial, permanent or temporary, and could result from a variety of

ENVIRONMENTAL	OBJECTIVES	SCOPE OF APPLICATION
AND SOCIAL STANDARDS		
	Ensure that resettlement activities are planned and implemented collaboratively with the meaningful participation of affected people. Enhance and restore the livelihoods- of all displaced people. And provide explicit	project activities. This Standard also applies to any physical or economic displacement caused by a borrower/recipient/partner for purposes relevant to the project before IFAD's involvement. Application of this Standard must
	guidance to borrowers/recipients/partners on the conditions that need to be met regarding involuntary resettlement.	be consistent with universal respect for fundamental human rights and freedoms,91 the principles of non-discrimination, equal opportunity and fair treatment, and the right to private property, adequate housing, and improvement of living conditions.
Standard 8: Financial intermediaries and direct investments	Promote sound environmental, social and climate practices, and sound human resource management with FIs and direct investees. Ensure that FIs and direct investees access and manage any environmental and social risks and impacts of subprojects. and Promote good environmental and social management practices by direct investees and in the subprojects financed by FIs.	This Standard applies to FIs and direct investees that receive financial support from IFAD, guided by its Rural Finance Policy and NSO Framework. When an FI receiving support from IFAD provides financing or de-risking instruments to other financial intermediaries, the primary financial intermediary should apply this Standard, guided by IFAD's Rural Finance Policy and NSO Framework, and should ensure that each FI also applies this Standard. If a direct investee implements other projects, subprojects or sub-activities concurrently, the investee should ensure that this Standard is applied.
Standard 9: Climate change	Ensure alignment of IFAD supported projects with the Nationally Determined Contributions of countries and the goals of the Paris Agreement and other international frameworks. Ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts, including both impacts of projects and on them.	The requirements of this Standard apply to all IFAD-supported projects that: Have development outcomes that may be threatened by climate change or related disaster risks. May contribute to increased exposure or vulnerability to climate change and related

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
	Apply the mitigation hierarchy in project design. Strengthen the resilience of communities to address the risk of climate change impacts and climate-related disasters. and Increase the ability of communities to adapt to the adverse impacts of climate change, and foster climate resilience and low GHG-emitting projects that do not threaten food production.	disaster risks. or may produce significant GHG emissions.

3B: SECAP RISK CATEGORISATION

The table 3B below provide the SECAP E&S and Climate Risk Categorisations.

 Table 3B
 Environmental and social risk categories

CATEGORY	ENVIRONMENTAL AND SOCIAL RISK LEVEL
High	 High risk: This classification takes into account whether the potential risks and impacts associated with a project have most or all of the following characteristics: Result in sensitive, irreversible or unprecedented significant risks and impacts (for example, resulting in loss of major natural habitat or conversion of wetlands), Result in risks and impacts that are significant in magnitude and/or spatial extent (large geographical area or size of the population likely to be affected), Have significant risks and impacts that affect an area much broader than the sites or facilities subject to physical interventions, Result in significant adverse cumulative or transboundary impacts, High probability of serious adverse effects to human health and/or the environment (e.g. due to accidents, toxic waste disposal), Risks and potential impacts are not readily remedied by preventive actions or mitigation measures. The area affected is of high value and sensitivity, for example, sensitive and valuable ecosystems and habitats (legally protected and internationally recognized areas of high biodiversity value), lands or rights of indigenous peoples and other vulnerable minorities, intensive or complex involuntary resettlement or land acquisition, or impacts on cultural heritage. There are significant concerns that the project's adverse social impacts and associated mitigation measures may give rise to significant social conflict, harm, significant risks or impacts on human security.

CATEGORY **ENVIRONMENTAL AND SOCIAL RISK LEVEL** There is a history of unrest in the project area or significant concerns regarding the activities of security forces. The project is being developed in a legal or regulatory environment where there is significant uncertainty or conflict regarding the iurisdiction of competing agencies, legislation or regulations do not adequately address the risks and impacts of complex projects, changes to applicable legislation are being made, or enforcement is weak. There are significant concerns related to the capacity, commitment and track record of project stakeholders in relation to engagement, or there are several external factors that could have a significant impact on the project's environmental or social performance, or outcomes. Additionally, a project is classified as High Risk when it finances one or more of the following activities: New construction, rehabilitation or upgrade of large/major dams or reservoirs (more than 15-metre-high wall, more than 500-metrelong crest, and/or with a reservoir exceeding 3 million m3) or incoming flood of more than 2,000 m3/s, New construction or upgrade of large-scale irrigation schemes (above 999 hectares per scheme). New construction, or upgrade of rural roads (annual average daily traffic [AADT] above 1,000). Surface water abstraction: significant extraction/diversion or containment of surface water, leaving the river flow less than 5 per cent above the environmental flow when downstream user requirements are taken into account. Ground water abstraction: withdrawal of groundwater in areas already experiencing soil subsidence due to over-abstraction and/or increasing groundwater depth (e.g. observed in existing wells) and/or withdrawal of groundwater close to the recharge rate (considering all abstraction needs from the groundwater unit), Large-scale aquaculture or Mari culture of at least 50 hectares on one Economic or physical displacement (e.g. land, potable water and water for other uses), or physical resettlement of more than 100 households or businesses, and/or significant loss of assets or access to resources (i.e. over 15 per cent reduction in a farmer's or community's assets), Conversion and loss of physical cultural resources. Substantial Substantial risk: A project should be classified as Substantial Risk when it is not as complex as a High-Risk project and its environmental and social scale is not in such a sensitive area, but may pose significant risks and impacts if not adequately managed. These potential risks and impacts have most or all of the following characteristics: They are mostly temporary, predictable or reversible, and the nature of the project makes it possible to entirely avoid or reverse them. There are concerns that the project's adverse social impacts and associated mitigation measures may give rise to a limited degree of social conflict, harm or impacts on human security.

