

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Main report and annexes

Mission Dates: 28 January- 28 March 2024

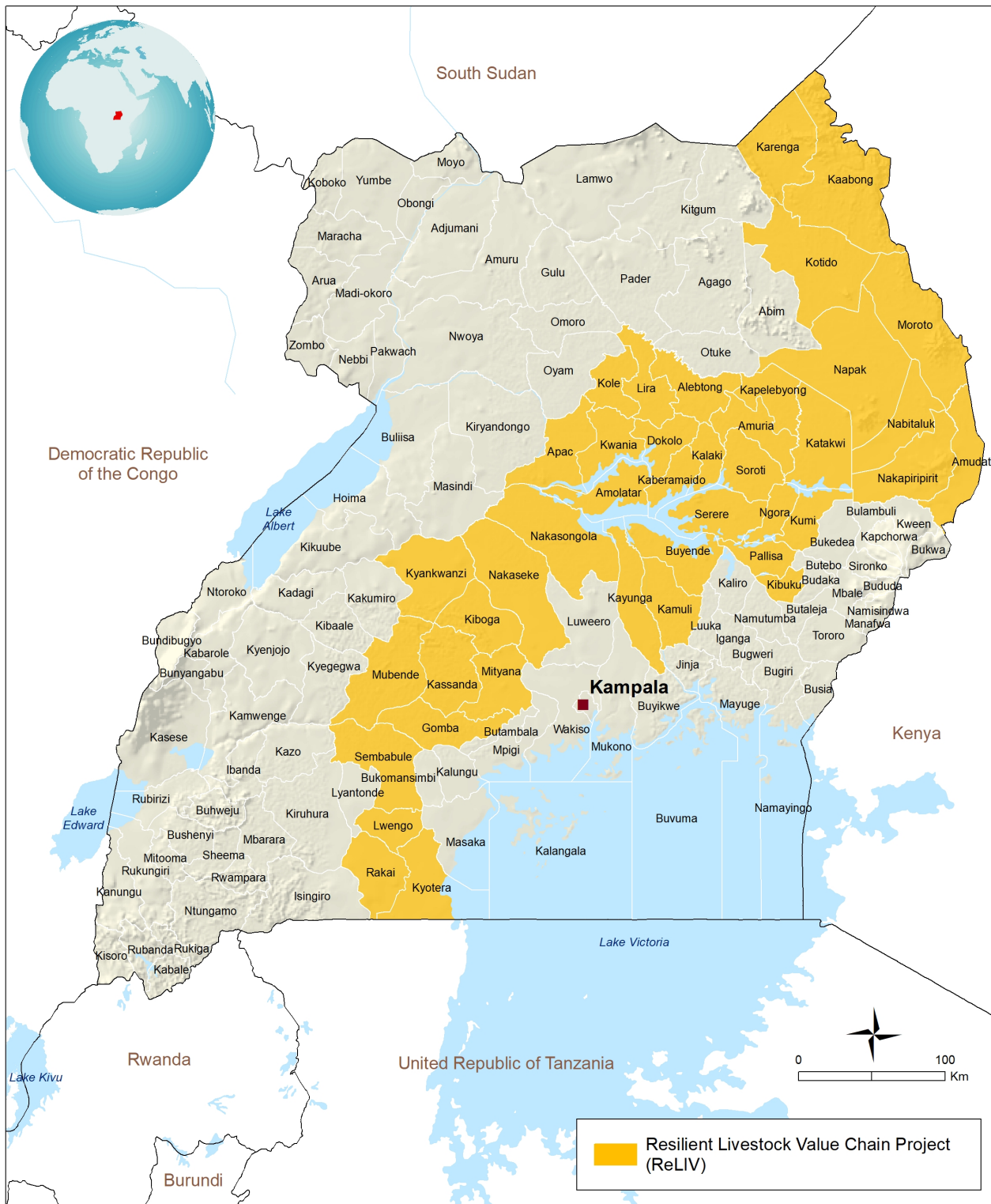
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East and Southern Africa Division
Programme Management Department

Map of the Project Area



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IFAD Map compiled by IFAD | 06-02-2024

Abbreviations and Acronyms

ABC	African Biodigester Component
ABI	Agricultural Business Initiative
AgDPG	Agriculture Development Partners' Group
AGI	Agro-Industrialisation Programme
AH	Animal Health
AI	Artificial Insemination
ARCAFIM	Africa Rural Climate Change Adaptation Finance Mechanism
BRAM	Borrowed Resource Access Mechanism
CB	Compost Barns
CGIAR	Consultative Group for International Agricultural Research
CIAT	International Centre for Tropical Agriculture
CLPE	Country Level Policy Engagement
COI	Core Outcome Indicators
COSOP	Country Strategic Opportunity Programme
CPMT	Country Programme Management Team
CSA	Climate Smart Agriculture
DalIMA	Dairy Interventions for Mitigation and Adaptation
DDA	Dairy Development Authority
ECTAD	FAO Emergency Centre for Transboundary Animal Diseases
ESCMF	Environmental, Social and Climate Management Framework
ESIA	Environmental and Social Impact Assessment
ESG	Environmental, Social and Governance
ESMP	Environmental, Social and Climate Management Plan
ESMS	Environmental, Social Management System
EU	European Union
FALBIIS	Farmer Led Beef Industry Investment and Sustainability Project
FAO	Food and Agriculture Organisation
FEAST	Feed Assessment Tool
FFS	Farmers' Field School
GALS	Gender Action Learning System
GCCA+	Global Climate Change Alliance Plus
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gases
GIZ	German Agency for International Cooperation
GLEAM-I	Global Livestock Environmental Assessment Model
GoU	Government of Uganda
GRM	Grievance Redress Mechanism
HH	Household
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
ILRI	International Livestock Institute
IPRM	Integrated Project Risk Matrix
KELCOP	Kenya Livestock Commercialization Project
LITS	National Livestock Identification and Traceability System
LN	Liquid Nitrogen
LSIPT	Livestock Sector Investment and Policy Toolkit
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MCC	Milk Collection Centre
MFI	Monetary Financial Institutions
MFPED	Ministry of Finance, Planning and Economic Development
MOBIP	Market – Oriented and Environmentally Sustainable Beef Meat Industry
MoU	Memorandum of Understanding
NAGCR	National Animal Genetic Resource Centre
NAGCR&DB	National Animal Genetic Resource Centre & Data Bank
NALIRRI	National Livestock Resources Research Institute
NALPIP	National Livestock Productivity Improvement Program
NARO	National Agricultural Research Organisation
NDA	National Designated Authority
NDP	National Development Plan
NEADAP	Netherlands East Africa Dairy Partnership
NGO	Non-Governmental Organization
OPEN	Online Procurement End-to-End
PADNET	Pathways to Dairy Net Zero Project
PBAS	IFAD's Performance-Based Allocation System
PCN	Project Concept Note
PDO	Project Development Objective
PDR	Project Design Report
PDT	Project Delivery Team
PIAP	Programmes Implementation Action Plan
PIM	Project Implementation Manual
PMU	Project Management Unit
PP	Procurement Plan
PPP	Public-Private Partnerships
PRISM	Small Livestock Value Chains Development Project
PWD	Persons with Disabilities
RDDP	Rwanda Dairy Development Project
ReLIV	Resilient Livestock Value Chain Project
SAPLING	Sustainable Animal Productivity for Livelihoods, Nutrition, and Gender Inclusion
SDCP	Smallholder Dairy Commercialization Programme

SDG	Sustainable Development Goal
SECAP	Social, Environmental and Climate Assessment Procedures
SEP	Stakeholder Engagement Plan
SNV	Stichting Nederlandse Vrijwilligers
SO	Strategic Objectives
SPDs	Standard Procurement Documents
TAD	Transboundary Animal Diseases
TIDE	The Inclusive Dairy Enterprise
ToC	Theory of Change
UDPA	Uganda Dairy Processors Association
UMPCU	Uganda Meat Producers Cooperative Union
UNDATA	Uganda Dairy Traders Association
UNSDCF	United Nations sustainable Development Cooperation Framework
USAID	US Agency for International Development
VC	Value Chain
ZARDI	Zonal Agricultural Research and Development Institutes
WB	World Bank

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

IFAD have worked jointly upon the request from the Government of Uganda (GoU) to design the Resilient Livestock Value chain Project (RELIV) which builds on the lessons learned from the previous interventions in Uganda as well as the other experience from the region and is aligned with the Government priorities under the third National Development Plan (NDP III) and the Parish Development Model (PDM) [1]. The project is well aligned with: i) national policies and strategies, ii) IFAD COSOP 2021-2027, iii) Sustainable Development Goals (SDGs) 1, 2, 5, 8, 13 and 15, iv) IFAD's Strategic Framework 2016-2025 and v) Other regional programmes. RELIV will contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is in line with *national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The **goal of the project** is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The **Project Development Objective** is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor and will be nutrition and youth (age 18-35) sensitive and will include climate finance.

RELIV will address the development challenges related to poverty, food insecurity and high levels of malnutrition through working on production, marketing and regulatory environment in the dairy and beef value chains.

RELIV will directly benefit 200,000 households through the different components/activities and will have a minimum target of 40% women and 25% youth. The project will aim to reduce poverty in the targeted districts by about 10%, create 10,000 job opportunities, and increase household average income by 50%. The project will also target 50,000 ha of pastures for rehabilitation/restoration.

RELIV will be implemented over a period of 8 years in 41 districts across the cattle corridor in Uganda. The indicative climate finance for RELIV is around USD 46.6 million (almost 47% of the total IFAD project cost). The overall cost of the Project is estimated at US\$200.76 million. Of this total financing, IFAD's contribution amounts to US\$89.57 million from Uganda's IFAD12 Performance-based Allocation System (PBAS) and US\$10.00 million already confirmed from IFAD's Borrowed Resource Access Mechanism (BRAM) for a total of US\$99.57 million and representing 49.6 per cent of the total project costs.

RELIV's climate risk classification is Substantial. Uganda's high vulnerability score and low readiness score place it in the upper left quadrant of the [ND-GAIN matrix](#) [2]. The country has both a high need for investment and innovation to improve preparedness and a

high urgency for action. As such, Uganda is ranked 14th most vulnerable and 163rd least prepared, with particularly low scores on social factors that could increase the mobility of investments in adaptation actions. RELIV will include interventions to improve adaptation to climate change, increase carbon sequestration and reduce GHG emissions from livestock (see details under components). Moreover, a carbon analysis will be carried out using the Global Livestock Environmental Assessment Model - interactive (GLEAM-i) tool to establish a baseline and future projections of avoided greenhouse gas emissions.

The economic analysis also indicates that the project is economically viable, with an Economic Internal Rate of Return (EIRR) of 27.93 per cent and a Net Present Value (NPV) of US\$164.94 million. The project is sensitive to changes in certain variables within the models, including variations on benefits and costs, different lags in the realization of benefits, and adoption rates, emphasizing the importance of sustainable dairy value chain investments for project success.

The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the lead implementing agency, will manage the project's financial management through a dedicated PMU. It will release funds against agreed AWPB, disburse funds to implementing agencies, and coordinate monitoring and financial reporting. MAAIF has experience in implementing IFAD funded projects (NOPP and NOSP) and would use lessons learned from on-going projects to improve financial management. All procurements will be implemented through the MAAIF contracts committee. The PMU of RELIV will be directly responsible for project procurement activities and will require to hire an experienced Procurement Specialist from the market, assisted by a Procurement Officer seconded from MAAIF. In addition, the Head of procurement at each of the partner organizations will be responsible to support procurement of the low value micro procurements as defined in the local framework, and consistent with project's PAL.

RELIV is well aligned with the national policies and IFAD COSOP for Uganda. This will ensure that GoU ownership and will also support the exiting of RELIV and ensure sustainability. The design of RELIV, has incorporated exit and sustainability aspects in all key interventions.

1. Context

A. National context and rationale for IFAD involvement

a. National Context

1. Political, Economic and Social Context

2. Uganda is a landlocked East African country with a total area of 241,555 square kilometers of which 37,013 square kilometers is covered by open water bodies and 8,773 square kilometers is covered by wetlands^[3]. Uganda's population density is 229^[4] people per square kilometer and a population of 47.3 million (50.5% female)^[5] in 2022. Uganda holds regular elections and the President and Parliament serve five-year terms. The next Presidential and Parliamentary elections are scheduled for January 2026 and significant political and social unrest remains unlikely in the foreseeable future.
3. Uganda is a low-income economy, with a GDP per capita of US\$ 1,088^[6] in 2022/23 which is an increase from US\$ 824 in 2016/17^[7]. Uganda implements a series of five-year National Development Plans, and is currently implementing the third National Development Plan (NDP III) 2020/21 – 2024/25 through which it aspires to reach middle income status by achieving a GDP per capita of US\$ 1,198 by 2024/25^[8]. The five-year plans are part of an overall Vision 2040 which aims at progressing the country towards a per-capita GDP of US\$ 9,500 by 2040^[9].
4. In the last 10 years, Uganda experienced robust economic and social performance with an average real GDP growth rate of 4.6%^[10]. In FY 2018/2019, the real GDP growth rate reached 6.4% but significantly fell to 3% in FY 2019/20 following the Covid-19 pandemic and other challenges such as floods and locusts invasion. The country is now witnessing a rebound with a real GDP growth rate of 4.6% in 2021/22 and 5.3% in FY 2022/23^[11]. The steady recovery of the economy from the COVID-19 pandemic is attributed to the full re-opening of the economy, Government support to the private sector, and prudent fiscal and monetary policies.

5. Poverty, food security and nutrition

6. Uganda's poverty rate has fluctuated over the last 10 years, from 19.7% in 2012/13 to 21.4% in 2016/17 after which it decreased marginally to 20.3% in 2019/20^[12]. Income inequality measured by the Gini coefficient increased from 0.38 in 2012/13 to 0.42 in 2016/17 and slightly decreased to 0.41 in 2019/20^[13]. Government of Uganda is implementing various strategic interventions to reduce poverty to the desired 5% by 2040^[14].
7. Uganda is still in the low human development category at position 166 out of 191 countries and territories. Its Human Development Index (HDI) value improved from 0.329 in 1990 to 0.544 in 2019 but then marginally reduced to 0.525 in 2021 representing an overall increase of 59.6%^[15]. Investments in Human Capital have extended the life expectancy of Ugandans from 43 years in 1991 to 63.7 years in 2021/22^[16]. The infant mortality rate has also reduced from 122 deaths per 1,000 live births in 1991 to 43 deaths per 1,000 live births in 2020. The number of women dying in child birth and pregnancy-related concerns reduced from 506 deaths per 100,000 live births in 1991 to 336 deaths per 100,000 livebirths in 2020^[17]. Uganda's literacy level continues to improve, from 74% in 2017 to 76% in 2021 and is higher in males^[18]. The Gender Gap index also slightly improved from 0.523 in 2019/20 to 0.530 in 2021/22 as Government continues to prioritize gender issues in development planning^[19].
8. Uganda's Global Hunger Index (GHI) score has improved from 35.0 (classified as alarming) in 2000 to 25.2 (classified as serious) in 2023. Uganda ranks 95th out of the 125 countries with sufficient data to calculate the 2023 GHI scores. The GHI scores are based on the values of the country's level of undernourishment, child stunting, child wasting and child mortality^[20]. The prevalence of anaemia in pregnant women was 30% in 2020.

9. Smallholder agriculture and rural development context

10. Uganda depends on agriculture as the dominant source of livelihood with 68% of the population working in the agriculture, forestry and fishing sector^[21]. In 2019/20, the main source of household income was subsistence agriculture (53%) followed by commercial agriculture and wage employment (19% each)^[22]. In 2022/23, Agriculture (crops, livestock, forestry and fisheries) contributed 23.8% to GDP and the country registered an Agriculture GDP growth rate of 4.8%^[23]. The key challenges facing the agriculture sector are widespread low labour productivity among most small-scale farmers, a wide gap in yields between research stations and farmer field schools, inadequate support services such as extension services, entrepreneurial training, research and development, innovations, regulation of agriculture inputs and weather information, limited access by farmers to financial services such as credit and insurance, shortage of standard and modern storage facilities, and, climate change which has caused extreme weather conditions, seasonal variations and exacerbated shortages of water for agriculture production^[24].

11. National policies and strategies

12. The Government of Uganda is currently implementing various policies, plans and strategies to improve food and income security among agricultural households. The NDP III seeks to consolidate and build on the investment in production and productivity through promoting Agro-industrialization (AGI) as one of the major programmes. The goal of the AGI programme is to increase household incomes from agro-industry mainly through commercialization and competitiveness of agricultural production and agro-processing^[25]. The Government is also implementing the Agricultural Value Chain Development Strategy (AVDS) and has rolled out the Parish Development Model (PDM). The AVDS defines the what (inputs), how (strategies) and who (relevant actors) that will be prioritized while planning for agriculture in a value chain approach^[26]. The PDM goal is to increase household incomes and improve quality of life of Ugandans with a specific focus on the total transformation of the subsistence households (both on-farm and off-farm, in rural and urban settings) into the money economy, as well as eradication of poverty and vulnerability in Uganda^[27].

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

13. **Nutrition.** Nutrition-sensitive value chains have been identified as a promising strategy for improving household dietary diversity and local production of better quality and nutritious agricultural products. As nutrition is affected by access, availability, affordability, safety and quality of food, a nutrition-sensitive value chain can greatly focus on increasing agricultural productivity for own-consumption or sale. Nutrition education and social and behaviour change and communication can support improved dietary diversity and well-balanced diets.
14. **Gender.** Dairy and beef value chains is intertwined with the gender roles. Men generally own cattle while women have ownership over the milk with women tending to engage more in dairy processing. Women are hindered in dairy development by a lack of ownership, access to resources and assets, which also results in lack of collateral for financial instruments. Generally, at household or farm level women's decision-making power can be assumed low as also seen in farmers groups, in which they seldom hold leadership positions. Having gender lens and applying gender sensitive approach, the livestock development can greatly benefit from women's increased role in dairy and beef value chains.
15. **Youth.** Uganda currently has the second youngest population in the world with over 78 percent below 30 years. The youth population in Uganda comprises of both the educated/skilled and the unskilled living majority in rural areas. Two-thirds of the labour force is below 35 years. Although 65.5 per cent of the population works in agriculture, its contribution to national GDP is only 29 per cent. For the youth, having access to productive assets, being linked to a market, have an opportunity for access to credit and finance, and working with modern and digital technologies are important. Specially, creating jobs and decent employment for youth in dairy and beef value chain, can reduce rural poverty, improve food security and nutrition in the country.
16. **People with disabilities.** The project will target households with people with disabilities and ensure that these people also benefit from the project services and whenever possible to engage in dairy and beef value chains and agribusinesses, and receive support with access to trainings (e.g. LFFS), include in various cooperatives and groups, support with access to credit and finance and productive resources. IFAD has a previous success in the inclusion of people with disabilities under the Project for Restoration of Livelihoods in Northern Uganda (PRELNOR).
17. **Climate vulnerability and climate rationale.** Uganda's livestock sector is characterized by challenges such as poor breeds, poor quality and insufficient fodder/pasture, limited water availability, ineffective disease surveillance and management, poor manure management, poor breeding services and limited AI capacity, poor herd management, inefficient rangeland management and governance, and generally low productivity. These are exacerbated by climate change and extreme weather events such as droughts, prolonged dry spells, and unpredictable rainfall patterns, which lead to water scarcity and shortages of fodder and pasture, especially during the dry season, resulting in high seasonal variability in milk production. Heat stress also reduces fertility, reproduction, milk protein and fat content, milk yield, animal weight and increases vulnerability to disease. In addition, disease incidence and livestock mortality are exacerbated by climate change, with temperature and humidity being the main drivers of pathogen and parasite development, and disease vectors. Exotic, productive and high-value breeds are more susceptible to heat stress and local diseases, with high losses to farmers from reduced productivity or death. The livestock sector is a major source of greenhouse gas emissions in Uganda, with the dairy sector accounting for 21% of total anthropogenic GHG emissions, or 19.1 million tonnes of CO₂ eq, 98.6% of which is methane.
18. In light of the above, RELIV will include interventions to improve adaptation to climate change, increase carbon sequestration and reduce GHG emissions from livestock (see details under components). Moreover, a carbon analysis will be carried out using the Global Livestock Environmental Assessment Model - interactive (GLEAM-i) tool to establish a baseline and future projections of avoided greenhouse gas emissions.

c. Rationale for IFAD involvement

19. The GDP per capita is USD 1088 in 2023 and Uganda is ranked 100th out of 196 countries. GDP per capita grew by only 1.0% per year between 2011 and 2022, which reflects a deceleration of the pace of poverty reduction (WB, 2023). The livestock sector accounts for about 21% of agricultural added value in Uganda and 4.3 % of national Gross Domestic Product (GDP). Cattle are by far the most important species with 14.2 million heads, and 1.4 million households keeping cattle, which contribute from 12 to 75 % to their total income. Most of these households are subsistence-oriented smallholders (FAO 2019[28]), and 75% of them own less than 5 heads. Female-headed households account for 40% of households owning cattle[29].
20. **Cattle provide income, food, draft power, insurance and savings, social capital** and other goods and services to the population. Per capita consumption of beef and cow milk is 6 kg and 36 litres per year, respectively, which is still low compared to other countries in the region. However, the Food and Agriculture Organisation (FAO) estimates that demand for beef and milk in the country will increase by 320% and 200% by 2050 respectively due to ongoing population growth[30].
21. Total **meat and milk production** is valued at USD 8.7 million per year (UBOS, 2017). Cattle represent 1 % of export value. Uganda is a net exporter of livestock products and live animals. Livestock exports are dominated by dairy products (USD 80 million), with beef (USD 6.2 million) playing a minor role. There is a high potential for further increasing exports, mostly within the region for milk, but also to the Middle East for beef.

22. **Zoonotic diseases** have serious impacts on productivity and profitability of the sector. Among significant animal diseases affecting cattle in Uganda are Foot and Mouth disease (FMD), Contagious Bovine Pleuropneumonia (CBPP) and Lumpy Skin Disease (LSD). Inappropriate use of antibiotics is also common and can result in livestock-driven antimicrobial resistance.
23. Inappropriate use of antibiotics is also common and can result in livestock-driven antimicrobial resistance. Overgrazing in the cattle corridor is a major concern as it contributes to both grassland degradation and biodiversity loss. Cattle are a major user of water, for drinking and for feed production. Cattle contribution to greenhouse gas emissions is estimated at 13.9 M tonnes equivalent CO₂ in the country. Climate variability, climate change and extreme weather events in the form of prolonged dry spells and droughts, and unpredictable rainfall patterns result in water scarcity, limited fodder and pasture.
24. The **dairy and meat value chains** are characterized by the dominance of unprocessed raw products on the market and absence of cold chain, which has some implications on the quality and safety of products. Aggregation mechanisms (Milk collecting centers, Livestock markets) are not sufficient in the project area which affects the value chain efficiency. About two thirds of milk production go through the informal markets^[31]. Farmers organizations in the project area are nascent or inexistent, and will need to be strengthened to reduce market asymmetries, and enhance not only access to market for smallholder farmers but also access to essential services including finance. IFAD's comparative advantage resides in its successful experience in supporting smallholder participation in livestock value chains, including in the region, through support to cooperatives, aggregation mechanism such as MCCs, local stakeholders' platforms, on which RELIV will build on.
25. The **rural finance sector** is characterized by: (i) mismatched demand and supply of rural Financial Services as commercial lenders hesitate to engage in transactions, particularly in rural areas, where dispersed farmers make risk assessment challenging, and where creating specialized lending products and infrastructure in low-density regions comes with high costs. On the borrower side, restricted access to collateral and uncertain land tenure rights poses obstacles, particularly for livestock farmers. Moreover, inadequate farm recordkeeping complicates the approval process for smallholders seeking loans; (ii) inadequate Utilization of Rural Financial Services: Uganda's financial landscape presents a mix of formal and informal financing mechanisms. Women and youth exhibit lower engagement with formal financial institutions. Formal borrowing remains limited, with only 18% of adults accessing it in 2021. Additionally, there is a very low uptake of formal insurance among smallholder farmers, due to cost and complexity issues. Overall, barriers to financial product uptake include low awareness, financial illiteracy, limited product availability, and insufficient income; and (iii) limited coverage by Financial Service Providers (FSP): Formal financial service providers still reach less than 25 per cent of the rural population. There are large parts of the country where rural communities, and especially the rural poor, have no access to financial services. IFAD has previously supported the Government in implementing the rural finance projects PROFIRA and RFSP and generated significant lessons and experiences. The RELIV project shall build on the gains made by past interventions in ensuring access to finance at the grass-roots level among livestock value chain actors.
26. More than **one third of all young children – 2.4 million – are stunted**. It is estimated that the total cost of child undernutrition in Uganda is equivalent to 5.6 % of the GDP (UNICEF, 2023).
27. According to the 2021 Notre Dame Global Adaptation Initiative (ND-GAIN) of climate change vulnerability and readiness, Uganda is the **13th most vulnerable** country and the 32nd least ready to adapt.
28. Uganda's overall **Global Gender Gap score** in 2023 is 0.706, ranking it 78 out of 146 countries. There is low participation of women and youth in the dairy and beef value chains and in the cooperatives. The women and youth are also constrained with limited capital, limited access to finance, limited access to land and appropriate skills. There are also disaggregated data gaps on the gender roles along the two value chains. The youth, who represent about 74 percent of Uganda's population have limited involvement in livestock production and still have the mindset that dairy and beef production has delayed returns on investment compared to other economic activities which makes it unattractive.
29. Over the years, IFAD has been successful in supporting the development of the livestock sector in many countries, forging strategic partnerships at regional and global level. The experience, lessons and methodological approaches generated by Rwanda Dairy Development Project (RDDP) and Small Livestock Value Chains Development Project (PRISM) in Rwanda, Smallholder Dairy Commercialization Programme (SDCP) and The Kenya Livestock Commercialization Project (KELCOP) in Kenya, provide IFAD with a recognized comparative advantage in supporting the implementation of livestock projects in the region.
30. IFAD is well-positioned to address the key climate, environmental and social challenges identified for the dairy and beef value chains in Uganda and to meet the targets set out in the National Adaptation Plan (NAP) and Nationally Determined Contributions (NDCs). In this context, the ReLIV project will leverage additional climate finance from the Green Climate Fund (GCF) and the Global Environment Facility (GEF) for climate change adaptation and mitigation measures, such as fodder conservation equipment, drought tolerant fodder/pasture varieties, sustainable land management, agroforestry, resilient and adaptive livestock breeds, improved fodder quality and reduced enteric methane, water harvesting equipment, renewable energy, livestock insurance, climate and weather information systems. Moreover, IFAD will address low consumption, limited diversity of animal sourced products, poor quality and safety of existing animal sourced products such as dairy and meat products through consumer awareness and nutrition education tailored for different value chain actors. By addressing youth unemployment, the project will also support young men and women in accessing services and products provided by the project.
31. An inclusive, competitive and climate smart livestock sector in Uganda offers important opportunities for economic growth, improved livelihoods for smallholder producers, inclusion of women and youth and employment along the VC. It also brings important benefits in the areas of nutrition and public health, and there is a good potential for mitigating environmental and climate impact, while improving resilience. IFAD's engagement, expertise and support can contribute to delivering these potential benefits.

B. Lessons learned

32. *Country level*
33. **Research and innovation.** The last CSPE for Uganda 2021 (covering the period 2013-2020) confirmed that support for agricultural research has led to a range of technologies being disseminated some of which were innovative in Uganda. RELIV will build on this through supporting NARO, NAGREC and working with other key institutions in the Country like Makerere university.
34. **Feed and fodder.** Other livestock development projects in Uganda has proved that feed and fodder improvement is the main trigger to improve productivity and climate resilience of smallholder systems but must be accompanied with parallel efforts on genetics, and animal health, to achieve impact. This also contributes to reducing enteric methane emissions.
35. **Partnerships and resource mobilisation.** Achieving tangible and lasting results in climate change adaptation and mitigation requires collaborative efforts with multiple partners. Involving key national public and private partners, such as the National Agricultural Research Organisation (NARO), the National Animal Genetic Resource Centre (NAGRC), the Ministry of Energy and Mineral Development (MEMD), the Ministry of Water and Environment (MWE), and private service providers specialising in innovative and environmentally friendly solutions, is crucial from the outset. In addition, mobilising climate finance from reliable funds such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF) can provide a platform for scaling up activities and achieving more significant results at the national and regional levels.
36. **Aggregation.** Previous interventions by other development partners have proved that aggregation mechanisms around a nucleus farmer is a good mechanism for engagement of smallholders in the value chain when the socioeconomic context is not adequate for the cooperative model.
37. **Sustainability and climate.** Recognising the interdisciplinary and cross-cutting nature of climate change adaptation and mitigation, interventions can be approached from different entry points along the value chains, such as the animal perspective, inputs, land management or processing facilities. It is important to understand the holistic nature of these interventions and to integrate and mainstream them into all project activities, rather than looking at them in isolation, to ensure their overall success. Finally, the link between improving sector productivity and achieving positive outcomes in terms of climate change adaptation and mitigation should be emphasised, so that the target beneficiaries have an incentive to continue on this sustainable development path even after the project has ended.
38. **Rural Finance.** Previous IFAD investments in the rural finance sector demonstrated that sustained capacity building improves the profitability and viability of FSPs which was done under PROFIRA through the on-site support especially for Savings and Credit Cooperative Societies (SACCOs). Moreover, to ensure connection and synergies between rural finance and other project activities on production and value chain: increased access to credit should be matched with other component interventions to enable credit to translate into agricultural productivity enhancement effectively. Targeting of beneficiaries between project components should thus be based on similar eligibility criteria to ensure these synergies operate.
39. **Financial management.** Uganda's financial management for projects is straightforward, operating through the country's centralized IFMIS systems. Funds from IFAD are sent to the Central Bank of Uganda under MoFPED and then to the PMU under MAAIF supervision. The NOSP, NOPP, and PRELNOR have strong monitoring systems to ensure funds reach their intended activities. Requests and approvals for disbursement are processed through the IFMIS system managed by MoFPED. The government's IFMIS is fully integrated for donor-funded projects. The auditor general's office audits three ongoing projects, providing quality and timely reports to IFAD and parliament. IFAD has been collaborating with the OAG-Uganda to improve audit coverage and fiduciary oversight with positive results.
40. *Regional/Global level*
41. **Multistakeholder Platforms.** The previous and ongoing livestock projects in the region in Kenya, Rwanda and Tanzania have proven that the multistakeholder platforms are powerful tools to initiate and promote value chain partnerships, as well as policy participation of value chain actors.
42. **Rangeland and pasture management.** The effect of rangeland and pasture management practices on soil health, greenhouse gas emissions, and community economics is highly dependent upon geographic location, e.g. soil and plant properties, climate, etc. [\[32\]](#). General mapping will therefore need to be supplemented with local surveying/sampling. IFAD, FAO and ILRI draw upon many lessons from, for instance, Tanzania, Ethiopia, Somalia, Kyrgyzstan, Mongolia and Lesotho regarding rangeland restoration and pasture management [\[33\]](#). Activities need a community based participatory approach, including establishment of land use rights, agreed grazing plans and monitoring.
43. **Extension.** Community based extension methods (FFS model or similar) improve individual capacities of farmers, animal husbandry practices, but also community organization and value chain participation of smallholder farmers.
44. IFAD interventions across the different regions have proven that nutrition-sensitive livestock value chains (VC) hold a great potential for improved nutrition. A nutrition lens needs to be applied throughout the VC development process to unlock all the positive benefits, especially for the nutritional needs of the vulnerable groups. Nutrition education and SBCC plays an important role in ensuring that increased production and income translates into improvements in diets and nutrition status.
45. **Youth.** Implementing youth agribusiness internships and mentoring programs in livestock value chain can greatly support youth engagement and their involvement in agriculture. Further developing and supporting a youth-inclusive agricultural advisory service model and equipping young people with knowledge, skills and information on good animal husbandry, good agricultural

practices and good manufacturing practices, one health approach, and etc., will help in creating jobs and employment opportunities that will support improving agricultural productivity in returns high profitability in the sector.

2. Project Description

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

46. **The goal of the project** is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. **The Project Development Objective** is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. The project outcomes will contribute to the achievement of the current COSOP 2021 – 2027 strategic objectives of: (i) production, productivity and climate resilience of smallholder agriculture; (ii) integration of smallholders into the markets; and, (iii) access to and use of financial services. One of the key priority areas in the current COSOP is support to the livestock sub-sector.
47. **Geographical targeting.** ReLIV will focus in 41 selected districts in the cattle corridor of the country. The districts were selected based on the following: (i) high incidence and density of poverty, food insecurity, malnutrition; (ii) herd size by the households and potential for dairy and meat (beef) value chain development, including markets for animal sourced products; (iii) high potential for women and youth to get involved in the dairy and beef value chain; and (iv) climate vulnerability. In addition, the selection was based on subnational priorities and potential complementarities with ongoing development initiatives in dairy and cattle industry.
48. **Target Groups.** The project will target 200,000 households (1,000,000 persons), comprising of smallholder dairy and beef farmers engaged in intensive and semi-intensive small-scale integrated production systems, as well as small and medium scale extensive agro-pastoral systems. Other direct beneficiaries will be (i) private service providers engaged in AI, veterinary services, feed and fodder seeds production, mechanisation, with a specific focus on youth; (ii) small scale processors, including individuals, groups, women and youth groups; and (iii) public institutions involved in delivery of livestock related services (research, extension, regulation and control, policy formulation, animal health and breeding services), and their staff. At least 40 percent of the beneficiaries will be women and 25 percent will be youths. ReLIV will provide opportunities for skills development and training, introduce women and youth friendly businesses and innovations, such as mechanized production, milking and transportation and processing, and facilitate access to finance. The project will facilitate inclusion of women and youth in various project services (individual/household, group/community, institution/organization), to ensure that both men and women and youth benefit from the dairy and beef value chain development. The project will also target PWDs through following: a) access to vocational and entrepreneurial skills training adapted to the needs of PWDs; b) employment and jobs creation specifically for PWDs; and c) supporting PWDs in accessing credit line by ensuring quota for PWDs.
49. **Targeting mechanisms.** The project follows overall national and IFAD targeting approaches and guidelines via all its implementing entities. It will use *Self-targeting* aligned with the priorities, assets, capacities, and livelihood strategies of the identified target groups, and will mitigate the risk of elite capture by following the eligibility criteria for the different target groups as described below. *Empowerment measures* that will focus on development of capacities of beneficiaries to fully participate in project activities, such as planning, financial literacy, and leadership skills development among others. *Procedural measures*, such as credit/loan application and access to matching grants guidelines and quotas, will be used similarly to ensure the most vulnerable groups including women and youth benefit. *Direct targeting* will also apply to target women, youth, SMEs, services private providers and other beneficiaries through established quotas and services and resources channelled directly to them, as shown below.
- 15% Ultra poor small holder farmers with local breeds and have livestock size of 2-5 cattle (dairy and or meat/beef) with no and or limited income (seasonal), jobless/unemployed.
 - 40% Vulnerable small holder farmers with local and or improved livestock size of 5-15 cattle (dairy and or meat/beef), highly vulnerable to climate change, dependent on market, animal diseases, and have risk to fall under the poverty line.
 - 10% extensive grazing systems (agro-pastoralist and pastoralists) will be involved as they are highly vulnerable, face high levels of poverty and can contribute to regenerating land and manage eco-system and biodiversity.
 - 25% Micro and Small enterprises that are engaged in dairy and meat value chain
 - 8% Medium size enterprises that are involved in beef/meat value chain and have potential in generating jobs/employment and contribute to sustaining market and value chains with continued supply of animal sourced products (dairy and or meat)
 - 2% private entities such as private vet, private labs, private service providers
50. Additionally, in line with the new IFAD policy on stakeholder engagement, the project will reinforce grassroots institutions and participation of beneficiaries in various groups to strengthen their social capital, networking, and collective voice. Through community based participatory planning, the project will design mechanisms to ensure meaningful participation of the various target groups.
51. Moreover, to ensure the ReLIV support on land tenure issues findings from the working paper on Land Tenure that was produced as part of the DaIMA feasibility studies will be utilized, assessment of land tenure status will be carried out for land-based activities (e.g. feed and fodder) and risk mitigation measures will be included when necessary, such as the production of titles or letters from local land committee, and grievance and dispute resolutions mechanisms.

D. Components/outcomes and activities

52. **Component 1 - Increasing productivity and resilience and reducing the impact of production on climate**
53. Under this component, RELIV will support the transformation of smallholder and grazing/pastoral production systems in order to improve their productivity, increase their resilience (to climate change and other constraints and shocks such as epizooties), lower their GHG emissions and enhance carbon sequestration in rangelands and pastures.
54. Component 1 will aim to achieve the Project Outcome 1: Increased productivity, resilience and reduced climate impacts of smallholder beef and dairy production systems through 3 outputs: (i) Enhanced access to quality feed, fodder and water; (ii) Enhanced access to veterinary and animal health services, (iii) Enhanced access to breeding services and development of an animal identification system and (iv) Enhanced extension services and technical support to farmers. Each of the four outputs will be achieved through a specific sub-component. The direct beneficiaries of this component will be 365,700 in total.
55. **Sub-component 1.1: Improving feed and fodder production, rangeland management and access to water**
56. 350,000 livestock owners will benefit from better availability of quality feed with the sub-component, including members of cooperatives and 40% women and 25% youth involved in activity. 400 feed and fodder producers. An estimated 15,000 (agro)pastoralist HHs will engage in participatory grazing management and receive drought resilient fodder seeds and will benefit from restored rangelands and improved pastures. Approximately, 300 selected small livestock producers and (agro) pastoralist HHs will join in a pilot of conservation agriculture for fodder growing and receive drought resilient fodder seeds, training and guidance.
57. **Activity 1.1.1. Support the development and dissemination of climate-smart feed and fodder and improved grazing management:** The project will strengthen the National Agricultural Research Organisation (NARO) and the National Animal Genetic Resource Centre (NAGRC) for the selection and multiplication of feed and fodder species, and their distribution through private seed producers and cooperatives (with a focus on women and youth). Particular emphasis will be placed on legumes and drought resistant/resilient fodder varieties, and on practices such as grass and legume intercropping, agroforestry and weed management. To mitigate the impact of droughts and improve feed and fodder quality, fodder choppers and conservation equipment will be provided (at least 13,500), including for hay and small-scale silage making. Best practices in fodder crop pest management and soil conservation management for feed and fodder production will be identified, and pasture/rangeland rehabilitation (at least 20,000 ha) and sustainable land management strategies will be developed in participative way and implemented. Feed/fodder with higher digestibility will also contribute to reducing enteric methane emissions.
58. **Activity 1.1.2. Strengthen feed and fodder characterisation and formulation:** RELIV will support one national and at least four decentralised feed and soil testing laboratories to enhance their service to producers. Improved access to information on feed/fodder and soil quality will in turn improve the quality of animal nutrition, reduce vulnerability to climate shocks like droughts and floods and contribute to reduce emissions of enteric methane. The project will also support the production and deployment of digital animal rationing tools that take into account the dry matter, but also the crude protein and metabolizable energy content of feed/fodder resources, including for pastures and rangelands. This will build on existing tools in the region, including the ILRI Feed Assessment Tool and the SNV Rumin-8. The project will also encourage the production and distribution of feed blocks.
59. **Activity 1.1.3. Improve manure management:** About 3,000 producers will be supported to access biodigesters and composting equipment, for improved recycling of nutrients and energy from animal manure. This will not only contribute to improving soil fertility and feed/fodder productivity, but also to reducing GHG emissions from manure, including methane. The project will promote simple circular manure management practices to reduce nutrient losses and GHG emissions, which will include pit storage/manure ponds, manure covering with polythene or banana leaves, compaction, composting, liquid-solid separation, biochar addition. This activity will rely on concerted action by MAAIF, NARO, the Ministry of Energy and Mineral Development (MEMD), private sector service providers (Biogas National Alliance, Bio Solutions Uganda) and other specialised implementing partners (e.g. SNV).
60. **Activity 1.1.4. Develop feed/fodder balance mechanisms at national and district levels:** This activity will provide support to national and district-level livestock authorities for better and regular planning of feed and fodder balances and enhanced response to droughts and other drivers of feed shortages. The upgraded feed balance mechanism will build on previous work by FAO and other development partners, and will include adequate tools and data on all feed and fodder resources, including GIS-based rangeland monitoring and ground-level sampling. It will also include reliable estimates of animal requirements in terms of dry matter, energy and protein, including data on animal numbers and weights.
61. **Activity 1.1.5. Support the development of water harvesting systems:** At the household level, the project will support the construction of small-scale rainwater harvesting and recycling systems (at least 8,000, with a cost of USD 150 for small harvesting systems and USD 1,500 for individual charco). At community/landscape level, rehabilitation projects of existing structures will be planned with local governments and Community Owned Water Supply Organisations (COWSOs), including charco dams in semi-grazing system areas, rock catchment water harvesting, and well recharge (A total of 2,482). The project will also build the capacity of the COWSOs to better manage all the water harvesting and storage infrastructures it would have financed. The project will further scale up the adoption of soil and water conservation practices in the project area, which will reduce vulnerability to climate change. This will include activities such as dam protection through the construction of animal drinking water troughs away from dams to reduce land degradation and siltation (A total of at least 2,700).
62. **Sub-component 1.2. Improving management and delivery of animal genetic resources (AnGR)**
63. **Activity 1.2.1. Strengthen and implement the Livestock Identification and Traceability System:** ReLIV will support the roll-out of the Uganda Livestock Identification and Traceability System (ULITS), which will enhance ownership identification and

enable performance recording and productivity advisory for producers, effective breeding, more efficient disease control, theft control, and traceability. It will also facilitate access to services such as finance and insurance. The project support will aim at rolling out the system throughout the project area, and will include testing, and possibly upgrading, of the existing software developed under the EU-funded MOBIP project^[36], awareness raising of stakeholders, training of users and co-financing of identification devices (ear tags for 200,000 HH) and equipment (readers, tablets for data entry).

64. **Activity 1.2.2. Strengthen livestock breeding services/animal genetic resources:** The public artificial insemination (AI) mechanism will be strengthened to improve the 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 for 410 technicians, to improve the last mile delivery of AI services in the field. Conservation and improvement of indigenous breeds will also be supported at the level of Government ranches and private breeders. Dissemination of improved breeding stock (1,500 animals, local or crossed) that are suitable for extensive or semi-intensive production systems (including for animal traction when relevant) will be supported through Government farms or community breeding mechanisms. 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. Moreover, ReLIV will work on ensuring animal feed availability during drought seasons through supporting the establishment of feed processing plant with a medium size storage facility (50 MTs).
65. **Sub-component 1.3. Improving animal health services for resilient and low-emission animals**
66. Animal health support will strengthen public veterinary services, private service delivery and best practices in disease prevention and control. Improved animal health will result in higher efficiency at animal and herd level, reduced vulnerability to shocks, including climate (e.g., heat stress, drought), and avoided GHG emissions from unproductive animals.
67. **Activity 1.3.1. Improve disease control and surveillance in a One Health approach:** Support will be provided for the digitalization of the animal disease surveillance system (in connection with the ULITS supported under 1.2.1), the improvement of inter-ministerial and inter-institutional collaboration through interprofessional interagency workshops and tasking, the improvement of contingency planning and outbreak response (including animal checkpoints and other measures along the value chains), disease surveys, targeted mass vaccinations and for the rehabilitation or establishment of district and regional veterinary laboratories in the project area (infrastructures, equipment and consumables). Additionally, the project will support vector control campaigns as part of an Integrated Parasite Management (IPM) approach. Healthier animals are less vulnerable to climate change impacts like heat stress and this also contribute to reducing unproductive emissions from sick animals.
68. **Activity 1.3.2. Strengthen community-based and private animal health services:** Two arrangements for the sustainable delivery of private veterinary services will be supported by the project. Community-based animal health services (CAHWS model) will be facilitated, based on pilots carried out by international NGOs experienced with this model in the context of smallholder and (agro)pastoral production systems (e.g. VSFB and Heifer International), and followed by a scale up in relevant parts of the project area. Elsewhere, the project will support the privatisation of (para) veterinarians. Following a feasibility study, candidates will be selected to receive business development training and a postgraduate course in best practices (including in climate and environment and One Health), tailored to the services that the target groups will ne The CAHWS and private (para) veterinarians will be given access to finance to establish themselves in the project area.
69. **Activity 1.3.3. Develop and disseminate best practices to reduce antimicrobial and anti-parasitic resistance:** National research institutes, such as the University of Makerere and NARO (NALIRRI) will work together on a prevalence and treatment study of a prioritised zoonotic bacterium (e.g. Anthrax, TBC or brucellosis) and antimicrobial resistance and a dito study for a prioritised tick-borne disease (e.g. Babesia) and Trypanosoma. The studies will inform on best practices for antimicrobial resistance stewardship and Integrated Parasite Management (including literature review and technology adoption testing). An international research expert in the topics can assist in setting up and guiding the studies and building research capacity (e.g. mentoring MSc. or PhD students). Study outcomes will be promoted in the One Health context and used for informing policies.
70. **Sub-component 1.4. Improving extension and delivery of technical support to producers**
71. **Activity 1.4.1. Implement community-based training and extension mechanisms:** The outreach of public extension mechanisms is limited by their recurrent lack of resources, which has an impact on the dissemination of technical innovations and on the linkages between research and farmers. To strengthen farmers' technical skills and enable the dissemination of climate smart practices and technologies in feed/fodder, herd management, breeding, animal health, manure management at farm level, and rangeland management (sub-components 1.1, 1.2 and 1.3), community-based training and extension mechanisms will be supported. This will include in particular Livestock-Farmer Field Schools (L-FFS) and Pastoral Field Schools (PFS) methodologies, building on the experience acquired by FAO in the Cattle C The project support will include development of training curricula, training of trainers and facilitators, and facilitation of schools during a period of three years, including provision of inputs for field trials and demonstrations. 50,000 participants (2,000 groups) will be involved in L-FFS and PFS over the project cycle. It is expected that some of these groups will progressively graduate into Community Business Networks, and then cooperatives, that will be supported under activity 2.1.1. (Support producer organisations and cooperatives). Private extension mechanisms at the cooperative level, as well as e-extension will also be piloted.
72. **Activity 1.4.2. Support adoption of best practices and technologies:** To ensure that the best practices and technologies developed and supported by ReLIV are eventually adopted by producers, studies will be carried out by the University of Makerere (i.e. School of Social Sciences and College of Agricultural and Environmental Sciences), with the responsible government agencies, to identify key drivers and ways to increase adoption. The practices/technologies will include climate-smart feed and fodder species and varieties, biogas and other manure management improvements, AI and cross-breeding. Strategies to improve technology adoption and capacity development activities will be proposed.
73. **Activity 1.4.3. Improve climate information services:** Building on past efforts, including under the IFAD ASAP+ programme in

Uganda, climate information services will be strengthened. This will address the increasing climate variability that limits livestock productivity in the project area (including droughts). It will also provide early warning of climate shocks and support better planning of responses and coping mechanisms. In alignment with the GCF regional programme (DalMA), livestock-focused agro-met advisory services will be developed, covering animal shelter locations, vaccination points, transhumance corridors, disease occurrence zones, flood zones, potential conflict zones, and market information. Agro-met information will be disseminated through various communication technologies, such as mobile phones, community meetings, and interactive radios. Communication channels will be strengthened by developing user-friendly interfaces, providing training on digital applications (e.g. Lunda, iKnowFarm, AgriSharem, Jaguza), and ensuring inclusive access for women and youth. Climate information will also be integrated into the L-FFS, linking traditional climate assessment mechanisms with localised and downscaled climate services. This will include historical climate data, risk assessments and user-centred mechanisms such as workshops and digital learning.

74. Component 2 - Enhancing access to markets for smallholder producers and investments in the value chain

75. The interventions under this component will focus on the post-production level and the financial sector and are intended to foster collective action among smallholder beef and dairy farmers, broaden market opportunities for farmers, increase milk and beef value chain efficiency, increase investment at different levels of the value chain, through better access to finance, promote green and sustainable solutions, and improve food safety as well as nutrition and reduce food loss and waste at various stages of the value chains which will contribute to limit unproductive GHG emissions

76. This Component will aim at achieving the Project Outcome 2 “Enhanced access to markets for smallholder producers and access to finance for value chain actors” through three outputs: (i) Aggregation of production and access to markets for smallholder producers improved, (ii) Quality, food safety and local consumption of livestock commodities strengthened, (iii) Access to financial products for value chain actors improved. Each of the three outputs will be achieved through a specific sub-component.

77. Sub-component 2.1: Supporting aggregation of production and access to markets for smallholder producers

78. **Activity 2.1.1. Support producer organisations and cooperatives:** Livestock farmers in the proposed project area are poorly organised which hinders their bargaining power, market access opportunities and access to services including credit. RELIV will thus support the creation of farmers organisations and strengthen existing ones (190 cooperatives in total, gathering 9,500 members) to foster collective action and strengthen their position in the value chain. In communities where farmers are not organised, 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. Support to groups and cooperatives will entail capacity building in governance, business management, market access, and technical aspects such as milk handling and processing, energy use efficiency and renewable energy.

79. **Activity 2.1.2. Pilot and upscale green and sustainable business models for access to markets and services by smallholder farmers:** The project will upscale business models that are sustainable, climate smart and with potential impact to improve market access, access to finance, improve smallholder farmer income, increase productivity, and promote food safety and value chain efficiency. In the dairy sector, the main business models supported by the project and already operating successfully throughout the country are the cooperative-led Milk Collecting Center (MCC) and Milk Collecting Point (MCP). A total of 190 MCCs, including 44 new ones, and 100 MCPs, all new, will benefit from this support. The same principle of aggregation will also be applied to the beef sector, as piloted under the EU beef project. The project will also support the upgrading of the most mature MCCs into dairy hubs (40 hubs), whereby farmers can access essential services (AI, feed, credit, ...etc) in addition to the market. Where cooperatives are not present, the “nucleus farmer” hub model, under which market aggregation is provided by a lead farmer instead of a cooperative, will also be piloted, including in the beef sector. The Productive Alliance model, under which a farmer group/cooperative enters into a contractual arrangement with a private sector actor, often an aggregator, to strengthen its access to markets and services, will also be facilitated. This model is currently being implemented by some dairy processors and will be upscaled, including in the beef sector (40 in total).

80. The project will promote energy-efficient and GHG-reducing technologies for milk cooling, water heating and dairy processing in 50 MCCs and MCPs, with a focus on replacing fossil fuel and firewood-intensive technologies with environmentally sustainable alternatives, predominantly solar energy (e.g. PV-powered technology for milk coolers, milk transfer tanks, water heaters, water recycling systems, milk pasteurizers), and other highly efficient technologies. Such solutions will benefit rural farmers who have limited access to the grid and face frequent power cuts and high energy costs, in addition to reducing greenhouse gas emissions from processing. Adoption studies will be carried out to tailor these technologies to local conditions and ensure their uptake by the communities. To address existing gaps in design and implementation, a consulting firm with sector-specific expertise will be selected to provide technical assistance. Waste water and solid waste management solutions (e.g. soak pits, oxidation ponds, etc.) will also be enforced at MCC and MCP levels.

81. **Activity 2.1.3. Strengthen public livestock markets and slaughtering facilities and pilot circular waste management technologies:** The lack of proper livestock marketing and slaughtering facilities affects disease control, animal welfare, quality and safety of products. ReLIV will build or rehabilitate 10 public livestock markets and 10 slaughtering facilities in selected strategic districts. To ensure their sustainability, PPP arrangements will be favoured and facilitated for their management. Circular effluents management technologies such as biogas and Black Soldier Flies will also be piloted in two abattoirs and contribute to reducing anaerobic emissions of methane from organic waste.

82. **Activity 2.1.4. Support local value chain platforms/clusters:** Local multi-stakeholder platforms have been established at the national level for both the dairy and beef value chains. Building on lessons from IFAD-supported interventions in other countries, the project will support their decentralisation at the local level (e.g. District level) to strengthen and catalyse value chain linkages and improve business relations between producers/traders/service providers/financial institutions. B2B events will be organised

through these platforms, including with financial institutions to facilitate business arrangements.

85. **Activity 2.1.5. Digitalise the value chain:** The project will support the digitalization of the value chain, including through mobile-based solutions accessible to farmers and field market actors (traders, transporters), to improve the efficiency and traceability of transactions, the profiling of farmers for access to credit, the traceability of animals and commodities, as well as the quality and safety of products. Digital solutions promoted will include digital quality-based payment systems for milk (building on and scaling up the pilot implemented by SNV under the NEADAP Project^[37]), Market Information Systems and Online Marketplace for beef.
84. **Sub-component 2.2: Strengthening food safety and local consumption of livestock commodities**
85. **Activity 2.2.1. Support local small-scale processing and promote short value chains:** Establishing local small-scale processing facilities (“cottage industry”) yields multiple benefits including local value addition, access to quality and affordable products for consumers in rural areas, women’s integration, and job creation. The project will support the emergence and development of small-scale processing and short value chains, mostly in the dairy sector, and with a specific focus on women and youth groups, building on pilots implemented by DDA. In the 128 newly created or existing small scale processing facilities, the project will promote energy-efficient and GHG-reducing technologies, with a focus on replacing fossil fuel and firewood-intensive technologies with environmentally sustainable alternatives, predominantly solar energy, and other highly efficient technologies such as heat exchangers and improved stoves.
86. **Activity 2.2.2. Enhance quality and food safety of milk, dairy products, and beef:** Improving the quality and safety of animal commodities will be achieved through a three-pronged approach combining: (i) capacity building of value chain actors on quality and food safety management, (ii) awareness raising of consumers to support demand for quality and safe products, and (iii) support to enforcement of standards and quality controls by national regulators. In the dairy sector, the project will support DDA’s capacity to conduct training on quality and food safety management, and implement controls along the value chain (including through the provision of equipment for milk quality and safety control), as per its mandate. In the beef sector, capacities of local veterinary services in charge of sanitary controls will also be strengthened through training (with strong focus on One Health aspects) and provision of equipment.
87. **Activity 2.2.3. Enhance milk and meat consumption and raise nutritional awareness:** Nutrition education and social behaviour change communication (SBCC) will be carried out specifically aimed at increasing consumption of dairy products and meat from smallholder environmentally sustainable and climate friendly production systems, within a diversified diet, and encouraging important nutritional behaviours such as proper food handling, food safety and hygiene practices, combined with WASH. Raising awareness among consumers and producers on the nutritional benefits of animal-sourced foods, particularly for growth and development, is critical to increasing uptake in diets of these foods and creating market demand. Nutrition education will be tailored to small-holder farmers, community leaders and value chain actors. Nutrition messages, integrated into value chain activities, will use language familiar to farmers and value chain actors — for instance, comparing the benefits to the family of diversifying diets with safe and higher quality dairy and animal-sourced food and of environmentally sustainable animal husbandry for the sustainable health of their land, nature, and their families. Consumers who regularly purchase and prepare a diverse range of dairy and livestock produce will add animal-sourced foods to their diet and improve their dietary diversity, while increasing consumer demand.
88. **Sub-component 2.3: Improving access to financial products for value chain actors 2.3.1. Provide Business Development Services for Business Plan development:** The project will provide Technical Assistance (TA) through Business Development Services (BDS) to empower key stakeholders within the dairy and livestock value chains, including cooperatives and SMEs. The BDS aims to enhance operational efficiency and facilitate access to crucial financial resources. The contracted BDS providers will develop robust business plans, offer financial management training, and assist in crafting bankable proposals that align with the needs of funders and lenders. Additionally, the BDS shall include enterprise viability assessments and offer ongoing mentorship and coaching to support stakeholders throughout their business development journey.
89. **Activity 2.3.2. Support the development of livestock-specific climate finance products by financial institutions:** The project will engage technical assistance (TA) providers to offer support in product development for partner financial institutions (PFIs). This assistance aims to enable PFIs, including commercial banks, credit institutions, microfinance deposit-taking institutions (MDIs), Fin-techs, and savings and credit cooperative societies (SACCOs) to develop and refine financial products tailored to the financing needs of various stakeholders within the dairy and beef value chains.
90. **Activity 2.3.3. Provide financial literacy support to smallholder farmers:** Tailored financial literacy training programs will be implemented for farmers, Dairy Cooperative executives, MCC and MCP managers, and other key personnel. These initiatives will equip participants with essential financial management skills and empower them to make informed financial services and investment decisions.
91. **Activity 2.3.4. Leverage climate change investments in the livestock sector:** The project seeks to harness available funding mechanisms, such as Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) and the Green Climate Fund (GCF), to support climate change adaptation and mitigation initiatives within the livestock sector. These efforts will promote sustainable growth and resilience among primary and secondary beneficiaries engaged in livestock-related activities.
92. **Activity 2.3.5. Support credit de-risking through promotion of livestock insurance:** The project will support the roll out of the National Agricultural Insurance Scheme in the livestock sector. Insurance premiums for members of dairy and beef cooperatives supported by the project will be subsidised, through the Agro Consortium, a coalition of 13 insurance companies partnering with GoU to offer multi-peril livestock insurance products. The consortium will also be supported to raise awareness of targeted livestock communities on the benefits of livestock insurance for prevention of theft, risk mitigation, and credit de-risking.
93. **Component 3: Policy support and coordination**

94. RELIV will support the formulation, review or updating of sector policies, strategies and regulations, based on MAAIF demand, as well as stakeholder participation in policy, through stakeholder platforms. As GoU has initiated a process of establishing a National Agriculture Regulatory Authority, IFAD will keenly follow developments on this process to determine any adjustments needed. This will be achieved through the following 2 key activities:
95. **Activity 3.1. Supporting policy dialogue:** RELIV will amplify the inclusion of all key stakeholders within the dairy and beef value chains through the creation of multi stakeholders platforms both at the local and national levels. ReLIV will build on the achievements of the 50x2030 initiative in Uganda which supports countries to collect better and more reliable agricultural and rural data and assists them in using data for policy and in their decision-making processes. RELIV will make use of the knowledge already developed through the 50X2030 initiative including the livestock brief and the data analysis that was done in 2023 and early 2024. This will enable ReLIV to improve the quality of data through validation with other sources and will be a basis for further development of other knowledge/policy products. Moreover, the 50X2030 initiative will also support the PMU in training and developing knowledge products.
96. **Activity 3.2 Support to policy and regulatory framework:** Inline with DaiMA programme, RELIV will work on establishing a climate-responsive policy and regulatory environment by reviewing the policies and regulatory frameworks of the dairy sector, supporting value chain governance initiatives, and work on food safety and consumption. This will be done through policy and regulatory studies as well as annual policy and regulatory consultations. The project will also benefit from the regional cooperation and knowledge sharing within DaiMA to ensure coordinated strategies, amplify individual country efforts and foster joint learning. This collaboration will be key to overcoming institutional and knowledge barriers.

E. Theory of Change

97. ReLIV will address the development challenges related to poverty, food insecurity and high levels of malnutrition through working on production, marketing and regulatory environment in the dairy and beef value chains. The target group (rural poor, PWDs, women and youth) can find a pathway to overcome those challenges through the following:
98. The project support on production will include: supporting access to feed and water, animal health and nutrition services, breeding services, training and the introduction of climate-resilient practices and nature based innovations. Improving production and with higher yields, the project will also work on ensuring access to markets for the target group through: strengthening producers organizations/ cooperatives for milk and meat aggregation, facilitation of partnership between private sector and producer groups, support for small-scale processing, establishing/rehabilitating enabling infrastructure, creating awareness on nutrition and access to finance. Cutting across the production and marketing activities, the project will promote climate resilient practices, digital innovations, and creating a conducive policy and regulatory framework.
99. Being a nutrition sensitive project, ReLIV will look at the interconnectedness of the production - income - - nutrition pathways. Increasing purchasing power of farmers, the investment strives to increase availability of nutrient-dense animal sourced foods such as dairy and meat for consumption at home and for sale and purchase in markets. Moreover, as a youth sensitive project, ReLIV will also prioritize youth inclusion specially for the new job opportunities created and the innovations promoted by the project. Youth will have also access to finance to support adaptation and mitigation interventions.
100. Those interventions will result in increased productivity and production, lower emissions, for the target group and thus resulting in higher incomes which will have impact on reducing their poverty, food insecurity, improving their nutrition status through knowledge acquired and income gains, reducing their environmental and climate impact, while building their resilience to shocks and climate change. With this impact, a sustainable and transformative change would take place in the present situation in the project area.
101. In other words: If the target group (rural poor, women, youth) pursue market oriented dairy and beef production and if they access proper services while building their capacities then they can enhance the profitability of their livestock farming systems (while securing nutrition); and if the secured access to markets with an enabling regulatory framework and inclusion of the target group is in place. Then this will result in a greater household income. If the household income is increased then the pervasive rural poverty, food insecurity and malnutrition that affects the target group will be reduced and they will be more resilient.
102. Key assumptions for these impact pathways: i) GoU willingness to have conducive regulatory framework for dairy and beef sectors; ii) Active participation of women and youth in the value chain; iii) Climate change aspects remain in-line with current projections; iv) Private Sector participate in project; v) Strong PMU and implementation arrangements in place.

F. Alignment, ownership and partnerships

103. ReLIV will mostly contribute to SDG 1 (end poverty), SDG 2 (end hunger), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth) and SDG 13 (Climate Action). The aspiration of Agenda 2030 (SDG2, and 9), is to end hunger, achieve food security, improve nutrition and promote sustainable agriculture as well as promoting inclusive and sustainable industrialization and foster innovation. SDG 8 also seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. ReLIV has been designed to address all these.
104. It is fully aligned with GoU's third National Development Plan (NDP III) under the Agro-Industrialisation Programme (AGI), whose goal is to increase commercialization and competitiveness of agricultural production and agro-processing, where dairy and livestock are among the key priorities. The livestock sector in Uganda is governed by several policies and regulations to ease smooth operation and investment. These policies include the national delivery of veterinary services, national veterinary drug policy, national hides, skins and leather policy, animal breeding policy and the animal feeds policy among others. The vision of the animal feeds policy is: A developed feeds industry that contributes to increased livestock production and productivity thus contributing to the welfare and incomes of livestock raisers, feed manufacturers and distributors. Implementation of ReLIV will address several of these policies. The project has been developed jointly by IFAD and GoU, represented by MAAIF, while implementation will largely be done by semi-autonomous agencies of MAAIF.
105. ReLIV is also aligned to the updated [Nationally Determined Contribution \(NDC\)](#), where Uganda commits to reducing its net greenhouse gas emissions by 24.7% below business as usual levels by 2030, totaling an absolute reduction of 36.75 MtCO_{2e}, including from key sectors such as Energy, Agriculture, Forestry and Other Land Use (MWE, Sept 2022). Within MAAIF, the project will align with other on-going re similar projects in the Country.
106. The project is aligned with IFAD's current COSOP (2021 – 2027), contributing directly to its strategic objectives of: (i) production, productivity and climate resilience of smallholder agriculture; (ii) integration of smallholders into the markets; and (iii) access to and use of financial services. Support to the livestock sector is one of the priority sectors mentioned in the current COSOP. This project is aligned with IFAD's Strategic Framework 2016-2025, on enabling inclusive and sustainable transformation of rural areas through smallholder-led growth. In line with IFAD's mainstreaming commitments, the project intends to be nutrition sensitive and will include climate finance, to support building adaptive capacity.
107. ReLIV is well aligned with the United Nations Sustainable Development Cooperation Framework (UNSDCF) 2021-2025 in particular under strategic priority 2 "Shared prosperity in a healthy environment". Given the project duration of 8 years, ReLIV has been built to ensure also alignment with the next UNSDCF 2026-2030.
108. **Partnerships.** ReLIV is aligned to the DaIMA GCF regional project and the GEF proposal for Uganda as part of the GEF8 Food systems Integrated Programme (FSIP) led by IFAD and FAO. Moreover, part of the ARCAFIM GCF project be included under ReLIV to support the rural finance sub-component. While some agencies like SNV, Heifer International and Ripple Effect implement projects at a very small scale, ReLIV will draw upon some of their approaches and lessons, and scaling them up.
109. Role of key national implementing agencies will be based on their mandate and their areas of expertise: NARO will be leading all activities involving research; NAGRC will be the lead implementing agency for selection and multiplication of feed and fodder species, and animal breeding; DDA will be the lead agency for activities targeting post production aspects; and Directorate of Animal Resources (DAR) will be the lead agency for activities on Veterinary Public Health and disease control, as well as Livestock Identification and Traceability.
110. International organizations, national and international NGOs will also be mobilized to implement project activity or implement common activities in coordinated manner: SNV will implement similar activities as ReLIV in the dairy sector in Western Uganda (outside ReLIV area) under the INCLUDE project. A strategic partnership is also envisaged with SNV through the Africa Biogas Partnership Programme. It is also envisaged to partner with SNV to upscale at national level innovations including feed rationing programme, and digital quality-based payment systems for milk. Support to the national dairy platform, and to specific dairy policies, will also be implemented in partnership with SNV.
111. For support to cooperatives, an implementing partner will be selected through a competitive process, and Heifer International as well as Agriterro, which both have experience in this domain, could be considered. VSF-Belgium could be mobilized to support training and installation of CAHWS, and FAO to provide support for the roll out of FFS, for policy support and knowledge management.
112. Private sector partners will mostly be involved in project implementation in the scope of productive alliances through which they will enter into contracts, facilitated by the project, to provide market access and services to the producers. They will also be involved in the digitalization of the value chain, and will benefit from climate finance under sub-component 2.3.

G. Costs, benefits and financing

a. Project costs

113. The overall cost of the Project is estimated at US\$200.76 million, which will be disbursed over eight years. Of this total financing, IFAD's contribution amounts to US\$89.57 million from Uganda's IFAD12 Performance-based Allocation System (PBAS) and US\$10.00 million already confirmed from IFAD's Borrowed Resource Access Mechanism (BRAM) for a total of US\$99.57 million and representing 49.6 per cent of the total project costs.

114. The indicative climate finance for ReLIV is around USD 50.7 million (almost 51% of the total IFAD financing) [38]. The following sub-components of the project count fully or partially towards IFAD's climate-related funding:

- Sub-component 1.1 counts towards climate change adaptation and mitigation through its contribution to climate resilient fodder, soil conservation and improved pasture management, biogas and water facilities;
- Sub-component 1.2 counts for climate change adaptation and mitigation through activities on climate resilient and more productive breeds;
- Sub-component 1.3 counts for climate change adaptation and mitigation through the One Health approach for healthier and more productive animals that are more resilient and less polluting;
- Sub-component 1.4 counts for climate change adaptation and mitigation through L-FFS training that includes climate change related topics;
- Sub-component 2.1 counts for climate change adaptation and mitigation due to its focus on solar energy and waste management solutions;
- Sub-component 2.2 counts for climate change mitigation for solar energy and reduction of food losses, resulting in reduced emissions;
- Sub-component 2.3 counts for climate change adaptation and mitigation for livestock-specific climate finance products and livestock insurance.
- Sub-component 3.2 counts for climate change adaptation and mitigation, as it focuses on KM products for climate change adaptation and mitigation and M&E systems to track progress on these aspects.

115. IFAD adaptation finance: USD 24,380,000

116. IFAD mitigation finance: 26,286,000

117. **Total:** USD 50,663,000

118. In addition, GCF (DaIMA and ARCAFRIM) and GEF will bring USD 65 million of additional climate finance.

Component/Sub-component	IFAD PBAS		IFAD BRAM		GCF DAIMA		ARCAFIM		GEF		Beneficiaries		GoU		Total		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Cash	In-kind	Cash	In-kind	Amount		
A. Increasing productivity and resilience and reducing the impact of production on climate	42,731	44%	5,936	6%	16,189	17%	-	0%	6,133	6%	4,375	-	5%	20,710	-	22%	96,074
1. Improving feed and fodder production, rangeland management and access to water	13,304	31%	5,936	14%	11,396	24%	-	-	5,415	11%	-	-	-	7,420	-	17%	38,275

2. Improving Animal identification and breeding	16,681	84%	-	-	-	-	-	-	-	-	-	-	-	3,188	-	16%	19,129
3. Improving animal health services for resilient and low-emissions animals	11,591	44%	-	-	361	1%	-	-	137	1%	4375	0	17%	9 722	-	37%	26,186
4. Improving extension and delivery of technical support to farmers	1,154	18%	-	-	4,432	68%	-	-	581	9%	-	-	-	381	-	6%	6,547
B. Enhancing access to markets for smallholder producers and investments in the value chain	38,085	40%	4,064	4%	25,406	27%	15,000	16%	1,368	1%	2,820	0	3%	7,868	0	8%	94,660
1. Supporting aggregation of production and access to markets for smallholder producers	17,133	53%	4,064	13%	5,529	17%	-	-	1,368	4%	-	-	-	4,517	-	14%	32,610
2. Strengthening food safety and local consumption of livestock commodities	11,056	68%	-	-	928	6%	-	-	-	-	1,864	-	11%	2,511	-	15%	16,359
3. Improving access to financial products for value chain actors	9,895	22%	-	-	19,000	42%	15,000	33%	-	-	956	-	2%	839	-	2%	45,691
C. Policy Support and Coordination	8,752	88%	-	0%	855	8%	-	0%	-	0%	-	0	0%	419	0	4%	10,026
1. Policy Support	-	-	-	-	855	100%	-	-	-	-	-	-	-	-	-	-	855

2. Monitoring and Evaluation (M&E) and Knowledge Management (KM)	1,183	97%	-	-	-	-	-	-	-	-	-	-	-	42	-	3%	1,225
3. Project Management	7,568	95%	-	-	-	-	-	-	-	-	-	-	-	378	-	5%	7,946
Total	89,567	45%	10,000	5%	42,500	21%	15,000	7%	7,500	4%	7,195	0%	4%	28,998	0%	14%	200,760

Table 2 ReLIV costs by expenditure category and financier																	
(Thousands of United States dollars)																	
Expenditure category	IFAD PBAS		IFAD BRAM		GCF DAIMA		ARCAFIM		GEF		Beneficiaries			GoU			Total
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Cash	In-kind	%	Cash	In-kind	%	Amount
Investment costs																	
Works	23,910	56%	-	0%	9,230	24%	-	0%	275	1%	1,864	0	5%	7,744	0	18%	43,022
Vehicles	2,113	73%	-	0%	-	0%	-	0%	-	0%	265	0	10%	522	0	18%	2,900
Goods, services and inputs	28,936	45%	4,064	6%	4,847	8%	-	0%	4,351	7%	5,066	0	8%	17,098	0	26%	64,323
Equipment and materials	6,784	35%	5,936	25%	1,500	6%	-	0%	1,500	6%	-	0	0%	3,451	0	18%	19,172
Consultancies	8,842	65%	-	0%	3,655	27%	-	0%	1,079	8%	-	0	0%	0	0	0%	13,576
Training & Wshop	12,119	73%	-	0%	4,268	26%	-	0%	295	2%	-	0	0%	0	0	0%	16,681
Grants and subsidies	-	0%	-	0%	19,000	56%	15,000	44%	-	0%	-	0	0%	-	0	0%	34,000

Total Investment costs	82,704	43%	10,000	5%	42,500	22%	15,000	8%	7,500	4%	7,195	0	4%	28,775	0	15%	193,674
Recurrent costs																	
Salaries & allowances	5,848	100%	0	0%	0	0%	0	0%	0	0%	0	0	0%	-	0	0%	5,848
Operating costs	1,015	82%	0	0%	0	0%	0	0%	0	0%	0	0	0%	223	0	18%	1,238
Total Recurrent costs	6,863	97%	0	0%	0	0%	0	0%	0	0%	0	0	0%	223	0	3%	7,086
Total	89,567	45%	10,000	5%	42,500	21%	15,000	7%	7,500	4%	7,195	-	4%	28,998	-	14%	200,760

Table 3: ReLV costs by component and year																	
(Thousands of United States dollars)																	
Component/sub-component ⁵	PY1		PY 2		PY3		PY4 ³		PY5		PY6		PY7		PY8		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	
A. Increasing productivity and resilience and reducing the impact of production on climate	4,213	4%	12,371	13%	18,450	19%	15,932	17%	16,525	17%	13,305	14%	8,097	8%	7,180	7%	
B. Enhancing access to markets for smallholder producers and investments in the value chain	49	1%	19,201	20%	19,135	20%	19,759	21%	19,387	20%	12,739	13%	3,659	4%	792	1%	
C. Policy Support and Coordination	1,40	15%	1,140	12%	1,020	11%	1,198	13%	1,121	12%	1,172	12%	1,322	14%	1,147	12%	
Total	6,107	3%	32,712	16%	38,605	19%	36,890	18%	37,033	18%	27,216	14%	13,078	7%	9,118	5%	

119. The Project will leverage financing from Green Climate Fund (GCF), specifically from the “Dairy Interventions for Mitigation and Adaptation (DaIMA)” project covering Uganda, estimated at US\$42.50 million (21.2 per cent of the total allocation), with 55 per cent as grant and 45 per cent as senior loan. Additionally, the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) from the Nordic Development Fund, GCF, Government of Finland, Government of Denmark, and IFAD supplementary resources will contribute at US\$ 15.00 million (7.5 per cent of the project’s financing). The Government of Uganda’s contribution is expected to cover at least 14.4 per cent of total project costs in the form of in-kind and/or cash contributions amounting to US\$29.00 million. The Global Environmental Facility (GEF) will contribute with US\$ 7.50 million, representing 3.7 per cent of the total allocation. Beneficiaries will contribute to the project in cash or in kind, amounting to at least US\$ 7.19 million, which represents 3.6 per cent of the total project cost.

120. Plan B for co-financing. ReLIV has a total of US\$ 65 million from GEF and GCF which are yet to be approved. In cases those funds are not approved by 2026, this will result in a financing gap for the project. To mitigate this risk, Uganda allocation under IFAD13 will be used to fill this gap (historically Uganda allocation was about US\$ 100 million under IFAD11 and IFAD12).

c. Disbursement

121. The project disbursements categories comprise of: - i) Works; ii) Vehicles; iii) Goods, services & inputs; iv) Equipment & material; v) Consultancies; vi) Consultancies; vii) Training & Workshop; viii) Salaries & allowances; and ix) Operating costs which are allocated across various co-financiers. The overall programme recurrent costs are 4% for the total programme while under IFAD financing it results to 8% which is within acceptable limits. Trainings and workshops are considered high risks expenditure categories which will be monitored closely to ensure it is adequately supported and incurred as per procedures. Details of how each cost category would be managed is explained in the PIM.

d. Summary of benefits and economic analysis

122. Fifteen financial models were developed: ten models for agribusiness and Small-Scale Enterprises (SMEs)/ service provider and five models for livestock activities. The financial analysis demonstrates the viability of the targeted activities. Furthermore, the economic analysis also indicates that the project is economically viable, with an Economic Internal Rate of Return (EIRR) of 27.93 per cent and a Net Present Value (NPV) of US\$164.94 million. The project is sensitive to changes in certain variables within the models, including variations on benefits and costs, different lags in the realization of benefits, and adoption rates, emphasizing the importance of sustainable dairy value chain investments for project success.

e. Exit Strategy and Sustainability

123. The design of ReLIV, has incorporated exit and sustainability aspects in all key interventions. The project will strengthen the capacities of key GoU institutions responsible for promotion of the dairy and beef value chains (NaLiRRI, NAGRIC&DB DDA and Local Governments) in animal breeding and identification, animal health, extension and delivery of technical support to farmers. These agencies will continue providing services beyond the project period.
124. Majority of interventions at local levels will be owned by and involve farmers, farmers' organizations (cooperatives, associations, and groups) that will be trained to professionally run their farming businesses. Success in this area will be key for sustainability of project results after project completion.
125. The value chain approach of ReLIV, with a strong emphasis on private sector involvement is critical in sustaining project interventions. The project will promote linkages between farmers and the private sector actors, who are sources of inputs, services, credit and markets. It will train a cadre of private sector agents like Artificial Insemination technicians and facilitate partnerships between farmers and milk and beef markets (aggregators and processors) which will ensure that farmers will continue having reliable access to markets for both inputs and produce. Moreover, there's evidence that for a long time, livestock farmers in Uganda have been consistently paying for services rendered by both Government and the private sector.
126. To ensure sustainability, the ReLIV project will be aligned with key national climate and environmental policies, including the National Environmental Management Policy (NEMP), the National Climate Change Policy (NCCP), updated Nationally Determined Contributions (NDCs), the National Adaptation Plan (NAP), Land Degradation Neutrality (LDN), and the National Biodiversity Strategy and Action Plan (NBSAP). ReLIV will work with the Uganda National Meteorological Authority (UNMA), the IPCC focal institution, and the National Environment Management Authority (NEMA) to improve climate, weather and early warning systems in the project areas and to conduct scientific research on climate change. The Ministry of Finance, Planning and Economic Development (MoFPED) hosts the Green Climate Fund National Designated Authority and the Global Environment Facility Focal Point, which will play a key role in mobilising climate and environmental finance for the ReLIV project, ensuring coordination and alignment between the different project streams.

3. Risks

H. Project risks and mitigation measures

127. ReLIV overall inherit risk level is "Substantial". The detailed risk analysis and mitigation measures are presented in Integrated Project Risk Management framework (IPRM) in Annex 9. Environmental and Climate risks are presented under sections "I" and "J". The risk categories which are substantial are as follows:
- Political Commitment
 - Governance
 - Macroeconomic
 - Fragility and Security
 - Policy Development and Implementation
 - Project vulnerability to environmental conditions
 - Project vulnerability to climate change impacts
 - Monitoring and Evaluation Arrangements
 - Project Financial Management
 - Resource Efficiency and Pollution Prevention
 - Community Health and Safety
 - Vulnerability of target populations and ecosystems to climate variability and hazards

128. Risk

The programme has various FM risks as follows:- i) It has multiple financiers financing different activities hence risks of mix-up in budgeting and expenditure allocations to these multiple financiers during implementation, ii) risk of commingling of funds at the entity which will be provided with advances for implementation of program activities, iii) possibility of staff hired lacking familiarity with IFAD and GCF and other financiers key financial management procedures; iv) possible delays in commitment/contracting by other co-financiers for instance GCF which is providing loans that will be negotiated separately, v) possibility of delays and inaccuracies in financial reporting due to different policies and rules from different financiers, vii) risks of inadequate audit coverage.

129. Mitigation

Each implementing entities will have ring-fenced bank accounts for segregating funds received and tracking advances. The AWPB will be prepared with details showing financiers and proportion of financing for each activity, to guide finance teams in expenditure mapping. Project finance teams shall be competitively selected and will be made up of qualified personnel with appropriate expertise. Capacity building training will be organised at start-up to familiarise project staff with FM requirements. MoUs will be established between MAAIF and participating implementing agencies stipulating FM requirements and responsibilities. A comprehensive audit coverage guiding plan has been prepared which will ensure adequate audit coverage throughout implementation. Efficient implementation of the above mitigation measures would ensure the project meets the overall programme objectives.

The overall inherent risk is rated substantial, and residual risk remains substantial. Mitigation measures will be implemented during implementation, followed by review and amendment of residual risks rating based on FM assessments during supervision.

I. Environment and Social category

130. ReLIV's environmental and social risk category is Substantial. Critical environmental and social risks in the dairy and beef value chains include land-use change, overgrazing, deforestation, severe land degradation, inadequate waste management, water and soil pollution, increased pesticide use, increased dependence on wood-intensive energy and water, and conflicts over resource use. Other concerns include biosafety and biosecurity risks associated with poor health management and hygiene, potential outbreaks of waterborne or other vector-borne diseases, including zoonotic diseases, nutritional deficiencies, poor working conditions, child labour and community health and safety issues.

131. To mitigate these risks, proposed interventions include sustainable land management, implementation of agroforestry practices, adoption of circular economy principles, improvement of waste management and integrated pest management practices, compliance with biosafety standards, effective pollution management, a One Health approach to disease control, improved pasture management, enforcement of international labour standards, nutrition awareness campaigns and implementation of occupational health and safety measures.

J. Climate Risk classification

132. ReLIV's climate risk classification is Substantial. Uganda's high vulnerability score and low readiness score place it in the upper left quadrant of the [ND-GAIN matrix](#). The country has both a high need for investment and innovation to improve preparedness and a high urgency for action. As such, Uganda is ranked 14th most vulnerable and 163rd least prepared, with particularly low scores on social factors that could increase the mobility of investments in adaptation actions. The ReLIV target areas are exposed to significant climate risks, including rising temperatures, erratic rainfall and extreme weather events such as dry spells, heat waves, droughts, floods, mudslides and landslides. These factors severely affect livestock production, leading to water and feed shortages, increased disease incidence, loss of productivity and degraded livelihoods. In addition, livestock contribute to GHG emissions, which are expected to increase unless mitigation measures are implemented in the dairy and beef sectors.

133. The Project aims to increase the climate resilience of the livestock sector through the implementation of measures such as drought tolerant and improved fodder varieties, agroforestry, fodder conservation, ration balancing systems, pasture management, manure management, waste management, water harvesting facilities, climate information systems, efficient and renewable energy solutions, more resilient, healthy and productive breeds, herd management, livestock insurance and animal disease control (One Health). These solutions will have an impact on both climate change adaptation, by making the animals and the sector more resilient to climate shocks, and climate change mitigation, by improving efficiency and reducing GHG emissions generated at different levels (e.g., production, processing and distribution of dairy and beef products).

4. Implementation

K. Organizational Framework

a. Project management and coordination

134. The MAAIF will be the lead implementing agency and will establish a Project Steering Committee (composed of representatives of other relevant ministries and private sector organisations) that will provide overall strategic direction and ensure coordination among sectors. These will include: Ministry of Water and Environment (MWE), National Environment Management Authority; Climate Finance Unit in the Ministry of Finance, Planning and Economic Development (MFPED), which represents the GCF National Designated Authority -NDA, Global Environment Facility -GEF Focal Point. The PSC will be responsible for among others, reviewing and approving draft annual work plans and budgets, and ensure that implementation of the project is in adherence with the relevant national policies and laws. As the lead implementing agency, MAAIF will ensure that agreed GoU contributions as counterpart funds, will be adequately budgeted for and provided in a timely manner.
135. The key implementing agencies will be the Directorate of Animal Resources, and semi-autonomous institutions of MAAIF, i.e., Dairy Development Authority [\[39\]](#)(DDA), National Animal Genetic Resources Centre and Data Bank (NAGRIC & DB) and National Livestock Resources Research Institute (NaLRRRI). These have strong management structures for financial and procurement, besides their core mandates. This will ensure adequate alignment with existing Government structures and mandates.
136. MAAIF will establish a lean project management unit (PMU) with competitively recruited staff, to be responsible for coordination of the agencies involved in implementation of the project. This PMU will at the same time coordinate the implementation of DAIiMA and the GEF project. The PMU will handle core functions of coordinating the overall implementation and implementing partners focusing on: Financial Management; Procurement; Monitoring, Evaluation and Learning, among others. It will also initiate partnerships and collaborations with other similar ongoing projects and ensure complementarities and mutual learning.
137. The staffing of the lean PMU will include that following: a Project Coordinator; Livestock Specialist; Financial Controller; Monitoring, Evaluation and Learning Specialist; Procurement Specialist; Gender and Targeting Specialist; Environment and Climate Change Specialist; Accountant; M&E Officer; Communication and Knowledge Management Officer; Procurement Officer; and Administrator; plus, support staff of 5 drivers, and Office Attendant.
138. An MoU will be signed with each of the implementing agencies, specifying responsibilities and roles to be played. Each of these agencies will designate a focal person for the project. The PMU will ensure that these agencies conduct joint planning and review sessions, to ensure harmonisation in implementing the different components. The project, where relevant, will collaborate with some private sector entities, NGOs, farmers' cooperatives, and Local Governments to deliver project services to the targeted farmers.
139. At the district level, the district local governments (DLG) will ensure that ReLIV activities are included within the District Development Plans (DDPs), and the District Veterinary Officer (DVO) will be the focal officer for the project. He/She will be responsible for implementation at district level, including liaison and reporting to the PMU and implementing agencies. At the start of project implementation, a Memorandum of Understanding (MoU) will be signed by the MAAIF, and each participating DLG, defining their respective roles and responsibilities in ReLIV implementation.

b. Financial Management, Procurement and Governance

140. MAAIF, the lead implementing agency, will manage the project's financial management through a dedicated PMU. It will release funds against agreed AWPB, disburse funds to implementing agencies, and coordinate monitoring and financial reporting. MAAIF has experience in implementing IFAD funded projects (NOPP and NOSP) and would use lessons learned from going projects to improve financial management. MoUs with IFAD no-objection would be established between MAAIF and participating districts/implementing agencies, outlining FM requirements and responsibilities. Signature of MoUs is required for fund disbursements.
141. The PMU will conduct project budgeting in accordance with IFAD procedures and public financial management regulations of the Government of Uganda. The AWPB will be prepared with sufficient details showing activities by categories, component and financiers and be approved by the Project Steering Committee before receiving a "no-objection" from IFAD. Budget submission calendar will be included in the FMFCL to the borrower.
142. The disbursement mechanism are advance withdrawal and direct payments. Direct payments 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 replenishments quarterly based on interim financial reports (IFRs) cash forecasts, aligned to approved AWPB. Disbursement from IFAD will be based on quarterly Interim Financial Report (IFR) submitted by the project within 30 days after the end of reporting period with a withdrawal application in IFAD Client Portal (ICP).
143. To prevent commingling of funds, designated accounts for different financing sources will be established, with separate USD bank accounts for each co-financier. IFAD is the accredited entity for GEF and GCF funds, will ensure compliance with disbursement protocols, but GoU is accountable for the funds from IFAD, GEF and GCF. GoU funds will also be disbursed through a separate bank account in UGX. In-kind contributions from project beneficiaries and the Ugandan Government will be monitored and recorded by PMU. The AWPB will provide details on financiers and financing proportions for each activity, guiding finance teams in expenditure allocations. Each district/implementing agency will have a dedicated project account in local currency for receiving funds from PMU. A detailed fund-flow diagram is provided in the project implementation manual (PIM).
144. The project finance teams will be competitively selected and comprise qualified personnel with appropriate financial management expertise. Capacity building training will be organized at the start-up to familiarize staff with FM requirements. There is no plan to procure an accounting software as the ongoing project use the IFMIS to produce high quality IFRs and annual financial statements on time. The financial reports using IFMIS data transferred to excel with minimal intervention. IFMIS will be used for recording financial transactions, and the finance team will produce analytical reports by components, categories, financiers, and accounting period by quarter, annual and cumulative inception to date. Regular field visit for financial monitoring of participating districts/implementing agencies by the project accountant will ensure compliance with project reporting requirements and capacity building on weaknesses.
145. MAAIF Internal Auditors will provide internal audits oversight, but each implementing entities must also plan and execute audits for their activities under their institutions, with guidance and collaboration from MAAIF Internal Auditors.
146. Uganda's supreme audit institution (SAI) will provide external audit of IFAD-funded projects in Uganda annually and in line with IFAD's auditing requirements. The auditor's annual work plan will ensure adequate coverage of institutions receiving project 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 respectively after the end of the financial year.
147. 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, FM measures include annual external audit reviews, approved FM procedures, strong FM arrangements, periodic IFRs, regular internal audit reviews, and follow-up by the audit committee and independent reviews by IFAD. There would also be beneficiaries' grievance mechanism under the SECAP procedures to ensure any non-compliance to standards are addressed promptly. These measures aim to ensure the integrity of the project.
148. The overall inherent risk is rated substantial, and residual risk remains substantial. Mitigation measures will be implemented during implementation, followed by review and amendment of residual risks rating based on FM assessments during supervision.

149. **Project Procurement Strategy (PPS).** A PPS has been prepared to address how procurement activities support the development objectives of the project 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 category of Goods, Works, Consulting and Non-consulting services. SMART Key Performance Indicators (KPIs) that will be used to monitor achievement of the procurement objectives are identified in the PPS and will 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 project supervision missions.
150. **Procurement Planning.** The PDR includes 18-month procurement plan (PP), which will set out the procurement profile of the project and selection methods to be followed during implementation. The PP should reflect the analysis presented in the PPS and should be updated at least annually to reflect actual needs and changing circumstances including improvements in institutional capacity. Any updates to the PP should be submitted to IFAD for its review and no objection. Any changes to the PP should be justified through a revised PPS.
151. **Procurement Implementation.** All procurements will be implemented through the MAAIF contracts committee. The PMU of ReLIV will be directly responsible for project procurement activities and will require to hire an experienced Procurement Specialist from the market, assisted by a Procurement Officer seconded from MAAIF. In addition, the Head of procurement at each of the partner organizations will be responsible to support procurement of the low value micro procurements as defined in the local framework, and consistent with project's PAL. The procurement staff of PMU will require training on IFAD's BUILDPROC^[40], IFAD's Online Procurement End-to-end (OPEN) system, and periodic capacity building activities on IFAD project procurement. Processes for onboarding of grant recipients and other private sector players is defined in the Programme Implementation Manual (PIM). To mitigate implementation delays at start-up, the project will rely on the NOPP PMU for procurement support of initial key start-up activities. Procurement risk assessment was undertaken during project design and the project procurement risk is rated as Moderate. Mitigation measures are proposed alongside the assessment, and IFAD will provide regular supervision and capacity building for smooth project implementation.

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

a. Planning, M&E, Learning, Knowledge Management and Communication

152. **Annual Work Plan and Budgets (AWPB).** The log frame of ReLIV will be the key guide in the development of the AWPBs. Planning and budgeting will be integrated in the Government of Uganda annual planning and budget cycle. The ReLIV M, E and KM Officer, with close collaboration with the PMU, the MAAIF DAR and implementing agencies of NAGRC & DB, DDA and NARO (NaLIRRI) will be jointly responsible for the preparation of the projects consolidated AWPB. The project staff will validate an 18 months AWPB drafted at design during the start-up phase. The AWPB will be developed participatorily, based on the needed activities to achieve the Theory of Change (ToC) and indicator targets. The AWPBs will clearly specify: (i) key activities; (ii) specific unit targets; (iii) expected outputs the activity is contributing to; (iv) timeline for each activity; and, (v) responsible reporting parties. Each implementing agency will receive indicative planning figures at the start of the annual budgeting cycle which will form the basis of their AWPBs. Subsequent AWPB processes will offer opportunities to the PMU to reflect on the lessons from the implementation experience of the previous years, and to propose activities and expenditures required to achieve the intended project outcomes. The project will have the possibility of revising the AWPB at any time of the year and any proposed adjustments will require approvals by both GOU and IFAD.
153. **Monitoring and Evaluation (M&E):** ReLIV will develop a robust M&E system in compliance with IFAD and GOU requirements. The ReLIV M&E system will (i) collect, analyze and update information on project results and impact; (ii) support the PCU, implementation agencies and Steering Committee in planning and making informed decisions on the project strategies and actions; (iii) provide reports of results – based evidence in assessing the project development effectiveness through routine monitoring of outputs and outcomes that are attributed to the ToC; and, (iv) create opportunities for learning and sharing results. The M&E System will leverage on the key project development objective of Enhancing income, nutrition and resilience of smallholder dairy and beef producers in Uganda. The M&E system will be participatory, gender sensitive and results oriented while enabling the integration of physical and financial progress reporting. In-depth baseline, midline and completion studies, following the IFAD Core Outcome Indicator (COI) Framework will be incorporated.
154. In collaboration with the MAAIF Statistics Division and IT Unit, an appropriate module will be developed under the MAAIF National Food and Agriculture Statistics Systems (NFASS) to capture project data at district and sub-county level. Specifically, the PMU will further develop a digital mobile – based data collection application to allow digital capturing of data at the field level through the NFASS. The ReLIV module will produce project dashboards showing progress on the implementation of the overall ReLIV results management framework. In addition, with collaboration of the PMU, the project will allocate an adequate M&E budget to ensure that the required M&E specific capacity building investments and activities are conducted with minimal constraints in ReLIV.
155. **M&E Plan.** The ReLIV M&E plan will operationalize the M&E system and spell out the necessarily operational details, ensuring smooth and proper function of the M&E system to track and assess the results of the project interventions. As part of the lessons captured in previous and existing projects in the portfolio, the PMU Officers have had challenges in having a strong operational M&E plan that guides how M&E will be conducted throughout the project period. As this is a living document that the project can strengthen or modify during implementation, guidelines have been provided in the PIM to develop this plan. The manual will also provide guidance for the following: (i) development a Project Level Results Framework that encompass the broader Government

and project indicators that will capture beyond the indicators outlined in the IFAD Logical Framework; and, (ii) glossary of the contextual elaborations of Project IFAD core indicators definitions and methods of measure and reporting. The M&E plan will provide details of the processes and activities to be implemented, the tools to be used for data collection and processing, the deliverables to be produced and define the responsibilities. The plan will provide the necessary data collection forms, report templates, progress report outline, survey terms of reference and questionnaires.

156. **Baseline Survey:** ReLIV will conduct a baseline survey in line with the IFAD COI guidelines and methodologies that have been provided in the PIM. The baseline survey will identify household characteristics before project interventions and generate benchmark information for logframe indicators. The ReLIV baseline will be conducted and finalized within the first year of implementation of the project. The activity has been budgeted in the M&E costab under technical study in the first year AWPB. The ReLIV baseline survey processes will consider the following elements: (i) good planning to ensure that the results are available in a timely manner, since procurement processes and field work might prove to be lengthy; (ii) disaggregated data should be collected before any benefits have reached the (potential) beneficiaries, thus providing a detailed description of the initial situation.
157. **Knowledge Management, Communication and Learning.** With guidance with the IFAD knowledge action plan, the KM Officer will develop a comprehensive C & KM strategy that will provide for dissemination, visibility of project interventions, knowledge transfer, participation of key different stakeholders and direct project beneficiaries as a tool to develop a ReLIV specific KM action plan. The KM action plan will be finalized in the first year of the project implementation and will elaborate on the following KM areas: (i) provide project beneficiaries with the necessary material to sustain the technical knowledge acquired with the support of the project through production of training materials and communication platforms for sensitization and continuously assess their adoption (crop specific manuals and other Information, Education and Communication Materials); (ii) generate evidence – based knowledge acquired from the experience of the project in various fields based on the information collected as part of the monitoring of results or thematic studies including case studies, beneficiary success stories and lessons learned (in video and print) among others to inform decision making of implementation and evaluate the ToC; and, (iii) share this knowledge in the form of tailored KM products outlined in the ReLIV Project C& KM strategy with the Technical Departments of the Ministry , IFAD, other donors and implementing partners using various dissemination strategies including policy briefs and working papers among other materials., which will help to complement the policy support activities under Component 1, as well as the implementation of DaIMA and GEF. The information generated from the project activities will be disseminated during project and MAAIF workshops, on the MAAIF website and through the project social media handles.
158. To support the **Country Level Policy Engagement (CLPE)**, ReLIV will ensure that (i) KM products and evidence based data are shared for discussions among Multi-stakeholder platforms (MSPs) at both local and national level, ii) ensure that the policy deliberations are held in the MSPs with development of clear action points; (iii) Contribute to the knowledge generated under the 50 x 2030 initiative and ensure that the policy briefs and other products from this process are well packaged and presented during policy and other decision making processes; and (iv) Annual policy and regulatory consultations are facilitated to review the policies and regulatory frameworks in the dairy and beef sectors for climate responsive policies, support value chain governance initiatives and work on food safety and consumption. Moreover, ReLIV, through its co-financing with DaIMA, will support policies for the livestock sector (DaIMA component 1, including feed, breeding and animal health policy review and support to implementation). ReLIV will also strengthen GHG emissions reporting for the livestock sector and contribute to the MRV system of Uganda which has a gap for the sector.

b. Innovation and scaling up

159. **Digitalization of the sector.** The project will support a comprehensive digitalization of the dairy and beef value chains: (i) on production aspects with the roll out of the livestock identification system and farmer database, that will encompass functionalities on animal health, breeding and performance recording, and herd management including feeding, (ii) and on market aspects with the introduction of traceability systems including digitalization of payments, quality monitoring and quality- based payment. The systems will be implemented in the project area but with to upscale it at national level under Government funding.
160. **L-FFS as sustainable extension model for smallholder farmers.** Uganda has so far failed to establish a fully functional and sustainable extension system that enables dissemination of innovations from research to smallholder farmers, and this situation is acknowledged in policy documents such as NDPIII. The L-FFS model successfully piloted under RDDP in Rwanda is being piloted by FAO in some parts of the project area and will be upscaled to the whole project area under RELIV. If this proves to be successful, the L-FFS approach could be adopted as the national mechanism for extension in smallholder systems.
161. **Nucleus farmer as aggregation model:** the most common aggregation model in dairy value chain in the region and in the Uganda dairy belt is the cooperative MCC. However, this model requires a strong collective organization and pre-existence of cooperatives. In areas where the dairy sector is emerging, as well as in the beef sector, the nucleus farmer model, providing market access and services to smallholder “outgrowers” appears as a relevant alternative. This model has proved to be effective in the oilseed value chain and will be piloted under RELIV, in the view of future upscaling at national but also regional level under other IFAD funded livestock projects (Tanzania, Rwanda).
162. **GIS.** ReLIV will support the development of a GIS module as part of the MAAIF NFASS to capture spatial data and conduct intervention spatial analysis over-time to inform stakeholders in decision making. The data captured will include beneficiary location, intervention data, animal population data among others using interactive mapping tools and beneficiary geodatabases.

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

a. Project Target Group Engagement and Feedback.

163. A stakeholder engagement plan (SEP) has been developed, documenting the involvement and influence the project stakeholders will have on the project. The SEP provides a framework for effective involvement of stakeholder, which promotes the effective execution of the project. ReLIV PMU will use the SEP mainly to garner stakeholders support for the beef and dairy sector. This support will allow for ease of implementation as it is assumed that mobilization of these stakeholders will provide an enabling environment for implementation of the various economic and livelihood activities. ReLIV will use the SEP firstly to identify key stakeholders that are affected, and/or are able to influence the Project and its activities. The project will then make sure that these stakeholders are well informed about the proposed project and relevant Information is disclosed to them as early and as comprehensively as possible and will be used to manage expectations. The SEP will help in the identification of the most effective methods, timing, and structures through which to share project information, and ensure regular, accessible, transparent, and appropriate consultation, providing sufficient opportunity for stakeholders to present their opinions and concerns to influence the project. Thus, the SEP outlines how the project plans to continuously communicate with the stakeholders including when the ReLIV PMU will reach out to each stakeholder, what platform it will use, and how much information it will deliver. The information will be shared during scheduled meetings, as part of progress updates on implementation of project activities at different levels.

b. Grievance redress.

164. As part of stakeholders engagement and for addressing complaints that may arise in the course of programme implementation, a Grievance Redress Mechanism (GRM) has been established. The GRM will address queries and offer an avenue for clarifications about the program, respond to problems, complaints, and grievances. The GRM also provides an opportunity for appeal if any aggrieved person is not satisfied with a decision or action in response to their issue. To ensure that the Grievance Redress Mechanism is well known and accessible to all program stakeholders, various communication tools will be adopted to disseminate the information about the available opportunity, and how to register complaints and seek redress. The program will also use the opportunities from the existing communication system and program awareness-raising events to disseminate the information on the GRM.

N. Implementation plans

a. Supervision, Mid-term Review and Completion plans.

165. **Supervision and implementation support** missions will be organised and conducted jointly by IFAD and the GoU to review progress and support the PMU and implementing partners in improving project implementation. These missions will review and assess overall physical and financial progress, identify challenges and propose and agree on measures to address them.

166. **Mid-Term and Completion.** A mid-term review (MTR) be undertaken at mid-line (after three and a half years) to assess whether the project is on track to achieve its goal and development objectives. A completion/ end-line assessment will be undertaken to evaluate whether the project's goal and development objectives, have been achieved. Periodic outcome surveys, adhering to the IFAD core outcomes indicators (COI) guidelines, will be conducted to inform project parties on how the project is progressing in terms of outcomes, and will also inform the mid-term and end-line assessments, project's development effectiveness and implementation performance.

167. **Implementation readiness and start-up plans.** The Project will be presented to the IFAD EB of September 2024, while the project start-up is planned to be tentatively July 2025.

Footnotes

[1]<https://www.ubos.org/uganda-profile/>

[2]<https://data.worldbank.org/indicator/EN.POP.DNST?locations=UG>

[3]<https://www.ubos.org/uganda-profile/>

[4]<https://data.worldbank.org/indicator/EN.POP.DNST?locations=UG>

[5]<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=UG>

[6] MFPED, 2023: Background to the Budget 2023 Page 76

[7] MFPED, 2023, Poverty Status Report 2021

- [8] NPA 2020, Third National Development Plan (NDP III) 2020/21 – 2024/25
- [9]<https://npa.go.ug/vision2040/vision-targets.htm>
- [10]<https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=UG>
- [11] MFPED 2023, Background to the Budget Fiscal Year 2023/24
- [12] MFPED 2023, Poverty Status Report 2021
- [13] Ibid
- [14]<https://npa.go.ug/vision2040/vision-targets.htm>
- [15]<https://countryeconomy.com/hdi/uganda>
- [16] MFPED 2023, Background to the Budget Fiscal Year 2023/24
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- [18] UBOS 2021, Uganda National Household Survey 2019/2020.
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- [30] FAO. 2019. The future of livestock in Uganda. Opportunities and challenges in the face of uncertainty. Rome
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<https://www.ifad.org/en/web/operations/-/project/2000002340>
<https://www.fao.org/in-action/forest-landscape-restoration-mechanism/our-work/gl/tfbp/en/>
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- [35]<http://www.push-pull.net/works.shtml>
- [36] https://www.eeas.europa.eu/sites/default/files/5._developing_a_market-oriented_and_environmentally_sustainable_beef_meat_value-chain_in_uganda_-_action_document.pdf
- [37] https://www.nfoodpartnership.com/documents/359/QBMPS_Uganda_pilot_NEADAP_report_Manon_Stravens_Oct_2021.pdf
- [38] As per the [MDB Methodologies for Tracking Climate Adaptation and Mitigation Finance](#).
- [39] In case DDA is absorbed in MAAIF as a department, an assessment will be made to determine whether it will still have adequate capacity, or if another agency will be required.

Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex 1: Logframe

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

Resilient Livestock Value Chain Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1 Persons receiving services promoted or supported by the project				Programme reports	Annual	PMU M&E unit	Political stability Marco-economic conditions remain stable or improve. No major political shocks in the region Strong PMU in place
	Males	0	48000	120000				
	Females	0	32000	80000				
	Young	0	20000	50000				
	Not Young							
	Non-Indigenous people							
	Total number of persons receiving services	0	80000	200000				
	1.b Estimated corresponding total number of households members				Programme reports	Annual	PMU M&E unit	
	Household members	0	300000	1000000				
	1.a Corresponding number of households reached				Programme reports	Annual	PMU M&E unit	
Households	0	80000	200000					
Project Goal Contribute to the improved livelihoods of smallholder livestock farmers	Percentage of rural households living below the poverty line in the project supported districts				UBOS/ Baseline and completion surveys	Baseline, MTR and completion	PMU M&E unit	Economic policies continue to support the dairy and beef value chains for smallholder farmers
	Households	21.5	20.4	19.2				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Development Objective Enhance income, nutrition and resilience of smallholder dairy and beef producers	Percentage increase in average HH income as a result of services provided by the programme				COI Baseline and completion surveys	Baseline, MTR and completion	PMU M&E unit	Implementing agencies reach the target groups Local and international demand for dairy and milk continues to grow Households have access to the required nutrient rich foods that they can purchase with resources earned from the project activities.
	Households	0	30	50				
	1.2.8 Women reporting minimum dietary diversity (MDDW)				COI Baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit	
	Women (%)	0	15	50				
	Women (number)	0	12000	40000				
	Households (%)	0	6	20				
	Households (number)	0	12000	40000				
	Household members	0	60000	200000				
	Women-headed households	0	3	10				
	Non-women-headed households							
	2.2.1 Persons with new jobs/employment opportunities				COI Baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit	
	Males	0	2000	6000				
	Females	0	1330	4000				
	Young	0	830	2500				
	Total number of persons with new jobs/employment opportunities	0	3330	10000				
Outcome Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems	2.2.5 Rural producers' organizations reporting an increase in sales				COI Baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit	
	Percentage of rural POs	0	20	50				
	Number of Rural POs	0	240	600				
	Rural POs - livestock	0	240	600				
	1.2.4 Households reporting an increase in production				COI Baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit	
	Total number of household members	0	200000	600000				
	Households	0	20	60				
	Households	0	40000	120000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	SF.2.1 Households satisfied with project-supported services							
	Household members	0	400000	800000				
	Non-indigenous households							
	Non-women-headed households							
	Households (%)	0	40	80				
	Households (number)	0	80000	160000				
	3.2.1 Tons of Greenhouse gas emissions (tCO2e) avoided and/or sequestered				Special study	Baseline, MTR and completion	PMU M&E unit	
	Hectares of land	0	53355	160065				
	tCO2e/20 years	0	530095	1590285				
	tCO2e/ha	0	9.9	9.9				
tCO2e/ha/year	0	0.5	0.5					
Output Output 1.1 Enhanced access to quality feed, fodder and water	1.1.3 Rural producers accessing production inputs and/or technological packages				M&E Data Component reports	Quarterly	PMU M&E unit	
	Males	0	30000	60000				
	Females	0	20000	40000				
	Young	0	12500	25000				
	Total rural producers	0	50000	100000				
Output Output 1.2 Improved management and delivery of animal genetic resources (AnGR)	Number of cattle covered by the Livestock Identification and Traceability System				Livestock Identification and Traceability System (LITS)	Annually	PMU M&E unit	Political will to support the roll out of the system. Sufficient capacity (numbers and skills) of extension services to roll out the system.
	Number of cattle	0	875000	1750000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 1.3 Enhanced access to animal health services for resilient and low emission animals	Number of farmers accessing veterinary and breeding services				M&E Data Component reports	Quarterly	PMU M&E unit	Sufficient numbers of Community Animal Health Workers and para-veterinarians who will be skilled and equipped by the project to provide veterinary and breeding services to the project beneficiaries. Sufficient numbers of Community Animal Health Workers and para-veterinarians who will be skilled and equipped by the project to provide veterinary and breeding services to the project beneficiaries.
	Total number of persons accessing services by the project by the project - Number of people	0	40000	100000				
	Men	0	24000	60000				
	Women	0	16000	40000				
	Young	0	10000	25000				
	Households	0	200000	500000				
Output Output 1.4 Enhanced capacity of farmers and extension services	1.1.4 Persons trained in production practices and/or technologies				M&E Data/ Component reports	Quarterly	PMU M&E unit	
	Total number of persons trained by the project	0	75000	100000				
	Total number of attendances to training sessions	0	75000	100000				
	Men trained in livestock	0	45000	60000				
	Women trained in livestock	0	30000	40000				
	Young people trained in livestock	0	18750	25000				
	Total persons trained in livestock	0	75000	100000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome Outcome 2 Enhanced access to market for smallholder producers and access to finance	2.2.6 Households reporting improved physical access to markets, processing and storage facilities				COI baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit	Timely construction and rehabilitation of the market facilities, processing facilities and storage facilities. Financial service providers effectively package the available products and are able to reach the households and avail the products.
	Households reporting improved physical access to markets	0	30	60				
	Size of households	0	60000	120000				
	Jóvenes	0	180000	360000				
	Households reporting improved physical access to processing facilities	0	30	60				
	Households reporting improved physical access to storage facilities	0	30	60				
	Households reporting improved physical access to markets	0	60000	120000				
	Households reporting improved physical access to processing facilities	0	60000	120000				
	Households reporting improved physical access to storage facilities	0	60000	120000				
	Total households reporting improved physical access	0	180000	360000				
	1.2.5 Households reporting using rural financial services				COI baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit	
	Total number of household members	0	113060	188435				
	Households	0	11.3	18.8				
	Households	0	22612	37687				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				Component reports/COI surveys	Annual	M&E officer	
	Total number of household members	0	250000	600000				
	Households	0	25	60				
	Households	0	50000	120000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 2.1 Enhanced aggregation of production and access to markets for smallholder producers	2.1.3 Rural producers' organizations supported				M&E Data and Training reports	Quarterly	PMU M&E unit	Farmers are willing to form rural producer organizations through with they will access inputs and market their dairy and beef products.
	Total size of POs	0	17000	34000				
	Rural POs supported	0	170	340				
	Males	0	10200	20400				
	Females	0	6800	13600				
	Young	0	4250	8500				
Output Output 2.2 Improved awareness on nutrition	1.1.8 Households provided with targeted support to improve their nutrition				M&E Data and Training reports	Quarterly	PMU M&E unit	
	Total persons participating	0	125000	250000				
	Males	0	75000	150000				
	Females	0	50000	100000				
	Households	0	25000	50000				
	Household members benefitted	0	125000	250000				
	Young	0	31250	62500				
Output Output 2.3 Improved access to finance	1.1.5 Persons in rural areas accessing financial services				Component reports/ Groups reports	Semi-annual	PMU M&E unit	Farmers have support to access financial services
	Total number of accesses to financial services	0	11792	19654				
	Women in rural areas accessing financial services - savings	0	2621	4368				
	Young people in rural areas accessing financial services - savings	0	1638	2730				
	Men in rural areas accessing financial services - savings	0	3275	5459				
	Men in rural areas accessing financial services - credit	0	3275	5459				
	Women in rural areas accessing financial services - credit	0	2621	4368				
	Young people in rural areas accessing financial services - credit	0	1638	2730				

Results Hierarchy	Indicators				Means of Verification			Assumptions			
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility				
	Total persons accessing financial services - savings	0	5896	9827							
	Total persons accessing financial services - credit	0	5896	9827							
Outcome 3 Strengthened policy and regulatory environment	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment				Stakeholder platforms	Annually	PMU M&E unit	GoU willingness to have conducive regulatory framework for dairy and beef sectors			
	Number								0	1	2
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI baseline, mid-term and Completion survey	Baseline, MTR and completion	PMU M&E unit				
	Household members								0	100000	400000
	Households (%)								0	10	40
	Households (number)								0	20000	80000
Output 3.1 Formulation, review and update of national policies, strategies and legislations supported	Policy 1 Policy-relevant knowledge products completed				Knowledge products	Annually	PMU M&E unit	GoU interest in revisiting the legislative framework			
	Number								0	2	5

Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex 2: Theory of change

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

Challenges

Production level

- Limited extension services
- Limited Access to services (inputs, feed, pasture seeds, vaccinations...etc)
- Low quality and seasonality of feed
- Insufficient quality control measures
- Low production levels

Cross cutting

- Climate change and environmental degradation (long dry spells, drinking water for animal, waste management...etc)
- Weak traceability, recording and reporting
- Low participation for women and youth
- High levels of malnutrition and low consumption
- Weak regulatory framework and policies
- Limited coverage

Market level

- Highly reliance on traditional (informal) markets
- VC infrastructure operating below capacity (inefficiency)
- Limited value addition (yoghurt and butter)
- Pricing variability
- Limited access to finance

Risks

- Lack of policy frameworks on dairy and beef sector
- Climate change
- Implementation arrangements with different actors
- Poor Hygiene practices
- Weak capacities

Activities

- Support access to feed and fodder and improved grazing management
- Improve manure management
- Support water harvesting systems
- Livestock Identification and Traceability System
- Strengthen livestock breeding services/animal genetic resources
- Improve disease control and surveillance.
- Improve climate information system
- Capacity building for smallholder breeders on best practices
- Improve access to technologies and equipment

- Support producers organizations/ cooperatives for milk collection
- Upscaling of green and sustainable business models
- Strengthening the VC infrastructure (markets, slaughtering facilities, etc)
- Promote small-scale processing
- Pilot circular waste management tech
- Digitalization of the VC
- Enhance food quality and safety
- Promote milk consumption and nutrition
- Provision of access to finance
- Support de-risking through promotion of livestock insurance

- Support the formulation, review or updating of sector policies, strategies and regulations business models
- Stakeholder participation in policy, through stakeholder platforms.

Outputs

- 1.1 Enhanced access to quality feed, fodder and water
- 1.2 enhanced access to veterinary and animal health services
- 1.3 Enhanced access to breeding services and development of an animal identification system
- 1.4 Enhanced capacity of farmers and extension services

- 2.1 improved aggregation of production and access to markets for smallholder farmers
- 2.2 Strengthened quality, food safety and consumption of livestock commodities.
- 2.3 Improved access to finance for value chain actors

- 3.1 Formulation, review and update of national policies, strategies and legislations supported

Outcomes

Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems

Enhanced access to market for smallholder producers and access to finance

Strengthened policy and regulatory environment

Development Objective

Enhance income, nutrition and resilience of smallholder dairy and beef producers

Impact

Reduced poverty

Improved food security and nutrition

Resilience to Climate Change

Project Goal

Contribute to the improved livelihoods of smallholder livestock farmers

Assumptions:

GoU willingness to have conducive regulatory framework for dairy and beef sectors ; Active participation of women and youth in the value chain; Climate change aspects remain inline with current projections; Private Sector participate in project; Strong PMU in place;

1. ReLIV will address the development challenges related to poverty, food insecurity and high levels of malnutrition through working on production, marketing and regulatory environment in the dairy and beef value chains. The target group (rural poor, women and youth) can find a pathway to overcome those challenges through the following:
2. The project support on production will include: supporting access to feed and water, animal health and nutrition services, breeding services, training and the introduction of climate-resilient practices and nature based innovations. Improving production and with higher yields, the project will also work on ensuring access to markets for the target group through: strengthening producers organizations/cooperatives for milk and meat aggregation, facilitation of partnership between private sector and producer groups, support for small-scale processing, establishing/rehabilitating enabling infrastructure, creating awareness on nutrition and access to finance. Cutting across the production and marketing activities, the project will promote climate resilient practices, digital innovations, and creating a conducive policy and regulatory framework.
3. Being a nutrition sensitive project, ReLIV will look at the interconnectedness of the production - income - – nutrition pathways. Increasing purchasing power of farmers, the investment strives to increase availability of nutrient-dense animal sourced foods such as dairy and meat for consumption at home and for sale and purchase in markets.
4. Those interventions will result in increased productivity and production, lower emissions, for the target group and thus resulting in higher incomes which will have impact on reducing their poverty, food insecurity, improving their nutrition status through knowledge acquired and income gains, reducing their environmental and climate impact, while building their resilience to shocks and climate change. With this impact, a sustainable and transformative change would take place in the present situation in the project area.
5. In other words: If the target group (rural poor, women, youth) pursue market oriented dairy and beef production and if they access proper services while building their capacities then they can enhance the profitability of their livestock farming systems (while securing nutrition); and if the secured access to markets with an enabling regulatory framework and inclusion of the target group is in place. Then this will result in a greater household income. If the household income is increased then the pervasive rural poverty, food insecurity and malnutrition that affects the target group will be reduced and they will be more resilient.
6. Key assumptions for these impact pathways: i) GoU willingness to have conducive regulatory framework for dairy and beef sectors; ii) Active participation of women and youth in the value chain; iii) Climate change aspects remain in-line with current projections; iv) Private Sector participate in project; v) Strong PMU and implementation arrangements in place.

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

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East and Southern Africa Division
Programme Management Department

UGANDA: Resilient Livestock Value Chain Project (RELIV)

Annex 3: Project cost and financing: Detailed costs tables

Introduction

1. This annex focuses on estimating the costs of the Project. It provides the main underpinning assumptions as well as the summary and detailed cost tables. The costing exercise has been carried out using the COSTAB software¹ and is based on costs as of February 2024.

2. The overall cost of the Project is estimated at US\$200.76 million, which will be disbursed over eight years. Of this total financing, IFAD's contribution amounts to US\$89.57 million from Uganda's IFAD12 Performance-based Allocation System (PBAS) and US\$10.00 million already confirmed from IFAD's Borrowed Resource Access Mechanism (BRAM) for a total of US\$99.57 million and representing 49.6 per cent of the total project costs. The Project will leverage financing from Green Climate Fund (GCF), specifically from the "Dairy Interventions for Mitigation and Adaptation (DaIMA)" project covering Uganda, estimated at US\$42.50 million (21.2 per cent of the total allocation), with 55 per cent as grant and 45 per cent as senior loan. Additionally, the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) from the GCF will contribute at US\$ 15.00 million (7.5 per cent of the project's financing). The Government of Uganda's contribution is expected to cover at least 14.4 per cent of total project costs in the form of in-kind and/or cash contributions amounting to US\$29.00 million. The Global Environmental Facility (GEF) will contribute with US\$ 7.50 million, representing 3.7 per cent of the total allocation. Beneficiaries will contribute to the project in cash or in kind, amounting to at least US\$ 7.19 million, which represents 3.6 per cent of the total project cost.

Methods and assumptions

3. The Project costs considered include investment costs and incremental operating costs within the three components: (i) Increasing productivity and resilience and reducing the impact of production on climate; (ii) Enhancing access to markets for smallholder producers and investments in the value chain; (iii) Policy Support and Coordination.

4. Costs have been calculated on the following basis:

- The presentation of the Project to the IFAD Board is scheduled for September 2024. It is estimated that RELIV could start its operations by mid-2025, for a duration of eight years.
- All base costs derive from data provided by the Project preparation team, based on experience acquired from other IFAD projects and field work.
- The Project is to some extent flexible, as based on the participatory approach and the principle of intervention at request. The estimated costs should thus be considered as indicative and mostly presented in terms of financial allocations by component, subcomponent, or activity. Even when quantities and unit costs are indicated in the detailed tables, it is above all the overall allocation that should be considered. The detailed planning of activities and their implementation will be in response to requests from target groups and/or after needs assessment.
- Prices are inclusive of all taxes, i.e. incorporating custom duties, Value Added Tax (VAT) and other sales taxes. The tax rates retained are shown in table 1.
- Base costs for goods and services purchased locally are derived from local sales prices (market prices), including all taxes as they are real costs for the Project. All prices of locally purchased goods and services, as well as salaries and allowances, are expressed in foreign currency, albeit payable in Ugandan Shillings (USh). Considering the current and forecasted local inflation, a rate of 4 per cent has been used to deal with the rise in prices at local level. Indeed, both annual local and foreign inflation rates have been set

¹ COSTAB is a software originally designed by the World Bank and FAO and used by several International Financing Institutions in preparing, organizing and analyzing project costs.

at 4.1 per cent during the implementation period according to The Economist Intelligence Unit (EIU)¹.

- Price contingencies are intended for facing up to the effects of inflation and devaluation of the exchange rate between the Ugandan Shillings (USh) and the US dollar (US\$). They are computed by Costab based on the rates set forth for the inflation at national and international levels.
- Physical contingencies are intended for facing up to changes in quantities and/or methods of implementation of the Project. They are expressed as a percentage of base costs and are applied on civil works. Based on the experience of the previous IFAD projects, physical contingencies are set to ten percent for civil works.
- The official exchange rate has been fixed at USh3,762 for one US dollar, estimated by the Economist Intelligence Unit (EIU) for whole 2025.
- Foreign exchange represents the direct and indirect imported inputs embodied in the cost. The expenditure accounts and the percentages of foreign exchange used are shown in the table below.
- Project period. RELIV will be financed over an eight-year period starting approximately in mid-2025.

5. Assumptions for physical contingencies, Foreign Exchange, and taxes' proportions in total costs, by category of expenditures, are summarized in the Table below.

Table 1 Expenditure categories

Expenditure category	Physical Cont.	Tax (% of total)	For. ex.
Investment Costs			
Works	10%	18%	40%
Vehicles	0%	18%	80%
Equipment & Materials	0%	18%	30%
Goods, Services, and Inputs	0%	18%	30%
Consultancies	0%	0%	20%
Training & Workshops	0%	0%	20%
Grant and Subsidies	0%	0%	0%
Recurrent Costs			
Salaries and Allowances	0%	0%	0%
Operational Costs	0%	18%	30%

C. Project costs

6. Total Project costs, including physical and price contingencies, are estimated at US\$200.76 million, of which US\$174.99 million represent the base cost and US\$25.77 million the contingency allowances. Taxes and foreign exchange represent respectively 12 per cent and 25 per cent of total Project cost. The largest part is for Component 1 "Increasing productivity and resilience and reducing the impact of production on climate " at US\$96.07 million of the total costs (47.9 per cent of the total costs), followed by Component 2 "Enhancing access to markets for smallholder producers and investments in the value chain" at US\$94.66 million of

¹ The inflation rate is projected to be 4.1 per cent for 2025, *The Economist Intelligence Unit (EIU), February 2024.*

the total costs (47.2 per cent of the total costs), and finally Component 3 "Policy Support and Coordination" at US\$10.03 million of the total costs (5.0 per cent of the total costs).

7. The summary tables below provide the costs by component and sub-component and by year.

Table 2 Component Project Cost Summary

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Components Project Cost Summary

	(US\$ '000)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
A. Increasing productivity and resilience and reducing the impact of production on climate								
1. Improving feed and fodder production, rangeland management and access to water	90,772,433	44,210,761	134,983,193	24,129	11,752	35,881	33	21
2. Improving Animal identification and breeding	42,996,966	21,015,796	64,012,762	11,429	5,586	17,016	33	10
3. Improving animal health services for resilient and low-emissions animals	56,458,215	27,981,756	84,439,971	15,008	7,438	22,446	33	13
4. Improving extension and delivery of technical support to farmers	16,449,862	4,980,841	21,430,703	4,373	1,324	5,697	23	3
Subtotal	206,677,476	98,189,154	304,866,630	54,938	26,100	81,038	32	46
B. Enhancing access to markets for smallholder producers and investments in the value chain								
1. Supporting aggregation of production and access to markets for smallholder producers	72,027,952	31,946,129	103,974,081	19,146	8,492	27,638	31	16
2. Strengthening food safety and local consumption of livestock commodities	33,758,871	17,560,452	51,319,323	8,974	4,668	13,642	34	8
3. Improving access to financial products for value chain actors	156,710,323	9,072,176	165,782,499	41,656	2,412	44,068	5	25
Subtotal	262,497,146	58,578,757	321,075,903	69,776	15,571	85,347	18	49
C. Policy Support and Coordination								
1. Policy Support	2,166,912	541,728	2,708,640	576	144	720	20	-
2. Monitoring and Evaluation (M&E) and Knowledge Management (KM)	3,099,136	869,774	3,968,910	824	231	1,055	22	1
3. Project Management	22,135,476	3,546,569	25,682,045	5,884	943	6,827	14	4
Subtotal	27,401,524	4,958,071	32,359,595	7,284	1,318	8,602	15	5
Total BASELINE COSTS	496,576,147	161,725,982	658,302,129	131,998	42,989	174,987	25	100
Physical Contingencies	7,564,103	5,042,735	12,606,838	2,011	1,340	3,351	40	2
Price Contingencies	60,390,980	26,225,327	86,616,306	15,633	6,789	22,422	30	13
Total PROJECT COSTS	564,531,229	192,994,044	757,525,273	149,641	51,119	200,760	25	115

Table 3 Component Project Cost by year – Base Costs

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Project Components by Year – Base Costs
(US\$ '000)

	Base Cost								Total
	2025	2026	2027	2028	2029	2030	2031	2032	
A. Increasing productivity and resilience and reducing the impact of production on climate									
1. Improving feed and fodder production, rangeland management and access to water	1,870	3,052	6,934	7,063	7,178	4,425	2,680	2,680	35,881
2. Improving Animal identification and breeding	-	2,273	8,594	1,683	1,713	1,053	963	735	17,016
3. Improving animal health services for resilient and low-emissions animals	2,195	3,279	2,947	3,987	3,824	2,619	1,872	1,725	22,446
4. Improving extension and delivery of technical support to farmers	26	1,189	1,416	965	925	625	550	-	5,697
Subtotal	4,091	9,793	19,891	13,697	13,640	8,722	6,065	5,140	81,038
B. Enhancing access to markets for smallholder producers and investments in the value chain									
1. Supporting aggregation of production and access to markets for smallholder producers	75	7,860	4,952	4,820	4,853	2,908	1,655	515	27,638
2. Strengthening food safety and local consumption of livestock commodities	186	2,090	3,796	4,041	3,394	105	15	15	13,642
3. Improving access to financial products for value chain actors	220	8,400	8,697	8,697	8,516	8,432	1,105	-	44,068
Subtotal	481	18,350	17,444	17,558	16,763	11,445	2,775	530	85,347
C. Policy Support and Coordination									
1. Policy Support	-	140	90	110	90	110	90	90	720
2. Monitoring and Evaluation (M&E) and Knowledge Management (KM)	103	201	101	201	116	101	201	31	1,055
3. Project Management	1,273	793	793	793	793	793	793	793	6,827
Subtotal	1,376	1,134	984	1,104	999	1,004	1,084	914	8,602
Total BASELINE COSTS	5,947	29,278	38,320	32,360	31,402	21,172	9,924	6,584	174,987
Physical Contingencies	40	167	1,037	666	735	290	209	209	3,351
Price Contingencies									
Inflation									
Local	72	1,022	2,326	2,747	3,449	2,572	2,154	1,675	16,017
Foreign	49	378	1,088	1,183	1,530	1,024	845	692	6,789
Subtotal Inflation	121	1,400	3,414	3,929	4,979	3,596	2,999	2,367	22,806
Devaluation	-2	-24	-53	-65	-82	-63	-54	-42	-385
Subtotal Price Contingencies	120	1,377	3,361	3,865	4,896	3,533	2,945	2,325	22,422
Total PROJECT COSTS	6,107	30,822	42,717	36,890	37,033	24,995	13,078	9,118	200,760
Taxes	737	3,135	5,322	4,230	4,381	2,528	1,816	1,368	23,518
Foreign Exchange	2,497	6,601	11,626	9,208	9,444	5,275	3,751	2,716	51,119

Table 4 Component Project Cost by year – Totals including contingencies

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Project Components by Year – Totals Including Contingencies
(US\$ '000)

	Totals Including Contingencies								
	2025	2026	2027	2028	2029	2030	2031	2032	Total
A. Increasing productivity and resilience and reducing the impact of production on climate									
1. Improving feed and fodder production, rangeland management and access to water	1,907	3,237	7,836	8,320	8,814	5,751	3,729	3,878	43,472
2. Improving Animal identification and breeding	-	2,443	9,913	1,931	2,044	1,307	1,243	987	19,869
3. Improving animal health services for resilient and low-emissions animals	2,279	3,538	3,251	4,574	4,563	3,250	2,415	2,315	26,186
4. Improving extension and delivery of technical support to farmers	27	1,262	1,562	1,107	1,104	776	710	-	6,547
Subtotal	4,213	10,481	22,562	15,932	16,525	11,084	8,097	7,180	96,074
B. Enhancing access to markets for smallholder producers and investments in the value chain									
1. Supporting aggregation of production and access to markets for smallholder producers	77	8,423	5,713	5,790	6,072	3,709	2,136	691	32,610
2. Strengthening food safety and local consumption of livestock commodities	190	2,217	4,463	4,923	4,396	130	19	20	16,359
3. Improving access to financial products for value chain actors	224	8,497	8,893	8,977	8,848	8,826	1,426	-	45,691
Subtotal	491	19,137	19,069	19,690	19,315	12,665	3,581	711	94,660
C. Policy Support and Coordination									
1. Policy Support	-	149	99	126	107	137	116	121	855
2. Monitoring and Evaluation (M&E) and Knowledge Management (KM)	105	213	111	231	138	125	259	42	1,225
3. Project Management	1,298	842	875	910	947	985	1,024	1,065	7,946
Subtotal	1,403	1,203	1,086	1,267	1,193	1,246	1,400	1,227	10,026
Total PROJECT COSTS	6,107	30,822	42,717	36,890	37,033	24,995	13,078	9,118	200,760

D. Project financing

8. The overall cost of the Project is estimated at US\$200.76 million, which will be disbursed over eight years. Of this total financing, IFAD's contribution amounts to US\$89.57 million from Uganda's IFAD12 Performance-based Allocation System (PBAS) and US\$10.00 million already confirmed from IFAD's Borrowed Resource Access Mechanism (BRAM) for a total of US\$99.57 million. The Project will leverage financing from a regional Green Climate Fund (GCF) operation, covering Uganda, "Dairy Interventions for Mitigation and Adaptation (DaIMA)", estimated at US\$42.50 million. The Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) from the GCF will contribute at US\$ 15.00 million. The Global Environmental Facility (GEF) will contribute with US\$ 7.50 million. The Government of Uganda's contribution is estimated at US\$29.00 million. The beneficiaries will contribute to the project with US\$7.19 million.

9. The proposed financing plan is presented in detail in the summary tables below.

Table 5 Component by financier

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Components by Financiers
(US\$ '000)

	Govt		IFAD PBAS		IFAD BRAM		GCF DAIMA		ARCAFIM		GEF		Beneficiaries		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%				
A. Increasing productivity and resilience and reducing the impact of production on climate																				
1. Improving feed and fodder production, rangeland management and access to water	7,420	17.1	13,304	30.6	5,936	13.7	11,396	26.2	-	-	5,415	12.5	-	-	43,472	21.7	14,425	21,627	7,420	
2. Improving Animal identification and breeding	3,188	16.0	16,681	84.0	-	-	-	-	-	-	-	-	-	-	19,869	9.9	6,531	10,150	3,188	
3. Improving animal health services for resilient and low-emissions animals	9,722	37.1	11,591	44.3	-	-	361	1.4	-	-	137	0.5	4,375	16.7	26,186	13.0	8,615	13,329	4,242	
4. Improving extension and delivery of technical support to farmers	381	5.8	1,154	17.6	-	-	4,432	67.7	-	-	581	8.9	-	-	6,547	3.3	1,521	4,645	381	
Subtotal	20,710	21.6	42,731	44.5	5,936	6.2	16,189	16.9	-	-	6,133	6.4	4,375	4.6	96,074	47.9	31,092	49,752	15,230	
B. Enhancing access to markets for smallholder producers and investments in the value chain																				
1. Supporting aggregation of production and access to markets for smallholder producers	4,517	13.9	17,133	52.5	4,064	12.5	5,529	17.0	-	-	1,368	4.2	-	-	32,610	16.2	10,105	17,988	4,517	
2. Strengthening food safety and local consumption of livestock commodities	2,511	15.4	11,056	67.6	-	-	928	5.7	-	-	-	-	1,864	11.4	16,359	8.1	5,667	8,181	2,511	
3. Improving access to financial products for value chain actors	839	1.8	9,895	21.7	-	-	19,000	41.6	15,000	32.8	-	-	956	2.1	45,691	22.8	2,804	42,047	839	
Subtotal	7,868	8.3	38,085	40.2	4,064	4.3	25,456	26.9	15,000	15.8	1,368	1.4	2,820	3.0	94,660	47.2	18,576	68,216	7,868	
C. Policy Support and Coordination																				
1. Policy Support	-	-	-	-	-	-	855	100.0	-	-	-	-	-	-	855	0.4	171	684	-	
2. Monitoring and Evaluation (M&E) and Knowledge Management (KM)	42	3.4	1,183	96.6	-	-	-	-	-	-	-	-	-	-	1,225	0.6	268	915	42	
3. Project Management	378	4.8	7,568	95.2	-	-	-	-	-	-	-	-	-	-	7,946	4.0	1,012	6,556	378	
Subtotal	419	4.2	8,752	87.3	-	-	855	8.5	-	-	-	-	-	-	10,026	5.0	1,451	8,155	419	
Total PROJECT COSTS	28,998	14.4	89,567	44.6	10,000	5.0	42,500	21.2	15,000	7.5	7,500	3.7	7,195	3.6	200,760	100.0	51,119	126,124	23,518	

Table 6 Expenditure Accounts by financiers

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Expenditure Accounts by Financiers
(US\$ '000)

	Govt		IFAD PBAS		IFAD BRAM		GCF_DAIMA		ARCAFIM		GEF		Beneficiaries		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs																			
Works	7,744	18.0	23,910	55.6	-	-	9,230	21.5	-	-	275	0.6	1,864	4.3	43,022	21.4	17,209	18,069	7,744
Vehicles	565	18.0	2,308	73.6	-	-	-	-	-	-	-	-	265	8.4	3,137	1.6	2,510	63	565
Goods, services and inputs	17,015	26.6	28,741	44.8	4,064	6.3	4,847	7.6	-	-	4,351	6.8	5,066	7.9	64,085	31.9	19,226	33,324	11,535
Equipment and materials	3,451	18.0	6,784	35.4	5,936	31.0	1,500	7.8	-	-	1,500	7.8	-	-	19,172	9.5	5,752	9,969	3,451
Consultancies	0	-	8,842	65.1	-	-	3,655	26.9	-	-	1,079	7.9	-	-	13,576	6.8	2,715	10,861	-
Training & Wshop	0	-	12,119	72.7	-	-	4,268	25.6	-	-	295	1.8	-	-	16,681	8.3	3,336	13,345	-
Grants and subsidies	-	-	-	-	-	-	19,000	55.9	15,000	44.1	-	-	-	-	34,000	16.9	-	34,000	-
Total Investment Costs	28,775	14.9	82,704	42.7	10,000	5.2	42,500	21.9	15,000	7.7	7,500	3.9	7,195	3.7	193,674	96.5	50,747	119,632	23,295
II. Recurrent Costs																			
A. Salaries & allowances	-	-	5,848	100.0	-	-	-	-	-	-	-	-	-	-	5,848	2.9	-	5,848	-
B. Operating costs	223	18.0	1,015	82.0	-	-	-	-	-	-	-	-	-	-	1,238	0.6	372	644	223
Total Recurrent Costs	223	3.1	6,863	96.9	-	-	-	-	-	-	-	-	-	-	7,086	3.5	372	6,492	223
Total PROJECT COSTS	28,998	14.4	89,567	44.6	10,000	5.0	42,500	21.2	15,000	7.5	7,500	3.7	7,195	3.6	200,760	100.0	51,119	126,124	23,518

Table 7 Sub-component 1.1 Improving feed and fodder production, rangeland management and access to water

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 1.1. Improving feed and fodder production, rangeland management and access to water

Detailed Costs

Unit	Quantities											Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)										
	2025	2026	2027	2028	2029	2030	2031	2032	Total	2025	2026		2027	2028	2029	2030	2031	2032	Total				
I. Investment Costs																							
A. Improving feed and fodder production, rangeland management and access to water																							
1. Support the development and dissemination of climate smart feed and fodder and improve																							
a. Support for selection and multiplication of feed and fodder species to NARO and NAGRC	lumpsum	1	-	-	-	-	-	-	-	1	500.000	510	-	-	-	-	-	-	510				
b. Study for fodder pest management and soil conservation	study	1	-	-	-	-	-	-	-	1	70.000	71	-	-	-	-	-	-	71				
c. Equipment and parental seeds for seeds producers	producer	-	25	25	25	25	-	-	-	100	500	-	13	14	14	15	-	-	56				
d. Training of fodder seeds producers /a	district	-	10	10	10	11	-	-	-	41	5.000	-	53	55	57	66	-	-	231				
e. Purchase of seeds for distribution through LFFS and coop	kg	-	1,000	2,000	3,000	4,000	4,000	4,000	22,000	22,000	20	-	21	44	69	95	99	103	540				
f. Fodder choppers and other conservation equipment	unit	-	1,520	3,500	3,500	3,500	1,511	-	-	13,531	900	-	1,451	3,475	3,614	3,759	1,688	-	13,987				
g. Pasture and rangelands management plans	unit	5	5	5	5	5	-	-	-	25	20.000	102	106	110	115	119	-	-	552				
h. Rangeland management and pasture restoration	hectare	4,000	4,000	4,000	4,000	4,000	-	-	-	20,000	200	816	849	883	918	955	-	-	4,420				
i. Pilot study on soil conservation for fodder plants	lumpsum	-	0.5	0.5	-	-	-	-	-	1	202.800	-	108	112	-	-	-	-	219				
Subtotal												1,499	2,601	4,693	4,787	5,009	1,787	103	107	20,587			
2. Strengthen feed and fodder characterisation and formulation																							
a. Support national and decentralized feed and soil testing /b	lab	2	2	2	2	2	2	-	-	12	150.000	306	318	331	344	358	372	-	-	2,030			
b. Design and dissemination of digital rationing tools	district	10	10	10	11	-	-	-	-	41	10.000	102	106	110	126	-	-	-	-	445			
Subtotal												408	424	441	470	358	372	-	-	2,474			
3. Improved manure management																							
a. Biogas digesters	unit	-	-	500	500	500	500	500	3,000	3,000	600	-	-	364	379	394	410	426	443	2,415			
b. Upgrading cowsheds	beneficiary	-	-	125	125	125	125	125	750	750	2.000	-	-	276	287	298	310	323	336	1,829			
c. Manure management and composting	beneficiary	-	-	125	125	125	125	125	750	750	2.000	-	-	276	287	298	310	323	336	1,829			
Subtotal												-	-	916	952	990	1,030	1,071	1,114	6,074			
4. Develop feed/fodder balance mechanisms at national and district levels																							
a. Support to national authority for feed balance sheet	lumpsum	-	1	-	-	-	-	-	-	1	200.000	-	212	-	-	-	-	-	-	212			
b. Trainings	district	-	-	10	10	10	11	-	-	41	5.000	-	-	55	57	60	68	-	-	240			
c. Sampling of pasture for quality testing	sites	-	-	100	100	100	100	-	-	400	300	-	-	33	34	36	37	-	-	141			
Subtotal												-	212	88	92	95	105	-	-	593			
5. Support development of water harvesting systems																							
a. Construction of small scale water harvesting systems	system	-	-	5,000	5,000	5,000	5,000	5,000	30,000	30,000	150	-	-	910	947	984	1,024	1,065	1,107	6,037			
b. Construction of individual dam sheet/charco	system	-	-	200	200	200	200	200	1,200	1,200	1.500	-	-	364	379	394	410	426	443	2,415			
c. Construction or rehabilitation of communal charco dams	system	-	-	-	1	2	2	2	2	9	200.000	-	-	-	252	525	546	568	591	2,482			
d. Establishment and training of COWSO	training	-	-	2	2	2	2	2	12	12	5.000	-	-	11	11	12	12	13	13	73			
e. Construction of animal drinking troughs	system	-	-	2,000	2,000	2,000	2,000	2,000	12,000	12,000	170	-	-	413	429	446	464	483	502	2,737			
Subtotal												-	-	1,698	2,018	2,361	2,456	2,554	2,656	13,744			
Total												1,907	3,237	7,836	8,320	8,814	5,751	3,729	3,878	43,472			

Table 8 Sub-component 1.2 Improving animal identification and breeding

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 1.2. Improving Animal identification and breeding

Detailed Costs

Unit	Quantities								Total	Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)								Total	
	2025	2026	2027	2028	2029	2030	2031	2032			2025	2026	2027	2028	2029	2030	2031	2032		
I. Investment Costs																				
A. Improving Animal identification and breeding																				
1. Strengthen and implement the Livestock Identification and Traceability System																				
a. System upgrade	lumpsum	-	1	-	-	-	-	-	-	1	150,000	-	159	-	-	-	-	159		
b. Training of users /a	district	-	10	10	10	11	-	-	-	41	10,000	-	106	110	115	131	-	462		
c. Awareness campaigns	district	-	10	10	10	11	-	-	-	41	20,000	-	212	221	229	263	-	925		
d. Equipment (computers, RFID readers, android devices for data entry)	district	-	10	10	10	11	-	-	-	41	30,000	-	318	331	344	394	-	1,387		
e. RFID eartags	eartag	-	427,080	427,080	427,080	427,080	427,080	427,080	450,000	3,012,480	2	-	680	707	735	764	795	5,414		
Subtotal												-	1,475	1,369	1,423	1,552	795	827	906	8,347
2. Strengthening livestock breeding services / animal genetic resources																				
a. Liquid Nitrogen Plant	plant	-	-	1	-	-	-	-	-	1	600,000	-	-	728	-	-	-	728		
b. Liquid Nitrogen Plant maintenance	plant	-	-	-	1	1	1	1	1	5	60,000	-	-	-	69	72	74	77	81	373
c. Liquid nitrogen distribution trucks	Number	-	-	3	-	-	-	-	-	3	100,000	-	-	331	-	-	-	-	331	
d. AI subregional centers (construction and storage equipment)	center	-	4	-	-	-	-	-	-	4	75,000	-	350	-	-	-	-	-	350	
e. Training of AI technicians (10/district)	technician	-	82	82	82	82	82	-	-	410	350	-	30	32	33	34	36	-	165	
f. Equipment of AI technicians (10/district)	technician	-	82	82	82	82	82	-	-	410	750	-	65	68	71	73	76	-	353	
g. Upgrading of AI semen production laboratory in Entebbe	lumpsum	-	1	-	-	-	-	-	-	1	250,000	-	265	-	-	-	-	-	265	
h. Purchase of elite bulls (climate resilient breeds) for semen production	bull	-	3	3	3	-	-	-	-	9	10,000	-	32	33	34	-	-	-	99	
i. Dissemination of improved local and crossed stock from breeding ranches and private breeders	head	-	250	250	250	250	250	250	-	1,500	750	-	199	207	215	224	233	242	1,319	
j. Support to breeders' associations /b	lumpsum	-	1	2	3	3	3	3	-	15	25,000	-	27	55	86	89	93	97	447	
k. Support to NAGRC breeding ranches (non heavy equipment)	lumpsum	-	-	1	-	-	-	-	-	1	2,584,900	-	-	2,852	-	-	-	-	2,852	
l. Vehicles for the three ranches	Number	-	-	3	-	-	-	-	-	3	67,000	-	-	222	-	-	-	-	222	
m. Establishment of animal feed processing plant	plant	-	-	1	-	-	-	-	-	1	1,050,000	-	-	1,274	-	-	-	-	1,274	
n. Establishment of storage facility tn2	facility	-	-	1	-	-	-	-	-	1	100,000	-	-	121	-	-	-	-	121	
o. Construction of dairy cattleshed	shed	-	-	3	-	-	-	-	-	3	720,000	-	-	2,621	-	-	-	-	2,621	
Subtotal												-	968	8,544	508	492	512	416	81	11,522
Total												-	2,443	9,913	1,931	2,044	1,307	1,243	987	19,869

\a Cost of facilitator and venue

\b lumpsum per year per association

Table 9 Sub-component 1.3 Improving animal health services for resilient and low emissions animal

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 1.3. Improving animal health services for resilient and low emissions animal

Detailed Costs

Unit	Quantities										Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)									
	2025	2026	2027	2028	2029	2030	2031	2032	Total	2025		2026	2027	2028	2029	2030	2031	2032	Total		
I. Investment Costs																					
A. Improve disease control and surveillance in a One health approach																					
1. Digitalization of national disease surveillance system																					
a. Evaluation and identification of software for purpose	lumpsum	1	-	-	-	-	-	-	-	1	20,000	20	-	-	-	-	-	-	20		
b. Equipment (tablets, desktops)	lumpsum	1	1	-	-	-	-	-	-	2	250,000	255	265	-	-	-	-	-	520		
c. Development of curriculum material	lumpsum	-	1	-	-	-	-	-	-	1	25,000	-	27	-	-	-	-	-	27		
d. Training (Sc, district and refresher) /a	lumpsum	-	10	-	10	-	-	-	-	20	5,000	-	53	-	57	-	-	-	110		
Subtotal												275	345	-	57	-	-	-	678		
2. Project area laboratory infrastructure																					
a. Feasibility study	study	1	-	-	-	-	-	-	-	1	40,000	41	-	-	-	-	-	-	41		
b. District lab (re)establishment	lab	20	21	-	-	-	-	-	-	41	20,000	449	490	-	-	-	-	-	939		
c. Regional lab rehabilitation	lumpsum	-	1	-	-	-	-	-	-	1	151,000	-	176	-	-	-	-	-	176		
d. Consumables for labs, fuel and package coupons	ls/district	-	41	41	41	41	41	41	41	287	2,500	-	109	113	118	122	127	132	859		
e. Fuel coupons mobile labs /b	lumpsum	0.5	1	1	1	1	1	1	1	7.5	75,000	38	80	83	86	89	93	97	667		
f. Training, district refresher & regional vet lab staff onsite	training	-	1	-	2	-	-	-	-	3	15,000	-	16	-	34	-	-	-	50		
Subtotal												528	870	196	238	212	220	229	238	2,732	
3. National contingency planning and response																					
a. Contingency planning workshops incl. simulation software & Workshop	whop	2	-	1	-	-	-	-	-	3	40,000	82	-	44	-	-	-	-	126		
b. Provision of vehicles (national, regional)	no	5	-	-	-	-	-	-	-	5	67,000	342	-	-	-	-	-	-	342		
c. Provision of motorcycles (district, subcounty)	no	438	-	-	-	-	-	-	-	438	1,500	670	-	-	-	-	-	-	670		
d. Fuel coupons	lumpsum	1	1	1	1	1	1	1	1	8	75,000	77	80	83	86	89	93	97	705		
e. Disease detection surveys	survey	-	2	3	1	-	-	-	-	6	50,000	-	106	165	57	-	-	-	329		
Subtotal												1,170	186	292	143	89	93	97	101	2,171	
4. Strategic mass vaccination																					
a. Vaccination campaigns																					
Expert to develop vaccination priority, procurement and campaign plan	lumpsum	-	1	-	-	-	-	-	-	1	50,000	-	53	-	-	-	-	-	53		
Vaccination FMD /c	vaccine	-	337,200	505,800	674,400	674,400	505,800	337,200	337,200	3,372,000	2	-	537	837	1,161	1,207	942	653	679	6,015	
Administration cost of vaccination of FMD /d	vaccine	-	337,200	505,800	674,400	674,400	505,800	337,200	337,200	3,372,000	1	-	179	279	387	402	314	218	226	2,005	
Vaccination CBPP /e	vaccine	-	449,600	674,400	899,200	899,200	674,400	449,600	449,600	4,496,000	1	-	286	446	619	644	502	348	362	3,208	
Administration cost of vaccination of CBPP /f	vaccine	-	449,600	674,400	899,200	899,200	674,400	449,600	449,600	4,496,000	1	-	238	372	516	536	418	290	302	2,673	
Vaccination LSD /g	vaccine	-	337,200	505,800	674,400	674,400	505,800	337,200	337,200	3,372,000	1	-	72	112	155	161	126	87	91	802	
Administration cost of vaccination of FMD /h	vaccine	-	337,200	505,800	674,400	674,400	505,800	337,200	337,200	3,372,000	1	-	179	279	387	402	314	218	226	2,005	
Subtotal												-	1,543	2,325	3,224	3,353	2,615	1,813	1,886	16,760	
5. One Health interprofessional interagency workshops and tasking																					
a. Bi-annual Workshops and tasking	wshop	-	1	1	1	1	-	-	-	4	30,000	-	32	33	34	36	-	-	-	135	
b. Lobby and dissemination antimicrobial and anti-parasitic stewardship	wshop	-	-	-	1	1	-	-	-	2	75,000	-	-	-	86	89	-	-	-	176	
Subtotal												-	32	33	120	125	-	-	-	311	
Subtotal												1,973	2,976	2,846	3,783	3,780	2,929	2,139	2,225	22,651	
B. Strengthen community-based and private animal health services																					
1. Privatisation mechanisms																					
a. Feasibility study privatisation mapping and pathway for implementation	lumpsum	1	1	-	-	-	-	-	-	2	50,000	51	53	-	-	-	-	-	-	104	
b. Pilot rolling-out the CAHWS	pilot	1	1	-	-	-	-	-	-	2	250,000	255	265	-	-	-	-	-	-	520	
c. Trajectory guidance and monitoring	lumpsum	-	1	1	1	1	1	1	-	6	30,000	-	32	33	34	36	37	39	-	211	
d. Technical and business training for paravets and CAHWS	training	-	-	5	10	10	-	-	-	25	13,500	-	-	74	155	161	-	-	-	390	
e. Provision of motorbikes for paravets and CAHWS /i	no	-	-	100	150	150	-	-	-	400	1,750	-	-	193	301	313	-	-	-	807	
f. Provision of bundle services for paravets and CAHWS	no	-	-	100	250	400	400	300	150	1,600	450	-	-	50	129	215	223	174	91	882	
g. Supporting the CAHWS - NGO	lumpsum	-	-	0.2	0.2	0.2	0.2	0.2	-	1	245,000	-	-	54	56	58	61	63	-	293	
Subtotal												306	350	404	676	783	321	276	91	3,208	
C. Development and dissemination best practices to reduce AMU/AMR																					
1. Reduce AMR and antiparasitic resistance																					
a. Assess current and develop best practices	study	-	1	-	-	-	-	-	-	1	100,000	-	106	-	-	-	-	-	-	106	
b. Disseminate best practices	study	-	-	-	1	-	-	-	-	1	50,000	-	-	-	57	-	-	-	-	57	
Subtotal												-	106	-	57	-	-	-	-	163	
2. Reduce for IPM of TTBDs and Tryps																					
a. Assess current and develop best practices	study	-	1	-	-	-	-	-	-	1	100,000	-	106	-	-	-	-	-	-	106	
b. Disseminate best practices	study	-	-	-	1	-	-	-	-	1	50,000	-	-	-	57	-	-	-	-	57	
Subtotal												-	106	-	57	-	-	-	-	163	
Subtotal												-	212	-	115	-	-	-	-	327	
Total												2,279	3,538	3,251	4,574	4,563	3,250	2,415	2,315	26,186	

Table 10 Sub-component 1.4 Improving extension and delivery of technical support to farmers

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 1.4. Improving extension and delivery of technical support to farmers

Detailed Costs

	Unit	Quantities										Unit Cost	Totals Including Contingencies (US\$ '000)							Total
		2025	2026	2027	2028	2029	2030	2031	2032	Total	(US\$)	2025	2026	2027	2028	2029	2030	2031	2032	
I. Investment Costs																				
A. Improving extension and delivery of technical support to farmers																				
1. Implement community-based training and extension mechanisms																				
a. Develop training curricula for L-FFS and PFS	lumpsum	-	1	-	-	-	-	-	-	-	1	150.000	-	159	-	-	-	-	-	159
b. Training of Master Trainers	training	-	1	-	-	-	-	-	-	-	1	70.000	-	74	-	-	-	-	-	74
c. Training of facilitators	training	-	10	10	10	10	-	-	-	-	40	25.000	-	265	276	287	298	-	-	1,126
d. Fees for facilitators	FFS/year	-	1,000	1,000	1,000	1,000	1,000	1,000	-	-	6,000	350	-	371	386	402	418	434	452	2,463
e. Inputs and equipment for field trials and demonstrations	FFS/year	-	1,000	1,000	1,000	1,000	1,000	1,000	-	-	6,000	200	-	212	221	229	239	248	258	1,407
Subtotal													-	1,082	883	918	955	683	710	5,229
2. Carry out technology adoption studies and support																				
a. Desktop computers	unit	1	-	-	-	-	-	-	-	-	1	1.500	2	-	-	-	-	-	-	2
b. Study	study	0.125	0.5	2.5	0.125	-	-	-	-	-	3.25	198.500	25	105	547	28	-	-	-	707
Subtotal													27	105	547	28	-	-	-	708
3. Improve climate information services																				
a. Climate risk assessments /a	study	-	1	1	1	-	-	-	-	-	3	20.000	-	21	22	23	-	-	-	66
b. Early warning systems /b	lumpsum	-	10	10	10	11	-	-	-	-	41	5.000	-	53	55	57	66	-	-	231
c. Livestock-focused agromet advisory services /c	lumpsum	-	-	10	10	10	11	-	-	-	41	5.000	-	-	55	57	60	68	-	240
d. Workshops and digital learning /d	lumpsum	-	-	-	1	1	1	-	-	-	3	20.000	-	-	-	23	24	25	-	72
Subtotal													-	74	132	161	149	93	-	610
Total													27	1,262	1,562	1,107	1,104	776	710	6,547

\a 3 regions

\b 41 districts

\c 41 districts

\d 3 regions

Table 11 Sub-component 2.1 Supporting aggregation and access to market for smallholder producers

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 2.1. Supporting aggregation of production and access to markets for smallholder producers

Detailed Costs

Unit	Quantities								Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)										
	2025	2026	2027	2028	2029	2030	2031	2032		Total	2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																				
A. Supporting aggregation of production and access to markets for smallholder producers																				
1. Support producer organisations and cooperatives																				
a. Initial training for cooperatives and producer groups	group	-	50	50	50	40	-	-	190	5,000	-	265	276	287	239	-	-	-	1,066	
b. Refresher training for cooperatives and producer groups	group	-	-	-	-	50	50	50	40	190	3,000	-	-	-	179	186	194	161	720	
c. Coaching of cooperatives and producer groups /a	group	-	100	150	190	190	190	190	1,200	450	-	48	74	98	102	106	110	115	654	
d. South South exchange between producer groups	visit	-	10	10	10	10	10	-	50	20,000	-	212	221	229	239	248	-	-	1,149	
e. Gender sensitization workshops for producer groups/cooperatives	district	-	10	10	10	11	-	-	41	5,000	-	53	55	57	66	-	-	-	231	
Subtotal												578	626	672	824	540	304	276	3,820	
2. Pilot and upscale green and sustainable business models for access to markets and se																				
a. Construction of new MCCs (*including waste management solutions)	no	-	4	4	4	4	4	-	20	100,000	-	467	485	505	525	546	-	-	2,528	
b. Rehabilitation of existing MCCs	no	-	6	6	6	6	-	-	24	55,000	-	385	400	416	433	-	-	-	1,635	
c. Milk coolers 1,000 liters	cooler	-	10	-	-	-	-	-	10	40,000	-	424	-	-	-	-	-	-	424	
d. Milk coolers 2,000 liters	cooler	-	60	-	-	-	-	-	60	48,358	-	3,078	-	-	-	-	-	-	3,078	
e. Milk coolers 3,000 liters	cooler	-	30	-	-	-	-	-	30	59,000	-	1,878	-	-	-	-	-	-	1,878	
f. Milk coolers 5,000 liters	cooler	-	10	-	-	-	-	-	10	70,000	-	743	-	-	-	-	-	-	743	
g. Cattle holding grounds with loading ramps	no	-	-	10	10	10	-	-	30	15,000	-	-	165	172	179	-	-	-	517	
h. Constructions of MCPs (*including waste management solutions)	no	-	25	25	25	25	25	-	100	15,000	-	455	473	492	512	-	-	-	1,932	
i. Upgrading of MCCs into dairy hubs - equipment	no	-	-	10	10	10	10	-	40	20,000	-	221	229	239	248	-	-	-	937	
j. Upgrading of MCCs into dairy hubs - technical support	no	-	-	10	10	10	10	-	40	5,000	-	-	55	57	60	62	-	-	234	
k. Facilitation of productive alliances	district	-	-	10	10	10	10	-	40	4,500	-	-	50	52	54	56	-	-	211	
l. Solar power for MCCs (equipment and installation)	no	-	-	10	10	10	10	10	50	80,000	-	-	883	918	955	993	1,033	-	4,780	
m. Solar power for MCCs (technical studies and monitoring)	no	-	10	10	10	10	10	-	50	8,000	-	85	88	92	95	99	-	-	460	
Subtotal												7,059	2,803	2,915	3,031	2,516	1,033	-	19,357	
3. Strengthen public livestock markets and slaughtering facilities and pilot circular waste																				
a. Construction of livestock markets	market	-	-	3	3	4	-	-	10	130,000	-	-	473	492	683	-	-	-	1,648	
b. Feasibility studies for livestock markets	study	-	3	3	4	-	-	-	10	13,000	-	41	43	60	-	-	-	-	144	
c. ESIA for livestock markets	ESIA	-	3	3	4	-	-	-	10	20,000	-	64	66	92	-	-	-	-	222	
d. Facilitation of PPP and management support for livestock markets	Lumpsum	-	-	3	3	4	-	-	10	10,000	-	-	33	34	48	-	-	-	115	
e. Construction of slaughtering facilities in selected strategic districts	market	-	2	2	2	2	-	-	6	350,000	-	-	849	883	919	-	-	-	2,652	
f. Feasibility studies for slaughtering facilities	study	-	2	2	2	-	-	-	6	35,000	-	74	77	80	-	-	-	-	232	
g. ESIA for slaughtering facilities	ESIA	-	2	2	2	-	-	-	6	20,000	-	42	44	46	-	-	-	-	132	
h. Facilitation of PPP and management support for slaughtering facilities	Lumpsum	-	-	2	2	2	-	-	6	10,000	-	-	22	23	24	-	-	-	69	
i. Feasibility study and suitability mapping for biogas plants at abattoirs and markets	study	-	1	-	-	-	-	-	1	30,000	-	32	-	-	-	-	-	-	32	
j. Biogas plant construction at slaughtering facilities	unit	-	2	2	2	-	-	-	6	20,000	-	47	49	50	-	-	-	-	146	
k. Biogas plant construction at livestock markets	unit	-	2	2	2	2	2	-	10	15,000	-	35	36	38	39	41	-	-	190	
l. Technical assistance on quality management, infrastructure maintenance, safe working stanc	Lumpsum	-	1	-	-	-	-	-	1	75,000	-	80	-	-	-	-	-	-	80	
m. Black Soldier Flies pilots	Lumpsum	-	-	1	-	-	-	-	1	90,000	-	-	99	-	-	-	-	-	99	
Subtotal												415	1,793	1,799	1,712	41	-	-	5,760	
4. Support local value chain platforms/clusters																				
a. Facilitation of District Platforms /b	district	-	-	5	10	20	30	41	41	147	3,000	-	-	17	34	72	112	159	165	558
b. Operational costs of District Platform /c	district	-	-	5	10	20	30	41	41	147	4,000	-	-	22	46	95	149	212	220	744
Subtotal														39	80	167	261	370	385	1,302
5. Digitalise the value chain																				
a. Feasibility study	lumpsum	1	-	-	-	-	-	-	-	75,000	77	-	-	-	-	-	-	-	-	77
b. Development of software, MIS, application	lumpsum	-	0.5	0.5	-	-	-	-	-	700,000	-	371	386	-	-	-	-	-	-	757
c. Training of users	lumpsum	-	-	1	1	1	1	1	5	60,000	-	-	66	69	72	74	77	-	-	359
d. Hosting (cloud services)	lumpsum	-	-	-	1	1	1	1	5	15,000	-	-	-	17	18	19	19	20	93	
e. Equipment (connected weighscale and lactosans, tablets, computers) for MCCs, traders, prc	MCC	-	-	-	20	20	20	25	85	10,000	-	-	-	229	239	248	323	-	1,039	
f. System support, maintenance and upgrades for the modules	lumpsum	-	-	-	1	1	1	1	5	7,500	-	-	-	9	9	9	10	10	47	
Subtotal												77	371	452	324	337	351	429	30	2,371
Total												77	8,423	5,713	5,790	6,072	3,709	2,136	691	32,610

1a group year

1b annual cost per district

1c annual cost per district

Table 12 Sub-component 2.2 Strengthening food safety and local consumption of livestock commodities

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 2.2. Strengthening food safety and local consumption of livestock commodities

Detailed Costs

Unit	Quantities								Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)								Total	
	2025	2026	2027	2028	2029	2030	2031	2032		Total	2025	2026	2027	2028	2029	2030	2031		2032
I. Investment Costs																			
A. Strengthening food safety and local consumption of livestock commodities																			
1. Support local small-scale processing and promote short value chains																			
a. Market study for SS processing units	study	-	40	40	48	-	-	-	-	128	5,000	-	212	221	275	-	-	-	708
b. Small scale processing units for cooperatives	unit	-	-	20	20	28	-	-	-	68	50,000	-	-	1,214	1,262	1,838	-	-	4,313
c. Small scale processing units for private sector	unit	-	-	20	20	20	-	-	-	60	75,000	-	-	1,820	1,893	1,969	-	-	5,682
d. Training of coops on small scale processing, quality and food safety, nutrition	training	-	-	40	40	48	-	-	-	128	3,000	-	-	132	138	172	-	-	442
e. Training of private entrepreneurs on small scale processing, quality and food s	training	-	-	20	20	20	-	-	-	60	3,000	-	-	66	69	72	-	-	207
f. Gender sensitization /awareness workshop	unit	-	-	20	20	20	-	-	-	60	1,000	-	-	22	23	24	-	-	69
g. Renewable energy and energy efficiency for SS processing (coops)	unit	-	10	10	14	-	-	-	-	34	30,000	-	318	331	482	-	-	-	1,131
h. Renewable energy and energy efficiency for SS processing (SMEs)	unit	-	10	10	10	-	-	-	-	30	30,000	-	318	331	344	-	-	-	993
Subtotal											-	849	4,137	4,486	4,074	-	-	-	13,546
2. Enhance quality and food safety of milk, dairy products, and beef																			
a. Equipment for DDA sub-regional laboratories	lab	-	5	-	-	-	-	-	-	5	110,000	-	583	-	-	-	-	-	583
b. Equipment incl. Motorcycle for DDA inspectors	district	-	20	-	21	-	-	-	-	41	7,000	-	149	-	169	-	-	-	317
c. Training of stakeholders by DDA /a	training	11	15	15	11	15	15	-	-	82	6,000	67	95	99	76	107	112	-	557
d. Training of public vets on meat inspection	Ls/district	20	21	-	-	-	-	-	-	41	6,000	122	134	-	-	-	-	-	256
e. Equipment of public vets for meat inspection	ls/district	-	20	21	-	-	-	-	-	41	1,500	-	32	35	-	-	-	-	67
Subtotal											190	993	134	244	107	112	-	-	1,780
3. Enhance milk and meat consumption and raise nutritional awareness																			
a. SBCC and Nutrition education materials development: layout, graphic design,	ls/district	-	10	10	10	11	-	-	-	41	5,000	-	53	55	57	66	-	-	231
b. SBCC and Nutrition Education consultant /c	pers.day	-	140	80	60	50	50	50	50	480	300	-	45	26	21	18	19	19	20
c. SBCC and Nutrition campaign /d	ls/district	-	10	10	10	11	-	-	-	41	10,000	-	106	110	115	131	-	-	462
d. SBCC and Nutrition campaign	ls/district	-	18	-	-	-	-	-	-	18	9,000	-	172	-	-	-	-	-	172
Subtotal											-	376	192	193	215	19	19	20	1,033
Total											190	2,217	4,463	4,923	4,396	130	19	20	16,359

1a District level training sessions

1b e.g. brochures, leaflets, posters, education materials, handouts

1c development of training curriculum and creation of training materials, support of initial trainings

1d E.g. nutrition days, farmers fairs, community nutrition and health celebration days, and etc.