CATEGORY	ENVIRONMENTAL AND SOCIAL RISK LEVEL
	The geographical area and size of the population likely to be affected
	are medium to large.
	There is some potential for cumulative or transboundary impacts, but
	they would be less severe and more readily avoided or mitigated than
	in a High-Risk project.
	There is medium to low probability of serious adverse effects to
	human health or the environment (e.g. due to accidents, toxic waste
	disposal), and there are known and reliable mechanisms to prevent or minimize such incidents,
	 The project's effects on areas of high value or sensitivity are expected
	to be lower than for High-Risk projects.
	Mitigation or compensation measures may be designed more easily
	and be more reliable than those of High-Risk projects.
	The project is being developed in a legal or regulatory environment
	where there is uncertainty or conflict regarding the jurisdictions of
	competing agencies, legislation or regulations do not adequately
	address the risks and impacts of complex projects, changes to
	applicable legislation are being made, or enforcement is weak.
	The past experience of the borrower/recipient/partner and
	implementing agencies in developing complex projects is limited, and
	their track records regarding environmental and social issues suggest that some concerns can be addressed through implementation
	support.
	 There are concerns about capacity and experience in managing
	stakeholder engagement, but these can be readily addressed through
	implementation support.
	Additionally, a project may be classified as Substantial Risk when it finances
	one or more of the following activities:
	New construction, rehabilitation or upgrade of medium dams/reservoirs (between 10.14 metrs high wall and/or with a
	dams/reservoirs (between 10-14-metre-high wall, and/or with a reservoir of between 100,000-3 million m3).
	New construction or upgrade of medium-scale irrigation schemes
	(between 300-999 hectares per scheme).
	New construction or upgrade of rural roads (AADT between 400-
	1000).
	Development of a large-scale Agro processing facility.
	Aquaculture or Mari culture of 25 to 49 hectares on one site.
	Construction or operation causing an increase in traffic on rural
	roads.
	 Economic or physical displacement (e.g. land, potable water, water for other uses), or physical resettlement of 20-100 households or
	businesses, or a 10 to 15 per cent reduction in a farmer' or
	community's assets.
	If the environmental and social screening exercise shows that the risks and
	impacts are significant, the project category will be upgraded to High Risk.
Moderate	Moderate Risk: A project should be classified as Moderate Risk when
	potential adverse risks and impacts on human populations or the
	environment are not likely to be significant. This may be because the project
	is not complex or large, does not involve activities with high potential for
	harming people or the environment, and is located away from

CATEGORY	ENVIRONMENTAL AND SOCIAL RISK LEVEL
	environmentally or socially sensitive areas. The potential risks and impacts
	are:
	 Predictable and expected to be temporary or reversible.
	Low in magnitude,
	 Site-specific, without the likelihood of impacts beyond the project life cycle.
	Low probability of serious adverse effects to human health or the
	environment (e.g. they do not involve the use or disposal of toxic materials, or routine safety precautions are expected to be sufficient to prevent accidents),
	 The project's risks and impacts can be easily mitigated in a predictable manner.
	Additionally, a project is classified as Moderate Risk when it finances one or
	more of the following activities:
	 Small dam or reservoir construction (between 5-9-metre-high wall, and/or with a reservoir below 100,000 m3),
	Construction of small-scale irrigation schemes
	rehabilitation/development (below 300 hectares per scheme).
	 New construction, rehabilitation, or upgrade of rural roads (AADT
	below 400); and/or — Aquaculture or Mari culture of less than 25
	hectares on one site.
Low	Low Risk: A project should be classified as Low Risk if it will have negligible
	or no environmental or social implications. Examples include:
	Technical assistance grants for agricultural research and training.
	Research. Sytonsians
	Extensions,Health.
	Nutrition.
	Education and
	Capacity- and institution building.
	Capacity and institution building.

The classifications for climate risk are defined in Table 3C below.

Table 3C: Climate risk classifications

Category	Climate risk
High	High risk: The outcome of the project will be jeopardized by climate change, with the potential for severe impacts of significant irreversibility. Climate-related risks and impacts are likely to result in financial, environmental, or social underperformance or failure. Adaptation measures are likely to be ineffective, extremely costly, socially unacceptable or may increase risk and reduce resilience. Adaptation limits
Substantial	Substantial risk: There is the potential for widespread impacts from climate change. Outcomes may be undermined by climate change and adaptation measures may not be readily available. Financial, environmental, and

Category	Climate risk
	social underperformance or failure cannot be excluded. However, risk-management activities are likely to increase the resilience and adaptive capacity of households, infrastructure, communities, and ecosystems.
Moderate	Moderate risk: Impact from climate change may occur, but will be limited, transient or manageable. Financial, environmental, and social underperformance or failure is unlikely. The system has the capacity to manage volatility, shocks, stressors or changing climate trends.
Low	Low risk: No negative impact from climate change is expected based on the best available data. Financial, environmental, and social underperformance or failure appear very unlikely.