Table 13 Sub-component 2.3 Improving access to financial products to value chain actors

UGANDA

Resilient Livestock Value Chain Project (RELIV)

Table 2.3. Improving access to financial products for value chain actors

Detailed Costs

Unit	Quantities								Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)								
	2025	2026	2027	2028	2029	2030	2031	2032		Total	2025	2026	2027	2028	2029	2030	2031	2032
I. Investment Costs																		
A. Improving access to financial products for value chain actors																		
1. Provide Business Development Services for Business Plan development																		
a. Beneficiary Identification	study	1	-	-	-	-	-	-	1	60,000	61	-	-	-	-	-	-	61
b. Business plan development	lumpsum	-	70	120	120	105	100	100	615	3,500	-	260	463	482	439	434	452	2,530
c. Financial management training	lumpsum	-	70	120	120	105	100	100	615	250	-	19	33	34	31	31	32	181
d. Bankable proposals crafted	study	-	70	120	120	105	100	100	615	250	-	19	33	34	31	31	32	181
e. Enterprise viability mentorship and coaching	lumpsum	-	70	120	120	105	100	100	615	750	-	56	99	103	94	93	97	542
Subtotal											61	353	629	654	595	589	613	3,494
2. Support the development of livestock-specific climate finance products by:																		
a. Scoping Study for FSPs in the Project Districts	study	1	-	-	-	-	-	-	1	100,000	102	-	-	-	-	-	-	102
b. Stakeholder Engagements - Financial Linkages FSP Forum	wshop	-	8	8	8	8	8	-	40	40,000	-	339	353	367	382	397	-	1,839
c. Financial product development support provided	PFI	-	5	10	10	5	-	-	30	12,000	-	64	132	138	72	-	-	405
Subtotal											102	403	485	505	453	397	-	2,346
3. Financing facility for climate mitigation investments in the livestock sector																		
a. ARCAFIM - Adaptation Loan Funds micro and wholesale /a	lumpsum	-	0.2	0.2	0.2	0.2	0.2	-	1	4,500,000	-	900	900	900	900	900	-	4,500
b. ARCAFIM - Adaptation Loan Funds micro and wholesale /b	lumpsum	-	0.2	0.2	0.2	0.2	0.2	-	1	10,500,000	-	2,100	2,100	2,100	2,100	2,100	-	10,500
c. GCF - Mitigation Loan Funds micro and wholesale /c	lumpsum	-	0.2	0.2	0.2	0.2	0.2	-	1	13,300,000	-	2,660	2,660	2,660	2,660	2,660	-	13,300
d. GCF - Mitigation Loan Funds micro and wholesale /d	lumpsum	-	0.2	0.2	0.2	0.2	0.2	-	1	5,700,000	-	1,140	1,140	1,140	1,140	1,140	-	5,700
Subtotal											-	6,800	6,800	6,800	6,800	6,800	-	34,000
4. Provide financial literacy support to smallholder farmers																		
a. Financial Literacy Curriculum Tailored for Livestock	study	1	-	-	-	-	-	-	1	10,000	10	-	-	-	-	-	-	10
b. Production and distribution of FL IEC Materials	lumpsum	-	20,000	20,000	20,000	20,000	20,000	-	100,000	2	-	42	44	46	48	50	-	230
c. Training for Trainers (TOTs)	lumpsum	-	164	164	164	164	164	-	820	170	-	30	31	32	33	35	-	160
d. Tailored financial literacy training programs implemented	lumpsum	-	16,400	16,400	16,400	16,400	16,400	-	82,000	5	-	87	90	94	98	102	-	471
e. Financial literacy tailored for youth led businesses	lumpsum	-	4,920	4,920	4,920	4,920	4,920	-	24,600	5	-	26	27	28	29	31	-	141
f. Financial literacy tailored for women led businesses	lumpsum	-	6,560	6,560	6,560	6,560	6,560	-	32,800	5	-	35	36	38	39	41	-	188
Subtotal											10	220	229	238	247	257	-	1,201
5. Support credit de-risking through promotion of livestock insurance																		
a. Support to roll out of National Agricultural Insurance Scheme - Premium Subsid premiums		-	4,500	4,500	-	-	-	-	9,000	140	-	668	695	-	-	-	-	1,363
b. Support to roll out of National Agricultural Insurance Scheme - Premium Subsid premiums		-	-	-	4,500	4,500	-	-	9,000	140	-	-	-	723	752	-	-	1,475
c. Support to roll out of National Agricultural Insurance Scheme - Premium Subsid premiums		-	-	-	-	-	4,500	4,500	9,000	140	-	-	-	-	-	782	813	1,595
d. Support to Agro Consortium to increase awareness of livestock insurance benef	lumpsum	1	1	1	1	-	-	-	4	50,000	51	53	55	57	-	-	-	217
Subtotal											51	721	750	780	752	782	813	4,649
Total											224	8,497	8,893	8,977	8,848	8,826	1,426	45,691

1a 30% of the total 15 million

1b 70% of the total 15 million

1c 70% of the total 19 million

1d 30% of the total 19 million

Table 14 Sub-component 3.1 Policy Support

UGANDA
Resilient Livestock Value Chain Project (RE)
Table 3.1. Policy Support

Detailed Costs	Unit	Quantities									Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)									
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																					
A. Policy dialogue																					
1. National policy support	consultancy	-	1	1	1		1	1	1	1	7	30.000	-	32	33	34	36	37	39	40	251
2. Support of national platforms	workshop	-	2	2	2		2	2	2	2	14	30.000	-	64	66	69	72	74	77	81	503
Subtotal												-	95	99	103	107	112	116	121	754	
B. Policy and regulatory support																					
1. Policy studies	study	-	1	-	-		-	-	-	-	1	30.000	-	32	-	-	-	-	-	-	32
2. Policy/Regulatory consultations	workshop	-	1	-	1		-	1	-	-	3	20.000	-	21	-	23	-	25	-	-	69
Total												-	149	99	126	107	137	116	121	855	

Table 15 Sub-component 3.2 Monitoring and Evaluation (M&E) and Knowledge Management (KM)

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Table 3.2. Monitoring and Evaluation (M&E) and Knowledge Management (KM)

Detailed Costs	Unit	Quantities									Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)									
		2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																					
A. Monitoring and Evaluation (M&E) system																					
Establishment of MIS	Number	1	-	-	-		-	-	-	-	1	50.000	51	-	-	-	-	-	-	-	51
Server/ cloud costs	Number	1	1	1	1		1	1	1	1	8	1.000	1	1	1	1	1	1	1	1	9
Baseline survey	Number	-	1	-	-		-	-	-	-	1	150.000	-	159	-	-	-	-	-	-	159
Annual tracking survey	Number	-	-	1	-		1	1	-	-	3	50.000	-	-	55	-	60	62	-	-	177
Mid-term survey	Number	-	-	-	1		-	-	-	-	1	150.000	-	-	-	172	-	-	-	-	172
Impact Assessment survey	Number	-	-	-	-		-	-	1	-	1	150.000	-	-	-	-	-	-	194	-	194
Audits	Number	-	1	1	1		1	1	1	1	7	15.000	-	16	17	17	18	19	19	20	126
Monitoring and Evaluation activities	Number	-	1	1	1		1	1	1	-	6	5.000	-	5	6	6	6	6	6	-	35
Subtotal												-	52	181	78	196	85	88	221	21	923
B. Knowledge Management (KM) products and communications																					
1. Annual review workshop for PCU	wshop	-	1	1	1		1	1	1	-	6	10.000	-	11	11	11	12	12	13	-	70
2. KM product and communication activities	no	-	1	1	1		1	1	1	-	6	20.000	-	21	22	23	24	25	26	-	141
3. Project documentary	no	-	-	-	-		1	-	-	1	2	15.000	-	-	-	-	18	-	-	20	38
Subtotal												-	32	33	34	54	37	39	20	249	
C. Equipment																					
1. GSM enabled tablets	lumpsum	80	-	-	-		-	-	-	-	80	250	20	-	-	-	-	-	-	-	20
2. GPS units	lumpsum	50	-	-	-		-	-	-	-	50	400	20	-	-	-	-	-	-	-	20
3. Digital Camera -professional	lumpsum	3	-	-	-		-	-	-	-	3	1.000	3	-	-	-	-	-	-	3	
4. Desktop computer - MIS server	unit	6	-	-	-		-	-	-	-	6	1.500	9	-	-	-	-	-	-	9	
Subtotal												-	53	-	-	-	-	-	-	-	53
Total												-	105	213	111	231	138	125	259	42	1,225

Table 16 Sub-component 3.3 Project Management Unit

UGANDA
Resilient Livestock Value Chain Project (RELIV)
Table 3.3. Project Management Unit
Detailed Costs

Unit	Quantities									Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)									
	2025	2026	2027	2028	2029	2030	2031	2032	Total		2025	2026	2027	2028	2029	2030	2031	2032	Total	
I. Investment Costs																				
A. Project Management Unit (PMU) equipment																				
Vehicles station wagon	Number	2	-	-	-	-	-	-	-	2	107.000	218	-	-	-	-	-	-	218	
Vehicles	Number	8	-	-	-	-	-	-	-	8	67.000	547	-	-	-	-	-	-	547	
Desktop computers	Number	3	-	-	-	-	-	-	-	3	1.500	5	-	-	-	-	-	-	5	
Laptops	Number	12	-	-	-	-	-	-	-	12	1.700	21	-	-	-	-	-	-	21	
Multifunctional printer/ Scanner	Number	1	-	-	-	-	-	-	-	1	12.000	12	-	-	-	-	-	-	12	
Printers	Number	2	-	-	-	-	-	-	-	2	500	1	-	-	-	-	-	-	1	
Office furniture set	set	15	-	-	-	-	-	-	-	15	2.000	31	-	-	-	-	-	-	31	
Accounting software	lumpsum	1	-	-	-	-	-	-	-	1	25.000	26	-	-	-	-	-	-	26	
Total Investment Costs												860	-	-	-	-	-	-	860	
II. Recurrent Costs																				
A. Salaries and Allowancies																				
1. Salaries																				
a. Project Management Unit (PMU)																				
Project Coordinator	pers-month	6	12	12	12	12	12	12	12	90	5.000	31	64	66	69	72	74	77	81	533
Financial controller	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
Livestock specialist	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
M&E and KM specialist	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
Procurement specialist	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
Gender and Targeting Specialist	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
Environment and Climate Change Specialist	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
Agribusiness and Rural Finance Specialist	pers-month	6	12	12	12	12	12	12	12	90	3.500	21	45	46	48	50	52	54	56	373
Accountant	pers-month	6	12	12	12	12	12	12	12	90	2.000	12	25	26	28	29	30	31	32	213
Procurement officer	pers-month	6	12	12	12	12	12	12	12	90	2.000	12	25	26	28	29	30	31	32	213
M&E Officer	pers-month	6	12	12	12	12	12	12	12	90	2.000	12	25	26	28	29	30	31	32	213
Communication and KM Officer	pers-month	6	12	12	12	12	12	12	12	90	2.000	12	25	26	28	29	30	31	32	213
Office Administrator	pers-month	6	12	12	12	12	12	12	12	90	1.000	6	13	13	14	14	15	15	16	107
Drivers /a	pers-month	42	84	84	84	84	84	84	84	630	500	21	45	46	48	50	52	54	56	373
Office attendant	pers-month	6	12	12	12	12	12	12	12	90	500	3	6	7	7	7	7	8	8	53
Subtotal												260	541	563	585	609	633	658	685	4,533
b. Contribution to the pension for Project staff	lumpsum											26	54	56	59	61	63	66	68	453
c. Gratuity for Project Staff /b	lumpsum											39	81	84	88	91	95	99	103	680
d. Contribution to the medical insurance for Project staff	lumpsum											10	22	23	23	24	25	26	27	181
Subtotal												336	698	726	755	785	816	849	883	5,848
B. Operational costs																				
1. PMU																				
Vehicles O&M	lumpsum	-	1	1	1	1	1	1	1	7	27.000	-	29	30	31	32	34	35	36	226
Vehicles rent	lumpsum	1	-	-	-	-	-	-	-	1	30.000	31	-	-	-	-	-	-	-	31
Vehicles insurance /c	lumpsum	-	1	1	1	1	1	1	1	7	30.000	-	32	33	34	36	37	39	40	251
Office supplies	per-annum	1	1	1	1	1	1	1	1	8	10.000	10	11	11	11	12	12	13	13	94
Telephone and internet subscription	per-annum	6	12	12	12	12	12	12	12	90	420	3	5	6	6	6	6	7	7	45
Staff allowances- Per diem for national travel	day	150	300	300	300	300	300	300	300	2,250	35	5	11	12	12	13	13	14	14	93
Office rent	day	1	1	1	1	1	1	1	1	8	53.000	54	56	58	61	63	66	68	71	498
Subtotal												103	144	150	156	162	168	175	182	1,238
Total Recurrent Costs												438	842	875	910	947	985	1,024	1,065	7,086
Total												1,298	842	875	910	947	985	1,024	1,065	7,946

\a 7 drivers

\b For each, add 15% of Gross salary as Gratuity

\c 4% of vehicle value

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 4: Economic and Financial Analysis

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Annex 4: Economic and Financial Analysis (EFA)

a. Methodology

1. This annex presents the EFA of the Resilient Livestock Value Chain Project (RELIV). The methodological approach employed follows that of Gittinger (1982)¹, Belli et al. (2001)² and is in line with recent IFAD guidelines published on economic and financial analysis³. The financial analysis was performed from the perspective of beneficiaries while the economic analysis incorporated a shadow price for the main project inputs and outputs.

2. Fifteen financial models were developed: ten models for agribusiness and Small-Scale Enterprises (SMEs)/ service provider and five models for livestock activities. The financial analysis demonstrates the viability of the targeted activities. Furthermore, the economic analysis also indicates that the project is economically viable, with an Economic Internal Rate of Return (EIRR) of 28.74 per cent and a Net Present Value (NPV) of US\$216.54 million. The project is sensitive to changes in certain variables within the models, including variations on benefits and costs, different lags in the realization of benefits, and adoption rates, emphasizing the importance of sustainable dairy value chain investments for project success.

b. Beneficiaries

3. The project beneficiaries include: (i) livestock smallholders; and (ii) various Small-Scale Enterprises, such as Milk Collection Centers (MCCs), Milk Collection Point (MCP), and dairy processing units. The Project aims to target 200,000 households (HHs), with 180,000 HHs engaged in dairy and meat farming and 20,000 HHs involved in agribusiness /SME and private entities along the dairy value chain. Considering an average of 5 member per household, the total number of beneficiaries targeted by RELIV is 1,000,000.

4. The project has structured of the involvement of targeted beneficiaries which is used for the aggregation, with COSTAB serving as the guiding reference. The following table represents the phasing of beneficiaries used for the aggregation.

TABLE 1 PHASING

Number of HHS targeted by Reliv	Unit	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	TOTAL
		2024	2025	2026	2027	2028	2029	2030	2031	
<i>Intensive</i>		-	-	-	-	-	-	-	-	-
Small-scale intensive system (crossbreed)	HHs	-	2,000	3,000	4,000	4,000	3,000	2,000	2,000	20,000
Small scale intensive system (crossbreed and exotic)	HHs	-	5,000	7,500	10,000	10,000	7,500	5,000	5,000	50,000
<i>Semi-intensive</i>		-	-	-	-	-	-	-	-	-
Semi-intensive system (local) small/medium scale	HHs	-	9,000	13,500	18,000	18,000	13,500	9,000	9,000	90,000
<i>Agro-pastoral and Pastoral</i>		-	-	-	-	-	-	-	-	-
Agro-pastoral mix system (local breed)	HHs	-	1,000	1,500	2,000	2,000	1,500	1,000	1,000	10,000
Pastoral mix systems (local)	HHs	-	1,000	1,500	2,000	2,000	1,500	1,000	1,000	10,000
Sub total number of HHs under C1	HHs	-	18,000	27,000	36,000	36,000	27,000	18,000	18,000	180,000
Construction of new MCCs with Solar PV	HHs	-	28	28	28	28	28	-	-	140
Rehabilitation of existing MCCs with Solar PV	HHs	-	42	42	42	42	-	-	-	168
Constructions of MCPs	HHs	-	-	75	75	75	75	-	-	300
Upgrading of MCPs into dairy hubs	HHs	-	-	30	30	30	30	-	-	120
Small scale processing units for cooperatives	HHs	-	-	80	80	112	-	-	-	272
Small scale processing units for private sector	HHs	-	-	140	140	140	-	-	-	420
SS processing (coops) Renewable energy and energy efficiency	HHs	-	-	80	80	112	-	-	-	272
SS processing (SMEs) Renewable energy and energy efficiency	HHs	-	-	140	140	140	-	-	-	420
Service provider - Veterinary services	HHs	-	-	100	150	150	-	-	-	400
Biodigester installed at small-scale farm	HHs	-	-	2,915	2,915	2,915	2,915	2,915	2,915	17,488
Sub total number of HHs under C2	HHs	-	70	3,630	3,680	3,744	3,048	2,915	2,915	20,000
Total number of HHs targeted by RELIV	HHs	-	18,070	30,630	39,680	39,744	30,048	20,915	20,915	200,000

¹ Gittinger, P., 1982. *Economic analysis of agricultural projects*

² Belli, P., J.R. Anderson, H.N. Barnum, J.A. Dixon, and J-P. Tan (2001). *Economic Analysis of Investment Operations: Analytical Tools and Practical Applications*. WBI Development Studies, World Bank Institute, World Bank, Washington, D.C.

³ IFAD, 2015. *Economic and Financial analysis of rural investment projects, basic concepts and rationale*.

c. Financial analysis

Agribusiness / SME / service provider models

5. During the formulation of the project ten agribusiness / SME and service providers models have been identified and developed.

6. The following table shows financial performance of the agribusiness/SME models. The financial internal rate of return (FIRR), NPV, and benefit/cost ratio for the models are favorable, indicating the strong financial viability of the proposed activities.

TABLE 2 FINANCIAL PERFORMANCE OF SME MODELS

Agribusiness / SME Models	FIRR (21%)	NPV (in UGX)	B/C ratio
Construction of new MCCs with Solar PV	29%	213,930,689	1.05
Rehabilitation of existing MCCs with Solar PV	30%	185,598,164	1.02
Constructions of MCPs	25%	63,137,088	1.03
Upgrading of MCPs into dairy hubs	24%	50,839,171	1.03
Small scale processing units for cooperatives	47%	457,692,866	1.10
Small scale processing units for private sector	130%	2,054,649,774	1.23
SS processing (coops) Renewable energy and energy efficiency	25%	137,363,782	1.00
SS processing (SMEs) Renewable energy and energy efficiency	79%	1,681,698,849	1.19
Service provider - Veterinary services	88%	19,536,221	1.11
Biodigester installed at small-scale farm	28%	400,926	1.05

Agribusiness and SME models

7. The first model describes the construction of a new Milk Collection Center (MCC) powered by solar energy with a total capacity of 5,000 liter per day at full development, operating at 80 per cent of its capacity. The proposed initial investment is approximately UGX721.10 million. Notably, the procurement of raw milk constitutes a significant portion, representing about 97 per cent of the operational costs. The model shows a Financial Internal Rate of Return (FIRR) of 29 per cent and a Net Present Value (NPV) of UGX213.93 million.

8. The second represents the rehabilitation of an existing Milk Collection Center (MCC) powered by solar energy with a full capacity of 5,000 liter per day, operating at 80 per cent of its capacity. The estimated initial investment costs for this MCC amount to UGX570.19 million. This MCC exhibits a Financial Internal Rate of Return (FIRR) of 30 per cent and a Net Present Value (NPV) of UGX185.59 million.

9. The third model shows the construction of a new Milk Collection Point (MCP) with a total capacity of 2,000 liter per day at full development, operating at 75 per cent of its capacity. The proposed initial investment is approximately UGX361.14 million. The purchase of raw milk accounts for about 98 per cent of the operational costs. The model shows a FIRR of 25 per cent and a NPV of UGX63.13 million.

10. The fourth model illustrates the upgrading of a new Milk Collection Point (MCP) with a total capacity of 2,000 liter per day at full development, operating at 75 per cent of its capacity. The proposed initial investment is approximately UGX372.43 million. The purchase of raw milk accounts for about 98 per cent of the operational costs. The model shows a FIRR of 24 per cent and a NPV of UGX50.83 million.

11. The fifth model describes a cooperative which is a small-scale milk processing plant with a total capacity of 1,200 liter per day at full development. The plant is focused on processing fermented milk and yogurt. The proposed initial investment is approximately

UGX510.70 million. The purchase of raw milk accounts for about 49 per cent of the operational costs. The model shows a FIRR of 47 per cent and a NPV of UGX457.69 million.

12. The sixth model shows a private small-scale milk processing plant with a total capacity of 3,000 liter per day at full development. The plant is focused on processing fermented milk and yogurt. The proposed initial investment is approximately UGX815.10 million. Raw milk procurement, which constitutes roughly 54 per cent of the operational costs, will be sourced directly from the MCCs described earlier, completing the supply chain from the dairy farm to the milk processing unit. The model shows a FIRR of 130 per cent and a NPV of UGX2,054.64million.

13. The seventh model describes a cooperative which is a small-scale milk processing plant powered by solar energy with a total capacity of 1,200 liter per day at full development. The proposed initial investment is approximately UGX899.14 million. The purchase of raw milk accounts for about 49 per cent of the operational costs. The model shows a FIRR of 25 per cent and a NPV of UGX137.36 million.

14. The eighth model shows a private small-scale milk processing plant powered by solar energy with a total capacity of 3,000 liter per day at full development. The plant is focused on processing fermented milk and yogurt. The proposed initial investment is approximately UGX815.10 million. The purchase of raw milk accounts for about 54 per cent of the operational costs. The model shows a FIRR of 79 per cent and a NPV of UGX1,681.69million.

15. The ninth model depicts a service provider specializing in AI (Artificial Insemination) and veterinary services tailored for smallholder farmers residing in remote areas. This AI technician/veterinarian offers essential services crucial for livestock management. The proposed initial investment amounts to approximately UGX9.03 million, covering the acquisition of a motorbike, start-up kit, and a tablet. Impressively, the financial model demonstrates an impressive Financial Internal Rate of Return (FIRR) of 88%, indicating strong profitability. Additionally, it presents a remarkable NPV of UGX19.53 million, underscoring the viability and potential returns of the venture.

16. The final model outlines the implementation of a biodigester system installed at a small-scale farm, with a capacity of 3m³. The proposed initial investment for this eco-friendly infrastructure amounts to approximately UGX2.30 million. Particularly, the financial model reveals a commendable FIRR of 28%, indicating promising returns on investment. Additionally, it presents a NPV of UGX0.40 million, further emphasizing the economic feasibility and environmental benefits associated with this initiative.

Dairy livestock keeping models

17. The dairy livestock keeping models were developed using the herd growth model interface from the Livestock Sector Investment Policy Toolkit (LSIPT). This interface allows for simulating bio-economic performances of herds of tropical domestic ruminants⁴. It is designed to calculate different livestock production outputs (live weights, meat, milk, skin and hides, manure) and financial outputs that can be used in the calculation of economic and financial performance indicators such as IRR and NPV.

18. The LSIPT is a program developed by FAO and Agricultural Research Centre for International Development (CIRAD) under the ALIVE initiative. It calculates different livestock production outputs (milk, manure, etc.) and financial outputs in both "with" and "without" project scenarios, which are used to derive economic and financial performance indicators such as IRR and NPV. All the models estimate the "with" and "without" project situation over

⁴ The LSIPT is a program developed by FAO and Agricultural Research Centre for International Development (CIRAD) under the ALIVE initiative. The toolkit is built on Microsoft Excel and uses demographic equations to simulate livestock population dynamics over a given period of time.

a 20-years period. For cattle models, the ECORUM module of the LSIPT for simulating bio-economic performance of herd of tropical domestic ruminants have been used.

19. Five dairy and meat livestock keeping models were developed based on livestock practices in Uganda: (i) small scale intensive system with cross breed animals (B1OM) for dairy, where improvements in animal feed, veterinary services, and Artificial Insemination (AI) lead to increased milk production, reduced mortality rates, and higher parturition rates; (ii) Small scale intensive system with a combination of cross breed and exotic animals, also emphasized dairy production, with similar improvements resulting in increased milk production, reduced mortality rates, and improved parturition rates; (iii) semi-intensive system with local breed animals (B1MR) and prioritizes access to veterinary services and vaccination campaign to mitigate mortality rates and improve milk production; (iv) the agro-pastoral mix-system (B2MR) for both dairy and meat, where a vaccination campaign and better access to veterinary services, supported by the project, lead to decreased mortality rates and improved milk production; and finally; (v) the pastoral mix-systems (B3LG) integrate both dairy and meat production. Like the agro-pastoral mix-system, this model emphasizes improvements in mortality rates and milk production, underscoring the significance of vaccination campaigns and improved access to veterinary services."

20. The parameters employed in the development of the livestock models align with those utilized in the DAIMA project, a dairy initiative in the East Africa region under the GCF project which this project is co-financing reciprocally. These parameters have been meticulously revised by livestock specialists from FAO and IFAD, ensuring their alignment with the parameters from Global Livestock Environmental Assessment Model- interactive (GLEAM-i)⁵ analysis.

21. The following table shows the main results and parameters used for developing the dairy and meat livestock keeping models.

⁵ [Gleam-i \(fao.org\)](http://gleam-i.fao.org)

TABLE 3 LIVESTOCK MODELS PARAMETERS AND FINANCIAL RESULTS

#	Production model	Investments	Technical parameters	FIRR (20 years, 21% discount rate)	NPV (in UGX, 20 years, 21% discount rate)
Livestock keeping models					
1	Small scale intensive system (Cross breed) B1OM cross breed	Investment: UGX 0.75 million /farm (cowshed, etc.); Better feed (use of salts/minerals/ concentrates); Better animal health (vaccination campaigns, better access to veterinary services and medicines) Better access and results of AI (Artificial Insemination)	Herd size: 2 crossbreed cows in WOP vs. WP 2 crossbreed cows Increase in parturition rate from 68% WOP vs.74 % WP (reaching this high value at year 6) Mortality decreases in Juvenile from 9% (WOP) to 7% (WP); and for Adult from 6% to 5% Increase in live weight in all ages and sex (increase in 10%): Juvenile Female from 139 Kg WOP to 153 kg WP; Juvenile Male from 139 Kg WOP to 153 kg WP; Sub-adult Female live weight 277 Kg WOP to 306 kg WP; Sub-adult Male live weight 277Kg WOP to 306 kg WP; Adult Female live weight 400kg WOP to 441 kg WP; Adult Male live weight 400kg WOP to 441 kg for WP Dressing percentage from 50% (WOP) to 56% (WP); Milk productivity: WOP: 6.8 liter/day for 275 days vs. WP 9,1 liter/day for 305 days (reaching this high value at year 6) Own consumption (WOP vs WP): 561 l/year to 613 l/year	25.6%	227,170
2	Small scale intensive system (Cross breed and exotic animals) (B1OM cross & exotic breed)	Investment: UGX 2.5 million Better feed (use of salts/minerals/ concentrates); Better animal health (vaccination campaigns, better access to veterinary services and medicines) Better access and results of AI (Artificial Insemination)	Herd size: 15 crossbreed/exotic cows in WOP vs. WP 15 crossbreed/exotic cows Increase in parturition rate from 68% WOP vs. 74% WP (reaching this high value at year 6) Mortality decreases in Juvenile from 9% (WOP) to 7% (WP); and for Adult from 6% to 5% Increase in live weight in all ages and sex (increase in 10%) : Juvenile Female from 150 Kg WOP to 165 kg WP; Juvenile Male from 150 Kg WOP to 165 kg WP; Sub-adult Female live weight 299 Kg WOP to 330 kg WP; Sub-adult Male live weight 299 Kg WOP to 330 kg WP; Adult Female live weight 435kg WOP to 480 kg WP; Adult Male live weight 435kg WOP to 480 kg for WP Dressing percentage from 50% (WOP) to 56% (WP); Milk productivity: WOP: 9.0 liter/day for 275 days vs. WP12.5 liter/day for 305 days (reaching this high value at year 6) Own consumption (WOP vs WP): 545 l/year to 647 l/year	45.5%	6,736,673
3	Semi-intensive system - Local breed (B1 MR)	Investment: UGX 1.08 million Better feed (access to pasture); animal health (vaccination campaigns,	Herd size equal to 5 local breed WOP vs. WP 5 local breed with better access to veterinary services Increase in parturition rate from 60% WOP vs. 64% WP (reaching this high value at year 6)	47.9%	1,491,047

#	Production model	Investments	Technical parameters	FIRR (20 years, 21% discount rate)	NPV (in UGX, 20 years, 21% discount rate)
Livestock keeping models					
		better access to veterinary services and medicines) Use of AI (Artificial Insemination)	Mortality decreases in Juvenile from 9% (WOP) to 7% (WP); and for Adult from 6% to 5% Increase in live weight in all ages and sex (increase in 20%): Juvenile Female from 102Kg WOP to 113 kg WP; Juvenile Male from 102 Kg WOP to 113 kg WP; Sub-adult Female live weight 204 Kg to 221kg WP; Sub-adult Male live weight 204 Kg to 221kg WP; Adult Female live weight 350 Kg to 379 kg WP; Adult Male live weight 350 Kg to 379 kg WP; Dressing percentage from 52% (WOP) to 55% (WP). Milk productivity: WOP: 3.0 liter/day for 240 days vs. WP 3.6 liter/day for 280 days (reaching this high value at year 6) Own consumption (WOP vs WP): 540 l/year to 611 l/year		
4	Agro-pastoral systems (meat and dairy) Local breed (B2MR)	Investment: UGX 2.7 million Better feed (access to pasture); animal health (vaccination campaigns, better access to veterinary services and medicines) Use of AI (Artificial Insemination)	Herd size equal to 35 local breed WOP vs. WP 35 local breed with better access to veterinary services Increase in parturition rate from 59% WOP vs. 64% WP (reaching this high value at year 5) Mortality decreases in Juvenile and Sub-Adult from 9% (WOP) to 7% (WP); and for Adult from 7% to 5% Increase in live weight in all ages and sex (increase in 10%): Juvenile Female from 102Kg WOP to 113 kg WP; Juvenile Male from 102 Kg WOP to 113 kg WP; Sub-adult Female live weight 204 Kg to 225 kg WP; Sub-adult Male live weight 204 Kg to 225 kg WP; Adult Female live weight 322 Kg to 355 kg WP; Adult Male live weight 322 Kg to 355 kg WP; Dressing percentage from 50% (WOP) to 54% (WP). Milk productivity: WOP: 2.00 liter/day for 200 days vs. WP 3.00 liter/day for 220 days (reaching this high value at year 6) Own consumption (WOP vs WP): 320 l/year to 330 l/year	80.8%	10,387,095
	Pastoral mix systems (meat and dairy) Local breed (B3LG)	Investment: UGX 2.88 million Better feed (access to pasture); animal health (vaccination campaigns, better access to veterinary services and medicines) Use of AI (Artificial Insemination)	Herd size equal to 50 local breed WOP vs. WP 50 local breed with better access to veterinary services Increase in parturition rate from 59% WOP vs. 64% WP (reaching this high value at year 5) Mortality decreases in Juvenile and Sub-Adult from 9% (WOP) to 7% (WP); and for Adult from 7% to 5% Increase in live weight in all ages and sex (increase in 10%): Juvenile Female from 102Kg WOP to 113 kg WP; Juvenile Male from 102 Kg WOP to 113 kg WP;	96.2%	8,034,665

#	Production model	Investments	Technical parameters	FIRR (20 years, 21% discount rate)	NPV (in UGX, 20 years, 21% discount rate)
Livestock keeping models					
			Sub-adult Female live weight 204 Kg to 225 kg WP; Sub-adult Male live weight 204 Kg to 225 kg WP; Adult Female live weight 322 Kg to 355 kg WP; Adult Male live weight 322 Kg to 355 kg WP; Dressing percentage from 50% (WOP) to 54% (WP); Milk productivity: WOP: 1.50 liter/day for 180 days vs. WP 1.8 liter/day for 200 days (reaching this high value at year 6) Own consumption (WOP vs WP): 216 l/year to 220 l/year		

Summary of the Performance of the Financial Models

22. The project net cash flows are based on the incremental approach, which results from comparing the With Project Situation and Without Project situations⁶. The financial models have been calculated at 21⁷ per cent discount rate. The below table summarizes the models as well as their financial performance.

⁶ IFAD, 2015, Economic and Financial analysis of rural investment projects, basic concepts, and rationale.

⁷ Average lending rate in Uganda, equal to 21.1 per cent (World Bank data – average from 2011 to 2023)

TABLE 4 FINANCIAL MODEL'S CASH FLOWS

F I N A N C I A L A N A L Y S I S	Models' net incremental benefits -NIB (in UGX)														
	Livestock models					Agri-business / small-medium enterprises (SME) / service provider models									
	Small scale intensive system (Cross breed) B1OM cross breed	Small scale intensive system (Cross breed and exotic animals) (B1OM cross)	Semi-intensive system - Local breed (B1 MR)	Agro-pastoral systems (meat and dairy) Local breed (B2MR)	Pastoral mix systems (meat and dairy) Local breed (B3LG)	Construction of new MCCs with Solar PV	Rehabilitation of existing MCCs with Solar PV	Constructions of MCPs	Upgrading of MCPs into dairy hubs	Small scale processing units for cooperatives	Small scale processing units for private sector	SS processing (coops) Renewable energy and energy efficiency	SS processing (SMEs) Renewable energy and energy efficiency	Service provider - Veterinary services	Biodisgester installed at small-scale farm
PY1	-1,001,426	-5,298,088	-1,515,109	-2,919,254	-2,065,290	-616,096,222	-467,735,050	-305,470,698	-314,746,303	-405,127,296	-419,361,964	-793,417,896	-718,087,264	-7,685,527	-1,789,539
PY2	52,797	454,352	299,886	1,448,088	1,552,800	126,760,750	87,352,023	60,794,376	59,585,020	141,965,502	474,155,692	142,114,902	470,495,392	6,758,810	513,270
PY3	161,586	1,017,518	544,555	2,431,470	2,115,683	162,244,550	122,835,823	71,612,673	70,403,318	198,006,975	605,975,723	198,156,375	602,315,423	6,758,810	513,270
PY4	250,849	2,133,789	680,239	3,073,671	2,495,413	189,251,557	149,842,830	81,538,677	80,329,321	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY5	326,354	3,650,808	763,707	3,616,751	2,763,556	212,620,750	173,212,023	92,991,876	91,782,520	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY6	399,046	3,834,944	788,824	4,021,617	2,931,648	213,032,578	173,623,851	91,512,727	90,303,371	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY7	396,835	3,855,343	773,498	4,140,300	2,943,160	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY8	397,049	3,896,950	762,345	4,250,155	2,969,453	212,620,750	173,212,023	92,991,876	91,782,520	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY9	396,469	3,941,484	754,322	4,349,959	3,003,096	219,484,550	180,075,823	93,077,673	91,868,318	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY10	395,386	3,990,396	748,863	4,440,652	3,038,014	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY11	394,371	4,044,027	745,791	4,524,581	3,071,772	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY12	393,581	4,101,291	744,932	4,604,336	3,104,120	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY13	392,966	4,161,018	746,022	4,682,128	3,135,651	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY14	392,441	4,222,421	748,751	4,759,591	3,167,089	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY15	391,945	4,285,067	752,812	4,837,831	3,199,018	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY16	391,442	4,348,750	757,934	4,917,528	3,231,822	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY17	390,917	4,413,377	763,891	4,999,067	3,265,712	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY18	390,359	4,478,912	770,502	5,082,630	3,300,776	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY19	389,766	4,545,348	777,625	5,168,271	3,337,017	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
PY20	389,135	4,612,684	785,149	5,255,970	3,374,392	217,871,557	178,462,830	92,271,177	91,061,821	226,027,712	671,885,738	226,177,112	668,225,438	6,758,810	513,270
B/C	1.32	1.33	2.39	2.13	2.54	1.05	1.02	1.03	1.03	1.10	1.23	1.00	1.19	1.11	1.05
NPV (UGX) @ 21%	227,170	5,844,111	1,193,526	10,387,095	7,483,221	213,930,689	185,598,164	63,137,088	50,839,171	457,692,866	2,054,649,774	137,363,782	1,681,698,849	19,536,221	400,926
IRR	25.64%	38.58%	37.83%	80.01%	96.18%	29%	30%	25%	24%	47%	130%	25%	79%	88%	28%

d. Economic analysis

Assumptions

23. **Economic prices.** The official exchange rate has been set at one US Dollar for UGX3,762, in line with estimates from The Economist Intelligence Unit (EIU) for the entire year of 2025. To convert the financial prices to economic prices, the following conversion factors have been applied: For non-tradable goods, a conversion factor of one was used since they are generally purchased at local level without significant tax distortions. For labour, the opportunity cost conversion factor is 0.97⁸ based on the unemployment rate in Uganda. For the tradeable goods and equipment, the Standard Conversion Factor (SCF) 1.06 has been calculated and applied. Additionally, the import parity price has been calculated for milk and equals to 1.10.

24. All models are expressed in 2024 constant prices. The analysis builds on primary data collected by the formulation team during the field mission in February 2024, as well as data provided by the Government of Uganda and other additional sources from various organizations. Conservative assumptions and parameters have been applied, to avoid over-estimation of benefits and provide realistic results.

TABLE 5 STANDARD CONVERSION AND SOCIAL DISCOUNT FACTORS

Conversion factor	
CF for tradeable goods	1.06
CF for milk	1.10
CF for labour	0.97
CF for non-tradeable goods	1.00
Social discount rate	6%

25. **Social discount rate.** The social discount rate used in this analysis is 6 per cent, calculated as the average of the deposit interest rate for the past ten years in Uganda. This percentage reflects the social opportunity cost of capital in Uganda. It has been applied to calculate the economic Net Present Value (ENPV) and future net incremental benefits.

Results

26. The period of analysis spans 20 years to account for the phasing and gestation of the proposed interventions. Economic benefits from livestock farms and agri-business/SME models are aggregated using average incremental net benefits and the number of beneficiaries for each activity. For enterprise models, benefits are aggregated based on the expected number of small enterprises supported by the project, with phased-in progression across all interventions. Economic costs are converted through the Costab software after deducting all investment costs reflected in the models to prevent any duplication of expenses. Additionally, 12 per cent of the total economic project cost is assumed to be allocated for the post-project implementation period as a continuation of costs. To maintain a conservative baseline, the economic analysis has incorporated an adoption rate of 70 percent for calculating the economic benefits. Specifically, for the livestock models, this adoption rate of 70 percent will be achieved by year 5, starting from 40% in year 1, while for the agribusiness/SME/service providers models, it will be reached by year 4, starting from 50% in year 1.

⁸ Rate of unemployment equal to 11.9 per cent in 2021, Uganda Bureau of Statistics (UBS), July 2023.

27. The estimated economic costs associated with livestock and agri-business activities amounts to US\$254.46 million. The economic costs have then been deducted from the overall economic benefit stream to obtain the Project's net incremental benefit stream. The economic analysis yields satisfactory results, with a Net Present Value (ENPV) of US\$216.54 million and an Economic Internal Rate of Return (EIRR) of 28.74 per cent, suggesting that the overall project is economically profitable.

TABLE 6 RESULTS OF THE ECONOMIC ANALYSIS

Economic Analysis	Base case
IRR (%)	28.74
NPV (in US\$ million)	216.54

Sensitivity analysis

28. The results were tested for sensitivity to variations in benefits and costs, as well as for various lags in the realization of benefits. A delay of 2 years in the generation of benefits or a decline of 30 per cent relative to the base scenario would reduce the Economic Internal Rate of Return (EIRR) to 19.05 per cent and 19.77 per cent, respectively, which are still substantially above the discount rate. Cost overruns would have a very moderate impact, with EIRR falling to 22.10 per cent with a 30 per cent increase. All scenarios demonstrate robust results under all hypothetical scenarios.

TABLE 7 RESULTS OF THE SENSITIVITY ANALYSIS

Scenario	EIRR (%)	NPV (million US\$)
base scenario	28.74%	216,540,435
costs +10%	26.30%	201,751,534
costs +20%	24.10%	186,962,633
costs +30%	22.10%	172,173,732
benefits +10%	31.23%	252,983,379
benefits +20%	33.53%	289,426,324
benefits -10%	26.05%	180,097,490
benefits -20%	23.08%	143,654,546
benefits -30%	19.77%	107,211,602
benefits delayed 1 year	23.16%	180,082,881
benefits delayed 2 years	19.05%	145,598,100

29. In conclusion, the Economic Feasibility Analysis (EFA) presented in this Annex 4 underscores the robust financial and economic viability of the project. With a Net Present Value (ENPV) of US\$216.54 million and an Economic Internal Rate of Return (EIRR) of 28.74 per cent, the project demonstrates both profitability and resilience against

foreseeable risks. Furthermore, the sensitivity analysis conducted indicates the project's ability to withstand variations in benefits and costs. Even under scenarios such as a delay of 2 years in benefit realization or a decline of 30 per cent in benefits relative to the base scenario, the EIRR remains substantially above the discount rate, showcasing its stability. Cost overruns would have only a moderate impact, with EIRR decreasing to 22.10 per cent with a 30 per cent increase. These results indicate that the project is not only financially sustainable but also promises substantial economic benefits. As such, it is deemed worthy of receiving public funds, as it aligns with the objectives of promoting economic growth and development while ensuring prudent use of resources. This comprehensive analysis underscores the project's capacity to deliver significant returns on investment and positively impact the socio-economic landscape.

Uganda

Resilient Livestock Value Chain Project

Project Design Report

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

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

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. This preliminary Social, Environmental and Climate Assessment Procedures (SECAP) Review Note assesses the social, environmental and climate change context and risks in Uganda for the Resilient Livestock Value Chain (ReLIV) project. The Note outlines strategic actions required to mainstream environment, climate change, nutrition, youth and gender, and to mitigate risks and enhance positive outcomes. The ReLIV project is well aligned with the Government of Uganda's policies and strategies, including the Third National Development Plan (2021-2025), the Agriculture Sector Strategic Plan (2021-2025), the updated Nationally Determined Contributions (2022), the National Biodiversity Strategy and Action Plans (2015-2025), the Land Degradation Neutrality Targets, and the National Climate Change Act (2021), among others. It is also aligned with IFAD's Strategic Framework 2016-2025, IFAD's Environment and Climate Change Strategy and Action Plan 2019-2025 [\[1\]](#), the new SECAP Guidelines (2021), the United Nations Framework for Sustainable Development Cooperation (2021-2025), and the Sustainable Development Goals (SDG).
2. The development of the SECAP note was informed by a review of secondary literature (e.g., Uganda COSOP 2021-2027, CSPE, 2021) and primary data collected through field observations and interviews during an in-country mission in February 2024.

2. Situational analysis and potential project impacts

3. **Demography.** Uganda has a population of approximately 42.9 million people, 72% of whom live in rural areas. The population has a life expectancy of 63.7 years, and the average household size is five people.^[2] The country has 146 districts, divided into four regions. The poverty rate by region is 35.9% in the northern region, 25.9% in the eastern region, 14.4% in the western region and 8.7% in the central region. Overall, 39% of Ugandan households are subsistence farmers.
4. **Human development.** 70% of the population aged 10 and over are literate with little significant variation between males and females. However, there are significant differences between rural and urban areas. 37% of Ugandans have enrolled in secondary school, with females (37%) slightly higher than males (36%). Uganda ranks 166/191 on the Human Development Index.^[3]
5. **Agriculture.** 78% of Uganda's population live in rural areas, where agriculture is the main activity.^[4] 39% of the Ugandan households are engaged in the subsistence economy, and 62% of these households are mainly in subsistence agriculture.^[5] Only 35% of Uganda's arable land is in effective production, and on average, agricultural households cultivate two parcels of 0.8 hectares each. Most rural households in Uganda rely on subsistence agriculture as their main source of income (61%). The remaining rural households derive their income from commercial agriculture, wage employment, non-agricultural activities, and property income. As of 2020, 6% of rural households derive their incomes from transfers. Agricultural productivity in Uganda is low despite the potential to feed the population and surrounding countries. Low productivity is due to several reasons, including low yielding varieties, extensive land use, low fertiliser use, and reliance on rainfed agriculture. In 2018, only 12% of farming households participated in farmer training or received agricultural advisory services. Only 24% of agricultural households in Uganda used fertiliser in 2018, of which 76% used organic fertiliser and 30% used inorganic fertiliser. Only 2% of agricultural households use irrigation for crop production, and 98% use traditional seeds.
6. **Livestock.** The livestock sector in Uganda accounts for about 17% of the country's agricultural value-added and 4.3% of its gross domestic product (GDP). Cattle is by far the most important species, with 2.4 million households keeping cattle (as of 2018), with an average of five heads per livestock household, contributing between 12% and 75% of their total income. Most of these households are subsistence-oriented smallholders (FAO 201927), and 75% of them have fewer than 5 heads. Uganda is a net exporter of livestock products and live animals. Livestock exports are dominated by dairy products (USD 80 million), with beef (USD 6.2 million) playing a minor role. Livestock provide income, food, draught power, insurance and savings, social capital and other goods and services to the population. Per capita consumption of beef and cow's milk is 6 kg and 36 litres respectively per year, which is still low compared to other countries in the region. However, the Food and Agriculture Organisation (FAO) estimates that demand for beef and milk in the country will increase by 320% and 200% respectively by 2050.
7. **Employment.** In 2018/19, 52% of Ugandans were of working age (14-64 years). Of the working age population, 74% were working, with more women (53%) than men (51%). 78% of the working age population in rural areas were employed, compared with 70% in urban areas. 52% of the working population were employed, while 47% were engaged in subsistence agriculture. The largest employment sector in Uganda is agriculture (68%), followed by services (24%) and manufacturing (7%). More than 80% of the working population with no formal education work in agriculture, with more women (73%) than men (63%) working in agriculture. Most workers in Uganda are self-employed (42%), followed by employees (40%) and the rest are family workers. The majority of men (46%) are employees, while the majority of women (47%) are self-employed with no employees. The majority of rural residents (44%) are self-employed with no employees.
8. **Child labour.** Uganda has a National Child Labour Policy, which defines child labour as work that is hazardous or exploitative and endangers the health, safety, physical growth and mental development of children.^[6] The Employment Act No. 6 of 2006 states that hazardous work by children includes children working in industries that are gazetted as hazardous, children working in occupations that are gazetted as hazardous, children aged 14-17 working long hours, i.e. more than 43 hours per week in non-hazardous work, children aged 12-13 working more than 14 hours per week in non-hazardous work, and working conditions such as working at night, carrying heavy loads. In 2018/19, 18% of children aged 5-17 years were involved in child labour, with more males (20%) than females.
9. **Migration.** Overall, 5% of the population in Uganda had lived in a different place between 2014 and 2019, with 42% moving from rural to other rural areas and 12% moving from rural to urban areas. Of the households that migrated, 30% migrated to follow or join family, 24% migrated to look for work and 21% migrated due to marriage.