ANNEX 4. IFAD EXCLUSION LIST

IFAD will not knowingly finance, directly or indirectly, projects involving the following:

- (i) Production or activities involving harmful or exploitative forms of forced labour^[1], or practices, which prevent employees from lawfully exercising their rights of association and collective bargaining.
- (ii) Production or activities involving harmful or exploitative forms of child labour^[2].
- (iii) Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples, without full documented consent of such peoples.
- (iv) Activities prohibited by host-country legislation or international conventions relating to the protection of biodiversity resources, cultural heritage, or other legally protected areas^[3].
- (v) The production, trade in or use of any product or activity deemed illegal under host country (i.e., national) laws or regulations, international conventions, and agreements, or subject to international phase-out or bans, such as:
 - a) Products containing polychlorinated biphenyls (PCBs).
 - b) Pharmaceuticals, pesticides, herbicides, and other hazardous substances subject to international phase-outs or bans^[4].
 - c) Ozone-depleting substances subject to international phase-outs regulated by the Montreal Protocol^[5].
 - d) Wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)^[6], and
 - e) Transboundary trade in waste or waste products, as defined by the Basel Convention^[7].
- (vi) Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests.
- (vii) Production or trade in wood or other forestry products other than from sustainably managed forests.
- (viii) Production or trade in alcoholic beverages (excluding beer and wine), tobacco or drugs.
- (ix) Marine and coastal fishing practices such as blast fishing, large-scale pelagic drift net fishing using nets in excess of 2.5 km in length or fine mesh net fishing harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.
- (x) Trade in goods without required export or import licenses or other evidence of authorization of transit from the relevant countries of export, import and, if applicable, transit.
- (xi) Production of, trade in or use of unbounded asbestos fibres.
- (xii) All mining, mineral processing and extraction activities.
- (xiii) Production or trade in radioactive materials^[8].
- (xiv) Gambling, casinos and equivalent enterprises, trade related to pornography or prostitution.
- (xv) Money laundering, terrorism financing, tax avoidance, tax fraud and tax evasion.
- (xvi) Production and distribution, or investment in media that are racist, antidemocratic or that advocate discrimination against an individual, group or part of the population.
- (xvii) Activities prohibited by host country legislation or other legally binding agreements regarding genetically modified organisms (GMOs).
- (xviii) Production of or trade in palm oil, unless from growers and companies with internationally recognised certification^[9]124, or undergoing certification^[10].
- (xix) Production of soy in the Amazon region or trade in soy produced in the Amazon region, unless from growers with internationally recognised certification^[11].

- [1] Forced labour is work exacted under the threat of penalty and for which the worker has not offered himself or herself voluntarily. It can involve threats of dismissal or physical violence, the withholding of identity documents or wages, threats to report workers to immigration authorities and entangling workers in fraudulent debt.
- [2] Child labour includes: (i) labour below the host country's minimum age of employment; and (ii) any other work that may be hazardous, may interfere with a child's education, or may be harmful to a child's health or physical, mental, spiritual, moral, or social development. If national laws or regulations provide for employment of children of at least 16 years of age (in line with ILO's 1973 Minimum Age Convention), on the condition that their health, safety, and morals are fully protected, and they have received adequate instruction or vocational training in the relevant branch of activity, then child labour means employing children for work that does not comply with these laws and regulations.
- [3] Relevant international conventions include the: Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention); Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar Convention); Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention); World Heritage Convention; and Convention on Biological Diversity.
- [4] Relevant international conventions include the: United Nations Consolidated List of Products whose Consumption and/or Sale have been Banned, Withdrawn, Severely Restricted or not Approved by Governments; Convention on the Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention); Stockholm Convention on Persistent Organic Pollutants; and WHO Classification of Pesticides by Hazard. A list of pesticides, herbicides, and other hazardous substances subject to phase-outs or bans is available at http://www.pic.int.
- [5] A list of the chemical compounds regulated by the Montreal Protocol, together with details of signatory countries and phase-out target dates, is available from UNEP.
- [6] A list of CITES species is available from the CITES secretariat.
- [7] See http://www.basel.int.
- [8] This does not apply to the purchase of medical or veterinary equipment, quality control (measurement) equipment and any similar equipment where the radioactive source is trivial and/or adequately shielded.
- [9] For example, Round Table on Sustainable Palm Oil (RSPO).
- [10] This includes growers and companies that have initiated such certification process.
- [11] For example, Round Table on Responsible Soy Association (RTRS).

ANNEX 5: FREE, PRIOR AND INFORMED CONSENT (FPIC) FOR INREMP

1. Introduction

Free, prior and informed consent (FPIC) is an operational principle empowering local communities to give or withhold their consent to proposed investment and development programmes that may affect their rights, access to lands, territories, resources, and livelihoods (IFAD, 2015). Communities' rights are at times infringed upon by new investments in their area resulting in negative impacts (table 1).

Table 1: Potential Rights usually infringed Upon and associated negative impacts

Potential rights usually	Negative Impacts
infringed upon	
 Right of physical access 	Loss of culture and natural heritage
Right to food	Loss of land tenure
• Rights to secure land tenure including	 Exclusion and/or undermined participation in decision making
 Right to natural resources 	 Forced participation (at times in exploitative)
 Right to decision making and self- 	systems)
determination	Loss of income and/or employment
Right to work	Exacerbation of poverty
• Right to a healthy environment	Reduced food and nutritional security
including social amenities	Weakened local governance system
	Increased inter and intra conflict

FPIC is a principle protected by international human rights standards that state, 'all people have the right to self-determination' and linked to the right to self-determination – 'all people have the right to freely pursue their economic, social and cultural development'. This guide is deeply rooted in a human rights-based approach and is designed to assist the INReMP implementing team to respect the right to FPIC when developing and implementing the project.

The Guide is also supported by the Policy on Environment and Natural Resource Management (2011): "Respecting the principle of free, prior and informed consent, IFAD supports indigenous peoples in enhancing the resilience of the ecosystems in which they live and in developing innovative adaptation measures and emerging opportunities for indigenous peoples' engagement in carbon sequestration and the provision of other environmental services."

FPIC is solicited through consultations in good faith with the representative institutions endorsed by communities. It ensures that they participate in decision-making processes concerning a given development project.

All elements within FPIC are interlinked, and they should not be treated as separate elements. The first three elements (free, prior and informed) qualify and set the conditions of consent as a decision-making process. In short, consent should be sought before any project, plan or action takes

place (prior), it should be independently decided upon (free) and based on accurate, timely and sufficient information provided in a culturally appropriate way (informed) for it to be considered a valid result or outcome of a collective decision-making process.

- Consent should be sought in a way that is "free, prior and informed" 30:
- **Free** implies no coercion, intimidation, or manipulation.
- **Prior** implies that consent has been sought sufficiently in advance of any decision point or commencement of activities.
- **Informed** implies that information provided covers all relevant issues to make decision maker fully enlightened.
- **Consent** is the expected outcome of the consultation, participation, and collective decision-making process by the local communities.

2. General Guiding Principles

a) Responsibility and institutional capacity for seeking FPIC

The IFAD general policies and procedures, stipulate that the borrower or grant recipient is responsible for programme and project preparation, including social, environmental and climate assessments and seeking FPIC. In this case, the Government of Kenya (GoK) represented by the Ministry of Agriculture (MoA) will be responsible for seeking the FPIC through the specific counties.

The first step is for the GoK to identify the laws that regulate the rights to land, sea and other resources. If regulations and boundaries are not clearly known or if the process was never done, this can be rectified by conducting early consultations with concerned communities and inclusion in project implementation design of the measures, approaches and resources for ensuring demarcation and recognition of territorial and communal rights.

b) Identifying representative institutions

To ensure legitimacy, it is crucial that FPIC be obtained from the representative institutions of local communities. Understanding how communities make decisions is the first important step in the FPIC process. The important criteria are that representation should be determined by the concerned people and communities themselves to avoid misrepresentation or manipulation. This can be done in line with the community structure for representation, figure below.

Table 2: Local Governance Structure

Level of Governance	Institutions
Central Government	Government Ministries and state departments
Local Government	Counties
Traditional/Community Authority	Traditional Chiefs and Sub Chiefs Village Elders Indigenous People Leadership

³⁰ United Nations Development Group (UNDG), Guidelines on Indigenous Peoples' Issues, 2009:30

Village Com	mittees		
Community	Base	d Organisatio	ons (Water
Resources	Users	Associations,	Community
Forest Asso	ciations	etc)	

In general, representative institutions must strive to adhere to the principles of inclusive consultation, participation, and consent in their internal decision-making processes. The FPIC process at design and implementation phases is intended to ensure that the project does not negatively affect the future beneficiaries. Solutions should be found during the consultation on how to maximize benefits expected from local communities.

c) Consultation, participation, and consent

Consultation is an important feature of any project design process. INReMP is expected to follow the IFAD participatory approach to ensure that local communities are included in project design. It will give appropriate attention to women and young people in these consultations.

Besides the initial Impact assessments of the project at design stage, GoK will institute a continuous consultation process during implementation.

Consent to the project or to a project component or specific activity under a component, will be an outcome of the collective decision-making process by the local communities. GoK will seek recorded consent agreements with the concerned communities through their freely chosen representative bodies to engage in the FPIC process.

The consent agreement and record will document the outcome(s) of the process and terms and conditions agreed upon. It will also document any dissent to the overall project or project activities. The agreement must be independently verified as fair and true by the communities and follow the process agreed by them.

The procedures and rules of the FPIC process will be largely determined by the communities affected and those who have the right to give or withhold consent. The FPIC process must be in harmony with their own governance and internal collective process for taking decisions.

d) Documenting consultation, participation and FPIC

GoK will undertake to document all consultations, participations, and consents in the following manner:

- **Keep record of consultations undertaken**: how participants were selected and invited; what documentation/information they received beforehand and in which language; who participated; what was discussed; and what was agreed.
- **Keep record of participation**: when did representatives of indigenous peoples and local communities participate; how they were selected; what institutional roles or accountability links to constituents do they have; what commitments do they assume; and what agreements were made.
- **Document specific instances that express FPIC**: often FPIC is expressed as an agreement between the borrower (or the duly designated implementing agency) and the concerned local communities. These agreements should clearly articulate what has been agreed (issues, commitments, time frames, budgets, roles, responsibilities, etc.); who entered into the agreement (clearly identifying the individuals involved as well as their title and role); and what mechanisms have been set up to maintain

dialogue and address disagreements.

e) Where to seek FPIC?