2.1 Socio-economic assessment

a. Overall poverty situation

10. Data from 2019/20 shows that 23.4% of the rural population is poor, higher than the national average of 20.3%. Poverty trends vary by region: Northern Uganda 35.9%, Eastern Uganda 25.9%, Western Uganda 14.4% and Central Uganda 8.7%. Apart from Eastern Uganda (34.1% in 2016/17), all other regions experienced an increase in the number of people living below the poverty line, i.e., Northern Uganda (33.6% in 2016/17), Western Uganda (12.5% in 2016/17) and Central Uganda (8.2% in 2016/17). Poverty remains a rural phenomenon, but urban poverty is on the rise. Overall, the incidence of rural poverty is more than twice that of urban poverty, but the gap appears to be narrowing, particularly with the strong growth in agriculture. As shown in the Eastern Region, there is no doubt that rural poverty is strongly linked to agriculture.^[7]
11. The main drivers of poverty in Uganda are systemic shocks such as erratic or heavy rains, droughts, animal and crop pests and diseases, floods, hailstorms, and the COVID-19 pandemic.^[8] In 2018, 74% of agricultural households in Uganda reported a shock. Of these households, 82% reported drought, 40% faced pests and diseases, and 17% experienced floods. Climate change and extreme weather events negatively impact livestock productivity, thereby affecting food security and rural livelihoods, and causing climate change-related poverty for 70.2% of the population.^[9] The impact of droughts and pests and diseases is more pronounced in the north than in other regions, which explains why it is the poorest region. Conversely, poverty accelerates the rate of environmental degradation and climate change and limits the ability to adapt and cope with climate shocks. The poor also contribute to deforestation through over-dependence on fuelwood for energy, over-exploitation of wetlands, unsustainable agricultural practices, overgrazing and overstocking of inferior livestock breeds, all of which increase greenhouse gas emissions and ecosystem degradation.
12. In 2018, 47% of agricultural households experienced food shortages, the main cause of which was low production (93%). Other causes of food shortages include lack of capital, lack of adequate land, inability to work, overselling of produce and lack of off-farm employment opportunities. Households dependent on agriculture are more likely to fall into poverty than those engaged in other income-generating activities. The most vulnerable sub-regions are the north, north-east, Buganda (north) and parts of Ankole region, all linked to rainfall patterns. At the household level, poverty is strongly associated with large family size, limited education and dependence on subsistence agriculture. The Acholi and Karamoja sub-regions have very high proportions of the population dependent on subsistence agriculture.
13. Poverty indicators worsened during COVID-19, with the poverty headcount reaching 29.4% among household heads working in crop and non-crop subsectors. COVID-19 disrupted Uganda's poverty reduction trajectory, with rural areas being the hardest hit due to low prices for their produce. Poverty and inequality among the poor increased. A multidimensional approach to poverty shows that 42.1% of Ugandans are poor when considering deprivation in education, health, welfare, and empowerment.^[10] The eastern and northern regions have the highest proportion of people living in multidimensional poverty. Karamoja, Acholi, Busoga, West Nile and Lango are some of the sub-regions with multidimensional poverty rates above the national average. In Karamoja, 84.9% of the population is multidimensionally poor.

b. Gender

14. Uganda's population is estimated to be 40.9 million in 2019, of which 51% are estimated to be female and 49% male.^[11] The majority of the population is made up of children under the age of 18 (54%) and adolescents make up 19.1% of the country's population.
15. The Government of Uganda has identified gender equality and women's empowerment as critical to achieving accelerated socio-economic transformation. The country has ratified key gender equality instruments and commitments and has put in place a legal framework to promote Gender Equality and Women's Empowerment (GEWE). Although the Government of Uganda has established the Gender Equality Commission, which produces an annual report on the state of gender equality in the country, and signs Gender Equality Compacts with Ministries, Departments and Agencies to track the country's progress in improving the livelihoods and well-being of the most vulnerable, gaps remain in the economic, political and social inclusion of women in the development process, which widened during the COVID-19 pandemic.
16. Uganda is a patriarchal society with diverse social and cultural norms, beliefs, practices, and attitudes that undermine the situation and position of women and girls in society. There are unbalanced power relations between women and men, girls, and boys in the public and private spheres, at household, community, and national levels. In most communities, land and other productive assets belong to men, and women's access is mediated through men. Furthermore, women are disproportionately affected by climate change and environmental degradation due to their limited access to finance/credit, knowledge and skills, gender-sensitive technologies, decision-making and leadership, and poor access to and control over productive assets.^[12]
17. Multiple discrimination based on gender, age, class, and location is exacerbated for women and girls living with disabilities and/or HIV/AIDS. Due to the COVID-19 pandemic, women, young people, the elderly and people with disabilities and chronic illnesses are most at risk of falling into extreme poverty.^[13] Finally, the amount of time spent on unpaid care work (UCW) in Uganda is disproportionately high for women compared to men. In 2019/20, women spent 10 hours more on UCW than men. UCW includes domestic services for own use within the household, care services for household members, and community services to help other households.

c. Youth

18. Youth in Uganda are defined as people between the ages of 18 and 30 and make up 19.1% of the country's population, of which 45.7% are male and 54.3% female. ^[14] Uganda has one of the youngest populations in the world, with approximately 74% of the population under the age of 30 and 22% between the ages of 31 and 59. Young people, the majority of whom are female, make up over 60% of the working age population, making them a powerful and rich resource for the country's socio-economic transformation.
19. Uganda's youth bear a disproportionate burden of the country's high levels of poverty, unemployment, and disease. This is partly due to limited opportunities for practical skills acquisition and viable employment, as well as poor access to health and social services. Only about 37.4% of the youth, most of them males, are absorbed into the labour market in largely low-productivity activities such as subsistence farming, petty trading, and the informal sector. Most young people face considerable uncertainty about work, education, and their future. Three out of four working young people are in vulnerable employment, either as own-account workers or as contributing (unpaid) family workers, mainly in the agricultural sector. Young women in rural areas are more likely to be contributing family workers and less likely than young men to be in paid employment.
20. Most young people working in agriculture face harsh and poorly paid conditions. Against a backdrop of escalating youth unemployment, their involvement in agriculture is dwindling, while the service and industrial sectors have not created enough jobs for the growing youth labour force. This has profound implications for food security, unemployment and underemployment. In particular, the withdrawal of young people from agriculture is higher than that of older cohorts. Migration out of agriculture is skewed towards the service sector and is more pronounced among educated youth. In contrast, agriculture is often perceived as the only option for less skilled youth, who believe that their returns to labour can be improved with minimal investment in training and capital. In Uganda, a significant proportion of youth participate in various forms of agricultural activities. However, they do not see agriculture as an attractive primary income-generating activity. Instead, they see it as a secondary source of income. Many youth are actively seeking pathways into the labour market that still allow them to engage in agriculture, driven by the belief that they may ultimately rely on agriculture after formal employment. To address this, efforts should be directed at attracting youth into profitable agricultural activities, thereby nurturing the next generation of farmers, processors and traders. Providing decent work opportunities for youth is crucial, by supporting the integration of ICTs in agriculture and the use of innovative information and communication platforms to contribute to the development of various agricultural enterprises.
21. Youth in Uganda face a number of challenges, including: prohibitive aspects and contradictions in the legal framework that have prevented young people between the ages of 14 and 17 from engaging in gainful employment; low access to and control over productive resources, especially land; limited knowledge and skills in modern farming, processing and marketing techniques; income poverty that drives youth into small-scale income-generating activities such as motorbike transport, petty trade and other low-paying service sector jobs; lack of marketable skills, resulting in unstable earnings and job insecurity due to low levels of education; and scattered interventions targeting youth through government and non-government projects and programmes without a coherent focus on addressing the root causes of youth unemployment. ^[15] Despite universal primary education, universal secondary education and affirmative action for young women's access to tertiary education, many young women are still illiterate and lack the vocational skills that would enable them to be employed or to create their own jobs. Furthermore, young women (15-29 years) face several gaps in the labour market, including higher unemployment rates, wage differentials and higher rates of precarious employment.

d. Indigenous peoples

22. The Project will not affect any recognised indigenous peoples or territories.

e. Marginalised groups

23. The Washington Group considers six areas - seeing, hearing, communicating, remembering/concentrating, walking/climbing and self-care - as the standards for classifying disability. People who have a lot of difficulty and cannot do any of the above are considered disabled. In Uganda, 3% of people aged five years and over are disabled. Among adults, the most common types of disability are having a lot of difficulty/not being able to see at all and having a lot of difficulty/not being able to remember/concentrate at all. ^[16] Of all Ugandans aged 18 and over, 4.4% have at least one disability, 1.8% have a visual disability, 1.6% have a walking disability, 1.1% have a memory/concentration disability, 0.5% have a hearing disability and 0.4% have a communication disability. The inclusion of people with disabilities in livestock value chain development requires further analysis to identify opportunities for improved income and access to services, technology, and finance.

f. Nutrition

24. Uganda is considered a food basket in the East African region, but some sub-regions such as Acholi and Karamoja face seasonal food insecurity that requires increased agricultural production. Malnutrition remains a major development problem affecting all regions of the country.
25. Nutrition is particularly important during early childhood growth, influencing an individual's health, cognitive development, and economic outcomes into adulthood. Addressing malnutrition is critical to the country's food security situation, as it is responsible for the deaths of many Ugandans, reduced agricultural productivity and poverty, among other things. Inadequate dietary intake is identified as the main driver of malnutrition, with three main causes: low food intake, particularly due to the seasonality of food production, dietary patterns, and fluctuations in food prices. Other factors include inadequate maternal and childcare, poor access to health care and micronutrient deficiencies, particularly vitamin A and iron, among others.^[17]
26. The average estimated Dietary Energy Consumption (DEC) in Uganda is 2,393 kcal/person/day and households in rural areas have a slightly lower calorie intake than those in urban areas. The Toro, Lango and Teso sub-regions had the highest calorie intake (2,918 kcal, 2,816 kcal and 2,607 kcal respectively). A slight decrease in calorie intake was observed during the COVID-19 period. On average, staple foods (cereals, roots, and tubers) are consumed daily, while milk and milk products are consumed least on a weekly basis. The largest share of household dietary energy consumption (DEC) by food source was obtained from own production (49%) in 2019, while in 2016/17 the largest share of DEC was obtained from purchases (57%).^[18]
27. About 51% of Ugandans have no access to safe drinking water^[19] and a tenth of the population practices open defecation. Diarrhoea kills 33 children every day. The poor bear the greatest burden of poor WASH facilities and conditions, affecting the overall health and well-being of communities.^[20] In the livestock sector, environmental health issues arise from the consumption of contaminated or diseased meat and dairy products, as well as food safety and hygiene problems along the beef and dairy value chains. Other risks include environmental pollution caused by the discharge of effluent into water and soil, which may end up in food.^[21]

2.2 Environment and climate context, trends and implications

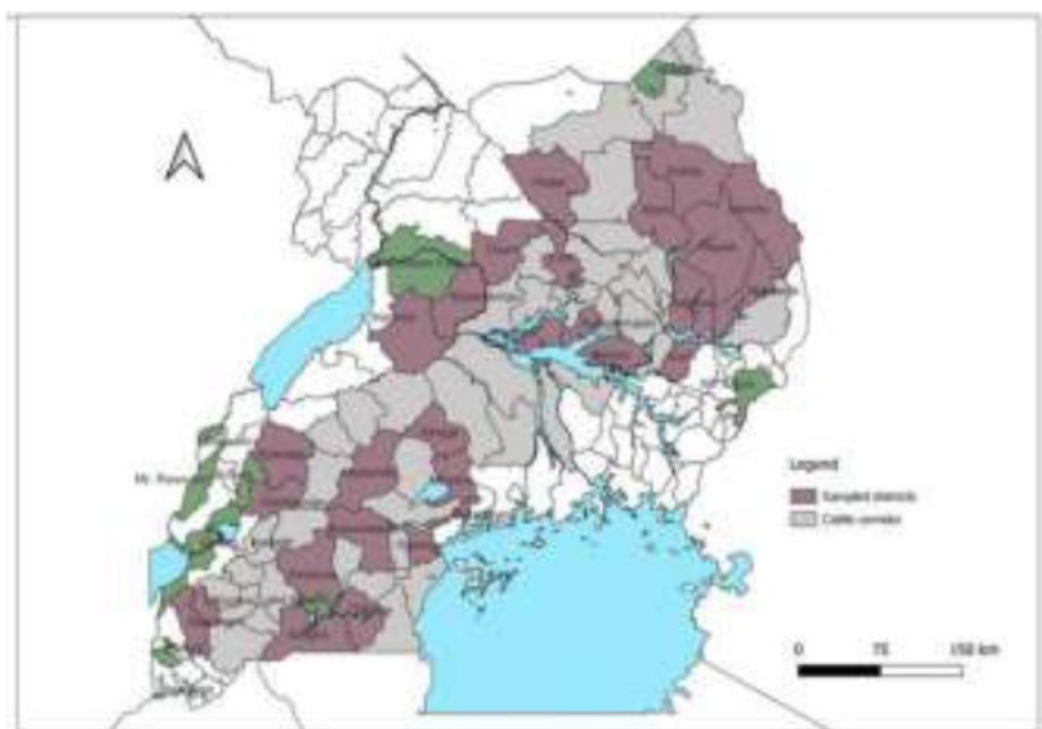
28. Uganda is a landlocked country with an area of 241,555 square kilometres and a projected population of 45.5 million by 2023. The agricultural area of the country witnessed an increase from 106,656 square kilometres in 2017 to 107,728 square kilometres in 2019.^[22] Uganda is geographically diverse, with ten agro-ecological zones (AEZs), including Southern Highlands, Southern Drylands, Lake Victoria Crescent, Eastern, Mid-Northern, Albert Crescent, West Nile, Western Highlands, Southeast and Karamoja Drylands. The northern part comprises mainly drylands, para-savannah, and grasslands, while the central part consists mainly of grasslands, plains, rangelands, and highlands. The southern region is dominated by farmlands and pastures.^[23] Uganda is blessed with a rich and diverse natural resource base, encompassing gold, water, limestone, salt, copper, cobalt, petroleum, iron ore, natural gas, a favourable climate, fertile soils, numerous large water bodies, forests, wetlands, livestock, and remarkable animal and plant biodiversity.^[24]

a. Environmental assessment

29. **Land.** Uganda has almost 50% of East Africa's arable land and some of the most fertile soils in the region. However, it is estimated that about 41% of the land is degraded, exacerbating poverty and the economic vulnerability of smallholder farmers. According to the World Bank, degradation and soil erosion account for about 17% of the country's gross domestic product (GDP), with the agricultural sector losing 27% of its GDP to degradation. Soil erosion, deforestation and soil nutrient loss have increased dramatically over the last decade, negatively affecting productivity, food security and livelihoods.^[25] Mining activities, carried out by artisanal and small-scale miners using crude, indiscriminate and inappropriate mining methods, contribute to land degradation. Investment in sustainable land management practices, climate-smart agriculture and nature-based solutions can make a positive contribution to sustainable land management.
30. **Forests.** The country's forest cover is declining at an annual rate of 2.6%, one of the highest rates globally. From 1990 to 2015, the loss of forest cover resulted in an economic loss of \$1.2 billion. Between 2001 and 2022, Uganda is projected to lose 1.03 million hectares of tree cover, marking a 13% decline in tree cover since 2000 and emitting 463 million tonnes of CO₂ eq. Approximately 90% of the rural population relies on fuelwood for domestic energy needs, while a significant proportion of urban dwellers depend on charcoal. According to a 2022 survey by Afrobarometer, deforestation emerges as the most serious environmental challenge facing Ugandan communities.^[26] High population growth is a driving force behind communities clearing forests for farms and settlements. Uganda has committed to halting and reversing forest loss and land degradation by 2030. The goal is to increase forest cover from an estimated 12.5% in 2020 to 15% in 2025 and further to 21% in 2030. The country launched a 40 million tree campaign on March 2, 2021, focusing on forest restoration using indigenous trees.^[27] Implementing measures such as renewable energy, reforestation, and agroforestry is crucial to mitigating forest loss.
31. **Water.** Uganda is endowed with substantial surface and groundwater resources, making it a relatively water-secure country with pockets of scarcity. Almost 51% of Ugandans do not have access to safe drinking water.^[28] The country's water resources are threatened by soil erosion and sedimentation, industrial pollution, deforestation, and degradation of water catchments. Wetlands are being degraded by conversion for agricultural production and livestock production. Climate change has also had a negative

impact on water availability, leading to localised water scarcity, for example in pastoral areas such as the Cattle Corridor, where most of the population lacks water for domestic and livestock use. Sustainable and efficient water management practices/technologies, irrigation, water harvesting, and wetland conservation are ways to address water issues in rural areas.

32. **Energy.** Uganda is rich in energy resources, including hydropower, biomass, solar, geothermal, wind, oil, and gas. However, the country's energy potential has not been fully exploited. Biomass continues to play an important role in Uganda's economy, accounting for more than 90% of total primary consumable energy. The majority of the rural population relies on fuelwood for energy, while a large number of urban dwellers rely on charcoal, contributing to accelerated deforestation and greenhouse gas emissions.^[29] Investments in renewable energy (solar, biogas) and energy efficiency (e.g., improved cook stoves) are needed, especially in rural areas.
33. **Biodiversity.** Uganda boasts a diverse and high level of biodiversity, encompassing both terrestrial and aquatic ecosystems. Its landscapes range from mountains and montane forests to open water, grasslands, bushveld, and tropical forests. The country is globally recognized, ranking among the top ten most diverse countries. Uganda is home to a recorded 18,783 species of fauna and flora, including mammals, birds, reptiles, amphibians, fish, insects, trees, and other plants. Deforestation stands out as a major contributor to biodiversity loss, while climate change exacerbates water scarcity through droughts and prolonged dry spells. Other factors such as wetland degradation, pollution, human-wildlife conflict, and the introduction of invasive species also play a role in the ecological challenges faced by Uganda. The commitment to improving biodiversity conservation is clearly outlined in the country's NBSAP II (National Biodiversity Strategy and Action Plan).^[30]
34. **Livestock.** Livestock play a crucial role in the economy, especially for 80% of impoverished rural households in Uganda. These households are involved in rearing a variety of animals, including cattle, goats, pigs, poultry and sheep. There are currently 14.2 million cattle in the country, including exotic, indigenous and crossbreeds, reared mainly for food and milk. Livestock production in Uganda takes place in a variety of systems, including commercial, pastoral, agro-pastoral, semi-intensive and intensive. Data from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) shows consistent growth in the dairy subsector, as reflected in the increase in dairy exports from US\$131.5 million in 2018 to US\$205.4 million in 2019. However, there has been a gradual decline in beef production from 214,033 tonnes in 2016 to 194,959 tonnes in 2019. Notably, Uganda's cattle corridor covers about 35% of the country's land area, stretching from the southwest to the northwest (Figure 1).^[31]



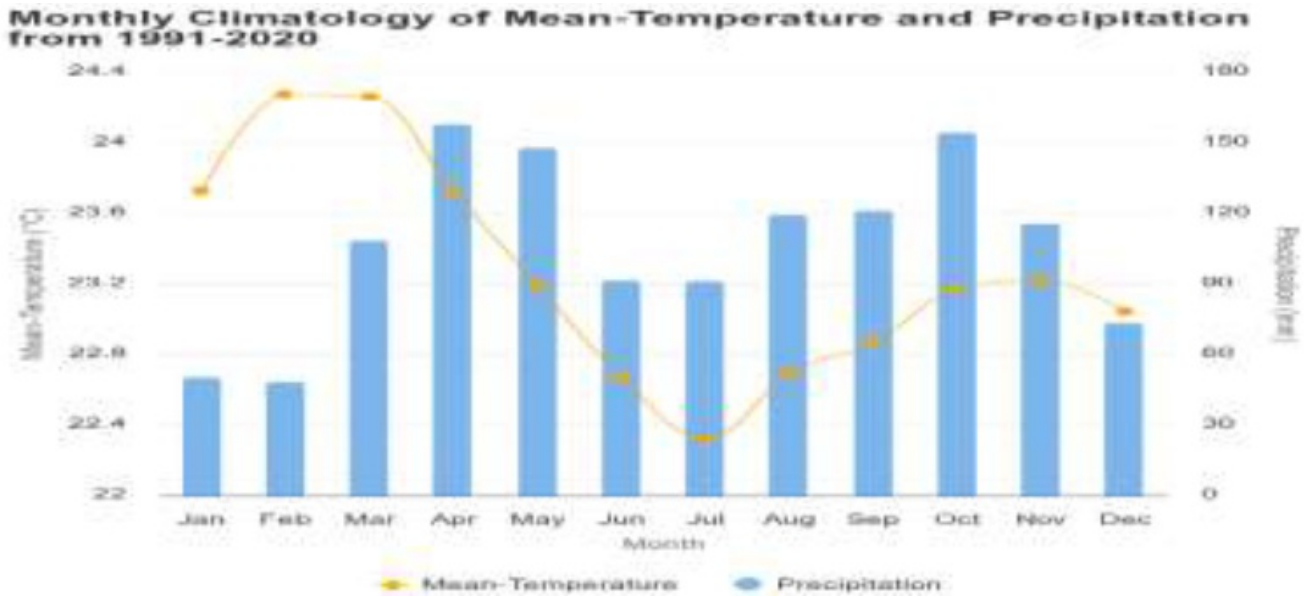
35. **Figure 1: Uganda's cattle corridor**

36. Several environmental challenges are associated with livestock production in Uganda, including diseases, some of which can be transmitted from cattle to humans (zoonoses), as well as concerns related to biosecurity, hygiene, overgrazing, overstocking, poor manure management, inappropriate breeds, inadequate feeding and sub-optimal herd management practices. Overgrazing, particularly in the cattle corridor, is emerging as a major problem, contributing to grassland degradation, biodiversity loss and soil erosion. Conflicts over resource use are common, especially in open-grazing livestock production systems, where scarcity of water and fodder triggers disputes. Livestock can have a negative impact on public health through zoonotic diseases. The combined economic impact of brucellosis and bovine tuberculosis is estimated at over US\$1 billion annually. Rift Valley fever and anthrax are also major public health concerns with trade implications. Inappropriate use of antibiotics poses a risk of antimicrobial resistance in livestock.
37. Concerns extend to water and soil pollution due to inadequate solid and liquid waste management practices along the value chain and by service providers, particularly in abattoirs/slaughterhouses and laboratories. To address these issues, investments

in manure management, circular waste management approaches, high quality feeds and forages, resilient and productive breeds, efficient herd and feed management practices, biogas and bioslurry production, sustainable pasture management, disease surveillance and management (e.g. using a One Health approach), water harvesting and sustainable land management practices (e.g. soil erosion control, controlled stocking, agroforestry fodder trees) have the potential for positive outcomes.

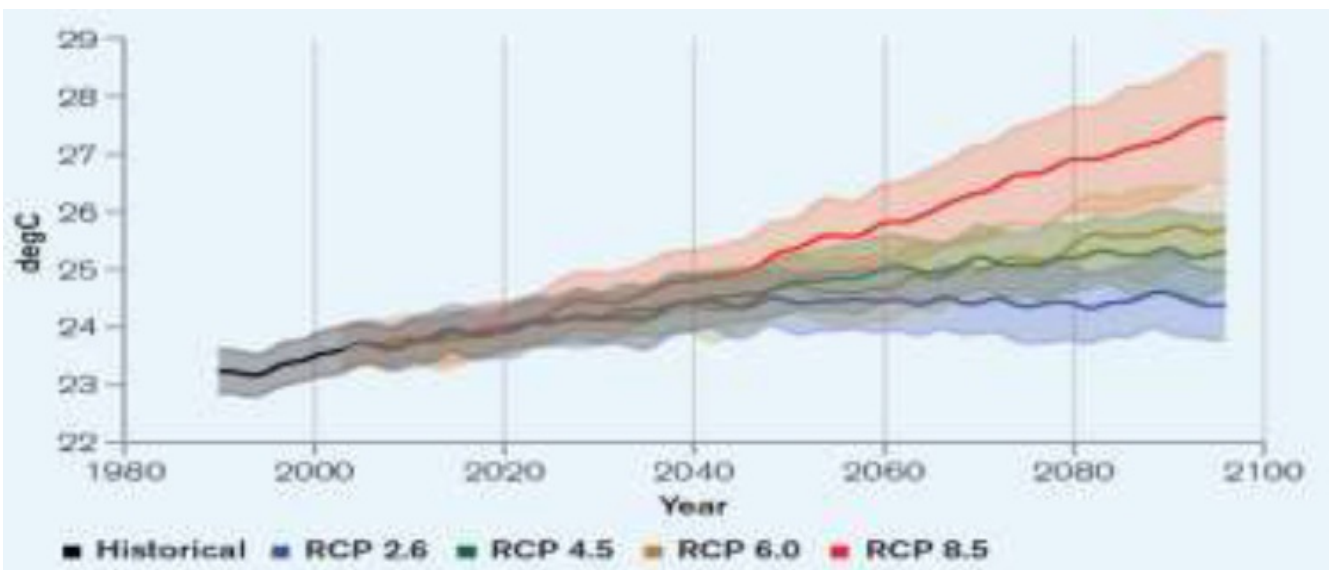
b. Climate trends and impacts

38. **Climate overview.** Located on the equator, Uganda is a tropical country with warm temperatures throughout the year, typically ranging from 15°C to 31°C in most regions. However, temperatures can drop as low as 0°C in the Ruwenzori Mountains. The country predominantly experiences a bimodal rainfall pattern with two main rainy seasons: March to May (MAM) and September to December (SOND). In the northern regions, there is a single rainy season that lasts from March to October. According to the 2021 Notre Dame Global Adaptation Initiative (ND-GAIN) report on climate change vulnerability and adaptive capacity, Uganda ranks 14th most vulnerable and 163rd least adaptive.^[32] Factors contributing to this vulnerability include the country's high population growth rate (3.6% annually) and its continued reliance on climate-sensitive sectors such as agriculture and forestry. As a result, Uganda faces increased vulnerability to climate change and extreme weather events, including erratic rainfall patterns, prolonged droughts, dry spells, floods, mudslides, and landslides.^[33]
39. **Historical temperature trends.** Mean temperatures in Uganda have increased by 1.3°C since the 1960s. During this period, minimum temperatures have increased by 0.5-1.2°C and maximum temperatures by 0.6-0.9°C. On average, temperatures have risen by 0.28°C per decade since 1960. Daily temperature observations since 1960 show a significant upward trend in the frequency of hot days and an even more significant increase in the frequency of hot nights. Between 1960 and 2003, the number of hot days increased by 74 days. In June, July and August in particular, the number of hot days increased by an average of 8.6 days per month. In addition, the average number of hot nights increased by 136 nights over the same period, with the largest increases observed in June, July and August. Conversely, the number of cold days has decreased by 20 days since 1960, with the fastest decrease occurring in September, October and November.^[34]
40. **Historical precipitation trends.** Rainfall patterns in Uganda show high variability, with an overall statistically significant decrease in both annual and seasonal rainfall. In particular, there has been a significant decrease in seasonal rainfall for March, April and May, with a decrease of 6 mm per month per decade. Certain northern districts, such as Gulu, Kitgum and Kotido, have experienced a significant reduction in rainfall. While trends in extreme rainfall are difficult to define due to data limitations and seasonal variability, Uganda has experienced an increase in droughts over the past six decades. In particular, the western, northern and northeastern regions have experienced more frequent and prolonged droughts over the past 20 years. For example, the arid northeastern district of Karamoja experienced seven droughts between 1991 and 2000, followed by additional droughts in 2001, 2002, 2005, 2008 and 2011. Projections show an expected increase in heavy rainfall, increasing the risk of disasters such as floods and landslides.^[35]

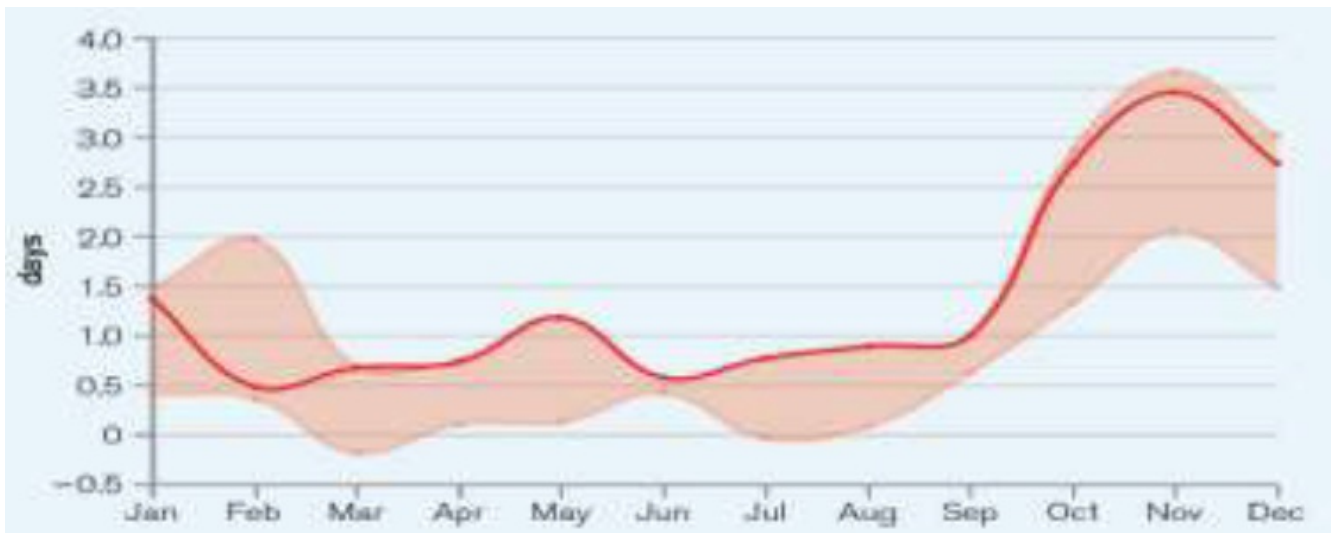


41. **Figure 2. Uganda's average monthly temperature and precipitation trends (1991-2020)** [\[36\]](#)

42. **Projected temperature trends.** Temperatures are projected to increase by the end of the century under all emission scenarios. As shown in Figure 3, under a high emissions scenario, average temperatures will increase rapidly by mid-century. Across the seasonal cycle (Figure 4), temperature increases will be felt from September to January. These hot days will have significant impacts on human and animal health, agriculture, ecosystems, and energy production. [\[37\]](#)

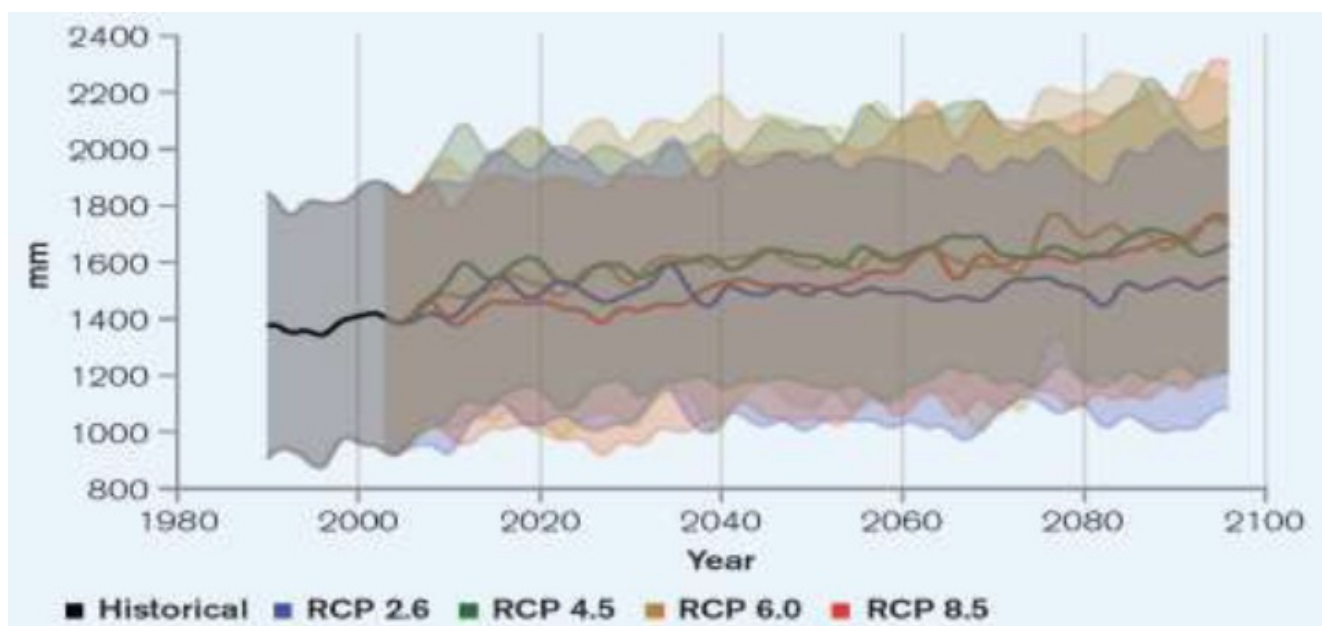


43. **Figure 3. Uganda's historical and projected average temperatures (1986-2099)** [\[38\]](#)



44. **Figure 4. Projected change in summer days (Tmax>25°C)**^[39]

45. Under a high emissions scenario (RCP8.5/ SSP5), the monthly temperature change is projected to increase by 1.8°C in the 2050s and by 3.7°C in the 2090s. Average temperatures during the hottest months of January, February and March are projected to increase by ~1.7°C by 2050, while similar increases of 1.6-2.1°C are projected for all other months of the year. Predicted changes in monthly minimum temperatures are similar, with consistent increases in minimum temperatures of at least 1.6°C and up to 1.9-2.1°C during the rainy season months of March-May and August-October.^[40] Under the SSP 2 4.5 intermediate emissions scenario, near-term (2021-2040) mean temperatures are projected to increase by between 0.7 and 1.2°C relative to the 1981-2010 baseline.^[41]
46. Rising temperatures will also increase aridity and the length and severity of the dry season (December to March). Projected rates of warming are greatest in Uganda's coolest season: June to September, with temperatures expected to increase by 1.5 to 5.4°C by the end of the century. Hot days are projected to occur on 15-43% of days by the 2050s and on 18-73% of days by the end of the century. Nights considered 'hot' (>26°C) are projected to increase more rapidly than hot days. Models used in the preparation of the IPCC's Sixth Assessment Report indicate that the number of annual days with maximum temperatures above 35°C will increase by between 2.7 and 10.6 by 2040 (SSP2 4.5 scenario) compared to the 1981-2010 baseline.^[42]
47. **Projected precipitation trends.** Under a high emissions scenario (RCP8.5/SSP5), projected monthly annual precipitation in Uganda shows a mixed trend, with increases in some regions and decreases in others, particularly in the northern and north-eastern areas. Significant and sustained increases in precipitation are projected for the western shores of Lake Victoria, the central-western region, the Mount Elgon region, and the area extending from Mount Rwenzori to the southern parts of Lake Kioga. Figure 5 illustrates the projected change in mean annual precipitation for Uganda. For the national annual aggregate, mean precipitation is projected to increase slightly by the turn of the century under the high emissions scenario of RCP8.5/SSP5. Alternatively, under a medium emissions scenario (SSP2 4.5), total precipitation across Uganda is projected to increase by 0.7 to 10.4% in the near future (2021-2040) compared to the 1981-2010 baseline period modelled for the IPCC's Sixth Assessment Report. The increase is likely to be concentrated in certain areas and driven by more intense precipitation events.^[43]



48. **Figure 5. Uganda's historical and projected average annual precipitation (1986-2099)**^[44]

49. Projections suggest that the most significant changes in the intensity and frequency of extreme precipitation events will occur between now and mid-century, affecting major agricultural and livestock areas and transport routes. Overall, the number of consecutive wet days throughout the year is expected to increase, and the number of days with more than 20 mm of rainfall in each of the two rainy seasons in Uganda is expected to increase. According to the models used for the IPCC's Sixth Assessment Report, maximum daily precipitation under the SSP2 4.5 medium emissions scenario is expected to increase by 2.6-16.4% in the near future (2021-2040) compared to the 1981-2010 baseline.
50. **Climate change impact on the livestock sector.** Uganda's livestock sector is characterised by challenges such as poor breeds, poor quality and insufficient fodder/pasture, limited water availability, ineffective disease surveillance and management, poor manure management, poor AI and breeding services, poor herd management, inefficient rangeland management and governance, and generally low productivity. These are exacerbated by climate change and extreme weather events such as droughts, prolonged dry spells, and unpredictable rainfall patterns, which lead to water scarcity and fodder and pasture shortages, especially during the dry season, resulting in high seasonal variability of milk production. Heat stress also adversely affects fertility, reproduction, milk protein and fat content, milk yield, animal weight, and increases susceptibility to diseases. In addition, livestock mortality and disease incidence are exacerbated by climate change, with temperature and humidity being the main drivers of pathogen and parasite development. Large, exotic, and high-value breeds are particularly susceptible to heat stress and diseases, causing substantial losses to farmers through reduced productivity or animal deaths.^[45]
51. During transport and storage of animal products, high temperatures also lead to rapid spoilage, especially when the cold chain is absent or broken, or when unsuitable containers are used for milk, such as plastic jerrycans. Post-harvest losses of feed and fodder are also significant, with higher losses expected during the rainy season due to the proliferation of moulds and fungi. Extreme rainfall and flooding pose additional challenges, damaging road infrastructure and limiting access to milk storage, processing, and marketing facilities. This leads to milk spoilage and reduced sales and income for dairy farmers. In addition, supply chain costs, commodity prices and price volatility are likely to increase due to adverse impacts of climate change on feed availability. Finally, competition for scarce resources, including land, water and feed, may lead to conflicts between pastoralists and farmers, exacerbating food insecurity and increasing the extent of land degradation.^[46]

c. Climate change mitigation

52. **Climate change mitigation.** The livestock sector is a significant contributor to greenhouse gas (GHG) emissions, particularly the dairy sector in Uganda. The dairy industry alone emits approximately 19.1 million tonnes of CO₂ equivalent, with methane accounting for 98.6% of these GHG emissions. In particular, the traditional dairy production system, which accounts for 86% of national milk production, contributes 97.2% of total GHG emissions. The average emission intensity of milk produced in Uganda is 7.8 kg CO₂ equivalent per kilogram. Recent findings from a study conducted by FAO and IFAD highlight the potential for carbon sequestration in degraded rangelands and grassland soils that have not yet reached their optimum carbon sequestration potential. In Uganda, the potential is estimated at 0.51 tonnes of carbon per hectare per year. Interventions to enhance carbon sequestration include effective manure management, improved agroforestry systems, rotational grazing, fencing, cut and carry systems, improved pasture management and improved grazing systems.^[47] A comprehensive assessment using the Global Livestock Environmental Assessment Model - *interactive* (GLEAM-*i*) tool will be carried out to analyse the carbon impact of the project. This analysis will establish a baseline and provide future projections of avoided greenhouse gas emissions.
53. **Climate finance.** Uganda's estimated climate finance needs for 2020-2030 range from \$17 billion to \$28 billion, with an average annual funding gap of \$1.3 billion to \$2.2 billion. To bridge this gap, the government aims to mobilise private investment, particularly in sectors such as agriculture, forestry, and renewable energy. While the private sector is already contributing to projects in these areas, additional investment is critical. The total cost of implementing the actions outlined in Uganda's updated Nationally Determined Contributions (NDCs) is estimated at USD 28.1 billion. Of this, between USD 880 million and USD 2.3 billion is earmarked for renewable energy.^[48] The government plans to mobilise USD 4.1 billion, or 15% of the total cost of the NDC, and will seek international support for conditional policies and measures.^[49]
54. The ReLIV project is designed to leverage climate finance from the Green Climate Fund (GCF), specifically the Dairy Interventions for Mitigation and Adaptation (DaIMA) project. This initiative is expected to secure US\$42.5 million (23% of the total allocation), of which 55% will be in the form of grants and 45% in the form of senior loans. In addition, the GCF's Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) will contribute US\$15 million (9% of the project's funding) and the Global Environment Facility (GEF) will contribute US\$7.5 million, representing 4% of the total allocation. These climate funds will be used for various climate change adaptation and mitigation activities, including investments in fodder conservation equipment, drought-tolerant fodder/pasture varieties, sustainable land management, water harvesting equipment, agroforestry, resilient and adaptive livestock breeds, renewable energy, livestock insurance, and climate and weather information systems.

2.3 Target group profiles

55. **Project area.** ReLIV will focus its efforts on 41 selected districts within Uganda's livestock corridor. Districts will be selected based on specific criteria including: (i) high incidence and density of poverty, food insecurity and malnutrition; (ii) district herd size; (iii) climate vulnerability and potential for emission reduction and carbon sequestration; (iv) potential for women and youth participation; and (v) potential for dairy value chain development.
56. **Target group.** ReLIV aims to reach 200,000 households, or about 1,000,000 people. The target group includes smallholder dairy and beef farmers in intensive and semi-intensive small-scale integrated production systems, as well as those in medium-scale extensive agro-pastoral systems. Other direct beneficiaries are (i) private service providers involved in artificial insemination (AI), veterinary services, feed and fodder seed production, mechanisation, with a special focus on youth; (ii) small-scale processors, including individuals and groups, especially women's groups; and (iii) public institutions involved in the provision of livestock-related services, such as research, extension, regulation and control, policy formulation, animal health and breeding services, and their staff.
57. The Project will use detailed selection criteria developed during the design phase to ensure a targeted approach, focusing on smallholder dairy and beef farmers with the potential to transition to commercial dairy and beef production. At least 40% of beneficiaries will be women and 25% will be youth. ReLIV will provide opportunities for skills development and training, introduce women- and youth-friendly enterprises and innovations such as mechanised production, milking and transport, and facilitate access to finance. The Project will apply a gender and youth sensitive approach to ensure equitable benefits for men and women in dairy and beef development.

3. Institutional analysis

58. **Nutrition.** The National Development Plan 2020/21-2024/5 (NDP III) aims to improve the foundations for human capital development. The key interventions are to promote optimal maternal, infant, young child and adolescent nutrition practices, through which the government plans to strengthen the enabling environment for scaling up nutrition at all levels; promote consumption of fortified foods, especially in schools, with a focus on beans, rice, sweet potatoes, cooking oil and maize; promote dietary diversification; and develop the national food fortification policy and legislation. The Government of Uganda is also implementing the second Uganda Nutrition Action Plan (UNAP II) - 2020/21 - 2024/25, which has a vision of "A well-nourished, healthy and productive population that participates effectively in the socio-economic transformation of Uganda", a theme of "Leaving no one behind in scaling up nutrition interventions in Uganda", and a goal of "Improving the nutrition status of children under five, school-aged children, adolescents, pregnant and lactating women and other vulnerable groups by 2025". During the implementation of the first UNAP (2011-2016), the country recorded a reduction in the prevalence of child stunting from 33% in 2011 to 28.9% in 2016, among other achievements.
59. **Gender.** The Government of Uganda considers gender equality and women's empowerment as critical to achieving accelerated

socio-economic transformation. The 1995 Constitution guarantees equality of men and women before the law, promotes affirmative action for women and other marginalised groups and provides for women's rights. The country has ratified key gender equality instruments and commitments and has put in place a legal framework to promote gender equality and women's empowerment (GEWE). Uganda's Vision 2040 prioritises gender equality as a cross-cutting factor for socio-economic transformation and identifies persistent gender inequalities in access to and control over productive resources such as land, limited female participation in wage employment in non-agricultural sectors, sexual and gender-based violence, and limited participation in household, community, and national decision-making. The Ministry of Gender, Labour and Social Development has developed a National Policy on the Elimination of Gender Based Violence in Uganda (2016) to address the critical issue of gender-based violence. The Equal Opportunities Commission produces the annual State of Equal Opportunities in the Country and Gender and Equity Compacts in Ministries, Departments and Agencies (MDAs), which track the country's progress in improving the livelihoods and well-being of the most vulnerable. Based on the EOC assessment, the Ministry of Finance, Planning and Economic Development issues an annual Gender and Equity Compliance Certificate to accompany each MDA's budget. This has forced MDAs to ensure that their annual budgets promote gender integration.

60. **Youth.** The Government of Uganda is implementing the National Youth Policy (2016), which aims to unlock the potential of youth for sustainable wealth creation and overall development. The National Youth Action Plan operationalises the policy and its priority areas are: sustainable livelihoods, employment promotion and enterprise development; information, communication and technology; education, training and capacity building; youth and health; youth engagement, participation and governance; youth, culture and gender; recreation, sports and leisure; environmental management; and management, coordination and partnerships. The Ministry of Agriculture, Livestock and Fisheries is implementing the National Youth Strategy for Youth Employment in Agriculture (2017) with 5 thematic areas: Strengthening the enabling environment for youth employment; Supporting youth-oriented agricultural extension; Improving youth education and learning; Supporting youth entrepreneurship; and Adapting to and mitigating risks and uncertainties in agriculture.
61. **Environment and Climate.** Uganda's Ministry of Water and Environment has overall responsibility for the development, management and regulation of water and environmental resources. The Ministry also initiates legislation, formulates policies, sets standards, inspects, monitors, coordinates, and provides technical assistance in the water and environment sub-sectors. The Ministry also seeks to avoid, minimise and mitigate adverse environmental and social impacts associated with its projects, and to adopt a gender-sensitive and gender-equitable approach in all its projects.^[50] The Ministry implements its mandate through various agencies, including the National Environment Management Authority (NEMA), the Uganda National Meteorological Authority (UNMA), the National Forestry Authority (NFA), the Climate Change Department (CCD), the National Water Quality Reference Laboratory and the Water Resources Institute, among others. The CCD is mandated to strengthen Uganda's implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP). The department operates through four sections/units, namely Adaptation (which coordinates adaptation and resilience projects), Mitigation (which focuses on addressing GHG emissions at the national level), CCD Outreach and International Relations.
62. UNMA is a semi-autonomous agency responsible for providing weather and climate services. It is also a focal institution of the Intergovernmental Panel on Climate Change (IPCC) in conducting scientific research on climate change. The agency provides services such as seasonal and daily forecasts, disaster warnings, research, mobile weather forecasting.^[51] The ReLIV project will work with UNMA to strengthen climate, weather, and early warning systems in the project areas and to provide climate and weather information to farmers and value chain actors.
63. NEMA is a semi-autonomous institution responsible for coordinating, monitoring, regulating and overseeing environmental management in the country. It leads the development of environmental policies, laws, regulations, standards, and guidelines, and guides the government towards sound environmental management in Uganda.^[52] The ReLIV project will work closely with NEMA to identify necessary environmental studies, categorise risks, monitor compliance and provide technical assistance in the implementation of safeguards.
64. The Ministry of Finance, Planning and Economic Development (MPED) hosts the Green Climate Fund National Designated Authority and the Global Environment Facility Focal Point. These focal points will play a key role in mobilising climate and environmental finance for the ReLIV project.
65. The National Environment Management Policy (NEMP) (1994) recognises that Uganda faces several environmental problems, including land degradation, deforestation, loss of biodiversity and increasing pollution. The NEMP aims to address these problems by establishing a more comprehensive and integrated approach to environmental issues. The NEMP establishes the National Environment Management Authority and a legal framework for climate issues, as well as an effective monitoring and evaluation system to track the impact of different policies on the environment. In particular, the NEMP recognises the need to monitor climate change to better manage land use, promote sustainable economic development and control air pollution and greenhouse gas emissions.^[53]
66. The National Climate Change Policy (2015) has been developed to guide efforts to achieve Vision 2040 and move towards low-carbon development. The policy aims to ensure that stakeholders address the impacts and causes of climate change through appropriate measures, while promoting sustainable development and a green economy. The policy highlights climate change adaptation as a top priority for Uganda, as the country's greenhouse gas emissions are still relatively very low and yet the country is exposed to climate change risks, impacts and vulnerabilities. Uganda's Vision 2040 recognises that climate change affects all sectors of the economy and provides for the integration of climate change into development planning. In addition, the country has developed other policies, plans and strategies relevant to addressing climate change and environmental issues, such as the National Disaster Preparedness and Management Policy, 2010; Renewable Energy Policy, 2007; National Forestry Policy, 2001; National Irrigation Policy, 2017; National Land Policy, 2013; Uganda Green Growth Development Strategy 2017/18-2030/31; Uganda National Climate Change Communication Strategy 2017-2021; Climate Resilience Strategic

Programme, 2017; National REDD+ Strategy and Action Plan, 2017; National Biodiversity Strategy and Action Plan II 2015-2025; Uganda Sustainable Land Management Strategic Investment Framework (2010-2020); and Climate Smart Agriculture Programme (2015-2025).

67. Uganda has updated its Nationally Determined Contributions in 2022 in accordance with Article 4 of the Paris Agreement. The country presents an ambitious economy-wide mitigation target of 24.7% below business as usual (BAU) in 2030, an increase from the 22% reduction target communicated in the first NDC in 2016. Uganda's GHG emissions are projected to increase from 90.1 MtCO₂e in 2015 to 148.8 MtCO₂e in 2030 and 235.7 MtCO₂e in 2050 under the business as usual (BAU) scenario. Mitigation measures in all sectors combined will reduce national GHG emissions by 24.7% below the BAU path to 112.1 MtCO₂e in 2030. The Agriculture, Forestry and Other Land Use (AFOLU) sector is expected to deliver 82.7% of the mitigation impact.^[54] The country's priority response to climate change is adaptation in the context of addressing key vulnerabilities, building adaptive capacity at all levels, addressing loss and damage, and increasing the resilience of communities, infrastructure and ecosystems. Priority actions for adaptation in the agricultural sector include scaling up climate-smart agriculture, including agroecology; water harvesting and irrigation; highly adaptive and productive livestock breeds; scaling up post-harvest handling, storage, value addition and marketing; and resilient crop varieties. Other proposed actions include strengthening climate information services, effective early warning systems, indigenous/local knowledge in early warning, education and awareness raising on climate change. Priority climate change mitigation actions in the agricultural sector include renewable energy and energy efficiency, forest restoration, sustainable land management practices, agroforestry, sustainable livestock and fodder agroforestry.^[55]
68. Since 2021, the country has initiated the formulation of the National Adaptation Plan (NAP) to strengthen adaptation planning, governance, and coordination, develop tools for adaptation planning and secure financing for adaptation. The country has established a National Technical Working Group on Adaptation to guide and support the NAP process and overall adaptation planning. In 2018, Uganda formulated a National Adaptation Plan for the Agriculture Sector (NAP Ag).
69. Approximately 41% of Uganda's land is degraded and 20% of the country has been mapped as degradation hotspots. Geographically based targets for achieving neutral (no net loss) or improved (net gain) status will allow Uganda to focus on areas identified as degradation hotspots, which are of high priority for achieving Land Degradation Neutrality targets. At the national level, Uganda's LDN targets for 2030 compared to the 2015 baseline are: 21% tree or forest cover by 2030; 12% wetland cover by 2030; areas of declining or stressed land productivity reduced by 50% by 2030; and soil organic carbon (SOC) levels maintained or improved nationally by 2030 compared to the 2015 baseline. At the sub-national level (Water Management Zones - WMZs and Highlands), the targets are LDN is achieved in the four WMZs or catchments and the Highlands by 2030 compared to 2015; LDN is achieved in the four WMZs or catchments and the Highlands; and 50% of areas with declining or stressed land productivity have improved (net gain) by 2030. Some of the proposed measures to achieve these targets include afforestation and reforestation, rehabilitation of degraded land, climate smart agriculture, wetland restoration, agroforestry, water harvesting, irrigation, terracing and SLM practices (e.g., mulching, integrated soil fertility management, intercropping, crop rotation, etc.).
70. The strategic objectives of the National Biodiversity Strategy and Action Plan (NBSAP II) (2015-2025) are: (i) to strengthen stakeholder coordination and frameworks for biodiversity management; (ii) to facilitate and enhance capacity for biodiversity research, monitoring, information management and exchange; (iii) to take measures to reduce and manage negative impacts on biodiversity; (iv) to promote sustainable use and equitable sharing of costs and benefits of biodiversity; (vi) to harness modern biotechnology for socio-economic development with appropriate safeguards for human health and the environment; and (vii) to promote innovative and sustainable financing mechanisms to mobilise resources for the implementation of the Strategy and Action Plan.