FPIC is not so much a safeguard principle, rather a proactive approach to identify development pathways with local communities and it is applied in two scenarios (IFAD, 2015):

- Investment projects that may have an impact on the land access and use rights of rural communities,
- Projects targeting indigenous peoples or rural areas that are home to indigenous and tribal peoples and ethnic minorities.

The first scenario refers to the type of investment project and the second to the type of project area and target groups. Table 3 outlines the FPIC requirement according to these two criteria.

Table 3: FPIC requirements based on project type and areas of intervention (IFAD, 2015)

No	Location	Project likely to affect land access and/or use rights of communities	rural development	individuals (rural finance, small and medium-sized
1.	Rural areas without indigenous peoples or minorities.	• YES	infrastructure) • NO	• NO
2.	Rural areas with some indigenous peoples and minorities' communities.	• YES	On a case-by- case basis	• NO
3.	Indigenous people's territories or tribal areas	• YES	• YES	• YES

In projects that affect land access and use rights of communities, the principle of FPIC is applied to local communities in a broad sense, i.e. the local communities that will potentially be affected, are identified during project design and in application of SECAP.

However, there is a general requirement for FPIC³¹. in areas that are home to indigenous and tribal peoples and ethnic minorities,

³¹ Consistent with international practice, the IFAD Policy on Engagement with Indigenous Peoples states that they are characterized by: "Priority in time, with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness, which may

I)Seeking FPIC at Design Phase

When the precise nature and specific location of an investment is known and well defined, FPIC must be solicited at design stage. For INReMP, the precise nature and specific locations of the potential investment were not known, thus GoK was not expected to directly seek FPIC at this stage.

However, INReMP was required to carry out an Environmental, Social and Climate Management Framework (ESCMF) study using the IFAD Social, Environmental and Climate Assessment Procedures (SECAP). **IFAD Social, Environmental and Climate Assessment Procedures (SECAP)** is a key mechanism to identify requirements for FPIC at the design stage.

The ESCMF identifies project components with potential direct and significant impact on local communities, which require FPIC of national or subnational representative institutions of local communities during the design phase; Table 4 below summarizes a step-by step approach to ensure FPIC through SECAP.

Table 4: SECAP step by step FPIC Approach (IFAD, 2015)

No.	Application	SECAP steps as they relate to FPIC of local and Indigenous peoples		
1.	Environmental and Social Screening at concept or early formulation stage	Identify main environmental and social issues pertaining to local and/or indigenous peoples' communities. Consult representative institutions of potentially targeted or affected local and/or indigenous peoples' communities to assess		
2.	Environmental and Social Impact Assessment (ESIA), applies to all projects labelled substantial risk.	Consult with representative institutions of indigenous peoples and local communities to ensure their adequate participation in the ESIA. The ESIA can be designed with flexibility as (a) a process which enables consultation, participation and consent		

include the aspects of language, social organization, religion and spiritual values, modes of production, laws and institutions; self-identification, as well as recognition by other groups, or by state authorities, as a distinct collectivity; and an experience of subjugation, marginalization, dispossession, exclusion or discrimination."

No.	Application	SECAP steps as they relate to FPIC of local and Indigenous peoples		
		 Devise mechanisms to ensure consultation, participation and FPIC, as relevant throughout the implementation phase. Indicate the need for borrower/agent recipients to obtain FPIC of the concerned representative institutions of indigenous peoples and local communities with respect to project components that may potentially have a direct and significant impact on them. 		
3.	ESIA review and incorporation of recommendations into project design.	Review ESIA findings and recommendations and discuss these with the borrower/agent recipient and local communities.		
4.	Loan negotiation	Include clauses/covenants/provisions specifying appropriate actions that the government commits to undertake.		
5.	Project Completion	The ex-post ESIA will confirm that the FPIC has been successfully implemented.		

II) Soliciting FPIC at implementation stage

FPIC of investments is sought during the implementation phase when:

- The project, or some of its component, is likely to affect land access and use rights of local communities, and/or
- The project area is home to indigenous and tribal peoples and ethnic minorities.
- Communities are not identifiable at project design stage.
- Specific investments in specific communities are not predefined during project design phase, but open to communities' demand during the project implementation period.

If at design stage the specific locations and communities to be affected were not identifiable, the project documents will include the FPIC implementation plan describing how the participatory and consultation process for seeking communities' consent would be conducted. The FPIC would then be sought during implementation before a specific investment is decided in each community.

Since investments in specific communities and territories were not identifiable during the project design stage, FPIC will further be solicited during the implementation phase.

The outline for the FPIC plan includes the following steps in the process and include timeline:

- Sociocultural and land tenure asesment1 (as part of the IFAD standard poverty analysis, which needs to be deepened in certain aspects as described in Table 3-5 below),
- Identification of decision-making institutions and representatives to ensure full, effective, and equal participation of stakeholders.
- Consultation process leading to FPIC.

Formalized consent agreement.

The FPIC implementation plan indicates:

- When and how the sociocultural and land tenure assessment will be undertaken.
- When and how consultations will be carried out to identify decision-making institutions.
- When and how consultations leading to FPIC will be carried out.
- By when the consent agreement will be formalized with the local communities.

Table 56: Seeking FPIC at Implementation Stage (IFAD, 2015)

Prepare FPIC Implementation	Implement FPIC Plan	Formalise Consent	Asses FPIC Implementation
Plan		Consent	Implementation
During Design Phase before QA (Annexed to PDR)	From start-up workshop and before any investment is made	Before any investment is made	Implementation support/joint review missions
The FPIC implementation plan should specify: • How and when to conduct the socio-cultural and land Tenure assessment. • How and when to identify decision-making institutions and representatives • How and when to conduct consultation leading to FPIC • Involve experts in the design team. • During project design missions consult with farmers and indigenous people's organisations	 Confirm/revise implementation plat at start of workshop Conduct/ (review if available) socio-cultural and land tenure assessment Identify decision-making institutions Conduct preliminary consultations with the community and explain the nature of the proposed project. Allow time for communities to discuss and decide on their representatives for the consultation process leading to FPIC Clarify responsibilities of representatives Agree on the process leading to FPIC Identify signatory parties leading for the consent agreement. Conduct consultation leading to FPIC before any investment is made Shar objectives and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC 	The format for a consent agreement includes: Respective Expectations Proposed project duration, expected results and activities Participatory monitoring and verification plan and procedures. Identification of grievances procedures and mechanism. Terms of withdrawal of consent. Record of process through means and languages	 Engage experts in joint review missions Assess FPIC Process Identify grievances and find solutions to address

Prepare FPIC Implementation Plan	Implement FPIC Plan	Formalise Consent	Asses FPIC Implementation
and agree on the FPIC plan (use the FAFO and indigenous people's Forum networks)	 Inform them on the actors financing and implementing the project and their respective responsibilities. Provide clear and transparent information on the benefits and risks of the project. Share the findings of the sociocultural, land tenure and environmental assessment. Formalise Consent Agreement. 	accessible to all stakeholders and parties involved.	

III)International Conventions and Treaties

GoK endorses and adheres to several internationally acceptable policies, conventions, treaties, and protocols as part of its commitment to sustainable development to augment the national policies and laws. These include:

i) Convention on Biological Diversity (1992)

GoK is party to the Convention on Biological Diversity, which requires Parties to the Convention to adopt national strategies, plans and programs for the conservation of 25 biological diversity, and to integrate the conservation and sustainable use of biological diversity into relevant sectoral and cross-sectoral plans, programs and policies. Programs and sub-projects under INReMP are expected to conserve biodiversity, especially the rare and endangered species in the project areas and its environs.

ii) United Nations Convention to Combat Desertification (UNCCD) (1996)

The objective UNCCD is to combat desertification and mitigate the effects of drought in seriously affected countries, especially those in Africa, Latin America, the Caribbean, Asia, and Northern Mediterranean. It seeks to achieve this objective through integrated approaches to development, supported by international cooperation and partnership arrangements, in the affected areas. It emphasizes on long-term strategies that focus on improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, at the community level. INReMP activities should be designed to implement the requirements of the UNCCD.

iii) African Convention on the Conservation of Nature and Natural Resources

The African Convention of Nature and Natural Resources emphasizes the need for conservation, utilization, and development of natural resources in Africa in accordance with the scientific principles and with due regard to the best interest of the people. It requires parties to establish land use plans based on scientific investigations when implementing agricultural practices and agrarian reforms. INReMP should utilize agricultural scientific

knowledge and interventions in the conservation, utilization, and development of natural resources during its implementation.

iv) Ramsar Convention on Wetlands of International Importance (1971)

The Ramsar Convention on Wetlands is primarily concerned with the conservation and management of wetlands and their flora and fauna especially waterfowl by combining far sighted national policies with co-ordinate international action. It was signed at Ramsar, Iran on 2nd February 1971 and amended by the protocol of 3rd December 1982 and the amendments of the 28th May 1987. Parties to the Convention are also required to promote the wise use of wetlands in their territories and to take measures for their conservation by establishing nature reserves in wetlands, whether they are included in the Ramsar list or not. Programs and sub-projects under the INReMP project are expected to adhere to the Ramsar Convention's principles of wise use of wetlands in the project area and should not support any activity that will degrade the wetlands.

v) Convention on the Conservation of Migratory Species (CMS)

The CMS is concerned with the conservation of migratory species of wild animals given that migratory species are an international resource. Such species may be terrestrial or marine. The State Members of the Convention endeavor to conclude agreements for the protection and management of migratory species whose conservation status is unfavorable and of those whose conservation status would substantially benefit from international cooperation deriving from an agreement. The Convention's Agreement on the Conservation of African-Eurasian Migratory Water birds is specific on the need to protect the migratory water birds' feeding, breeding, and wintering habitats, the main ones being wetlands and open water bodies. The Project must observe the concerns of this convention and not degrade the habitats which the migratory birds live in when they are in the project area.

vi) United Nations Framework convention on Climate Change (UNFCC) (1992)

The (UNFCC) seeks to regulate levels of greenhouse gases (GHGs) concentration in the atmosphere, to avoid the occurrence of climate change at levels that would harm economic development, or that would impede food production activities. The Convention is founded on the principle that contracting parties should take courses of action, in respect of their economic and social activities, and with regard to the Convention's specific requirements, that will protect the climate system for present and future generations. The INReMP sub-projects should assist in the implementation of the specific requirements of this Convention.