4. Environmental and social category

71. The ReLIV's environmental and social risk category is **Substantial**. Critical risks within the dairy and beef value chains include land-use change, overgrazing, deforestation, severe land degradation, inadequate waste management, water and soil pollution, increased pesticide use, increased dependence on wood-intensive energy and water, and potential conflicts over resource use. Additional concerns include biosafety and biosecurity risks associated with inadequate health management and hygiene, potential outbreaks of waterborne or vector-borne diseases, including zoonotic diseases, nutritional deficiencies, poor working conditions, child labour, and community health and safety issues.
72. To mitigate these risks, proposed interventions include sustainable land management, implementation of agroforestry practices, adherence to circular economy principles, improved waste management and integrated pest management practices, compliance with biosafety standards, effective pollution management, a One Health approach to disease control, improved pasture management, enforcement of international labour standards, nutrition awareness campaigns, and implementation of occupational health and safety measures.

5. Climate risk category

73. The ReLIV climate risk category is **Substantial**. Uganda's position in the upper left quadrant of the ND-GAIN matrix, marked by a high vulnerability score and low preparedness score, underscores the urgent need for investment and innovation to improve the country's preparedness. Ranked 14th most vulnerable and 163rd least prepared, Uganda faces notable challenges, particularly in social factors that could facilitate mobility of investment in adaptation.
74. The ReLIV target areas are exposed to significant climate risks, including rising temperatures, erratic rainfall, and extreme weather events such as dry spells, heat waves, droughts, floods, mudslides and landslides. These factors severely impact livestock production, leading to water and feed shortages, increased disease incidence, loss of productivity and disruption to livelihoods. In addition, livestock contribute to greenhouse gas (GHG) emissions, which are expected to increase unless mitigation measures are implemented in the dairy and beef sectors.
75. The Project aims to increase the climate resilience of the livestock sector. This will be achieved through the implementation of measures such as drought tolerant and improved fodder varieties, agroforestry, fodder conservation, ration balancing systems, pasture management, manure management, waste management, water harvesting facilities, climate information systems, efficient and renewable energy solutions, resilient, healthy and productive breeds, herd management, livestock insurance and animal disease control (One Health). These solutions will have an impact on both climate change adaptation, by increasing resilience to climate shocks, and climate change mitigation, by improving efficiency and reducing greenhouse gas emissions at various stages, including production, processing and distribution of dairy and beef products.

6. Recommendations for project design and implementation

76. **Youth.** ReLIV will be youth sensitive. Youth participation in livestock production in Uganda has been constrained by limited access to land and the skills required to participate effectively in the dairy and beef value chains. In addition, youth face challenges related to inadequate working capital and a significant proportion still hold the perception that dairy and beef production involves a long production cycle, resulting in delayed returns on investment compared to other economic activities, making it unattractive. The Project will promote decent employment, provide opportunities for skills development and training, introduce youth-friendly enterprises and innovations such as mechanised production, milking and transport, and facilitate access to finance. The capacity of youth to provide private services for feed mechanisation, private artificial insemination (AI) and veterinary services will be enhanced. Priority interventions for youth will take into account gender differences, recognising that young women are twice as likely to be unemployed.
77. **Gender.** ReLIV will be gender sensitive. In many communities, land, and production assets, including cattle, are predominantly owned by men, who play a more active role in milking cows, transporting milk to Milk Collection Centres (MCCs) on bicycles or motorbikes, and participating in marketing activities. In some MCCs, women have formed groups to produce and market products such as yoghurt by purchasing milk from the MCCs. Although women's participation in the dairy value chain is higher in eastern and northern Uganda, their participation in beef is generally lower. However, women still face constraints such as limited capital and access to finance, which limit their potential to scale up their businesses. There is also a notable lack of women's participation in livestock organisations and cooperatives, coupled with data gaps on gender roles in both value chains. To address these challenges, there is an opportunity for improvement by applying gender-sensitive approaches to ensure that both men and women benefit from dairy and beef development initiatives. In particular, activities such as small-scale processing and feed mechanisation will be prioritised for women.
78. **Nutrition.** ReLIV will be nutrition sensitive. The planned interventions aim to ensure the availability of nutritious fodder, water points and pastures closer to households, while also promoting water harvesting within homesteads. A nutrition-sensitive value chain has been identified as a promising strategy for improving household dietary diversity and promoting local production of better quality and more nutritious agricultural products. Nutrition, which is influenced by factors such as access, availability, affordability, safety and quality of food, can be positively influenced by a nutrition-sensitive value chain. This approach can focus strongly on increasing agricultural productivity for household consumption or sale. To further support improved dietary diversity and balanced diets, the project will include elements such as nutrition education, social and behavioural change, and effective communication.
79. **Climate and environment.** The ReLIV project will have a climate focus and will integrate climate considerations throughout its duration, ensuring that at least 40% of the PoLG portion is allocated to financing climate change adaptation, mitigation and resilience building activities (IFAD12 target). Climate finance for ReLIV amounts to USD 50.7 million (50.9% of the total IFAD financing). Environmental sustainability will also be mainstreamed into all project components. The table below provides an overview of the proposed climate change adaptation, mitigation, and environmental solutions, detailing how they address identified bottlenecks along the dairy and beef value chains and the benefits they generate.^[56]

Bottlenecks	Proposed interventions	Usages	Benefits
Climate information systems			

Bottlenecks	Proposed interventions	Usages	Benefits
<p>Increasing climate vulnerability (e.g., to droughts, floods, etc.).</p> <p>Limited preparedness to cope with climate shocks and to plan ahead.</p>	<p>Climate risk assessments.</p> <p>Early warning of climate shocks and better planning of responses and coping mechanisms.</p> <p>Livestock-focused agromet advisory services (e.g., covering animal shelter locations, vaccination points, transhumance corridors, disease occurrence zones, flood zones, potential conflict zones, and market information).</p> <p>Strengthening of communication channels by developing user-friendly interfaces and providing training on digital applications (e.g., Lunda, iKnowFarm, AgriShare, Jaguza).</p> <p>Workshops and digital learning.</p>	<p>Livestock production.</p>	<p>Climate change adaptation, by enabling smallholder farmers to cope with climate shocks and plan ahead.</p>
Water facilities			
<p>Insufficient access to water resources.</p> <p>Long distances to water points.</p> <p>Unreliable rainfall patterns and prolonged droughts.</p>	<p>Distribution of individual dam sheets or 3m³ water tanks for rooftop rainwater harvesting, linked to rooftop gutters to collect rainwater, coupled with filters such as sand bed filters, pop-up filters, or stabilisation tanks.</p> <p>Construction of solar-powered wells.</p> <p>Rehabilitation of charco dams for water extraction and collection in semi-grazing system areas.</p> <p>Capacity building for Community-Owned Water Supply Organisations (COWSOs).</p>	<p>Livestock watering.</p> <p>Cleaning, sanitation, and hygiene.</p> <p>Domestic use.</p> <p>Milk processing.</p>	<p>Climate change adaptation by enhancing year-round access to water.</p> <p>Decreased soil erosion caused by livestock moving to fetch water for drinking.</p>
Fodder and pasture management			
<p>Poor feeding practices.</p> <p>Low availability of nutritious forage/pasture.</p> <p>Limited water availability and accessibility.</p>	<p>Plantation of fodder trees and shrubs into grazing land and cropland.</p> <p>Sustainable rangeland management (carrying capacity assessments and rotational grazing) and pasture restoration (reseeding, overseeding, restoration).</p> <p>Pilots on minimum tillage.</p> <p>Agroforestry, both in intensive systems for water retention and efficient resource use (e.g., leguminous forages can increase milk production and manure by +39% and 43%, respectively) and in grazing lands, to create microclimates acting as shelter and providing feed supplements for animals.</p> <p>Improved (climate-resilient and disease-resistant) fodder varieties (e.g., Chloris Gayana, Calliandra, Napier Grass, Gliricidia Sepium).</p> <p>Training in forage storage/conservation, valorisation of crop residues and concentrates, provision of equipment for silage and hay making (e.g., hangars, baler machines, plastic tubes, etc.).</p> <p>Implementation of digital ration balancing programmes.</p>	<p>Cattle feeding.</p>	<p>Climate change adaptation, by ensuring year-round availability of fodder, using locally adapted technologies, enhancing soil health and structure (through higher and more diverse microbial population and activity, and binding of soil particles for improved stability and infiltration), and reducing soil erosion.</p> <p>Climate change mitigation, through carbon sequestration (through high soil organic matter inputs from above-and below-ground biomass) and lower methane emissions from enteric fermentation per unit of livestock product, due to improved feed digestibility and higher nutrient intake (proteins, vitamins, minerals).</p>

Bottlenecks	Proposed interventions	Usages	Benefits
Manure and waste management			
<p>Poor waste management.</p> <p>Effluent pollution.</p> <p>GHG emissions.</p>	<p>Promotion of circular manure management practices (pit storage/manure ponds, manure covering with polythene or banana leaves, compaction, composting, liquid-solid separation, biochar addition).</p> <p>Black Soldier Fly technology.</p> <p>Upscale of biogas digesters at farm level and at slaughtering facilities.</p> <p>Safe storage of drugs and vaccines, safe disposal of expired drugs and bio-waste.</p> <p>Biological treatment methods for effluents.</p>	<p>Application of manure/bio-slurry on fodder land or cropland.</p> <p>Use of biogas for energy generation.</p> <p>Management of effluents' pollution.</p> <p>Safe storage of waste.</p>	<p>Climate change adaptation, by improving soil structure and fertility through the application of composted manure or bio-slurry (bio-slurry retains moisture, enabling seedlings to grow rapidly and remain healthy even in harsh climate conditions).</p> <p>Environmental conservation, through waste management tackling effluents' pollution and recycling.</p> <p>Climate change mitigation, by reducing GHG emissions from on-farm manure composting and fuelwood/charcoal energy generation.</p>
Energy efficiency			
<p>Inefficient and unsustainable wood-intensive energy sources for heating or chilling.</p> <p>Firewood collection for domestic use, which increases women's workload and prevents the development of income-generating activities.</p>	<p>Installation of solar panels at MCCs and MCPs for lighting, water heating, milk chilling, cooling of milk products.</p> <p>Installation of biogas digesters at farm level and at slaughtering facilities.</p> <p>Enhanced energy efficiency at processing facilities.</p>	<p>Cooking and lightning at household level.</p> <p>Water heating for milking, cleaning, sterilising, chilling.</p>	<p>Climate change adaptation, by reducing pressure on natural resources such as water and energy.</p> <p>Climate change mitigation, by reducing GHG emissions through to the use of renewable energies.</p>
Climate-smart financing and policy development			
<p>High animal losses due to climate-related shocks.</p>	<p>Livestock insurance.</p>	<p>Financial protection for farmers.</p>	<p>Climate change adaptation, by helping farmers recover from climate-related losses.</p>
<p>Disconnect between animal health and environmental impacts.</p>	<p>Promotion of the One Health approach in L-FFS, trainings and policies.</p>	<p>Improved animal health services for more productive, resilient, and less polluting animals.</p>	<p>Climate change adaptation, by increasing the resilience of animals to climate shocks (heat stress, droughts).</p> <p>Climate change mitigation, by reducing GHG emissions from livestock through healthier and more efficient animals.</p>

7. Further studies needed

80. In line with IFAD's SECAP 2021 procedures, the ReLIV project will develop the following safeguard instruments as part of the design process: Environment, Climate and Social Management Framework (ECSMF) and its Environment, Climate and Social Management Plan (ECSMP); Pesticide Management Plan (PMP); Solid and Liquid Waste Management Plan (SLWMP); Stakeholder Engagement Plan (SEP); Grievance Redress Mechanism (GRM); and Labour Assessment and Management Procedures (LAMP). ESG due diligence will be carried out in accordance with Standard 8 of the SECAP procedures, under ARCAFIM ESCMF, considering that the project will involve financial intermediaries or direct investments. The project team will ensure that financial intermediaries have an Environmental and Social Management System (ESMS) and an Environmental and Social Action Plan (ESAP). ARCAFIM already includes technical assistance for these activities. A targeted adaptation assessment will be developed, and a carbon analysis of the project will be carried out using the GLEAM-*i* tool.

8. Monitoring and evaluation

81. The ReLIV project will develop a detailed stakeholder engagement plan and grievance redress mechanism to ensure that there are sufficient feedback loops from different project actors and stakeholders. Key social inclusion, environmental and climate change indicators have been identified and included in the project's M&E framework and logframe, such as: **Indicator 1.2.8** Percentage of women reporting minimum dietary diversity (MDDW), **Indicator 2.2.1** Number of new jobs created, **Indicator 1.1.8** Households provided with targeted support to improve their nutrition, **Indicator 3.2.1** Number of tons of greenhouse gas emissions (CO₂e) avoided and/or sequestered, **Indicator 3.2.2** (Number) Percentage of persons/households reporting adoption of environmentally sustainable and climate-resilient technologies and practices. An Environment, Climate, and Safeguards (ECS) specialist will be included as part of the PMU. The ECS specialist, in collaboration with the M&E specialist, will be responsible for ensuring that ECS data are collected at baseline, mid-term and completion, and will report annually on progress. The ECS Specialist will work closely with the NEMA and Component Leaders, as well as the M&E Specialist, to ensure that mitigation measures included in the overall ECSMP and in sub-project site specific ECSMPs are developed and implemented, with regular monitoring of compliance. During early implementation, GLEAM-*i* will be used to calculate a baseline of greenhouse gas (GHG) emissions and to inform the M&E components on GHG emissions during and at the end of the project. This will be done through the GCF DaLMA project, which will provide co-financing and has already earmarked funds for GLEAM-*i* assessments for the 4 countries covered (including Uganda). ReLIV will also receive GHG assessment support from the Reducing Agricultural Methane Programme (RAMP) initiative. Procurement activities related to SECAP will be monitored throughout the project cycle by the PMU and IFAD during implementation, supervision, and MTR missions. The ReLIV project will use IFAD's Standard Procurement Documents, including IFAD's SECAP requirements, the "value for money" bid evaluation methodology, the specification of special contract conditions, and the frequency and rigour of implementation supervision. The Borrower/Recipient/Implementing Partner will be required to ensure that all contractors, subcontractors, and first-tier suppliers involved in the project comply with SECAP standards as specified in their contracts.

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ESCMP Matrix

82. This section is included as part of the Environment, Climate and Social Management Framework (ECSMF) (Table 5).

Footnotes

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Environmental and Social Safeguards Classification: Substantial

Environmental and Social Safeguards				
Biodiversity conservation	Yes/No	Likelihood	Consequence	Risk Rating
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Yes	Possible	Moderate Project will significantly affect modified habitat, but will not impinge on natural habitat or critical natural habitat.	Moderate
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?	Yes	Possible	Minor Humans and wildlife co-exist, but no chance of human-wildlife conflict	Moderate
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?	Yes	Possible	Minor Low potential for invasive species of flora or fauna to be introduced, but strict controls are in place, and the probability of invasion is therefore low.	Moderate
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	Likely	Moderate Project requires procurement of natural resources through primary suppliers, and resource extraction is tightly regulated	Substantial
Resource Efficiency and Pollution Prevention	Yes/No	Likelihood	Consequence	Risk Rating

Environmental and Social Safeguards				
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	Likely	Moderate Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment is highly sensitive.	Substantial
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)	No			Low
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	No			Low
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Yes	Likely	Moderate The project will require consumption of raw materials, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	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	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extension.	Moderate
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Possible	Minor The project only requires minimal amounts of fertilizer	Moderate
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Yes	Likely	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Substantial
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 Social Safeguards				
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)	Yes	Unlikely	Minor The project is thought to be close to an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage. The site has been comprehensively surveyed, and all tangible and intangible cultural heritage is well known.	Low
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No			Low
indigenous peoples	Yes/No	Likelihood	Consequence	Risk Rating
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	No			Low
4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?	No			Low
4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?	No			Low
4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No			Low

Environmental and Social Safeguards				
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No			Low
Labour and Working Conditions	Yes/No	Likelihood	Consequence	Risk Rating
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)	Yes	Likely	Moderate The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.	Substantial
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	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Moderate
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)	Yes	Likely	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.	Substantial
Community Health, Safety and Security	Yes/No	Likelihood	Consequence	Risk Rating

Environmental and Social Safeguards				
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	Likely	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.	Substantial
6.2 Could the project lead to unintended negative impacts on nutrition?	Yes	Possible	Moderate Moderate impact on customary or traditional diet, resulting in occasional individual health problems.	Moderate
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)?	Yes	Possible	Negligible The project takes place in buildings or other infrastructure that has been independently verified as being structurally sound.	Low
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Yes	Possible	Minor The project involves the rehabilitation of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - less than 10 metre high wall; - less than 300m long crest; or - less than 1 million m ³ reservoir capacity.	Moderate
6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes	Possible	Minor The project has only minor involvement with the transport, storage, and use and/or disposal of hazardous or dangerous materials, and regulation of hazardous materials is effective.	Moderate

Environmental and Social Safeguards				
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)?	Yes	Possible	Moderate Moderate adverse impacts to ecosystems and their services that could negatively affect the health of communities in the direct vicinity of the project are possible, but similar projects have shown that Impacts can be mitigated or offset through schemes such as Payment for Ecosystem Services.	Moderate
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Yes	Possible	Moderate Moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence interventions are integrated into project design.	Moderate
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	Yes	Possible	Minor The project will result in minor increases to traffic volume. Only minor increase in risk of injury or death.	Moderate
6.9 Could the project lead to an influx of project workers?	Yes	Possible	Minor The project requires the employment of new labour, but workers can be sourced from local communities, and so influx is kept to a minimum, and risks are effectively managed.	Moderate
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	Yes	Possible	Minor A small number of security personnel are required, but they are well trained, and protocols are in place.	Moderate
Physical and economic resettlement	Yes/No	Likelihood	Consequence	Risk Rating

Environmental and Social Safeguards				
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?	Yes	Unlikely	Minor The project will result in minor impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights. Legal recourse and other forms of arbitration/conflict resolution are available.	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?	Yes	Unlikely	Minor The institution employs an ES Officer, and employs field staff to implement the ESMS.	Low
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Is there evidence that the institution does not comply with the local legal framework?	No			Low
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	Yes	Unlikely	Negligible The institution provides regular lines of communication for stakeholders and local communities to improve their products and services.	Low
8.7 Does the organization provide auxiliary or capacity building support services.	No			Low

Climate Risk Classification: Substantial

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	No, Yes, TBD
River flood	Yes
Costal Flood	No
Urban Flood	Yes
Landslide	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?	No
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	No, Yes, TBD
Low-lying areas (valleys, coastal zones, and small islands)	Yes
Very warm areas (subtropical)	Yes
Tropical areas (rainforests)	No
Arid and semi-arid areas (deserts)	Yes
Mountains zones and permafrost areas (tundra)	No
River banks	Yes
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	No, Yes, TBD
Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	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?	No
Is the biodiversity in the project area likely to be affected by changes in climate variables?	Yes
Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	Yes
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	No, Yes, TBD
Is conflict exacerbating the population's sensitivity to weather related hazards?	Yes
Is population displacement being exacerbated by climate change impacts?	Yes

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

Uganda

Resilient Livestock Value Chain Project

Project Design Report

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

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

Annex 6: First Annual Work Plan and Budget (AWPB) 18 months (July 2025 – December 2026)

The first AWPB covers the first eighteen months from July 2025 to December 2026. It has been directly established from the estimated costs per year calculated in the COSTAB *(Annex xx)*.

It does not contain any specific narrative since its all described in the PDR and PIM for each intervention.

The AWPB is meant to be updated during the preparatory phase of the PCU and finalized during the start-up workshop. The PCU is to fine tune the logical succession of the activities to occur during the period. During the final review of the AWPB during the inception workshop, the detailed action plan for the first 12 months of project implementation will be agreed up. The updated version will have to be validated by the Project Steering Committee.

The matrix per component refers to the following:

Code	Description
C1	Component 1: Increasing productivity and resilience and reducing the impact of production
SC11	Subcomponent 1.1. Improving feed and fodder production, rangeland management and access to water
SC12	Subcomponent 1.2. Improving management and delivery of animal genetic resources (AnGR)
SC13	Subcomponent 1.3. Improving animal health services for resilient and low-emission animals
SC14	Subcomponent 1.4. Improving extension and delivery of technical support to producers
C2	Component 2: Enhancing access to markets for smallholder producers and investments in the value chain
SC21	Subcomponent 2.1. Supporting aggregation of production and access to markets for smallholder producers
SC 22	Subcomponent 2.2. Strengthening food safety and local consumption of livestock commodities
SC 23	Subcomponent 2.3. Improving access to financial products for value chain actors
C3	Component 3: Supporting the policy and regulatory environment
SC31	Subcomponent 3.1. Formulation, review and update of national policies, strategies and legislations
SC 32	Subcomponent 3.2. Monitoring, Evaluation and Knowledge Management
SC 33	Sub-component 3.3. Project Management

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
Component 1: Increasing productivity and resilience and reducing the impact of production											
Subcomponent 1.1. Improving feed and fodder production, rangeland management and access to water											
Investment Costs											
1. Support the development and dissemination of climate smart feed and fodder and improved grazing management											
SC11	Support for selection and multiplication food and fodder	Lumpsum	1	500	500	-	500	-	-	-	-
SC11	Study for fodder pest management and soil conservation	Study	1	70	70	-	-	70	-	-	-
SC11	Equipping and parental seeds for seed producers	Producer	25	0.5	13	-	-	-	-	13	-
SC11	Training of fodder seed producers	District	10	5	50	-	-	-	-	50	-
SC11	Purchase of seeds for distribution through FFS and coop	kg	500	0.02	10	-	-	-	-	10	-
SC11	Fodder choppers and other conservation equipment	Unit	1750	0.9	1575	-	-	-	-	-	1575
SC11	Pasture and rangeland management plans	Unit	7	20	140	-	-	50	50	-	40
SC11	Rangeland management and pasture restoration	Hectare	6000	0.2	1,200	-	1000	2000	1000	1000	1000
SC11	Pilot study on soil conservation	Lumpsum	0.5	202.8	101	-	-	-	-	-	101
Sub-total support to the development of climate smart feed					2,459		1,500	2,120	1,050	1,073	2,716
2. Strengthen feed and fodder characterisation and formulation											
SC11	Support national and decentralized feed and soil testing	Lab	3	150	-	-	-	-	2	-	1
SC11	Design and dissemination of digital rationing tools	District	15	10	150	-	-	5	5	-	5
Sub-total Strengthen feed and fodder characterisation and formulation					150		5	7			6
4. Develop feed/fodder balance mechanisms at national and district levels											
SC11	Support to national authority for feed balance sheet	Lumpsum	1	200	200	-	-	-	-	-	200
Sub-total Develop feed/ fodder balance mechanisms at national and district levels					200						200
Total sub-component 1.1. Improving feed and fodder production, rangeland management and access to water											
Subcomponent 1.2. Improving management and delivery of animal genetic resources											
I. Investment Costs											
1. Strengthen and implement the Livestock Identification and Traceability System											

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
SC12	LITS system upgrade	Lumpsum	1	150	150	-	-	-	-	150	
SC12	Training of users	District	5	10		-	-	-	-	-	50
SC12	Awareness campaigns	District	5	20	100	-	-	-	-	-	100
SC12	Equipment (computers, RFID readers, android services for data entry)	District	5	30	150	-	-	-	-	-	150
SC12	RFID ear tags	Eartag	213,540	0.002	427	-	-	-	-	-	427
	Sub-total Strengthen and implement the Livestock identification and traceability system		-	-	827	-	-	-	-	150	727
	2. Strengthen livestock breeding services/ animal genetic resources										
SC12	Construct and equip AI sub-regional centres	Centre	2	75	150	-	-	-	-	75	75
SC12	Train AI technicians	Technician	82	0.35	29	-	-	-	-	15	14
SC12	Upgrade the AI semen production laboratory in Entebbe	Lumpsum	1	250	250	-	-	-	-	250	-
SC12	Purchase elite bulls (climate resilient breeds) for semen production	Bull	3	10	30	-	-	-	-	30	-
SC12	Disseminate improved local and crossed stock from breeding ranches and private breeders	Head	125	0.75	94	-	-	-	-	94	-
SC12	Support to breeders' associations	Lumpsum	1	25	25	-	-	-	-		25
	Sub-total Strengthen the livestock breeding services					-	-	-	-	464	114
	Total sub-component 1.2. Improving management and delivery of animal genetic resources									614	841
	Sub-component 1.3. Improving animal health services for resilient and low emission animals										
	Investment Costs										
	A. Improve disease control and surveillance in a One health approach										
	1. Digitization of national disease surveillance system										
SC13	Evaluation and identification of software for purpose	Lumpsum	1	20	20	-	-	10	10	-	-
SC13	Equipment (tablets, desktops)	Lumpsum	2	250	500	-	-	250	-	-	250
SC13	Development of curriculum material	Lumpsum	1	25	25	-	-	-	-	-	25
SC13	Training (s/c, district and refresher)	Lumpsum	5	5	25	-	-	-	-	-	25
	Sub-total Digitization of national disease surveillance programme		-	-	-	-	-	260	10		300
	2. Project area laboratory infrastructure										
SC13	Feasibility study	Study	1	40	40	-	-	40	-	-	-

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
SC14	Climate risk assessment	Study	1	20	20	-	-	-	-	-	20
SC14	Early warning system	Lumpsum	5	5	25	-	-	-	-	12	13
	Sub-total climate information systems		-	-	45	-	-	-	-	12	33
	Total sub-component 1.4. Improving extension and delivery of technical support to farmers										
Component 2 : Enhancing access to markets for smallholder producers and investments in the value chain											
	Sub-component 2.1. Supporting the aggregation of production and access to markets for smallholder producers										
	Investment costs										
	1.Support producer organizations and cooperatives										
SC21	Initial training for cooperatives and producer groups	Group	25	5	125	-	-	-	-	62	63
SC21	Coaching of cooperatives and producer groups	Group	50	0.45	23	-	-	-	-	11	12
SC21	South South exchange between producer groups	Visit	5	20	100	-	-	-	-	50	50
SC21	Gender sensitization workshops	District	5	5	25	-	-	-	-	12	13
	Sub-total support producer organisations		-	-	273	-	-	-	-	135	138
	2. Pilot and upscale green and sustainable business models for access to markets and services										
SC21	Construction of new MCCs (including waste management solutions)	No	2	100	200	-	-	-	-	100	100
SC21	Rehabilitation of existing MCCs	No	3	55	165	-	-	-	-		165
SC21	Purchase milk coolers 1,000 litres	Coolers	5	40	200	-	-	-	-	100	100
SC21	Purchase milk coolers 2,000 litres	Coolers	30	30	900	-	-	-	-	450	450
SC21	Purchase milk coolers 3,000 litres	Coolers	30	59	1770	-	-	-	-	885	885
SC21	Purchase milk coolers 5,000 litres	Coolers	10	70	700	-	-	-	-	350	350
SC21	Purchase solar power for MCCs (equipment and installation)	No.	5	8	40	-	-	-	-	20	20
	Sub-total pilot and upscale green and sustainable business models		-	-	3,975	-	-	-	-	1,905	2,070
	3. Strengthen public livestock markets and slaughtering facilities and pilot circular waste management technologies										
SC21	Feasibility studies for livestock markets	Study	2	13	26	-	-	-	-	13	13
SC21	ESIA studies for livestock markets	ESIA	2	20	40	-	-	-	-	20	20
SC21	Feasibility studies for slaughtering facilities	Study	2	35	70	-	-	-	-	35	35

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
SC21	ESIA for slaughtering facilities	ESIA	2	20	40	-	-	-	-	20	20
SC21	Feasibility study and suitability mapping for biodigesters at abattoirs and markets	Study	1	30	30	-	-	-	-		30
SC21	Biodigester construction at slaughtering facilities	Unit	1	20	20	-	-	-	-		20
SC21	Biodigester construction at livestock markets	Unit	1	15	15	-	-	-	-		15
SC21	Technical assistance on quality management, infrastructure maintenance, safe working standards	Lumpsum	1	75	75	-	-	-	-	75	
	Sub-total strengthen public livestock markets and slaughtering facilities		-	-	316	-	-	-	-	163	153
	5.Support local value chain platforms/ clusters										
SC21	Feasibility study	Lumpsum	1	75	75	-	-	75	-	-	
SC21	Development of software, MIS application	Lumpsum	0.5	700	350	-	-	-	-	-	350
	Sub-total support local value chain platforms		-	-	425	-	-	75	-	-	350
	Total sub-component 2.1. Supporting the aggregation of production and access to markets for smallholder producers										
	Sub-component 2.2. Strengthening food safety and local consumption of livestock commodities										
	Investment costs										
	1.Support local small-scale processing and promote short value chains										
SC22	Market study for SS processing unit	Study	20	5	100	-	-	-	-	50	50
SC22	Renewable energy and energy efficiency for SS processing (coops)	Unit	5	34	-	-	-	-	-	-	170
SC22	Renewable energy efficiency for SS processing (SMEs)	Unit	5	30	-	-	-	-	-	-	150
	Sub-total support local small-scale processing and promote short value chains		-	-	100	-	-	-	-	50	370
	2. Enhance quality and food safety of milk, dairy products and beef										
SC22	Equipment for DDA sub-regional laboratories	Lab	3	110	330	-	-	-	-	-	330
SC22	Equipment incl. motorcycle for DDA inspectors	District	10	7	70	-	-	-	-	-	70
SC22	Training of stakeholders by DDA	Training	21	6	126	-	25	25	25	25	25
SC22	Equipment of public vets for meat inspection	Ls/district	30	6	180	-	36	36	36	36	36
	Sub-total Enhance quality and food safety of milk, dairy and beef products		-	-	706	-	61	61	61	61	461

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
	3. Enhance milk and meat consumption and raise nutritional awareness										
SC22	SBCC and nutrition education materials development, layout, graphic design, printing, distribution	Ls/district	5	5	25	-	-	-	-	12	13
SC22	SBCC and nutrition education consultant	Per.day	70	0.3	21	-	-	-	-	10	11
SC22	SBCC and nutrition campaign	Ls/district	5	10	50	-	-	-	-	25	25
SC22	SBCC and nutrition campaign	Ls/district	9	9	81	-	-	-	-	40	41
	Sub-total Enhance milk and meat consumption and raise nutritional awareness		-	-	177	-	-	-	-	87	90
	Total sub-component 2.2. Strengthening food safety and local consumption of livestock commodities		-	-	-	-	61	61	61	198	921
	Sub-component 2.3. Improving access to financial products for value chain actors										
	Investment costs										
	1. Provide Business Development Services for Business Plan Development										
SC23	Beneficiary identification	Study	1	60	60	-	-	-	60	-	-
SC23	Business plan development	Lumpsum	35	3.5	123	-	-	-	-	60	63
SC23	Financial management training	Lumpsum	35	0.25	8.75	-	-	-	-	-	8.75
SC23	Bankable proposals crafted	Study	35	0.25	8.75	-	-	-	-	-	8.75
SC23	Enterprise viability mentorship and coaching	Lumpsum	35	0.75	26	-	-	-	-	13	13
	Sub-total Provide business development services		-	-	227	-	-	-	60	73	94
	2. Support the development of livestock-specific climate finance products by financial institutions										
SC23	Scoping study for FSPs in the Project Districts	Study	1	100	100	-	-	-	100	-	-
SC23	Stakeholder Engagements – Financial Linkages FSP forum	Workshop	4	40	160	-	-	-	-	80	80
SC23	Financial product development support provided	PFI	3	12	36	-	-	-	-	18	18
	Sub-total Support the development of livestock specific climate finance products by financial institutions		-	-	296	-	-	-	100	98	98
	3. Financing facility for climate mitigation investments in the livestock sector										
SC23	ARCAFIM- Adaptation Loan Funds micro and wholesale /a	Lumpsum	0.1	4500	450	-	-	-	-	-	450
SC23	ARCAFIM – Adaptation Loan Funds micro and wholesale /b	Lumpsum	0.1	10500	1050	-	-	-	-	-	1050

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
SC23	GCF – Mitigation Loan Funds micro and wholesale /c	Lumpsum	0.1	13300	1330	-	-	-	-	-	1330
SC23	GCF – Mitigation Loan Funds micro and wholesale /d	Lumpsum	0.1	5700	570	-	-	-	-	-	570
	Sub-total financing facility for climate mitigation investments		-	-	3400	-	-	-	-	-	3400
	4. Provide financial literacy support to smallholder farmers										
SC23	Financial Literacy curriculum tailored for livestock	Study	1	10	10	-	-	-	10		
SC23	Production and distribution of FLIEC materials	Lumpsum	10000	0.002	20	-	-	-	-	10	10
SC23	Training of trainers (TOTs)	Lumpsum	82	0.170	14	-	-	-	-	7	7
SC23	Tailored financial literacy training programs implemented	Lumpsum	8200	0.005	41	-	-	-	-	20	21
SC23	Financial literacy tailored for youth led businesses	Lumpsum	2460	0.005	12	-	-	-	-	6	6
SC23	Financial literacy tailored for women led businesses	Lumpsum	3280	0.005	16	-	-	-	-	8	8
	Sub-total provide financial literacy support to smallholder farmers		-	-	113	-	-	-	10	51	52
	5.Support credit de-risking through promotion of livestock insurance										
SC23	Support to roll out of National Agricultural Insurance Scheme – Premium subsidies	Premiums	2000	140	280	-	-	-	-	140	140
SC23	Support to Agro Consortium to increase awareness of livestock insurance benefits	Lumpsum	1	50	50	-	-	-	-	25	25
	Sub-total support credit de-risking through promotion of livestock insurance	-	-	-	330	-	-	-	-	165	165
	Total sub-component 2.3. Improving access to financial products for value chain actors	-	-	-	4,366	-	-	-	170	987	3,809
	Component 3. Strengthen policy and regulatory environment										
	Sub-component 3.1. Policy support										
	Investment Costs										
	A. Policy Dialogue										
SC31	1. National Policy Support	Consultancy	1	30	30	-	-	-	-	-	30
SC31	2. Support to National Policy	Workshop	1	30	30	-	-	-	-	-	30
	Sub-total Policy Dialogue		-	-	60	-	-	-	-	-	60
	B. Policy and regulatory support										
SC31	1. Policy studies	Study	1	30	30	-	-	-	-	-	30
SC31	2. Policy/ Regulatory consultations	Workshop	1	20	20	-	-	-	-	-	20

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
	Sub-total policy and regulatory support	-	-	-	50	-	-	-	-	-	50
	Total Sub-component 3.1. Policy support	-	-	-	110	-	-	-	-	-	110
	Sub-component 3.2. Monitoring, Evaluation and Knowledge Management										
	Investment costs										
	A. Monitoring and Evaluation (M&E) system										
SC 32	Establishment of MIS	Number	1	50	50	-	-	-	50	-	-
SC 32	Server/ cloud costs	Number	2	1	2	-	-	-	-	1	1
SC 32	Baseline survey	Study	1	150	150	-	-	-	-	150	
SC 32	Monitoring and Evaluation activities	Number	1	15	15	-	-	-	-		15
SC32	Audits	Number	1	5	5	-	-	-	-		5
	Sub-total M&E System		-	-	222	-	-	-	50	151	21
	B. Knowledge Management (KM) products and communications										
SC 32	Annual review workshop for the PCU	Workshop	1	10	10	-	-	-	-	-	10
SC 32	KM product and communication activities	Number	1	20	20	-	-	-	-	-	20
	Sub-total KM products		-	-	30	-	-	-	-	-	30
	C. Equipment										
SC 32	GSM enabled tablets	Number	80	0.25	20	-	-	20	-	-	-
SC 32	GPS units	Number	50	0.4	20	-	-	20	-	-	-
SC 32	Digital cameras – Professional	Number	3	1	3	-	-	3	-	-	-
SC 32	Desktop computer – MIS server	Number	6	1.5	9	-	-	9	-	-	-
	Sub-total Equipment		-	-	52	-	-	52	-	-	-
	Total sub-component Monitoring, Evaluation and Knowledge Management	-	-	-	304	-	-	50	50	151	51
	Sub-component 3.3. Project Management Unit										
	Investment Costs										
	A. Project Management Unit (PMU) equipment										
SC 33	Vehicles Station wagon	Number	2	107	214	-	-	-	214	-	-
SC 33	Vehicles	Number	8	67	67	-	-	-	67	-	-

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
SC 33	Desktop computers	Number	3	1.5	1.5	-	1.5	-	-	-	-
SC 33	Laptops	Number	12	1.7	1.7	-	1.7	-	-	-	-
SC 33	Multifunctional printer/ scanner	Number	1	12	12	-	12	-	-	-	-
SC 33	Printers	Number	2	0.5	0.5	-	0.5	-	-	-	-
SC 33	Office furniture	Set	15	2	2	-	2	-	-	-	-
SC 33	Accounting software	Lumpsum	1	25	25	-	25	-	-	-	-
	Sub-total PMU equipment		-	-	324	-	43	-	281	-	-
	Recurrent costs										
	A. Salaries and Allowances										
	1. Salaries										
	a. Project Management Unit										
SC 33	Project Coordinator	Pers-month	18	5	90	15	15	15	15	15	15
SC 33	Financial Control	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	Livestock Specialist	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	M,E & KM Specialist	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	Procurement Specialist	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	Gender and Targeting Specialist	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	Environment and Climate Change Specialist	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	Agribusiness and Rural Finance Specialist	Pers-month	18	3.5	63	10.5	10.5	10.5	10.5	10.5	10.5
SC 33	Accountant	Pers-month	18	2	36	6	6	6	6	6	6
SC 33	Procurement Officer	Pers-month	18	2	36	6	6	6	6	6	6
SC 33	M&E Officer	Pers-month	18	2	36	6	6	6	6	6	6
SC 33	Communication and KM Officer	Pers-month	18	2	36	6	6	6	6	6	6
SC 33	Office Administrator	Pers-month	18	1	18	3	3	3	3	3	3
SC 33	Drivers /a	Pers-month	18	0.5	9	1.5	1.5	1.5	1.5	1.5	1.5
SC 33	Office attendant	Pers-month	18	0.5	9	1.5	1.5	1.5	1.5	1.5	1.5
	Sub-total PMU salaries		-	-	714	118.5	118.5	118.5	118.5	118.5	118.5
SC 33	b. Contribution to pension for Project Staff	Lumpsum	-	-	77	13	13	13	13	13	13

Activity Code	Description	Unit	Total Quantities 2025 & 2026	Unit cost (,000)	Total Cost (,000)	Budget Q1 2025/26	Budget Q2 2025/26	Budget Q3 2025/26	Budget Q4 2025/26	Budget Q1 2026/27	Budget Q2 2026/27
SC 33	c. Gratuity for Project Staff	Lumpsum	-	-	115	19	19	19	19	19	19
SC 33	d. Contribution to the medical insurance for Project Staff	Lumpsum	-	-	30	5	5	5	5	5	5
	Sub-total		-	-	37	37	37	37	37	37	37
	B.Operational costs										
	1. PMU										
SC 33	Vehicles O&M	Lumpsum	1	27	27	5	5	5	5	5	5
SC 33	Vehicles rent	Lumpsum	1	30	30	5	5	5	5	5	5
SC 33	Vehicles insurance /c	Lumpsum	1	30	30	5	5	5	5	5	5
SC 33	Office supplies	Per-annum	1	10	10	2	2	2	2	2	2
SC 33	Telephone and internet subscription	Per-annum	18	0.42	8	1	1	1	1	1	1
SC 33	Staff allowances – Per diem for national travel	Day	300	0.035	11	2	2	2	2	2	2
SC 33	Office rent	Per-annum	1.5	53	80	13	13	13	13	13	13
	Sub-total Operational costs		-	-	196	33	33	33	33	33	33
	Total sub-component 3.3. Project Management Unit		-	-	1,452.7	188.5	231.2	188.5	469.5	188.5	188.5

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 7: Procurement Plan for first 18 months

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

Day Ranges

Goods & Works

Procurement Method
Single Envelope
RFQ/Shopping (N/A)
NCS (no ProcQual)
CS (no ProcQual)
SB (no ProcQual)
NCS (with ProcQual)
CS (with ProcQual)
SB (with ProcQual)
Direct Contracting
Force Account
Two Envelopes
NCS (no ProcQual)
CS (no ProcQual)
SB (no ProcQual)
NCS (with ProcQual)
CS (with ProcQual)
SB (with ProcQual)

Services

Selection Method	Totals	
	Min	Approx. Months/Days
OCIS (w/Shortlist)	268	181
FCI (w/Shortlist)	268	200
LCS (w/Shortlist)	268	200
QBS (w/Shortlist)	244	178
CS (w/Shortlist)	195	142
KCS (w/Shortlist)	195	142
OCIS (noShortlist)	190	145
FCI (noShortlist)	188	141
LCS (noShortlist)	160	135
QBS (noShortlist)	160	134
S&W	126	109
Selection (Design/PM)		

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 8: Project Implementation Manual (PIM)

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

Annex 8: Project Implementation Manual (PIM)

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ABBREVIATIONS AND ACRONYMS

AGI	Agro-Industrialisation Programme
AH	Animal Health
AI	Artificial Insemination
ARCAFIM	Africa Rural Climate Change Adaptation Finance Mechanism
AWPB	Annual Work Plan and Budget
BRAM	Borrowed Resource Access Mechanism
CGIAR	Consultative Group for International Agricultural Research
CIAT	International Centre for Tropical Agriculture
COI	Core Outcome Indicators
COSOP	Country Strategic Opportunity Programme
CPMT	Country Programme Management Team
DaIMA	Dairy Interventions for Mitigation and Adaptation
DDA	Dairy Development Authority
ESIA	Environmental and Social Impact Assessment
ESG	Environmental, Social and Governance
ESMP	Environmental, Social and Climate Management Plan
ESMS	Environmental, Social Management System
EU	European Union
FAO	Food and Agriculture Organisation
FFS	Farmers' Field School
GALS	Gender Action Learning System
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Green House Gases
GLEAM-I	Global Livestock Environmental Assessment Model
GoU	Government of Uganda
GRM	Grievance Redress Mechanism
HH	Household
IFAD	International Fund for Agricultural Development

ILRI	International Livestock Institute
IPRM	Integrated Project Risk Matrix
LITS	National Livestock Identification and Traceability System
LN	Liquid Nitrogen
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MCC	Milk Collection Centre
MCP	Milk Collection Point
MFI	Monetary Financial Institutions
MFPED	Ministry of Finance, Planning and Economic Development
MGLSD	Ministry of Gender, Labour and Social Development
MOBIP	Market – Oriented and Environmentally Sustainable Beef Meat Industry
MoU	Memorandum of Understanding
MTIC	Ministry of Trade, Industry and Cooperatives
MWE	Ministry of Water and Environment
NAGRC&DB	National Animal Genetic Resource Centre & Data Bank
NALIRRI	National Livestock Resources Research Institute
NARO	National Agricultural Research Organisation
NEMA	National Environment Management Authority
NDA	National Designated Authority
NDP	National Development Plan
NGO	Non-Governmental Organization
OPEN	Online Procurement End-to-End
PADNET	Pathways to Dairy Net Zero Project
PBAS	IFAD's Performance-Based Allocation System
PCN	Project Concept Note
PDO	Project Development Objective
PDT	Project Delivery Team
PIM	Project Implementation Manual
PMU	Project Management Unit
PP	Procurement Plan
PPP	Public-Private Partnerships
PSC	Project Steering Committee
PWD	Persons with Disabilities

RDDP	Rwanda Dairy Development Project
ReLIV	Resilient Livestock Value Chain Project
SDG	Sustainable Development Goal
SECAP	Social, Environmental and Climate Assessment Procedures
SNV	Stichting Nederlandse Vrijwilligers
SPDs	Standard Procurement Documents
ToC	Theory of Change
USAID	US Agency for International Development
ZARDI	Zonal Agricultural Research and Development Institutes

PART I: PROJECT DESCRIPTION

I.1. GOVERNANCE AND IMPLEMENTATION ARRANGEMENTS

I.1.1. Project management and coordination

1. The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) will be the lead agency. It will constitute a Project Steering Committee (PSC), to provide strategic guidance to programme implementation, oversee programme planning, review and approve the Annual Work Plans and Budgets (AWPB) prior to submission to the Fund, and review implementation progress and impact. It will also provide high level advice on key issues raised by project management on which it requires guidance. The PSC shall meet two times in a year and on an ad-hoc basis as and when necessary.

2. The PSC will be chaired by the PS of MAAIF and will be comprised of representatives of public sector and other selected agencies that are actively engaged in the development of the dairy and beef value chains. These will be: MAAIF, MFPED (Climate Finance Unit), Ministry of Water and Environment (MWE), Ministry of Trade, Industry and Cooperatives (MTIC), Ministry of Gender, Labour and Social Development (MGLSD); National Environment Management Authority (NEMA); and a representative of farmers' organisation involved in the beef and dairy sub-sector). In addition, IFAD as the lead funding agency, will be invited to attend as an observer, as needed. The Projector Manager in the PCU (in MAAIF), will be the Secretary of the PSC.

3. As the lead agency at national level, MAAIF will establish a Project Management Unit (PMU), to be responsible for managing the implementation of the Project. The PMU will be based in either Kampala or Entebbe. It will facilitate closer supervision, coordination and technical support to implementing agencies and also collaborate with other development interventions in the dairy and beef sub-sectors. It will be comprised of the following: a project manager; financial controller; a monitoring, evaluation and learning specialist; a livestock development expert; an agribusiness and rural finance specialist; social inclusion specialist; communications and knowledge management specialist; a climate change/ environment specialist; and a procurement specialist. Support staff will include an administrative assistant, M&E assistant, assistant accountant, and drivers.

4. The PCU in MAAIF will have the following responsibilities: (i) manage project activities and loan and grants' funds; (ii) procure, contract, manage and supervise performance-based contracts with service providers as required for the different activities; (iii) prepare project AWPBs for GoU and IFAD approval; (iv) disburse and control the flow of funds; (v) develop and implement a knowledge management and communication strategy; (vi) liaise with line ministries and other agencies to ensure smooth project implementation; and, (vii) submit required project implementation progress and financial reports to GoU, IFAD and other stakeholders.

5. In line with their respective mandates, the semi-autonomous agencies of MAAIF, i.e., Dairy Development Authority (DDA), National Animal Genetic Resource Centre and Data Bank (NAGRC&DB), and the National Livestock Resources Research Institute (NaLiRRI) of the National Agricultural Research Organisation (NARO), plus Directorate of Animal Resources in MAAIF, with Local Governments, will be the key implementing agencies. Private sector agencies will be contracted to perform functions where necessary.

6. National Livestock Resources Research Institute (NaLiRRI): is one of the sixteen public institutes of NARO) and was established for the purposes of providing agricultural research services in the livestock sector (covering livestock health, nutrition, breeding, socio-economics, marketing and apiculture). It's well staffed with highly trained

personnel, has wide experience in breeding, pasture development and has advanced research infrastructure at their current head offices at Nakyesasa in Wakiso District, which is central to the country. NaLiRRI's extension services are largely through the Zonal Agricultural Research and Development Institutes (ZARDIs), spread across the country in different agro-economic zones. NaLiRRI will play the following key roles, among others, in ReLIV: (i) improving breeding services; (ii) selection and multiplication of feed and fodder species (together with NAGRC&DB)

7. National Animal Genetic Resources Centre and Data Bank (NAGRC&DB): NAGRC&DB was established with a two-fold mandate, namely, to play a leading role in the commercialization of animal breeding activities in Uganda and to carry out development activities that enhance animal genetic improvement and productivity. It runs fifteen ranches and farms regionally distributed across the country, with huge chunks of land.

8. The key roles for NAGRC&DB will include the following: (i) management and delivery of animal genetic resources; (ii) dissemination of improved breeding stock (local or crossed) that are suitable for extensive or semi-intensive production systems; (iii) Offer specialized training to technicians dealing in animal breeding, including supporting community breeding; (iv) multiplication of feed and fodder species, in collaboration with NaLiRRI; (v) promotion of Artificial insemination (AI) services, including training a cadre of AI technicians.

9. Dairy Development Authority (DDA): DDA was established by an Act of Parliament, the Dairy Industry Act, 1998 to develop and regulate the dairy industry in Uganda. Its vision is to: "increase productivity and competitiveness of the dairy sector enhancing its contribution to population health and wealth of all Ugandans". DDA has a fairly adequate staffing capacity with nine regional offices across the country. It has experience in farmer capacity building through cooperatives and in inspection, registration and enforcing compliance to food safety standards for milk and its production, and in linking dairy farmers to processors. DDA has one central and four regional laboratories, plus mobile ones, for testing and calibration.

10. The DDA will play the following key roles in implementation of ReLIV: (i) support to mobilisation and capacity building of dairy farmers in groups/ cooperatives/ associations, around milk collection centres (MCCs); (ii) inspection and quality assurance of milk and milk products; (iii) take the lead in review and refinement of policies related to milk and milk products; (v) conducting awareness campaigns promoting consumption of milk and its products (iv) collaborating with other implementing agencies on activities that could ideally be implemented through MCCs or dairy cooperatives.

11. Directorate of Animal Resources (DAR) in MAAIF: DAR is the directorate with overall responsibility for guiding development of animal resources in the country. The key responsibilities for DAR under ReLIV will include: (i) work with Department of Policy and Planning to propose/ review/ finalize necessary laws, regulations, policies or strategies; (ii) support local governments in provision of extension services to farmers; (ii) lead and coordinate local governments in animal vaccination campaigns; (iii) promote herd recording in collaboration with NAGRC&DB for traceability.

12. Local Governments: District Local Governments (DLGs) together with sub-county local governments at lower levels have the made of provision of extension services to farmers. Each district has a District Veterinary Officer (DV) and most of the sub-counties have Veterinary Officers. The DLGs will ensure that ReLIV activities are coordinated within the District and Sub- County Development Plans. The DVO will be the project's focal person in each DLG, who will coordinate the implementation and technical supervision of the project.

13. The key roles of local governments will include: (i) provision of extension services to famers; (ii) work with DAR of MAAIF in provision of major vaccination services, and

disease control in general; (iii) monitor project performance and prepare district periodic progress reports for the PMU and DAR.

14. Private service providers (PSPs): will be contracted, where necessary especially for services where government agencies lack the required expertise. Where relevant, farmers' organisations like cooperatives, will be engaged and supported to provide services to their members.

11.2. Policy Alignment, strategic and implementation partnership

15. ReLIV will mostly contribute to SDG 1 (end poverty), SDG 2 (end hunger), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth) and SDG 13 (Climate Action). The aspiration of Agenda 2030 (SDG2, and 9), is to end hunger, achieve food security, improve nutrition and promote sustainable agriculture as well as promoting inclusive and sustainable industrialization and foster innovation. SDG 8 also seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. ReLIV has been designed to address all these.

16. It is fully aligned with GoU's third National Development Plan (NDP III) under the Agro-Industrialisation Programme (AGI), whose goal is to increase commercialization and competitiveness of agricultural production and agro-processing, where dairy and livestock are among the key priorities. The livestock sector in Uganda is governed by several policies and regulations to ease smooth operation and investment. These policies include the national delivery of veterinary services, national veterinary drug policy, national hides, skins and leather policy, animal breeding policy and the animal feeds policy among others. The vision of the animal feeds policy is: A developed feeds industry that contributes to increased livestock production and productivity thus contributing to the welfare and incomes of livestock raisers, feed manufacturers and distributors. Implementation of ReLIV will address several of these policies. The project has been developed jointly by IFAD and GoU, represented by MAAIF, while implementation will largely be done by semi-autonomous agencies of MAAIF.