Indicative Budget for Conducting FPIC at Implementation Stage

Item No.	Description	Cost (USD)
1	Gender and Social Inclusion Specialist	Project Budget
2	Capacity building of PMU staff	5,000.00
3	Travel and Accommodation	15,000.00
4	Printing and Stationery	500.00
5	Recording Equipment (tape recorder/camera/video camera)	2,000.00
6	Refreshments (provincial and district delegations)	1,000.00
Total (Cost	23,500.00

ANNEX 6: TERMS OF REFERENCE FOR ENVIRONMENTAL AND SOCIAL SAFEGUARD SPECIALIST

1. Scope of Work

The Environment, Social Safeguard Specialist main role is to ensure the effective implementation of the ESCMF, Stakeholders engagement and Grievance Redress Mechanism. The Specialist willl be engaged at INReMP Programme Management and Unit.

Specific responsibilities and duties will cover three main areas of activity:

Area (1):

- Support, manage and co-ordinate the project's SECAP risk management issues
 to ensure the implementation of the Environmental and Social and Climate
 Management Framework (ESCMF), Climate Risk Assessment (CRA), subproject site specific Environmental and Social Management Plans
 (ESMPs), Stakeholders engagement Plan, Grievance Redress Mechanisms,
 Environmental Checklists, Integrated Pest Management Plans (IPMPs), Solid
 and Liquis Waste Management Plan etc.
- Evaluate needed updates as necessary to ensure that the project SECAP risk management instruments are always up to date, and
- Manage procedures including the establishment of an appropriate field structure to ensure the appropriate level of support to technical personnel.

Area (2):

Oversee implementation of a Grievance Redress Mechanism/feedback mechanism and advising the PMU and key stakeholders in the best practice of monitoring and reporting on the social and environmental impact of the project.

Area (3):

Support in the co-ordination of capacity building and training activities to ensure the principles and procedures for the Environmental and Social Management Framework (ESCMF) are well understood and complied with by stakeholders.

Area (3): Project SECAP risk management instruments Implementation support

- Continuously review and update the developed project SECAP risk management instruments in line with current SECAP developments.
- Support the INReMP in the co-ordination, management and implementation of the project SECAP risk management instruments in compliance with the SECAP Policies and the Government of Kenya' Environmental standards.
- Support the INReMP in the development and rolling out of a SECAP risk management monitoring and reporting system against the Environmental and Social Management Framework (ESCMF) provisions.
- Support the line ministries to achieve the maximum SECAP risk management efficiency in their assigned tasks.
- Support the project to ensure that safety and health concerns of the workers and the general public are addressed during design, setting up/construction and implementation phases of the project.

- Provide assistance to INReMP and applicant communities in screening of proposed sub-projects and assigning environmental categories.
- Visit proposed sub-project sites to assess baseline conditions and potential site-specific impacts.
- Advise on anticipated environmental impacts and possible mitigation measures, and on the relevant type of environmental review to be undertaken and documentation to be prepared (e.g., sub-project specific Environmental Assessment and/or Environmental Management Plan).
- review sub-project specific environmental documentation and give recommendations as needed, to applicant communities and designers, for finalizing the documents.
- Participate in evaluation of sub-project proposals and advise on environmental eligibility and acceptability of proposals, based on guidance provided in the ESCMF and on personal experience.
- Working with INReMP Procurement staff, ensure that environmental compliance is incorporated as appropriate in contracts for goods and services (mainly civil works contracts) and ensure that contractors are fully aware of their responsibilities in this regard.
- During implementation of the approved sub-projects, undertake regular environmental monitoring and supervision in order to verify whether and how provisions of the project ESCMF and sub-project specific ESMPs are followed by all relevant stakeholders (designers, contractors, beneficiaries).
- Report regularly to the INReMP Coordinator in writing on the results of monitoring visits, promptly identify any environmental issues or cases of noncompliance, and make recommendations for dealing with those issues. In conjunction with the INReMP Coordinator, discuss compliance status and measures to re-establish compliance with contractors and/or beneficiaries as appropriate, including agreeing on specific steps and timing for any remediation/corrective actions.
- Closely collaborate with technical staff and engineers to ensure that environmental measures are incorporated at all stages of sub-project preparation and implementation, including site selection, sub-project design, preparation and evaluation of bidding documents and bids, preparation and supervision of contracts.
- Provide contribution to the INReMP's regular progress reports on the project implementation.

Area (4): Oversee the implementation of the Grievance Redress Mechanism in Line with the ESCMF requirements.

- Oversee the project grievance redress/feedback mechanism and design the complaints register using an established methodology in consultation with the PMIL
- Co-ordinate the formation of Grievance Redress Committees before the commencement of construction or any identified potentially impactful activities to resolve issues.
- support the establishment and training of a selected focal person within the INReMP to handle Grievance Redress issues and facilitate the resolution of issues.