17. ReLIV is also aligned to the updated Nationally Determined Contribution (NDC), where Uganda commits to reducing its net greenhouse gas emissions by 24.7% below business as usual levels by 2030, totaling an absolute reduction of 36.75 MtCO_{2e}, including from key sectors such as Energy, Agriculture, Forestry and Other Land Use (MWE, Sept 2022). Within MAAIF, the project will align with other on-going re similar projects in the Country. While some agencies like SNV, Heifer International and Ripple Effect implement projects at a very small scale, ReLIV will draw upon some of their approaches and lessons, and scaling them up.

18. The project is aligned with IFAD's current COSOP (2021 – 2027), contributing directly to its strategic objectives of: (i) production, productivity and climate resilience of smallholder agriculture; (ii) integration of smallholders into the markets; and (iii) access to and use of financial services. Support to the livestock sector is one of the priority sectors mentioned in the current COSOP. This project is aligned with IFAD's Strategic Framework 2016-2025, on enabling inclusive and sustainable transformation of rural areas through smallholder-led growth.

19. In line with IFAD's mainstreaming commitments, the project intends to be nutrition sensitive and will include climate finance, to support building adaptive capacity. ReLIV is linked to the DaIMA GCF regional project and the GEF proposal for Uganda as part of the GEF8 Food systems Integrated Programme (FSIP) led by IFAD and FAO.

20. **Implementation partnerships**: implementation of RELIV will rely on formal partnerships entered into with national implementing agencies, national and international NGOs, International agencies including RBAs, and private sector actors.

21. **DaIMA**: ReLIV is aligned to the DaIMA GCF regional project and the GEF proposal for Uganda as part of the GEF8 Food systems Integrated Programme (FSIP) led by IFAD

and FAO. Moreover, part of the ARCAFIM GCF project be included under ReLIV to support the rural finance sub-component.

22. **Role of key national implementing agencies** will be based on their mandate and their areas of expertise:

- a. NARO will be leading all activities involving research, specially under SC 1.1 (feed) and SC 1.3 (animal health)
- b. NAGRC will be the lead implementing agency for selection and multiplication of feed and fodder species (1.1.1) as well as activity 1.2.2. (Strengthen livestock breeding services/animal genetic resources)
- c. DDA will be the lead agency for activity 2.1.2 on milk aggregation (MCCs), 2.2.1 on small scale processing, and 2.2.2 on milk quality and safety.
- d. Directorate of Animal Resources (DAR) and in particular veterinary services will be the lead agency for activities on Veterinary Public Health and disease control (1.3.1) and implementation of the National Livestock Identification and Traceability system (1.2.1).

23. **International organizations, national and international NGOs** will also be mobilized to implement project activity or implement common activities in coordinated manner:

24. SNV will implement similar activities as RELIV in the dairy sector (capacity building of producers, support to coops and aggregation) in Western Uganda under the INCLUDE project (Inclusive Livestock Development for Smallholder farmers), financed by EKN (Embassy of the Kingdom of the Netherlands) for 17.2 million Euro and starting in April 2024.

25. A strategic partnership is also envisaged with SNV through the Africa Biogas Partnership Programme (ABPP) they implement in the region SNV could be delegated the implementation of this activity considering its comparative advantage on the topic.

26. It is also envisaged to partner with SNV to upscale at national level innovations that they have piloted in Western under the recently closed ISDAP project, including dissemination of "Rumen8" feed rationing programme under activity 1.1.2, of the digital quality-based payment systems for milk under 2.1.5. Support to the national dairy platform, and to specific dairy policies, which require national coordination of actors, will also be implemented in partnership with SNV.

27. Heifer International could be mobilized to implement activities on water harvesting (1.1.5), and possibly for building capacities of cooperatives under 2.1.1.

28. However, for implementation of 2.1.1, the implementing partner will be selected through a competitive process, and other international NGOs, such as Agriterro which has a strong comparative advantage in this domain, should also be considered.

29. VSF-Belgium could be mobilized to support training and installation of CAHWs under 1.3.2, considering their previous successful experience in the domain and in the country, together with Heifer International.

30. FAO will be engaged to provide support for the development of the FFS training curriculum, train the FFS master trainers, coordinate the training of FFS facilitators by master trainers, and provide continuous follow up and backstopping during implementation of FFS. An MoU with FAO will be entered into at the beginning of the project (ToRs annexed to the PIM). FAO will also be involved in policy support and knowledge management (specific studies).

31. **Private sector partners** will mostly be involved in project implementation in the scope of productive alliances (2.1.2) through which they will enter into contracts, facilitated by the project, to provide market access and services to the producers. They

will also be involved in the digitalization of the value chain that will involve them in the first place. They will finally benefit from climate finance under sub-component 2.3.

I.2. OUTREACH AND TARGETING

I.2.1 Geographical targeting

20. **Geographical targeting.** ReLIV is a national wide project targeting 41 selected districts in the cattle corridor of the country. The districts were selected based on the following: (i) high incidence and density of poverty, food insecurity, malnutrition; (ii) herd size by the households and potential for dairy and meat (beef) value chain development, including markets for animal sourced products; (iii) high potential for women and youth to get involved in the dairy and beef value chain; and (iv) climate vulnerability. In addition, the selection was based on subnational priorities and potential complementarities with ongoing development initiatives in dairy and cattle industry.

21. **Target Groups.** The project will target 200,000 households (1,000,000 persons), comprising of smallholder dairy and beef farmers engaged in intensive and semi-intensive small-scale integrated production systems, as well as medium scale extensive agro-pastoral systems. Other direct beneficiaries will be (i) private service providers engaged in AI, veterinary services, feed and fodder seeds production, mechanisation, with a specific focus on youth; (ii) small scale processors, including individuals, groups, women and youth groups; and (iii) public institutions involved in delivery of livestock related services (research, extension, regulation and control, policy formulation, animal health and breeding services), and their staff. At least 40 percent of the beneficiaries will be women and 25 percent will be youths. ReLIV will provide opportunities for skills development and training, introduce women and youth friendly businesses and innovations, such as mechanized production, milking and transportation, and facilitate access to finance. The project will facilitate inclusion of women and youth in various project services (individual/household, group/community, institution/organization), to ensure that both men and women and youth benefit from the dairy and beef value chain development. In addition, the project will also be inclusive of PWDs through the following support: a) access to vocational and entrepreneurial skills training adapted to the needs of PWDs; b) employment and jobs creation specifically for PWDs; and c) supporting PWDs in accessing credit line by ensuring quota for PWDs (at least 1% will be for PWDs).

I.2.2. Social targeting (direct and indirect)

22. The project follows overall national and IFAD targeting approaches and guidelines via all its implementing entities. It will use both direct and indirect targeting.

23. ReLIV will use **self-targeting** aligned with the priorities, assets, capacities, and livelihood strategies of the identified target groups.

24. The project will promote **empowerment measures** that will focus on development of capacities of beneficiaries to fully participate in project activities, such as planning, financial literacy, and leadership skills development among others. Gender Action Learning System (GALS) will be promoted in L-FFS and PFS. This methodology will be implemented to address power relations and inequalities especially at household level thereby enhancing behavioural change for purposes of increasing gender equality and women's empowerment. GALS will be intertwined with L-FFS and PFS. Master Trainers of LFFS will be trained by GALS methodology and use of GALS tools to facilitate critical reflection on life choices, challenges and opportunities, gender dynamics within the household. The project will have a full time support of Social Inclusion Specialist that will help to design the GALS sessions. The Social Inclusion Specialist will develop and design a training manual and other materials required to conduct the GALS sessions during L-FFS and PFS.

25. **Procedural measures**, such as credit/loan application and access to matching grants guidelines and quotas, will be used similarly to ensure the most vulnerable groups including women and youth benefit. Attention will be given to costs/ beneficiary contributions, timing and administrative procedures required for effective participation of the various target groups, especially regarding access to advisory services of the MCCA and MCPs and the private livestock support services.

26. **Direct targeting** will also apply to target women, youth, SMEs, services private providers and other beneficiaries through established quotas and services and resources channelled directly to them, as shown below.

- 15% Ultra poor small holder farmers with local breeds and have livestock size of 2-5 cattle (dairy and or meat/beef) with no and or limited income (seasonal), jobless/unemployed.
- 40% Vulnerable small holder farmers with local and or improved livestock size of 5-15 cattle (dairy and or meat/beef), highly vulnerable to climate change, dependent on market, animal diseases, and have risk to fall under the poverty line.
- 10% Pastoralists will be involved for contributing to regenerating land, sustaining and management of eco-system and biodiversity, as pastoralists play an important role in pastoralist system and contribute to livestock value chain.
- 25% Micro and Small enterprises that are engaged in dairy and meat value chain
- 8% Medium size enterprises are involved in beef/meat value chain and have potential in generating jobs/employment and contribute to sustaining market and value chain with continues supply of animal sourced products (dairy and or meat)
- 2% private entities such as private vet, private labs, private service providers

27. In line with the new IFAD policy on stakeholder engagement, the project will reinforce grassroots institutions and participation of beneficiaries in various groups to strengthen their social capital, networking, and collective voice. Through community based participatory planning, the project will design mechanisms to ensure meaningful participation of the various beneficiaries in all project services and developing feedback and grievance mechanisms to further strengthen inclusion and mitigate the risk of elite capture.

28. The direct beneficiaries of component 1 will be 50,000 poor dairy smallholder households including 50% women involved in L-FFS

29. The direct beneficiaries of Component 2 will be 54,880 households in total composed of:

- 1,280 off farm workers, 90% women, working in the 128 small scale processing units for milk
- 50,000 poor dairy smallholder households including 40% women, 25% youth, and 3% PWDs benefitting from Nutrition education and social behavior change communication (SBCC) activities
- 18 schools in districts about 3,600 pre-and primary school age kids benefitting from school milk pilots

30. **Enabling policy and institutional environment.** The project benefits from a highly enabling policy and institutional environment fully supportive of the development of the dairy and beef sectors, with a pro-poor and inclusive approach. Identified gaps in terms of policy, laws, regulations and institutional framework will be addressed with the ReLIV support.

I.3. NUTRITION AND FOOD SECURITY

31. **Food insecurity.**

32. Uganda's Global Hunger Index (GHI) score has improved from 35.0 (classified as alarming) in 2000 to 25.2 (classified as serious) in 2023. Uganda ranks 95th out of the 125 countries with sufficient data to calculate the 2023 GHI scores. The GHI scores are based on the values of the country's level of undernourishment, child stunting, child wasting and child mortality¹. The prevalence of anaemia in pregnant women was 30% in 2020.

33. Malnutrition remains a major development problem affecting all regions of the country. Nutrition is particularly important during early childhood growth, influencing an individual's health, cognitive development, and economic outcomes into adulthood. Addressing malnutrition is critical to the country's food security situation, as it is responsible for the deaths of many Ugandans, reduced agricultural productivity and poverty, among other things. Inadequate dietary intake is identified as the main driver of malnutrition, with three main causes: low food intake, particularly due to the seasonality of food production, dietary patterns, and fluctuations in food prices. Other factors include inadequate maternal and childcare, poor access to health care and micronutrient deficiencies, particularly vitamin A and iron, among others.

The average estimated Dietary Energy Consumption (DEC) in Uganda is 2,393 kcal/person/day and households in rural areas have a slightly lower calorie intake than those in urban areas. The Toro, Lango and Teso sub-regions had the highest calorie intake (2,918 kcal, 2,816 kcal and 2,607 kcal respectively). A slight decrease in calorie intake was observed during the COVID19 period. On average, staple foods (cereals, roots, and tubers) are consumed daily, while milk and milk products are consumed least on a weekly basis. The largest share of household dietary energy consumption (DEC) by food source was obtained from own production (49%) in 2019, while in 2016/17 the largest share of DEC was obtained from purchases (57%). About 51% of Ugandans have no access to safe drinking water [19] and a tenth of the population practices open defecation. Diarrhoea kills 33 children every day. The poor bear the greatest burden of poor WASH facilities and conditions, affecting the overall health and well-being of communities. In the livestock sector, environmental health issues arise from the consumption of contaminated or diseased meat and dairy products, as well as food safety and hygiene problems along the beef and dairy value chains. Other risks include

¹ <https://www.globalhungerindex.org/pdf/en/2023/Uganda.pdf>

environmental pollution caused by the discharge of effluent into water and soil, which may end up in food.

I.4. GENDER AND YOUTH IN THE DAIRY SECTOR

34. Uganda's population was estimated at 40.9 million people in 2019 with an estimated 51% of these being female and 49% being male². Most of Uganda's population is comprised of children below 18 years (54%) and youths comprise 19.1% of the country's population.

35. The Government of Uganda considers gender equality and women's empowerment as critical for the attainment of accelerated socio-economic transformation. The country has ratified important gender equality instruments and commitments and put in place legal frameworks to advance Gender Equality and Women's Empowerment (GEWE).

36. The time spent in unpaid care work (UCW) in Uganda is disproportionately high among females as compared to males. In 2019/20, females spent 10 hours more on UCW than males. UCW includes domestic services for own use within the household, caregiving services to household members and community services to help other households³.

37. Although Government of Uganda set up the Equal Opportunities Commission which produces an annual report on the State of Equal Opportunities in the country and signs Gender Equity Compacts with Ministries, Departments and Agencies to track the country's progress towards improving livelihood and wellbeing of the most vulnerable, gaps remain in the economic, political and social inclusion of women in the development process which expanded during the COVID-19 pandemic.

38. Uganda is a patriarchal society with varied social and cultural norms, beliefs, practices and attitudes that undermine the situation and position of women and girls in society. There are unbalanced power relations between women and men, girls and boys in public and private spheres, at household, community and national levels.

39. In most of the Ugandan communities, land and other production assets belong to men and women's access is mediated through men. Multiple discrimination based on gender, age, class and location of residence is further exacerbated for women and girls living with disabilities and/ or HIV/ AIDS.

40. Due to the COVID-19 pandemic, women, youth, elderly and people with disabilities and chronic conditions are most at risk of falling into extreme poverty⁴.

41. There is low participation of women and youth in the dairy and beef value chains and in the cooperatives. The women and youth are also constrained with limited capital, limited access to finance which would enable them to scale up their businesses, limited access to land and appropriate skills to effectively offer services along the dairy and beef value chain. Women have a much heavier domestic workload and there are data gaps on the gender roles along the two value chains. Some of the youth also still have the mindset that dairy and beef production has a long production cycle leading to delayed returns on investment compared to other economic activities, which makes it unattractive. Changing this mindset and creating inclusive opportunities for women and youth will result in holistic community transformation.

42. Youths in Uganda are defined as people aged between 18 and 30 years of age and these make up 19.1% of the country's population with 45.7% male and 54.3%

² UBOS 2021

³ UBOS 2021

⁴ UNDP 2020

female⁵. Uganda is one of the youngest populations in the world with about 74% of the country's population under the age of 30 years and 22% aged between 31 and 59 years⁶. The young people, majority of whom are female, constitute over 60% of the working age population making them a powerful and rich resource for the country's socio-economic transformation.

43. In Uganda, only about 37.4% of the youth, most of them male, are absorbed in the job market in largely lower productivity activities such as subsistence agriculture, petty trade and the informal sector. Majority of the youths face considerable uncertainty concerning work, education and their futures.

44. The youth in Uganda share a disproportionate burden of the difficult circumstances that people experience such as poverty, unemployment and disease. This is partially because of the limited opportunities for practical skills acquisitions and viable employment, and poor access to health and social services.

45. The youth in Uganda face various challenges including prohibitive aspects and contradictions within the legal framework which has precluded young people aged between 14 and 17 years in gainful employment; low access to, and control over, productive resources especially land; limited knowledge and skills in modern farming, processing and marketing techniques; income poverty, driving youth to small income generating activities such as motor cycle transport, petty trade and other lowly paying service sector jobs; lack of marketable skills leading to unstable earnings and job insecurity, because of low education levels; and, scattered interventions targeting the youths under public and non-state projects and programmes without coherent focus on addressing root causes of youth unemployment⁷.

46. Three out of four working youth are in vulnerable employment, as either own account workers or contributing (unpaid) family workers, predominantly in the agriculture sector. Young women in rural areas are more likely to be contributing to family labour and have less chance than young men of obtaining paid work.

47. In spite of the Universal Primary Education, Universal Secondary Education and affirmative action for entrance of young women into tertiary institutions, many young women are still illiterate and lack the vocational skills that would enable them to get employed or create their own jobs. Further more, young women (15-29 years) are faced with a number of gaps in the labour market including higher unemployment rates, wage gaps and higher shares in vulnerable employment among others.

48. In Uganda, youth engagement in agriculture is declining amidst rising youth unemployment, yet the services and industrial sectors, despite growing at considerable faster rates have not created enough jobs for the growing youthful labour force. This has implications on food security, unemployment and underemployment.

49. The withdrawal of youth from agriculture is higher than that of the older cohorts. The shift from agriculture is biased towards the services sector and more prominent among the educated youth. The majority of the youth that work in agriculture face harsh and poorly remunerative conditions. The industry and services sectors being skill driven, agriculture is often seen as the only option for less skilled youth where their return on labour can be enhanced and maximized through less investment in training and capitalization.

50. Most youth in Uganda are engaged in some sort of agricultural activity. However, youth do not see attractiveness of agriculture as a primary income generating activity and are instead interested in agriculture as a second income generation opportunity. This

⁵ Uganda Bureau of Statistics, 2021, Uganda National Household Survey, 2019/2020.

⁶ UBOS 2021.

⁷ Ministry of Agriculture, Animal Industry and Fisheries, 2017. National Strategy for Youth Employment in Agriculture.

results in many youth seeking pathways to the workforce that still allow them to practice some agriculture especially as many of them believe they will one day rely on agriculture after their formal employment.

51. Household methodologies and gender awareness raising campaigns will be implemented to influence gender relations at household and community levels. Some activities such as small-scale processing will target in priority women, while support to private services provision fodder mechanization, private AI and vet services will target preferentially youth.

52. To be youth sensitive, the project will support a youth targeted Rural Labour Market Assessment (RLMA) for the target districts at start-up/baseline to inform youth participation in the selected value chains. The study will aim to identify the barriers and opportunities for Youth employment along the selected dairy and meat VCs focusing on key areas that are critical for youth empowerment.

53. Once the study is done, a detailed Youth sensitive strategy will be developed to roll out youth inclusive detailed engagement plan. To achieve youth empowerment the project will support: a) youth targeted skills training, capacity building, mindset change focusing on livestock husbandry and dairy and meat production as a business, entrepreneurship and equipping youth with tools, and confidence-building; b) increase youth participation, and representation in decision making in various groups (e.g. L-FFS), cooperatives, and other community structures; and d) digital solutions to increase youth participation in market oriented value chain development in dairy and meat sector.

PART II. DESCRIPTION OF ACTIVITIES

Project Objectives and Expected results

54. The **goal of the project** is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda.

55. The **Project Development Objective** is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor and will be nutrition and youth sensitive and will include climate finance.

56. The project will include three components: (i) component 1 on increasing productivity and resilience and reducing the impact of production on climate; component 2 on Enhancing access to markets for smallholder producers and investment in the value chain; and, (iii) component 3 on Policy support and coordination.

II.1. Component 1: Increasing productivity and resilience of dairy smallholder production systems

57. Under this component, the project will support the transformation of smallholder and pastoral production systems in order to improve their productivity, increase their resilience (to climate change and other constraints and shocks such as epizooties), lower their GHG emissions and enhance carbon sequestration in rangelands and pastures.

58. Component 1 will aim to achieve the Project Outcome 1: Increased productivity, resilience and reduced climate impacts of smallholder beef and dairy production systems through 3 outputs: (i) Enhanced access to quality feed, fodder and water; (ii) Enhanced access to veterinary and animal health services, (iii) Enhanced access to breeding services and development of an animal identification system and (iv) Enhanced extension services and technical support to farmers. Each of the four outputs will be achieved through a specific sub-component.

II.1.1. Sub-component 1.1: Improving feed and fodder production, rangeland management and access to water

Expected results

59. The purpose of this subcomponent is to:

- Ensure producers have access to high quality, climate resilient feed and fodder resources, including from pastures and rangelands
- Support the development of efficient feed and fodder supply chains, from the selection and multiplication to the dissemination by private feed producers
- Restore 5000 Hectares of rangelands and improve grazing management;
- Test the potential for conservation agriculture for growing fodder plants

Direct beneficiaries

60. The direct beneficiaries of this component will be 365,700 in total composed of:

- 350,000 livestock owners benefiting from better availability of quality feed and fodder in the districts targeted by the project, including members of cooperatives, and including 40% women and 15% youth involved in activity.
- 400 feed and fodder producers
- An estimated 15 000 (agro)pastoralist HHs will engage in participatory grazing management and receive drought resilient fodder seeds and will benefit from restored rangelands and improved pastures.
- Approximately 300 selected small livestock producers and (agro) pastoralist HHs will join in a pilot of conservation agriculture for fodder growing and receive drought resilient fodder seeds, training and guidance.

Lessons learned and findings

61. This sub-component will build on the lessons learned from:

62. **Feed and fodder.** Feed and fodder are one of the most important levers to increase productivity. In fact, if animal genetic resources are improved without increase the quality of feed and fodder available, milk and meat production will not increase. Many studies have also shown that improvements in feed and fodder digestibility can not only increase productivity but also reduce enteric methane emissions. ILRI has also shown that cattle fed a sub-optimal diet in terms of both quantity and quality will end up emitting more methane. Feeding cattle improved forages, such as *Brachiaria* species combined with a legume such as *Desmodium*, but also residues such as sweet potato vines for example, can boost milk production per cow by 15-40%. Studies by ILRI, ICRAF and KARI have also shown that feeding legume fodder bush or trees like *Calliandra* can contribute to improve the protein content of the ration. Finally, processing roughages like chopping maize stover before distributing to the animals or fermenting fodder in silos, including plastic barrels, can increase palatability and digestibility. It is important to keep in mind that forages are context-specific and differ in their qualities (i.e. dry matter weight/biomass, protein/ nutritional value, fiber content (impact on digestibility/GHG emissions), animal uptake, dry season growth, suitability for grazing, silage or hay (drying), regrowth rate, etc.). This is why it is key to ensure farmers are capacitated to select the best fit for their climate, soil type and feeding needs.

63. **Feed and fodder characterisation and formulation.** While NARA and a few other decentralized labs provide services to producers for testing the quality of fodder sample, the capacity is not sufficient and times for getting results can be long. Improving the quality of the feed rations starts with a baseline assessment of the current ration, including its energy and protein content, to assess what is missing and how it can be corrected/complemented. On farm feed formulation tools such as Rumin-8 (supported by SNV) have also proven to help farmers make better informed choices about their feed and fodder.

64. **Manure management.** Based on past experiences in the region, there is a marked discrepancy between the low rates of adoption of biogas technology and the remarkably high rates of non-adoption. The effectiveness of biogas technology is significantly influenced by the design of the end-use equipment, which plays a key role in determining its acceptability and usability. Sustainable, long-term use of biogas technology requires mitigation of risks affecting household labour supply and livestock welfare. The implementation of improved on-farm management practices is essential to sustain livestock production and ensure the continued success of biogas technology. It is strongly recommended that the design of biogas digesters and end-use equipment considers not only quality standards but also socio-cultural factors. This holistic approach

will ensure a more effective integration of biogas technology into the local context, promoting its acceptance and sustainable use.

65. **Feed balance mechanisms.** The Animal feed action plan developed by FAO (2018)⁸ shows that feed balance mechanisms at national and sub-national levels can help improve planning and better anticipate droughts and other challenges affecting feed and fodder availability. It can also help organise feed and fodder value chains. Tools like the Feed Balance Sheet of FAO⁹ can be used and disseminated for this purpose.

66. **Water harvesting systems.** Community water infrastructure is vulnerable to management and maintenance challenges, mainly due to poor community organisation, weak management systems and lack of maintenance service providers. As a result, the project will prioritise household water harvesting and rehabilitation of community infrastructure, based on a comprehensive feasibility study and capacity building of Community Owned Water Supply Organisations (COWSOs).

67. The **effect of rangeland and pasture management practices** on soil health, greenhouse gas emissions, and community economics is highly dependent upon geographic location, e.g. soil and plant properties, climate, etc.¹⁰. General biodiversity mapping to monitoring rangeland restoration improvement will therefore need to be supplemented with local surveying.

68. **Rangeland and pasture management activities** need a community based participatory approach, combining local knowledge and technical assistance and inputs. IFAD, FAO and ILRI draw upon many lessons, from for instance Tanzania, Ethiopia, Somalia, Kyrgyzstan, Mongolia and Lesotho, regarding rangeland restoration and pasture management¹¹. Rangeland restoration requires multidisciplinary technical assistance, e.g. for establishment of land use rights, GIS monitoring and local surveying, facilitation of establishments of community grazing plans and governing entities and assessment of economic, social and ecological impacts. Integrated tools have been developed to restore rangelands (e.g. UNEP¹²).

69. **Conservation agriculture** has been introduced for food crops and may need adjustments for growing fodder crops. The method entails minimal tillage, soil coverage, mulching and composting, crop rotation and intercropping to minimize erosion and pesticide use and increase water retention and soil organic matter. The system can increase yields under certain conditions, by planting early and longer (using an extra growing cycle during the growing season), nitrogen-fixing, water retention and using crop residues, compost and manure and enables profiting from reduced labour, equipment and fuel. There is, however, little evidence in the scientific literature of positive impacts on the productivity and economic benefits of this method¹³. Also, fodder crops are used in intercropping to reduce diseases in crops¹⁴ and crop residues are used for ground coverage, not for feeding animals. The SHFs and agro-pastoralist in Uganda intercrop food and fodder crops, but do not practice minimal tillage, and soil coverage/composting, possibly missing out on the positive effects of water retention, soil health and mitigating soil erosion. A pilot is needed to make adjustments to the

⁸ <https://www.fao.org/3/ca5965en/CA5965EN.pdf>

⁹ https://www.frontiersin.org/articles/10.3389/fanim.2024.1354728/full?utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Animal_Science&id=1354728

¹⁰ Day, M. E., Tang, M., Lancaster, P. A., Presley, D., Pendell, D. L., Fick, W. H., ... & Ricketts, A. (2023). Simulation of the Impact of Rangeland Management Strategies on Soil Health, Environmental Footprint, Economic Impact, and Human-Edible Nutrient Conversion from Grasslands in the Central and Northern Great Plains of the United States. *Sustainability*, 15(16), 12456.

¹¹ <https://www.ifad.org/en/search?q=pastoralists+projects>

¹² <https://wedocs.unep.org/handle/Range-Restore>

¹³ <https://www.sciencedirect.com/science/article/pii/S2667010021003188> and <https://www.nature.com/articles/s43016-020-0114-x>

¹⁴ <https://wedocs.unep.org/handle/Range-Restore>

conservation agriculture method for fodder production, and test its benefits for and adoption eagerness of the project's cattle owners.

Description of activities

i) Activity 1.1.1. Support the development and dissemination of climate-smart feed and fodder and improved grazing management

70. The project will strengthen the National Agricultural Research Organisation (NARO) and the National Animal Genetic Resource Centre (NAGRC) for the selection and multiplication of feed and fodder species, and their distribution through private seed producers and cooperatives (with a focus on women and youth). Particular emphasis will be placed on legumes and drought resistant/resilient fodder varieties, and on practices such as grass and legume intercropping, agroforestry and weed management. To mitigate the impact of droughts and improve feed and fodder quality, fodder choppers and conservation equipment, including plastic barrels for small-scale silage making, will be provided, including for hay and small-scale silage making. 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. Feed/fodder with higher digestibility will also contribute to reducing enteric methane emissions.

71. Sustainable rangeland restoration and pasture management will be supported for 5000 hectares, based on participatory community-based grazing management and provision of drought resistant and low emission fodder and feed crop seeds for pastoralist and agro-pastoralists households.

72. The project will in the first year conduct a test and pilot on conservation agriculture for the production of drought resistant and low emission fodder and feed crops. The experiment will be executed to esp. test minimum tillage, a push and pull intercropping setting, use of crop residues and manure, in soils common in the project area and then pilot the method and disseminate the outcomes.

ii) Activity 1.1.2. Strengthen feed and fodder characterisation and formulation

73. The project will support national and decentralised feed and soil testing laboratories to enhance their service to producers. Feed testing will focus on the selection of those that reduce enteric methane (e.g. lower fibre, higher energy). Improved access to information on feed/fodder and soil quality will in turn improve the quality of animal nutrition. The project will also support the production and deployment of digital animal rationing tools that take into account the dry matter, but also the crude protein and metabolizable energy content of feed/fodder resources, including for pastures and rangelands. These rationing tools can also be used to select feed for lower enteric methane emissions and can be linked to the GLEAM-i carbon analysis tool. This will build on existing tools in the region, including the ILRI Feed Assessment Tool and the SNV Rumin-8. The project will also encourage the production and distribution of feed blocks.

iii) Activity 1.1.3. Improve manure management

74. Producers will be helped to purchase biogas digesters and composting equipment to improve the efficient recovery of nutrients and energy from animal manure. Biogas construction companies will be contracted in the target areas. Technology adoption studies will be conducted to identify the most effective solutions in specific contexts and ensure widespread adoption of the appropriate technology (e.g. floating drum, fixed dome) among targeted smallholder farmers. Feasibility mapping will guide the strategic construction of biogas digesters in the project area, facilitated through collaboration with local partners and the private sector, including microfinance institutions (MFIs) and

savings and credit cooperatives (SACCOs). Research and development, capacity building and technical assistance will be provided to local stakeholders through implementing partners (e.g. SNV) to promote a commercially viable and market-oriented biogas sector. Recognising the importance of individual ownership and operation for the success of the system, activities will include operations and maintenance, quality management, extension on bio-slurry application (linked to kitchen gardens for improved nutrition), institutional support and digitised monitoring and evaluation (M&E). These activities will help address identified challenges such as high maintenance and logistics costs, significant water requirements and system complexity. Integrating capacity building into the Livestock-Farmer Field School (L-FFS) curriculum will further enhance the impact of the project. In addition, the project will integrate simple circular manure management practices, including pit storage/manure ponds, manure covering with polythene or banana leaves, compaction, composting and biochar addition.

iv) Activity 1.1.4. Develop feed/fodder balance mechanisms at national and district levels

75. This activity will provide support to national and district-level livestock authorities for better and regular planning of feed and fodder balances and enhanced response to droughts and other drivers of feed shortages. The upgraded feed balance mechanism will build on previous work by FAO and other development partners, and will include adequate tools and data on all feed and fodder resources, including GIS-based rangeland monitoring and ground-level sampling. It will also include reliable estimates of animal requirements in terms of dry matter, energy and protein, including data on animal numbers and weights.

v) Activity 1.1.5. Support the development of water harvesting systems

76. The project aims to strengthen water infrastructure at both household and community levels. At the household level, it will facilitate the construction of small-scale rainwater harvesting and recycling systems, including individual dam sheets, 3m³ rooftop rainwater harvesting water tanks, water distribution kits, rainwater micro-dams and solar-powered wells in zero-grazing systems. For dam sheets, the project will provide the liner, while beneficiaries will contribute through site preparation. Rehabilitation efforts will extend to community water infrastructure in pastoral systems, such as charco dams, rock catchments and wells, based on the results of a feasibility study to be undertaken by the project. The project will strengthen Community Owned Water Supply Organisations (COWSOs) with a focus on effective use of water resources and management and maintenance of facilities. Strict safety measures, such as the introduction of fish into the tanks, will be implemented to prevent the spread of mosquitoes. The project will further increase the adoption of soil and water conservation practices in the project area. This will include activities such as dam protection through the construction of animal drinking troughs away from dams to reduce land degradation and siltation. Drawing on lessons from successful CGIAR PICSAs pilots in other East African countries, the project will explore the integration of water harvesting systems with climate information services and assess the potential for added value and scalability.

Phasing of activities under Sub-component 1.1

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity 1.1.1.								
Task 1 Selection and multiplication of climate smart feed and fodder seeds								
Task 2 Multiplication and distribution of climate smart feed and fodder seeds by private seed producers and cooperatives								
Task 3 Sustainable rangeland restoration and pasture management								
Task 4 Conservation agriculture test pilot for fodder plants								
Activity 1.1.2.								
Task 1 Equip labs								
Task 2 Develop capacity for sampling and testing								
Activity 1.1.3.								
Feasibility study and suitability mapping								
Biodigester construction								
Technical assistance on quality management, infrastructure maintenance, safe working standards and equipment, etc.								
Circular manure management and composting practices (e.g., pit storage, composting, biochar addition)								
Activity 1.1.4.								
Task 1 Develop feed balance mechanism								
Task 2 Implement mechanism, including sampling, data collection and analysis								
Activity 1.1.5.								
Construction of small-scale water harvesting systems								
Construction of individual dam-sheets								

Construction of animal drinking troughs								
Feasibility study on communal water infrastructure								
Construction or rehabilitation of communal charco dams								
Establishment and training of COWSOs								

Implementing mechanism and partners

i) Activity 1.1.1. Support the development and dissemination of climate-smart feed and fodder and improved grazing management

77. The dissemination of improved seed for feed and fodder by private producers will be implemented by Districts. NARO and NAGRC will be responsible to select and multiply parental seeds, in particular those that have been tested successfully as climate resilient and more nutritive.

78. The distribution of fodder processing and conservation equipment will be implemented at district level and based on specific targeting criteria.

79. Sustainable rangeland restoration and pasture management will start with land use planning (which land is for crops or rangeland), followed by securing land tenure (customary rights/title deeds). The PMU selects communities and land that align with the targeting strategy and number of hectares required (5000 ha), in contiguous lands preferably forming large stretches of land under restoration and best practices. The PMU will hire experts /NGOs to engage with the communities, and establish participatory work securing land use rights and making communal grazing, seeding, planting and water use plans. For implementation of the plans capacity building with the pastoralist and formation and maintenance of governing platforms/institutions for participatory rangeland management, and technical support will be required. The restoration will also require grazing tools, establishment of water use and maintenance, removal and introduction of plants including resilient fodder seeds and (fodder) trees, that are a hybrid of technical and local knowledge for creating a sustainable rangeland system with ground cover and also include plant species that are palatable and favoured. The communities will implement with assistance of multi-disciplinary technical expertise. Assessment and monitoring of restoration will also comprise a combination of methods, namely GIS monitoring, surveys measuring in the pastures and soil and measuring people's perceptions. The PMU will hire experts/researchers that monitor and provide feedback to the project on the progress that is made. Additionally, the PMU will hire experts for external audits of the governing entities and if not covered by the facilitating NGO/experts, cultural norms change / GALS specialists. (refer to ToRs)

80. The conservation agriculture pilot (esp. minimal tillage, intercropping, use of crop residues) will encompass four growing seasons (2 years) to complete. The outcomes for soil health and fodder productivity will be disseminated and inform the project. In case of immediate positive results after two growing seasons, a scaling up via FFS can be promoted. NARO and a NGO in Uganda have experience in conservation agriculture for crops. In collaboration they can do the testing for the resilient fodder crops and conduct the pilot. (refer to ToRs)

ii) Activity 1.1.2. Feed and fodder characterisation

NARO will lead this activity and identify decentralised labs to be equipped and supported for capacity for sampling and testing feed and fodder quality

iii) Activity 1.1.3. Improve manure management

81. Biogas construction companies will be engaged throughout the country and will be responsible for the construction of bio-digesters. Activities will also include research and development, capacity building and technical assistance to local actors through implementing partners to be identified. This activity will be based on concerted action by MAAIF, NARO, ILRI, the Ministry of Energy and Mineral Development (MEMD), private sector service providers (Biogas National Alliance, Bio Solutions Uganda) and other specialised implementing partners (e.g., SNV).

iv) Activity 1.1.4. Feed balance mechanism

MAAIF-DAR will be responsible for developing and implementing the mechanisms, based on existing feed balance sheet in the country, improved methodologies including form FAO, and data providers, including from remote sensing.

v) Activity 1.1.5. Support the development of water harvesting systems

82. District officials, guided by local government authorities, will lead the design – together with other identified partners (e.g. Heifer International), and implementation of water infrastructure, while COWSOs will oversee operation and maintenance.

Exit strategy / sustainability

i) Activity 1.1.1. Support the development and dissemination of climate-smart feed and fodder and improved grazing management

83. For fodder seeds production, processing and conservation, it is expected that demonstrations conducted through L-FFS will create a sufficient demand, and that this demand will be sufficient to make the seed production business profitable and sustainable, once the project will stop buying seeds for subsidized distribution. In Rwanda where a similar approach was followed, fodder seeds production has become a profitable business, sometimes even more than dairy production.

84. For sustaining improved rangeland (and expanding further restoration into other areas), securing land use rights is essential. People will not invest without enduring use rights. Furthermore, the maintenance of governing platforms/institutions for participatory rangeland management is essential to continue to enforce the continuous planning and implementation of communally planned grazing and reseeded/propagation of certain plants, if necessary. Regular access to technical support, e.g. from NARO or a specialized NGO, can further enhance sustainability.

85. Depending on the results of the conservation agriculture pilot for fodder crops, the benefits and drawbacks of the method for the adopters will determine its sustainability. It is a low cost system, but requires a good understanding (farmer knowledge). Dissemination and e-learning (e.g. short peer-to-peer clips) can assist in reaching more SHFs and impact.

ii) Activity 1.1.2. Feed and fodder characterisation

86. Once equipped and capacitated, the labs will operate independently from the project. The demand for analysis is already high and cannot be met by the existing capacity. The training on feed/fodder formulation received by the producers should also increase this demand even higher.

iii) Activity 1.1.3. Improve manure management

87. 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 reduction of overgrazing preserves natural vegetation, while the recycling of biosolids minimises surface water pollution and greenhouse gas emissions, contributing to a healthier environment for future generations. 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.

iv) Activity 1.1.4. Feed balance mechanism

88. Experience from other countries in the region (Ethiopia, Kenya) has shown that a solid base for capacity and data source is required to sustain the mechanism after the project is completed. This should be achieved in the 8 years duration of the project, including with the support of regional cooperation for improved resilience as part of the GCF project DaIMMA, which aims to set up platforms for exchange of information, data, expertise and dissemination.

v) Activity 1.1.5. Support the development of water harvesting systems

89. The sustainability of water harvesting facilities in Uganda is critical to addressing the country's water security challenges and promoting resilient communities. Water harvesting, which includes technologies such as rainwater harvesting and small dams, plays a key role in capturing and storing rainwater, particularly in regions prone to erratic rainfall patterns. Ensuring the sustainability of these facilities requires a multi-faceted approach. First and foremost, community involvement and local capacity building are critical components. Involving communities in the planning, implementation and maintenance of water harvesting structures fosters a sense of ownership and encourages responsible use and maintenance. In addition, the integration of traditional knowledge with modern techniques contributes to the longevity of these facilities. Regular maintenance, coupled with training in repair and maintenance, ensures the continued functionality of water harvesting infrastructure. Incorporating climate-resilient designs, using durable materials, and aligning water harvesting efforts with broader water resource management plans are also important aspects of ensuring long-term sustainability. In addition, partnerships with government agencies, NGOs and local organisations can provide ongoing support, technical expertise and financial resources to sustain water harvesting initiatives in Uganda.

Main risks and mitigation

i) Activity 1.1.1. Support the development and dissemination of climate-smart feed and fodder and improved grazing management

90. Risks associated with the feed/fodder seeds activities and processing/conservation equipment are limited to elite capture which will be limited by the targeting strategy and its rigorous application

91. Explicitly securing land use rights for rangeland restoration can stir tensions. If necessary, the PMU (with MAAIF and MoFPED) may need to engage with the MoLHUD on this issue.

92. Communal plans and actions can benefit some community members more than others and power disparities can corrupt governing entities. Gender, youth and wealth sensitivity is especially important in the (continuous) participatory planning, but also in the governing entities. A good representation of the less wealthy and empowered and

their interests is essential for the whole exercise to succeed and sustain. Governing entities (local government, chiefs, grazing and water user groups), if biased towards the interests of the most powerful, will hamper the outcome and sustainability. Regular external audits - also including participatory meetings and focus group interviews with the less empowered - of the governing entities that influence water access, grazing plans, implementation and enforcement, need to take place for prevention and correction of ill governance.

93. (Agro) pastoralists may be inclined to keep more cattle if the grasslands produce more grass and fodder. The grazing plans need to include selling animals for beef production as a condition and address wealth distribution. The community members will need to agree on certain poor households being allowed to increase the herd size in a controlled way for livelihood resilience, even at the expense of their own numbers. These poor HHs can be FHHs or youth. This will require a transformation of some cultural norms for the benefit of sustaining pastoral livelihoods in the communities during the participatory sessions (comparing to and possibly including GALS).

94. Conservation agriculture is nature positive and can be seen as a mitigation instead of a risk. However, it is important that the method reaps good yields, is workable and adds to farmer income increase. Economic sustainability is an important aspect of the pilot, which the PMU should insist on. Adopting elements of the method instead of the whole method can be an option.

ii) Activity 1.1.2. Feed and fodder characterisation

95. The main risk is the low adoption of feed/fodder quality tests by producers, due to additional cost of production. This risk is estimated to be low as the demand is currently not met by NARO and private labs.

iii) Activity 1.1.3. Improve manure management

96. The main risk associated with the introduction of biogas at household level is the potential low uptake of biodigesters by the targeted smallholder farmers. This reluctance may be due to challenges associated with the maintenance of biogas digesters and uncertainties about their proper functioning. Several key strategies can be implemented to effectively address and mitigate this risk. First, selecting knowledgeable local partners is critical, as they can facilitate adoption, provide training, and offer ongoing support to ensure successful implementation. Furthermore, investment in applied research addresses technical challenges, improves technology efficiency and contributes to the continuous improvement of biogas systems. In addition, thorough training equips smallholders with the knowledge and skills needed to properly operate and maintain biodigesters, ensuring long-term functionality. Engaging the local community and raising awareness promotes acceptance and ownership, and involves community members in planning and decision-making processes. Finally, establishing a comprehensive M&E system is essential to track progress and identify challenges early on, providing evidence for timely adjustments to the implementation strategy.

iv) Activity 1.1.4. Feed balance mechanism

The main risk is the low availability for data to inform the feed balance tool developed by MAAIF-DAR. This risk will be mitigated by the collaboration with other countries, especially as part of the DaIMA project financed by GCF, which includes regional cooperation for data, expertise, knowledge-sharing and dissemination

v) Activity 1.1.5. Support the development of water harvesting systems

97. In Uganda, water harvesting facilities and community water infrastructure face several risks that can reduce their effectiveness in providing reliable access to water. A key risk is vulnerability to climate variability, as changing weather patterns can affect rainfall and therefore the amount of water collected. To mitigate this, implementing

diverse water harvesting techniques, such as incorporating rainwater harvesting systems alongside groundwater and surface water sources, can improve resilience. In addition, poor maintenance and limited community involvement pose challenges to municipal water infrastructure. To address this, community-based management models and the involvement of COWSOs, coupled with regular training and awareness programmes, can empower local people to take ownership of the facilities and ensure their continued functionality. In addition, the risk of water contamination in communal systems underscores the importance of water quality monitoring and sanitation practices to protect public health. Overall, a holistic approach that includes climate-resilient infrastructure, community engagement and rigorous quality control measures is critical to the sustainable success of water harvesting facilities.

Contribution to IFAD's mainstreaming themes

98. **Gender:** Women will be specifically targeted for fodder seed production activities. Men are generally the owners of cattle and income of cattle sales and will have the primary interest in improving feed and fodder from restored rangelands and improved grazing management. Women and children are indirectly benefiting from increase in HH wealth and possibly an increase in milk yields. Labour inputs required of them, however, may increase. Gender transformation may then be required. This will be addressed in the participatory planning. FHHs need special attention and representation of their interests in the grazing plans and governing entities.

99. Agriculture conservation is overall labour saving. It should be monitored if the method does not shift men's labour to women's labour, e.g. when fodder growing is integrated in food crops, then planting, watering and weeding may be added to women's tasks instead of being shared.

100. **Youth:** Youth will be specifically targeted for fodder seed production activities. Youth in pastoral systems are not owning or owning few heads of cattle. Seniority is culturally embedded. Equal to women not owning cattle (and FHHs with few cattle), the project will address this cultural norm in the participatory sessions for grazing plans and number of cattle HHs are allowed to rear and maintain.

101. Youth may more readily adopt agriculture conservation for fodder growing as an innovation and as a low cost system.

102. **Nutrition:** Improved feed and fodder quality will result not only in higher milk and meat availability but also increased quality of products. Conservation agriculture for fodder crops will also have food crops intercropped. With improved soil health and water retention, the yield and nutritional value of the food crops could increase. Good fodder and feeding will also assist animal health and production, providing more income for purchase of food and ASFs for home consumption.

103. Restored rangeland and improved pastures, more cattle being sold for beef and raising HH income, does not automatically improve nutrition of women and children in the HH. In addition, (agro)pastoralists often lack agricultural skills and knowledge to improve the soil and water retention for production of vegetables. The conservation agriculture pilot will also incorporate (agro) pastoralists.

104. **Climate change:** Improved feed and fodder quality will directly impact GHG emissions from enteric fermentation and from manure management. Indirectly, feed and fodder production can also contribute to reduce GHG emissions from cultivated crops. On the adaptation side, the species and varieties of feed and fodder selected and disseminated will be drought resistant and contribute to adaptation in other ways (e.g. shade from calliandra trees)

105. Rangelands and pastures have enormous capacity to sequester carbon, thus play a significant role in climate change mitigation. Restoration will increase carbon

sequestration and the capacity to sequester. Biodiversity and resilience (climate change adaptation) will also increase.

106. Conservation agriculture for fodder crops will be used to demonstrate a possible impact for climate change mitigation and biodiversity increase. The method can help sequester carbon (plant roots remain in the soil and decompose), and decrease the need for high quantities of fertilizers and pesticides (production and transport of these entails high CO₂ emissions).

107. **Climate-smart feed and fodder and improved grazing management.** Climate-smart livestock feed is an innovative approach with significant implications for climate adaptation and mitigation in agriculture. By optimising the nutritional composition of animal feed, researchers and farmers can increase livestock productivity while minimising environmental impacts. Climate-smart feed formulations aim to reduce methane emissions from enteric fermentation in the ruminant digestive system, a significant contributor to greenhouse gas emissions. In addition, these feeds can contain sustainable ingredients that emphasise resource efficiency and promote resilient agricultural practices. By improving feed efficiency and nutrient utilisation, climate-smart feeds not only support animal health and productivity, but also help to reduce the environmental footprint of animal agriculture. This innovative strategy is in line with the broader goals of sustainable intensification and climate-resilient agriculture, and promotes a greener and more adaptable approach to livestock production in the face of climate change.

108. **Manure management.** The use of biogas technology offers significant climate change adaptation and mitigation benefits, addressing environmental and agricultural challenges in a holistic way. Biogas systems produce nutrient-rich bio-slurry as a by-product, which acts as an organic fertiliser that improves soil fertility and supports healthier forage and fodder crops. This in turn contributes to livestock health and resilience in the face of changing climate conditions. Biogas systems also play a key role in reducing GHG emissions, particularly methane, from livestock manure by capturing it through anaerobic digestion. In addition to providing a sustainable energy source for on-farm cooking and electricity generation, biogas systems contribute to a lower carbon footprint by reducing reliance on traditional fossil fuel-based energy sources. This adaptability helps to address potential energy challenges and disruptions caused by climate-related events. In addition, the bio-slurry produced by biogas systems is not only a valuable organic fertiliser, but also biologically safe. The anaerobic digestion process eliminates harmful pathogens, ensuring a safe and healthy environment. In summary, biogas technology demonstrates a holistic approach to climate-resilient agriculture that includes soil fertility, greenhouse gas reduction, closed-loop manure management and sustainable energy solutions.

109. **Water harvesting systems.** Water harvesting systems in Uganda offer significant climate change benefits by making the project area more resilient to a changing climate. These systems address critical challenges such as prolonged dry spells and unpredictable rainfall patterns, which are common problems exacerbated by climate change. By capturing and storing rainwater, they provide a reliable, decentralised source of water, reducing reliance on traditional supplies that are vulnerable to climate-related variability. In addition, water harvesting systems help to conserve soil moisture and prevent erosion, supporting sustainable agricultural practices. The availability of harvested water facilitates irrigation during dry periods, thus promoting crop production despite changing rainfall patterns. As a climate adaptation strategy, water harvesting provides water security and supports biodiversity conservation by maintaining ecosystems. Similarly, the construction of water troughs for livestock not only ensures consistent access to water, promoting animal resilience to changing weather conditions, but also reduces soil erosion by centralising water sources and minimising the risk of overgrazing near natural water bodies. This sustainable land use practice contributes to soil conservation, mitigates the effects of climate change and promotes a resilient and ecologically sound farming system.

II.1.2. Sub-component 1.2: Improving management and delivery of animal genetic resources (AnGR)

Expected results

110. The purpose of this subcomponent is to:

- Establish a functional Livestock Identification and Traceability System;
- Support adoption and roll out livestock Identification throughout the project area;
- Increase the operationality and outreach of the Artificial Insemination services;
- Disseminate improved and climate resilient breeds through private breeders, community breeding mechanisms and Government ranches;
- Support the availability of animal feed

Direct beneficiaries

111. The direct beneficiaries of this component will be 350,410 in total composed of:

- 350,000 livestock owners benefiting from Livestock Identification including tagging of their animals
- 30,000 livestock owners receiving AI services
- 1,500 poor livestock owners receiving improved live animals
- 410 youths trained as AI technicians and equipped

Lessons learned and findings

112. This sub-component will build on the lessons learned from other IFAD interventions that have supported implementation of Animal Identification systems, in the region (Rwanda) and in Middle East (Jordan, Syria):

113. **Adoption of animal identification requires intense awareness raising to combat taboos, traditional beliefs and resistance to change:** this is particularly true in pastoral systems where animal ownership is often associated with capital saving, and where disclosing the size of herd owned is often a taboo. Resistance is also often due to the fear of taxation. These constraints are usually less prominent in market oriented systems where the benefits of identification are more clearly perceived. This calls for important efforts on awareness campaigns, to demonstrate the benefits of identification and promote adoption.

114. **Design of LITS requires highly specialized expertise with prior experience:** the success and the sustainability of a LITS is highly dependent on the quality of the design of the system, which should be user friendly, flexible (should allow addition of modules), with low maintenance requirements. Countries are often tempted to use national expertise to develop the systems, because of various legitimate considerations including national sovereignty and cost. But in a country that has no LITS, national experts have by definition no prior experience in the domain, which often leads to inadequate system design, requiring review or redesign at a later stage.

115. **Maintenance of Liquid Nitrogen production units is often the weak link of the AI supply chain:** Liquid Nitrogen (LN) is essential for the supply chain of AI, and can also serve other purposes such as conservation of vaccines against East Coast fever. However, LN machines are complex machinery that require highly qualified technicians for their maintenance and involve high maintenance costs and energy costs. The multiplication of production units is thus often counterproductive, and an alternative

should be to strengthen the distribution system to ensure a good coverage of the territory. Securing a significant budget for maintenance under the project is also a guarantee of mid term sustainability.

116. Heat detection and infertility can be a major barrier to adoption of AI: since AI is usually done on natural heats, it requires an early detection of heats by farmers. This is often difficult in small herds and zero grazing systems where animals cannot exteriorize heat signs. Fertility issues, often caused by inappropriate feeding, also lower AI success rate. It is thus of foremost importance to train farmers on heat detection, and raise their awareness and knowledge on fertility aspects, which can be done in the scope of FFS mechanisms. Heat synchronisation (or induction) can also be a good alternative especially in pastoral systems where access to animals is not easy.