- Technically support the INReMP in creating awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns; and support dissemination of information to the concerned local communities as proposed in the ESCMF.
- Develop a system to document information on grievances and redress and progress for monthly/quarterly reporting.

Area (5): Support in the co-ordination of training and awareness raising activities.

- Support in the efficient co-ordination regarding SECAP instruments considerations to be taken into account in the sub-project preparatory activities.
- Support the identification of the capacity and training needs of the INReMP, Focal point, District Offices and other Responsible Parties regarding:
 - Training the Farmers in climate change adaptation approaches.
 - Training the cooperatives in Group Dynamics, Gender equality, youth engagement and other socially related subjects.
 - Training of INReMP PMT, County and district Focal Persons, District Administration Staff, Proximity Extension Staff and farmers in Environmental and natural resources Management, Waste management, etc.
 - Training in Pesticides, and pest management.
- Advise on the co-ordination of the delivery of the requisite training.

2.0 QUALIFICATIONS AND EXPERIENCE

2.1 Key Qualifications:

To adequately address the core issues of this position, the Environmental Specialist should possess the following:

- Master's degree or above in environment, sociology, economics, development, or a closely related field.
- At least seven years of experience related to social and environmental standards and impact assessment in an international development context.
- Technical background and experience in developing safeguards for agriculture, livestock production, land use and management projects.
- Knowledge of Human rights (including human rights-based approaches and human rights impact assessment); gender equality and women's empowerment (including gender mainstreaming and gender analysis).
- Demonstrated knowledge of cultural heritage (including chance find procedures, physical and intangible cultural resources).

2.2 Competencies:

Functional Competencies:

- Excellent drafting, documentation and communication skills in English.
- Knowledge of Climate Change and project management skills.
- Proven record on similar documentation work at the National level.

Corporate Competencies:

- · Promote the highest standards of ethics and integrity.
- Support creativity and innovation.

- Help create an enabling environment for open communication.
- Share knowledge and support a culture of learning.
- Demonstrate fairness and transparency.

Language:

• An excellent command of English and Local Languages is a requirement.

¹ FAO (1996). Agro-ecological Zoning Guidelines. FAO Soils Bulletin 73. Rom. www.fao.or



Integrated Natural Resources Management Programme

Project Design Report

Annex: Secap Climate Worksheet

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE



Integrated Natural Resources Management Programme
Climate Screening Checklist

Document Date: 25/06/2024
Project No. 2000003938

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	No
Landslide	Yes
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?	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)	No
Very warm areas (subtropical)	Yes
Tropical areas (rainforests)	Yes
Arid and semi-arid areas (deserts)	Yes
Mountains zones and permafrost areas (tundra)	Yes
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?	Yes
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?	Yes
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

No
Yes
Yes
Yes
Yes
No, Yes, TBD
No
Yes
Yes
Yes
Yes
No
Yes



Integrated Natural Resources Management Programme

Project Design Report

Annex: Secap Environmental And Social Worksheet

Mission Dates: 22/01/2024 21/02/2024

 Document Date:
 12/07/2024

 Project No.
 2000003938

 Report No.
 6857-KE



Integrated Natural Resources Management Programme
Environmental and Social Safeguards Screening Checklist

Document Date: 25/06/2024
Project No. 2000003938

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?	No			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?	Yes	Possible	Minor Poject may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Moderate	
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	

Environmental and Socia	l Safegua	ards		
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	Possible	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.	Moderate
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?	Yes	Almost certain	A significant component of the project is focused on forestry, and this aspect is well regulated.	Substantial
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Yes	Possible	Major The project will require consumption of raw materias, energy, and/or water. This will be a significant component of the project, and regulatory controls are weak.	Substantial
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	Possible	Major The project relies entirely on water-based (groundwater and/or surface water) development. It includes new construction or updgrade of mediumsized irrgation schemes between 300 ha and 999 ha per scheme.	Substantial
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Almost certain	Moderate The project requires use of fertilizers, but options are available to replace polluting fertilizers with alternatives.	Substantial
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	Almost certain	Minor The project only requires minimal amounts of pesticide.	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

Environmental and Socia	l Safegua	rds		
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	Yes	Almost certain	Moderate Intensive/extensive livestock/aquaculture systems are in place, but these are only one component of the project.	Substantial
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)?	Yes	Possible	Minor The project is not sited in an area where indigenous people are present, but associated facilities may impact on indigenous people.	Moderate
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

Environmental and Socia	l Safegua	rds		
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)	No			Low
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
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	Minor The project does not operate in sectors or value chains where the employment of children has ever been reported.	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	Moderate 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 weak or nonexistent.	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 waterborne or other vectorborne diseases, or communicable/noncommunicable 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 Socia	l Safegua	rds		
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Yes	Possible	Moderate The project involves the construction/ rehabilitation/upgrade of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - between 5metres and 9 metres high wall, and/or with a reservoir below 100,000 m3.	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?	No			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

Environmental and Social Safeguards				
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)?	Yes	Likely	Minor Communities and stakeholders can contact the institution and and a process is in place for institutionalizing the communication channels (e.g. complaint-management system) and training staff accordingly.	Moderate
8.7 Does the organization provide auxiliary or capacity building support services.	Yes	Likely	Minor The institution offers basic training services to customers (directly or thrid party service providers to imrpove business and livelihood opportunities.	Moderate