Description of activities

117. Activity 1.2.1. Strengthen and implement the Livestock Identification and Traceability System:

ReLIV will support the roll-out of the Uganda Livestock Identification and Traceability System (ULITS), which will enhance ownership identification and enable performance recording and productivity advisory for producers, effective breeding, more efficient disease control, theft control, and traceability. It will also facilitate access to services such as finance and insurance. The project support will aim at rolling out the system throughout the project area, and will include testing, and possibly upgrading, of the existing software, awareness raising of stakeholders, training of users and co-financing of identification devices (ear tags) and equipment (readers, tablets for data entry).

118. Assessment and upgrading of the information system and software: the software and information system that was developed by Makerere University and a local consultancy firm under the EU-funded MOBIP project has only been piloted in a few Districts so far. The project will assess the lessons of this first pilot, the compliance of the system with IGAD regional guidelines on LITS¹⁵, and WOAHA standards¹⁶, and will provide support for the system upgrading, if necessary. This task will be implemented by a service provider with a proven experience in establishing LITS systems in other countries, in line with lessons mentioned above.

119. Awareness raising of stakeholders: in order to address issues of resistance to change mentioned in lessons learned section above, and support adoption, the project will implement awareness campaigns targeting primarily livestock farmers in the project area, but also other value chain actors such as public and private veterinarians and paravets, AI technicians, cooperative leaders, community leaders, local authorities, cattle traders, abattoirs, butchers, and milk processors.

120. Training of users: the service provider engaged for the assessment and upgrading of the LITS will also provide training for the users. Training will be provided first to the ULITS unit staff that will be managing the database at MAAIF. Then field users will be trained to use the data entry web interface, and perform animal identification.

121. Provision of equipment: the same service provider will develop technical specifications for the equipment needed to roll out the LITS. This will include computers and tablets for data entry, ear tags, taggers, and readers for barcodes and Radio Frequency Identification (RFID) devices. Identification devices will conform to international recommendations (WOAHA and ICAR¹⁷ global standards, IGAD regional guidelines). 3 million ear tags will be purchased under the project which will cater for around 50% of the cattle in the project area.

¹⁵ <https://icpald.org/wp-content/uploads/2019/04/Livestock-Identification-and-Traceability.pdf>

¹⁶ https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_ident_traceability.htm

¹⁷ <https://www.icar.org/index.php/certifications/animal-identification-certifications/>

122. Activity 1.2.2. Strengthen livestock breeding services/animal genetic resources

123. The public artificial insemination (AI) mechanism will be strengthened to improve the 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. Conservation and improvement of indigenous breeds will also be supported at the level of Government ranches and private breeders. Dissemination of improved breeding stock (local or crossed) that are suitable for extensive or semi-intensive production systems (including for animal traction when relevant) will be supported through Government farms or community breeding mechanisms. 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.

124. **Upgrading of central semen production laboratory:** part of the AI semen used in Uganda are imported, but majority is produced in the Country in the NAGRC & DB central AI center in Entebbe, which has a bull station and a semen processing laboratory. The quality of semen produced in Entebbe is however not optimal, due to obsolete installations and low quality of bulls, which leads to low success rates and poor acceptance of local semen by farmers, despite their much lower price. The project will thus support the upgrading of the laboratory, including purchase of new equipment and refurbishment of premises. 9 elite bulls selected among climate resilient breeds adapted to the production systems of the project area, will also be purchased and placed in the center.

125. **Production and distribution of liquid nitrogen (LN):** Uganda has now two operational liquid nitrogen plants, one in Western Uganda, one in Entebbe, which is not enough to cater for the needs of the whole country, and Eastern and Northern Uganda being from production points are the least well served regions. LN is available only sporadically in these areas, and semen for AI can thus not be stored as it requires constant availability of LN, which prevents having AI service on demand as it should be. The project will thus establish one new LN production unit, which will be located in a strategic location to be determined within a central location in the Eastern and Northern regions. In order to mitigate the risk of poor maintenance mentioned in the Lessons section above, a budget will be provided for maintenance of the unit during the whole project duration. However, you will have to cater for energy needs that will have to be budgeted adequately.

126. 4 regional AI sub-centers will also be established in the project area, in order to improve distribution and availability of LN and semen. These centers will be composed of a simple but secured building, equipped with LN and semen storage and transport tanks. AI technicians will be able to LN and semen from these centers, instead of Entebbe as it is currently the case. To ensure the wider coverage of LN, the project will procure 3 LN trucks.

127. **Training and equipment of AI technicians:** 410 AI technicians (10 per district in average) will be trained at NAGRC&DB headquarters in Entebbe. All of them will be youth and at least 25% of them will be young women. The training will involve theoretical sessions as well as practical ones including on animals in abattoirs. Once graduated, these technicians will be equipped with an AI kit consisting of a storage flask, two AI pistols, and consumables (gloves, straw sheaths, lubricant, etc...).

128. **Support to NAGRC breeding ranches:** NAGRC owns several breeding ranches including three in the project area. In these ranches, breeding stock of exotic and local breeds is raised for conservation, genetic improvement and dissemination. The project will provide support to the 3 ranches to improve their infrastructures (fencing to prevent intrusion of animals from neighbouring communities, rehabilitation of buildings,

equipments), and purchase elite parental breeding stock (mostly bulls, e.g. boran bulls from kenya). Moreover, to mitigate the shortage of livestock feed availability and possible prolonged drought periods, ReLIV will support the construction of one medium size feed processing plant in one of the NAGRC ranches in the central region including storage.

129. **Dissemination of improved local and crossed stock from breeding ranches and private breeders:** The breeding ranches produce selected animals of pure local breeds, and hybrids of local and exotic breeds, that are then distributed to communities on subsidized prices. This system allows rapid upgrading of local herds, especially in remote areas where AI is not available. The project will scale up these mechanisms and support dissemination of 1,500 crossed animals (e.g. jersey x local zebu, or ankole x sahiwal, that are well suited to local production systems) to poor households, with priority to female headed households. Some of these animals may also be procured from private accredited breeders.

130. **Support to breeders association:** breeding and conservation efforts for local breeds are also undertaken by private breeders, but in an uncoordinated manner so far. The project will thus support the creation of breeding associations, based on the model of the European "herd book" associations, in order to implement coordinated breeding and conservation schemes. These efforts will be supported by the implementation of the LITS, that will allow performance recording, progeny testing and selection of elite breeding stock. The main breeds targeted will be the iconic Ankole cattle, the East African Zebu, and the Boran zebu.

Phasing of activities under Sub-component 1.2

Activity/task	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Activity 1.2.1. Strengthen and implement the Livestock Identification and Traceability System								
System assessment and upgrade								
Awareness campaigns								
Training of users								
Procurement and provision of equipment								
Procurement and provision of era tags								
Activity 1.2.2. Strengthen livestock breeding services/animal genetic resources								
Construction of Liquid Nitrogen Plant								
Construction of AI sub regional centers								
Upgrading of AI semen production laboratory in Entebbe								
Purchase of elite bulls for semen production								
Training and equipment of AI technicians								
Support to NAGRC breeding ranches								
Dissemination of improved local and crossed stock from breeding ranches and private breeders								
Support to breeders' associations								

Implementing mechanism and partners

131. **LITS:** a service provider with prior experience in establishing LITS will be hired to : (i) assess the existing system and draw lessons from the first pilots; (ii) upgrade the system in accordance with international recommendations and standards, building on the pilots lessons; (iii) provide training to users; and (iv) develop technical specifications for equipment to be purchased by the project. The awareness campaigns will be conducted by MAAIF/DAR, and procurement of equipment will be the responsibility of PMU and MAAIF/DAR.

132. **Strengthen livestock breeding services/animal genetic resources:** this activity will be entirely implemented by NAGRC&DB who has the mandate in this domain. In addition to activities for which it will be the project support recipient (rehabilitation of semen and LN production unit, strengthening of NAGRC&DB ranches) NAGRC will also be the service provider for activities benefiting to other stakeholders including training and equipment of AI technicians, and for support to private breeders associations.

Exit strategy / sustainability

133. **LITS:** sustainability of LITS is known for being a delicate issue. Once identification has been accepted by stakeholders, the next challenge is to ensure that there is a sustainable mechanism for financing identification. In countries where the beef industry is well organized and export oriented (e.g. Botswana), the cost of tagging can be borne by the beef industry, but the Ugandan context may not be favourable for this, at least for the moment. In this case, the only solution would be a cost sharing arrangement between Government (Central or local¹⁸) and farmers. However, the experience shows that it is only possible once the practice has been fully accepted and adopted, which can only happen if the cost of tagging is entirely or partly subsidized. The project will thus cater for the cost of tags for 3 M animals initially, but these costs should be progressively taken over by farmers (individually or through their organizations), especially market oriented ones, and by the industry in the beef sector where tagging provides clear added value to the animals.

134. **Sustainability or artificial insemination services** is based on cost sharing arrangements and contributions of beneficiaries to the cost of AI. The project will not subsidize directly AI costs, so as not to distort already existing cost sharing arrangements. However, the cost of LN production will be covered during 5 years, in order to reduce the production cost and support adoption in the project area, where AI uptake is so far low compared to the rest of the Country.

Main risks and mitigation

135. **Animal identification:** the main risk for animal identification is related to the lessons mentioned above on low acceptance and low adoption, and to poor sustainability. The first risk can mostly be mitigated by awareness raising, but also by enforcement of the regulations (regulations on animal identification have been developed but are yet to be adopted - the project should ensure that it is the case before investing in the system). The sustainability risk has to be addressed since the project startup, by progressively introducing cost sharing modalities for tagging.

136. **Risk of extinction of local breeds:** in Uganda like in other countries in the region, most of the efforts to enhance genetic potential of cattle have been dedicated to crossbreeding with exotic breeds, especially friesian holstein in the dairy sector. In areas where cross breeding has happened for several decades, local breeds have almost disappeared. Uganda is home to two main local cattle breeds, the ankole longhorn cattle and the East African zebu, which are both dual purpose hardy breeds. Ankole is a better milk producer and produces better carcasses than the zebu, and is now used for producing crossbreed zebu x ankole that are well suited to the local conditions, have a

¹⁸ In Kenya, Counties contribute to the cost of identification, on their own budget.

decent productivity, and can also be used for draught power. It is thus important to preserve these local breeds, in the first place to be able to use them in such crossbreeding schemes, but also more generally to preserve biodiversity and traits of resilience to heat, diseases and parasites. This is the role of the NAGRC ranches, but also of private breeders that the project will both support. While working on the breeding strategy (see policy component), the project will also ensure that aspects related to conservation of indigenous breeds are properly addressed.

Contribution to IFAD's mainstreaming themes

137. **Youth:** all the 410 AI technicians trained under this sub-component will be youth. AI can be a good source of additional income and provide employment/jobs for rural youth, especially for those with an already existing activity in the livestock sector (milk transporters, veterinary technicians).

138. **Nutrition:** LITS will improve the traceability of livestock and their products, and in particular meat. Traceability of meat will reduce the food safety risk and the risk of transmission of zoonotic diseases.

139. **Climate change:** Climate-smart breeding is a key strategy in the agricultural sector with profound implications for climate change adaptation and mitigation. This approach involves the selection and development of livestock breeds with increased tolerance to changing climate conditions such as drought, heat or pests. By raising climate-resilient breeds, farmers can ensure more reliable productivity levels and better adapt to the unpredictable challenges of climate change. In addition, these resilient breeds often require fewer resources and inputs, contributing to sustainable agriculture. Beyond adaptation, climate-smart breeding also plays a role in mitigation by sequestering carbon through improved land management practices and reducing the need for intensive agricultural inputs that contribute to greenhouse gas emissions. As a result, the integration of climate-smart breeds into agricultural systems serves as a dual-purpose solution, strengthening the resilience of food production while mitigating the sector's impact on climate change.

II.1.3. Sub-component 1.3: Improving animal health services for resilient and low-emission animals

Expected results

140. The purpose of this subcomponent is:

- Increased effectiveness of public institutions for the delivery of public-good related veterinary services such as control of Transboundary Animal Diseases, parasitic diseases constraining production and zoonotic diseases, including disease surveillance and rapid response, vaccination campaigns, laboratory testing, contingency planning, etc.;
- Improved access of smallholder farmers and (agro)pastoralists to last mile animal health and production services that increase productivity, control animal diseases, reduce One Health risks, strengthen climate resilience, and reduce GHG emissions, by support to the emergence of private service providers for private-good related services, such as prevention and control of production diseases and AI services;
- Establishment of One Health collaboration and action through interprofessional, interagency workshops and tasking, formation of Task Forces, actions to reduce antimicrobial resistance (AMR) and antiparasitic resistance based on information and best practices, such as policy reform and frameworks for good stewardship.

Direct beneficiaries

141. The direct beneficiaries of this component will be 1,001,284 in total composed of:

- At least 200,000 targeted smallholder farmers and (agro)pastoral households, including 40% women and 25% youth, involved in dairy and/or beef production, getting access to affordable good quality veterinary care;
- Approximately 400 (para)veterinarians, including CAHWs, and especially including women and youth, receiving training and access to finance to establish themselves in the project area as private (para)veterinarians;
- 41 District veterinarians benefit from laboratory equipment and consumables and a refresher training, and at least 3 laboratory veterinarians in regional laboratories benefit from training, upgraded laboratories (to level 2), including sample transport and waste infrastructure, and increased demand for their services from the project area;
- 146 District veterinarians and an estimated 730 Subcounty (para)vets benefit from digital reporting technologies and training for disease intelligence;
- MAAIF staff in DAR enabled to do disease contingency planning, perform early response actions and disease surveys and to instigate mass vaccination campaigns;
- MAAIF staff in DAR to engage in One Health policy and action with relevant institutes and other ministries and grow political/policy/funding weight to sustain One Health action and strategy;
- Indirectly, all livestock owners, their animals and the public of Uganda will benefit from the project's improved (last mile) animal disease prevention and control, access to diagnostic capacity (laboratory confirmation) and improved animal health; this improving national disease surveillance, contingency planning and One Health Action.

Lessons learned and findings

142. This sub-component will build on the lessons learned from :

143. Public and private veterinary services: Sustaining effective veterinary services and extension is pivotal for animal health, for One Health and resilience and GHGe reductions. By estimation understaffing and under-resourcing of the (public) animal health service is 40 to 50%. Concepts for increasing last mile animal health services, such as CAHW and the privatization of (paravets), have been introduced and the World Organisation for Animal Health (WOAH) has developed guidelines for PPPs in the veterinary domain¹⁹. Guided by lessons learned from other countries, such as Mali, Indonesia, Ethiopia, Paraguay and IFADs C-STDP in Tanzania, and an economic feasibility map, the project will guide and monitor the privatisation process. The concept of Agrovets (CAVE model) will not be promoted for reason of stimulating over the counter sales of antimicrobial and anti-parasitic chemicals. Poor regulations and stewardship of the use of these chemicals pose an increase in animal health as well as One Health risks. Having (para)vets visiting the farms of the rural poor is essential for early detection and response of communicable diseases and establishing a functional disease intelligence system. Animal identification, digitalization of disease surveillance, laboratory confirmation of clinical diagnoses, contingency planning including strategic

¹⁹ Hosain MZ, Kabir SML, Kamal MM. Antimicrobial uses for livestock production in developing countries. *Vet World*. 2021 Jan;14(1):210-221. doi: 10.14202/vetworld.2021.210-221. Epub 2021 Jan 25. PMID: 33642806; PMCID: PMC7896880.

preventive and disease containing mass vaccinations, are also necessary to realize a functional disease intelligence system, requiring resources and capacity (FAO GEMP²⁰). Women, working in last mile animal health services, go the extra mile and show ambition to improve their knowledge and skills to better serve the animal owners and remain with the community²¹.

144. **Laboratory infrastructure:** Disease control and prevention need information for decision making both at farm level as well as at regional/national level. Laboratory diagnostic capacity is indispensable for that. Uganda's veterinary laboratory infrastructure needs re-establishment and upgrading. IFAD projects focus on having impact at the farm level for which last mile services are crucial. Re-establishment of the laboratory infrastructure will therefore follow a bottom up approach, from Sub-county level (pensite kits and tablets) and re-establishing district veterinary investment laboratories to biosafety level 1. Existing regional laboratories will be upgraded from level 1 to level 2. More advanced laboratories, biosafety level 3 and beyond can be left to other projects (e.g. Fleming Fund, Pandemic Fund).

145. **One Health collaboration** is necessary to prevent and contain zoonotic diseases, AMR and anti-parasitics resistance and use; this requires a breaking down of professional and institutional silos, which will only occur in case of setting common tasks and a conducive policy environment. For instance, without changing legislation for unrestricted (over the counter) sales of antimicrobials, monitoring and enforcement and without basic good animal health care, a reduction in livestock-originated AMR cannot be expected²².

146. It is vital to implement best practices for **controlling (the impact of) parasitic diseases**. Animal production losses to parasitic diseases, such as tickborne diseases and trypanosomiasis in large parts of Eastern and Southern Africa, if uncontrolled, are constant and high, making animal production economically unviable (diseases of constraint). Abundant and intensive use of chemicals against these disease agents and their vectors (ticks and tse tse fly) are causing antiparasitic resistance and pollution of the environment²³. Accurate recent use and resistance figures in Uganda are unknown, but the widespread frequent mal-use of curative chemicals to prevent infection or infestation is highly indicative²⁴. Development of vaccines against these multicellular disease agents and the vaccine delivery pathway has proven very complex and costly²⁵. Reducing vector infestation as part of Integrated Parasite Management (IPM) by using tick and tsetse fly traps has required constant maintenance and community solidarity that has faded. New developments in entomology, e.g. using odours as bio-repellents and natural enemies, such as predators and fungi, can assist in reducing the use of

²⁰ Baudoin F, Hogeveen H and Wauters E (2021) Reducing Antimicrobial Use and Dependence in Livestock Production Systems: A Social and Economic Sciences Perspective on an Interdisciplinary Approach. *Front. Vet. Sci.* 8:584593. doi: 10.3389/fvets.2021.584593

²¹ <https://www.woah.org/app/uploads/2021/03/oie-ppp-handbook-20190419-enint-bd.pdf>

²² <https://www.fao.org/3/cb3833en/cb3833en.pdf> and Leitch, Helen; Gaurav, Abhinav; Bihari, Bipin. 2020. Building Last Mile Livestock Extension Services for Rural Communities in Jharkhand, India. South Asia Agriculture and Rural Growth Discussion Note Series; No. 12. © World Bank, Washington, DC. <http://hdl.handle.net/10986/34718> License: [CC BY 3.0 IGO](https://creativecommons.org/licenses/by/3.0/).

²³ Seangseerattanakulchai, K., & Piratae, S. (2021). Drug resistance in blood parasitic infections in cattle: a review. *Annals of Parasitology*, 67(4), 583-590.

²⁴ Byaruhanga, J., Odua, F., Ssebunya, Y., Aketch, O., Tayebwa, D. S., Rwego, I. B., & Vudriko, P. (2020). Comparison of tick control and antibiotic use practices at farm level in regions of high and low acaricide resistance in Uganda. *Veterinary Medicine International*, 2020.

Tchamdja, E., Kulo, A. E., Vitouley, H. S., Batawui, K., Bankolé, A. A., Adomefa, K., ... & Delespaux, V. (2017). Cattle breeding, trypanosomiasis prevalence and drug resistance in Northern Togo. *Veterinary parasitology*, 236, 86-92.

²⁵ Nene, V., & Morrison, W. I. (2016). Approaches to vaccination against *Theileria parva* and *Theileria annulata*. *Parasite Immunology*, 38(12), 724-734.

Knox, D. P. (2010). Parasite vaccines: Recent progress in, and problems associated with their development. *The Open Infectious Diseases Journal*, 4(1), 63-73.

MORRISON WI, McKEEVER DJ. Current status of vaccine development against *Theileria* parasites. *Parasitology*. 2006;133(S2):S169-S187. doi:10.1017/S0031182006001867

De Castro, J.J. and J.M. Leneman (1999): Practical Aspects of Regional East Coast Fever Vaccine Delivery, in the proceedings of an FAO/OAU-IBAR/ILRI workshop, Live Vaccines for *Theileria parva*: deployment in Eastern, Central and Southern Africa, March 1997

chemicals and antiparasitic resistance and re-establish IPM practices. A review of best practices for parasite and parasitic diseases control (including potential adoption by the farmers and (agro)pastoralists), need to be updated, and a workable approach identified, tested, disseminated and scaled up.

Description of activities

147. Activity 1.3.1. Improve disease control and surveillance in a One Health approach

148. Support will be provided for the digitalization of the animal disease surveillance system (in connection with the ULITS supported under 1.2.1), the improvement of inter-ministerial and inter-institutional collaboration through interprofessional interagency workshops and tasking, the improvement of contingency planning and outbreak response (including animal checkpoints and other measures along the value chains), disease surveys, targeted mass vaccinations and for the rehabilitation or establishment of district and regional veterinary laboratories in the project area (infrastructures, equipment and consumables). In addition, the project will support vector control campaigns as part of an Integrated Parasite Management (IPM) approach.

149. Activity 1.3.2. Strengthen community-based and private animal health services

150. Two arrangements for the sustainable delivery of private veterinary services will be supported by the project. Community-based animal health services (CAHWs model) will be facilitated, based on pilots carried out by international NGOs experienced with this model in the context of smallholder and (agro)pastoral production systems (e.g. VSFB and Heifer International), and followed by a scale up in relevant parts of the project area. Elsewhere, the project will support the privatisation of (para) veterinarians. Following a feasibility study, candidates will be selected to receive business development training and a postgraduate course in best practices (including in climate and environment and One Health), tailored to the services that the target groups will need. The CAHWs and private (para) veterinarians will be given access to finance to establish themselves in the project area. CAHWs, interested and selected in becoming paravets, will be supported.

151. Activity 1.3.3. Develop and disseminate best practices to reduce antimicrobial and anti-parasitic resistance

152. National research institutes, such as the University of Makerere and NARO (NALIRRI) will work together on a prevalence and treatment study of a prioritised zoonotic bacterium (e.g. Anthrax, TBC or brucellosis) and antimicrobial resistance and a ditto study for a prioritised tick-borne disease (e.g. Babesia) and Trypanosoma. The studies will inform on best practices for antimicrobial resistance stewardship and Integrated Parasite Management (including literature review and technology adoption testing). An international research expert in the topics can assist in setting up and guiding the studies and building research capacity (e.g. mentoring PhD students). Study outcomes will be promoted in the One Health context and used for informing policies.

Phasing of activities under Sub-component 1.3

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity 1.3.1. Improve disease control and surveillance in a One Health approach								
Task 1 Digitalization of the animal disease surveillance system								
Task 2 One Health Workshops and tasking								
Task 3 Contingency planning and outbreak response								
Task 4 District and regional veterinary laboratories								
Task 5 Disease surveys								
Task 6 Targeted mass vaccinations								
Taks 7 Vector control campaigns								
Activity 1.3.2. Strengthen community-based and private animal health services								
Task 1 Pilot CAHWs								
Task 2 Privatization feasibility, guidance and monitoring								
Task 3 Training, matching grants, loans and kits								
Activity 1.3.3. Develop and disseminate best practices to reduce antimicrobial and anti-parasitic resistance								
Task 1 Two studies (<i>on resp. bacterial and parasitic disease prevalence, treatment and resistance stewardship</i>)								

Implementing mechanism and partners

153. Activity 1.3.1. Improve disease control and surveillance in a One Health approach

154. For the task Digitalization of the animal disease surveillance system (Activity 1.3.1, T1), the project PMU will hire an independent expert to evaluate if the software currently in use (ODK) is fit for purpose. This software is preferred by MAAIF for being able to store the Ugandan data and the use offline. District veterinarians (n=146) will receive a desktop and an IT and short epidemiology training. For this training, an international expert is recruited by the PMU. All Subcounty (para)vets will receive a tablet with software and IT training. For logistical and efficiency purposes, a pensite diagnostic kit will be provided together with the IT equipment to the Sc (para)vets and the use of the kit trained in combination with the IT training. New recruits by the GoU

will receive a refresher course. The combined training and refresher course will be developed and provided by MAAIF and NARO/University of Makerere.

155. The One Health workshop and meetings for tasking (Act.1.3.1, Task 2) will be organized between MAAIF/DAR, the Ministry of Health, and the PMU. Relevant experts in national institutes, other ministries and (inter) national experts will take part in the Workshops. The WSs and follow-up meetings will have One Health themes, One Health integration and action goals, targets, outcomes and progress evaluations. This is checked and monitored (and if necessary corrected) by the organizers and the PMU. From the WSs/meetings, thematic Task Forces can be formed that involve staff and experts across the agencies/ departments, etc.. The results feed back into the WSs/meetings. Pulling political and policy weight (lobbying) and dissemination of the issues and outcomes is an important task of the One Health WSs/meetings. The results of Act. 1.3.3 are also disseminated and promoted via this channel.

156. For contingency planning and response (Act.1.3.1, T3) in year one, two international experts are hired to organize an interactive workshop / training on contingency planning and response, involving the relevant participants (representing DAR and/or NALIRRI) that provide the Ugandan context. The workshop includes simulation and is held in-country. Simulation software is installed and left with the relevant participants. Five 4x4 vehicles are procured, one for the national level (MAAIF-DAR) and one for each region. For the district and subcounty level, 438 motorcycles are procured. In year three, an expert is hired to give an interactive workshop on developing an enforcement system with the relevant participants.

157. The PMU will hire a veterinary laboratory expert to do a feasibility study (Act. 1.3.1, T4). District veterinary laboratories (n=41) in the project area will be re-established to level one biosafety labs in the first two years of the project (two batches). The district veterinarians will receive a refresher course of 2.5 days, also in two batches (maximum number of trainees per course = 21). The course will include the importance of laboratory confirmation of clinical diagnoses, bio-safety, how to perform the tests and prescribe suitable treatments. The course can be developed and provided by national experts. Three regional laboratories will be upgraded to level 2 biosafety labs in year two. Consumables for the district and regional labs are provided by the project. The regional laboratory veterinarians will be trained on site or together in one of the three upgraded laboratories by an (inter)national expert for two weeks. After the training a follow up on site is provided within three months. An electronic laboratory information system, a sample package and transport system, and a laboratory waste management system (including incineration) are developed. The feasibility study will provide plans for these and for the packaging and transport system of specimen. Fuel and sample package coupons will be provided by the project.

158. The implementation of six disease surveys needs planning for efficient use of the resources (Act.1.3.1, T5). Disease survey priorities and plans will have been established during the contingency planning and response workshop and in the One Health Workshop(s), e.g. brucellosis, tbc, anthrax, FMD, CBBP, LSD, ECF, babesiosis, trypanosomiasis. The surveys will also need to be coordinated with Act. 1.3.3, since these studies have need for data coming out of the surveys and may need to combine or follow up with a questionnaire. The surveys inform (integrated) actions and policy, e.g. strategic mass vaccinations, the use of antimicrobials and antiparasitic chemicals. MAAIF/DAR will lead the organization of the surveys in coordination and dialogue with the PMU, the international epidemiologist (from Task 3) and relevant experts from NALIRRI/University of Makerere.

159. The targeted mass vaccinations and vector control campaigns (Act. 1.3.1, T6&7) are informed by the surveys and by the best vector control practices outcomes of Act 1.3.3. For efficient use of resources the campaigns can be combined if possible. An international expert is hired by the PMU and assists MAAIF/DAR in vaccine and delivery

choices and vaccination campaign planning. Priority will be given to diseases impacting the project investment, such as FMD, CBPP, and LSD.

160. Activity 1.3.2. Strengthen community-based and private animal health services

161. The PMU will recruit an international consultant, for doing the policy review and privatization feasibility study and will contract an experienced international NGO to establish CAHWs in the project area.

162. The international consultant will execute in collaboration with MAAIF and the PMU, a feasibility mapping, including the selection criteria for CAHWs/paravets, the bundled service package and professional kits, and will develop a technical training and identify a recognized business training and supervise the combined two-week training. The private paravet candidates will have a nationally acknowledged certificate or preferably diploma to enter the privatization programme and training. The paravet candidates will need to pass both training exams to become certified to benefit from a provision of a four year package to deliver bundled services, i.e. working gear, pen side kits, and a tablet in their first year, and annually fixed amounts (monthly paid) for delivering identified bundled services for four years. Unless differently determined in the feasibility study, the annually declining amounts for delivering bundled services will be for 400 paravets and CAHWs (per person Y1: 1065 USD, Y2: 265 USD, Y3: 215 USD, Y4: 50 USD, Y5: 0 USD). The graduates of the training will also be provided with a motorbike and identified professional necessities to establish themselves through a matching grant (90% - 10%). The PMU will recruit a local consultant /NGO to lead, guide, coordinate, monitor and report throughout the privatisation process of all the paravets.

163. The international NGO will select CAHWs based on the feasibility study and project criteria (with attention for gender and youth criteria and being community members). No certificates or animal health knowledge will be required for CAHWs to enter the programme. CAHWs will receive training (also including disease surveillance), guidance and monitoring from the NGO. A package including a tablet, working gear, pensite kit and consumables will be provided by the project. Once established, selected CAHWs can be provided with an option to be further educated to certificate level paravets. They can then (as of Year 4 or 5) enter the private paravet trajectory of the project.

164. Private (para)vets and CAHWs will be abided to join in providing public good services such as vaccination campaigns, surveillance data sharing, food safety inspections, and also extension and advice to avoid and prevent diseases. For tasks, such as vaccination campaigns, their costs are compensated.

165. Activity 1.3.3. Develop and disseminate best practices to reduce antimicrobial and anti-parasitic resistance

166. The two studies will be carried out by NALIRRI and the University of Makerere under supervision of the PMU. For both studies a young researcher (PhD students or post-docs; at least one of the two is a woman) will be selected/recruited. The project will advance women for this position to facilitate a better gender balance in academia. The young researcher will be provided with a desktop. For both studies a team will be formed to guide the design, implementation, analysis and reporting of the study. The teams will consist of an international expert in the topic, a research from NALIRRI and a researcher from the University of Makerere. The two international researchers can be compensated for online contributions. The PMU is involved in monitoring the progress and evaluating the design. The two research teams will coordinate with the MAAIF-DAR/regional disease survey teams (Act.1.3.1, T5) in an early stage to collaborate and use epidemiological data from the surveys and align data collection, including behavioural data, e.g. relating to practices, goals and perceptions of farmers and veterinarians/extensionist. Data will be disaggregated for gender, age, wealth, location and production systems. The studies

will include a literature review of best practices and innovations and adoption of these. Analysis and reporting of preliminary results is shared with the international expert and the PMU before finalizing. The end results and conclusions will be reported and shared with the PMU (before publication). The results will feed into the project, e.g. via extension (and via L-FFS/PFS groups) and will be reported for policy reforms.

Exit strategy / sustainability

167. Animal health has public health and national economic aspects and these aspects can be considered a public good, which will require public budget allocation. Disease intelligence, contingency planning and disease outbreak response need national coordination and support. Laboratory services and vaccination campaigns can only in part be recovered from farmers. Ugandan animal diseases with implications for international trade or One Health, will bind Uganda and the international community to agreements that make (inter)national funding probable (e.g. WOAHA, Pandemic Fund, Fleming Fund, etc.). Once harmonization of policies and synchronization of One Health activities have taken place, the achievements encourage further tasking and resources.

168. Project beneficiaries that have had access to veterinary care and increased their income from production increase and access to the market, will be able and willing to invest in animal health care in the future. Healthy animals require less use of antimicrobials and the introduction of biological solutions to parasite burdens are expected to reduce production costs (and no income forgone due to residual periods of 3-21 days for antimicrobials and antiparasitic).

169. Both AMR and antiparasitic resistance are complex and require a One Health approach with policy, institutional and field level supporting each other for implementation of good practices and stewardship. Sustainment beyond the project will especially rely on priorities and inputs from the One Health community and action plans, particularly on influencing policies. Policy has a central stage position in changing antimicrobial and antiparasitic use. For instance, over the counter sales of antimicrobials can nullify all other efforts to reduce AMU/AMR. The project assists in renewing the One Health Strategic Plan and assists in Workshops and Task Forces to ignite operationalization of the One Health approach.

Main risks and mitigation

170. The project is investing in especially the outreach part (last mile) of the Ugandan animal disease surveillance and control system, since this is the most impaired and most beneficial to the project's target groups. For reducing animal disease risk to a minimum the whole system, nation-wide, would need support. This is beyond the purpose and budget of the project. The project will as much as possible liaise with other donor initiatives to align the activities for achieving leverage.

171. Interprofessional and interinstitutional collaboration and tasking for One Health remains challenging globally, not just for Uganda. The workshops are a start in setting priorities and tasks and formulate action plans with budgets and timelines during these workshops.

172. The outcomes of the AMU/AMR stewardship and the Integrated Parasitic Management studies that the projects promotes reduce risks involved in animal health control for humans, the environment and the animals. The studies are also an instrument to inform urgency for policy review and reform.

173. Success of privatizing of animal health care mainly relies on economic viability. Privatization of veterinary services bares the risk of supply excess, hampering the economic sustainability and quality of the services. Via policy and regulation, the service can only be offered by providers that qualify and abide by quality standards. The economic feasibility study will be undertaken to assess feasibility and placing quota via the required training. Veterinary (as well as medical) professions work with quality and

safety protection (minimal professional standards), and often involving entry quota (to avoid a full liberalisation and a race to the bottom via low pricing). In some parts of the project area, this may be less evident, due to household and animal densities being lower. Like other countries with dispersed animal owners, e.g. in Scandinavia, the GoU can choose to stimulate the presence of public (para)vets/CAHWs in these areas, to ensure that all areas in the country have animal health care coverage.

174. Laboratories work with biologicals and chemicals that can be dangerous for human and environmental health. Laboratories must adhere to international and national legislation concerning biosafety for the public and staff. The biosafety levels are categorized from 1 to 5, requiring biosafety measures accordingly. The district level 1 biosafety labs have a low risk (no multiplication of biological agents). The regional level 2 labs require stricter safety measures, knowledge, and maintenance to mitigate biological/chemical risks, but the risks are not very high. The project will invest in a laboratory waste management system (including destruction of materials by incinerators).

Contribution to IFAD's mainstreaming themes

175. **Gender:** Care for sick animals often increases labour inputs for women, thus improving animal health will directly affect women. Women (and children) can also be especially prone to contracting zoonotic diseases, including AMR, brucellosis and tbc, due to close contact with the animals and body fluids. The Disease surveys and One Health WSs will prioritize these diseases.

176. Targeting for privatization of (para)vets and CAHWs will be in line with the overall targeting, but 40% may be (over)ambitious in view of trained (para)vets - that can enrol for selection to become private (para)vets / CAHWs - will not be 40% women, and cattle is a species often not involving many women, with exception of milking and raising young stock (both very important in relation to health and productivity). Women will nonetheless be especially targeted to become CAHWs and also to become private (para)vets, striving for **30% or more**. Women have a proven record of being more dedicated (performance, growth and remaining in the area) than men. In the areas for CAHWs, culture may induce lower acceptance of women as CAHWs, especially for beef. This will require attention. The AMR and antiparasitic resistance studies (Act. 1.3.3) will advance young women researchers.

177. **Youth:** Setting up a private business can be especially attractive for youth. Youth, including women, will be especially targeted to become private (para)vets.

178. **Nutrition:** Preventing animal diseases and actively promoting health and welfare has a positive effect on nutrition in terms of safety, quantities and quality, since animal diseases, especially subclinical mastitis and zoonotic diseases, affect food safety and milk and meat quality and quantities. Producing for the formal market will increase food safety and quality (inspection and control). It should be noted that home consumption remains informal (not inspected) and producing for a formal market potentially competes with home consumption.

179. **Climate change:** Access to veterinary and laboratory services (in combination with extension /L-FFS and adoption of livestock production and management technologies), will contribute to increasing animal welfare and health and thus increases resilience of the animals and will increase productivity. Productivity increase, through animal health improvement, is at the basis of climate mitigation through reducing GHGe intensities. Better animal health also results in lower production and disease costs, thus higher profits, in higher milk quality and empowerment of farmers (increasing livelihood resilience for CC adaptation).

180. **One Health.** The One Health approach to livestock, which recognises the interconnectedness of human, animal and environmental health, has significant implications for both climate change adaptation and mitigation. Livestock systems are

integral components of many ecosystems, and their health is intertwined with environmental conditions. By adopting a One Health perspective, it is possible to address the complex interactions between livestock well-being and climate change. Through sustainable livestock management practices that address both health and environmental factors, such as rotational grazing, agroforestry and efficient waste management, the One Health approach contributes to climate change adaptation. At the same time, this approach reduces the environmental impact of livestock by reducing greenhouse gas emissions, optimising resource use and improving overall ecosystem resilience.

II.1.4. Sub-component 1.4: Improving extension and delivery of technical support to producers

Expected results

181. The purpose of this subcomponent is to:

- Disseminate climate smart production practices to 50,000 farmers, through 2,000 Livestock FFS
- Strategies to improve adoption of technologies and best practices, are identified and inform on bottlenecks and solutions. Capacity on how to research and address technology adoption by smallholder farmers and (agro)pastoralists will have established, to promote and continue promoting sufficient rates of adoption of climate smart technologies and practices.

Direct beneficiaries

182. The direct beneficiaries of this component will be 50,000 poor dairy smallholder households including 50% women involved in L-FFS

Lessons learned and findings

183. This sub-component will build on the lessons learned from :

184. **Poor adoption of livestock production technologies** can have multiple economic, social, political, environmental and organizational factors. Uptake results can be limited by a lack of knowledge and inadequate support, but also by failing to target local needs and conditions and empower livestock keepers²⁶. Only identifying the bottlenecks will not increase uptake. Landscaping and coordination of overcoming constraints and adapting to e.g. existing production systems, to design a fitted 'model' of knowledge, skills, inputs, service and market linkage, is necessary²⁷.

185. **L-FFS** implemented in Uganda by FAO in the Cattle Corridor, were effective in empowering farmers, sharing knowledge and promoting uptake of new technologies; In Rwanda, L-FFS approach combined household methodologies (GALS) under RDDP have played a pivotal role in terms of capacity building of farmers, organization of groups, introduction of technologies in particular fodder cultivation, community organization and even market access. The L-FFS impact assessment for RDDP showed that animal productivity has increased significantly (+33%) for L-FFS members, and 86% of L-FFS beneficiaries now cultivate improved fodder. Some L-FFS groups now manage MCPs and some are also involved in processing.

186. **Climate information systems.** The development and dissemination of climate information, early warning systems and extension services can help livestock producers make informed decisions on feed management, breeding and disease control and help livestock producers anticipate and adapt to climate-related risks.

²⁶ Zander, K. K., Mwacharo, J. M., Drucker, A. G., & Garnett, S. T. (2013). Constraints to effective adoption of innovative livestock production technologies in the Rift Valley (Kenya). *Journal of arid environments*, 96, 9-18.

²⁷ Kebebe, E. (2019). Bridging technology adoption gaps in livestock sector in Ethiopia: A innovation system perspective. *Technology in Society*, 57, 30-37.

Description of activities

187. Activity 1.4.1. Implement community-based training and extension mechanisms

188. The outreach of public extension mechanisms is limited by their recurrent lack of resources, which has an impact on the dissemination of technical innovations and on the linkages between research and farmers. 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 (sub-components 1.1, 1.2 and 1.3), community-based training and extension mechanisms will be supported with a strong focus on climate change adaptation and mitigation. This will include in particular Livestock-Farmer Field Schools (L-FFS) and Pastoral Field Schools (PFS) methodologies, building on the experience acquired by FAO in the Cattle Corridor. The project support will include development of training curricula, training of trainers and facilitators, and facilitation of schools during a period of three years, including provision of inputs for field trials and demonstrations. 50,000 participants (2,000 groups) will be involved in L-FFS and PFS over the project cycle. It is expected that some of these groups will progressively graduate into Community Business Networks, and then cooperatives, that will be supported under activity 2.1.1. (Support producer organisations and cooperatives). Private extension mechanisms at the cooperative level, as well as e-extension will also be piloted under component 2 as part of the hub approach.

189. **Development of FFS curricula:** The roll out of L-FFS and PFS will involve in the first-place development of a specific curriculum on climate smart dairy production, based on existing curricula developed by FAO in the country, 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

190. **Training of trainers and facilitators:** 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 1,000 facilitators. The first generation of facilitators (500) will be District Livestock extensionists, and the second and following generations (500) will be farmer facilitators selected among the first generation of trainees.

191. **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.

192. **Pastoral Field schools** will also address the same issues as L-FFS, but will have a primary focus on rangeland management, including mechanisms for community based rangeland management, and technologies for rangeland restoration including rotation, temporary protection, overseeding and re-seeding, agroforestry...

193. 50,000 farmers (50% female – 2,000 groups) will be enrolled in L-FFS and PFS during the project duration. Members of cooperatives supported under component 2 will also be targeted with priority in order to increase capacity utilization of MCCs. For L-FFS implemented with members of cooperatives, the L-FFS curriculum will include farm business management and practical dairy health and welfare management Modules.

194. Once L-FFS are established, the project will provide facilitation fees to facilitators, as well as an annual budget for each L-FFS to finance inputs and equipment for demonstrations and field trials.

195. **Gender Action Learning System (GALS) in L-FFS and PFS:** This methodology will be implemented to address power relations and inequalities especially at household level thereby enhancing behavioural change for purposes of increasing gender equality and women's empowerment. GALS will be intertwined with L-FFS and PFS. Master Trainers of LFFS will be trained by GALS methodology and use of GALS tools to facilitate critical reflection on life choices, challenges and opportunities, gender dynamics within the household. The project will have a full time support of Social Inclusion Specialist that will help to design the GALS sessions. The Social Inclusion Specialist will develop and design a training manual and other materials required to conduct the GALS sessions during L-FFS and PFS.

196. **Financial literacy:** financial literacy modules will also be embedded in L-FFs and PFS curricula (see description of activity 2.3.3.).

197. **Activity 1.4.2. Support adoption of best practices and technologies**

198. To ensure that the best practices and technologies developed and supported by ReLIV are eventually adopted by producers, studies will be carried out by the University of Makerere (i.e. School of Social Sciences and College of Agricultural and Environmental Sciences), with the responsible government agencies, to identify key drivers and ways to increase adoption. The practices/technologies will include climate-smart feed and fodder species and varieties, biogas and other manure management improvements, AI and cross-breeding. Strategies to improve technology adoption and capacity development activities will be proposed and shared. The project will advance young women researchers to better balance gender in academia.

199. **Activity 1.4.3. Improve climate information services**

200. Building on previous initiatives, particularly those implemented under IFAD's ASAP+ programme in Uganda, climate information services will be strengthened. The improved climate information services will address the increasing climate variability affecting livestock productivity in the project area, including the challenges posed by droughts. In addition, early warning systems for climate-related shocks will be established to facilitate improved planning of responses and coping mechanisms. In line with the GCF regional programme (DaiMA), specialised agro-met advisory services will be formulated with a focus on livestock, including information on locations of animal shelters, vaccination points, transhumance corridors, disease outbreak zones, flood-prone areas, potential conflict zones and market updates. Agromet information will be disseminated through various communication technologies such as mobile phones, community meetings and interactive radios. Communication channels will be strengthened by developing user-friendly interfaces, providing training on digital applications (e.g., Lunda, iKnowFarm, AgriSharem, Jaguza) and ensuring inclusive access for women and youth. Climate information will also be integrated into the L-FFS, linking traditional climate assessment mechanisms with localised and downscaled climate

services. This will include historical climate data, risk assessments and user-centred mechanisms such as workshops and digital learning.

Phasing of activities under Sub-component 1.4

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity 1.4.1. Implement community-based training and extension mechanisms								
Development of curricula								
Training of trainers								
Training of facilitators								
Roll out of L-FFS and PFS (1st generation)								
Roll out of L-FFS and PFS (1st generation)								
Activity 1.4.2 Support adoption of best practices and technologies								
Task 1 Design								
Task 2 Implementation								
Task 3 Analysis and reporting								
Task 4 Finalization								
Activity 1.4.3								
Climate risk assessments								
Early warning systems								
Livestock-focused agromet advisory services								
Workshops and digital learning								

Implementing mechanism and partners

201. **Activity 1.4.1. Implement community-based training and extension mechanisms:** L-FFS and PFS will be implemented by District through their extension officers (preferably livestock specialists, but could be crop specialists in case of unavailability). They will be in charge of coordinating the process at local level, facilitate the first generation of L-FFS, and provide support to the second generation facilitated by farmer facilitators. FAO will be engaged to provide support for the development of the training curriculum, train the master trainers, coordinate the training of facilitators by master trainers, and provide continuous follow up and backstopping during implementation. An MoU with FAO will be entered into at the beginning of the project. The draft ToRs are provided in the annex.

202. **Activity 1.4.2. Support adoption of best practices and technologies**

203. **Support adoption of best practices and technologies.** A four-year study will be conducted by the University of Makerere (i.e. School of Social Sciences and/or College

of Agricultural and Environmental Sciences) with the responsible government agencies (e.g. NALIRRI/NARO/MAAIF) and will be supervised by the PMU. A young female researcher will be selected (entering a PhD or post-doc position). The study will focus on the adoption of practices and technologies relevant to the project, i.e. climate-smart feed and fodder species and varieties, biogas and other manure management improvements, AI and cross-breeding. A literature review and approved study design by an international expert and the PMU, will give a green light to implementation of the study. The international expert will be compensated for doing online consultations with the researcher(s). Data will be disaggregated for gender, age, wealth, location and production systems. Analysis and reporting of preliminary results is shared with the international expert and the PMU before finalizing. The end results and conclusions will be reported and shared with the PMU (before publication). The results will feed into the project, e.g. via extension (and via L-FFS/PFS groups).

204. Activity 1.4.3. Improve climate information services

205. This initiative is based on a collaborative partnership between the Uganda National Meteorological Authority (UNMA) and WIMEA-ICT (Improving East Africa's Weather Information Management through the application of suitable Information and Communications Technology). The implementation of this activity will be led by local government departments, which are key intermediaries for the effective dissemination of weather, climate and livestock-related information and advisory. Institutional arrangements will be strengthened through formalised agreements and national plans between the Uganda National Meteorological Authority (UNMA), the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the Ministry of Water and Environment (MWE), the National Agricultural Research Organisation (NARO) and other stakeholders including research institutions, private companies including telephone companies and NGOs involved in the production of climate services. Climate risk assessments will be carried out by a service provider to be identified prior to implementation. Digital learning and knowledge sharing will be promoted through L-FFS and other platforms.

Exit strategy / sustainability

206. Activity 1.4.1. Implement community-based training and extension mechanisms.

207. L-FFS sustainability will be greatly enhanced by collective activities that groups will implement in parallel to the learning by doing processes, such as credit & saving, or income generating activities such as managing MCPs, milk processing, fodder and fodder seeds production, and sometimes other non-livestock related income generating activities such as collective farming. It is expected that some of the FFS/PFS groups graduate to a more formal and income-oriented type of organization, and become economically sustainable through this transformation.

208. Activity 1.4.2. Support adoption of best practices and technologies

209. The results of the adoption of best practices and technologies study will have fed into the project and can be continued to be used for extension and dissemination or adapting practices or technologies for the users. Capacity on how to research and address technology adoption by smallholder farmers and (agro)pastoralists will have established. Increasing adoption rates can have widespread economic impact. MAAIF can allocate a budget for future research involving the technology adoption researcher(s) of the University of Makerere, NARO, and the extension services.

210. Activity 1.4.3. Improve climate information services

211. Long-term sustainability depends on building local capacity and fostering institutional resilience. This includes empowering local stakeholders, such as meteorological services, government agencies and academic institutions, to

independently manage and adapt climate information systems. In addition, integrating climate information into existing agricultural and environmental policies can embed it within broader frameworks, increasing its relevance and sustainability. Public-private partnerships and community engagement play a key role in promoting ownership and sustainability. Harnessing technological advances and fostering a culture of continuous learning further contributes to the sustainability of climate information systems, ensuring their lasting impact on resilience and adaptation to the challenges of climate change.

Main risks and mitigation

212. Activity 1.4.1. Implement community-based training and extension mechanisms.

213. One risk associated with L-FFS and the promotion of fodder crops in particular is the possible competition between fodder and food crops, which is a sensitive issue in a country which is still generally food insecure, especially in the project area. The main mitigation measures will consist in (i) promoting fodder cultivation practices that do not compete with food crops especially intercropping and crop association (including with legumes), and utilization of crop residues for feeding animals; and (ii) ensuring, through nutrition awareness campaigns (under Component 2) that either part of the milk is used for household consumption, or that cash from milk and beef animals is effectively converted into food.

214. Activity 1.4.2. Support adoption of best practices and technologies

215. Technology adoption is in the socio-economic study domain and the technologies and practices to be studied are in the livestock and agriculture domain. The scientific disciplines are far apart in jargon and methodology and collaboration will have its challenges. This project provides the option to get guidance from established agricultural technology adoption researchers and the PMU will closely monitor progress.

216. Activity 1.4.3. Improve climate information services

217. One of the key challenges is that climate information remains an isolated service that does not reach the intended end-users. To address this, it is crucial to foster partnerships and collaborations between stakeholders in agriculture and other relevant sectors. These collaborative efforts should involve climate change experts from meteorological services, agronomists from government agricultural agencies, private companies in the agricultural and information technology sectors, academic researchers and directly affected farmers. By working together to streamline processes, the aim is to improve the efficiency and effectiveness of the production, dissemination, and delivery of actionable climate information services.

Contribution to IFAD's mainstreaming themes

218. **Gender:** Women are usually very keen to join social mobilization activities and group training and the target of 50% women should be easily attained for L-FFS/PFS. GALS will be a key contributor to increasing gender equality and women's empowerment and will be embedded in L-FFS curriculum.

219. The study on technology and practices adoption will provide gender disaggregated results, including identification of obstacles and solutions. A young female researcher will be focussed on this particular study, posing an opportunity to build an academic careerpath out of this study.

220. **Youth:** The proportion of youth will be 30% for L-FFS/PFS groups. It may not be possible to increase further the proportion of youth for L-FFS groups, considering that few youth own cows. The study on technology and practices adoption will provide age disaggregated results, including identification of obstacles and solutions.

221. **Nutrition:** GALS embedded in L-FFS and PFS addresses nutritional issues and will raise awareness of targeted households and promote behavioural change on nutrition. Nutrition messages and information will be an integral part of L-FFS and PFS curriculum

222. An increase in adoption of best practices and technologies can have a large impact on food production yields (i.e. dairy and beef) and farmer incomes, which can translate in diversification of diets.

223. **Climate change:** The adoption of best practices and technologies study will focus on climate change relevant practices and technologies. Improving the adoption of these practices and technologies will resort a positive impact on climate change mitigation and adaptation.

224. **L-FFS and climate change training.** Incorporating climate change awareness into community-based training, such as L-FFS, is crucial to equipping farmers with the knowledge and tools they need to adapt to changing environmental conditions. By integrating climate change considerations into training programmes, farmers gain a deeper understanding of the challenges posed by a changing climate and learn practical strategies for sustainable agriculture. This approach raises awareness of the impact of climate change on local agricultural practices, encourages the adoption of climate-smart techniques, and strengthens the resilience of farming communities.

225. **Climate information services.** Climate information services play a critical role in adapting to climate change by providing timely and relevant information to communities, businesses and governments. These services include early warning systems that help anticipate extreme weather events such as storms, floods, droughts or heat waves. Early warnings enable proactive measures such as evacuations, infrastructure reinforcement and resource allocation, thereby reducing the impact of climate-related disasters. For farmers, climate information helps them make informed decisions about planting, harvesting and irrigation in the face of changing climate patterns. Agro-meteorological advisory services provide insight into crop selection, planting times and water management, thereby enhancing agricultural resilience. Livestock management is supported by climate information that provides details on shelter locations, vaccination points and transhumance corridors. Early warnings of potential disease outbreaks or extreme weather conditions allow for timely action to ensure the sustainability of livelihoods. In addition, climate data supports effective planning and management of water resources, especially in regions with changing rainfall patterns. Improved water management improves the availability and distribution of resources, reducing vulnerability to droughts or floods. Communities benefit from climate information by developing tailored adaptation strategies and integrating them into community-based planning to build resilience to the impacts of climate change.

II.2. COMPONENT 2: ENHANCING ACCESS TO MARKETS FOR SMALLHOLDER PRODUCERS AND INVESTMENTS IN THE VALUE CHAIN

226. The interventions under this component will focus on the post-production level and the financial sector and are intended to foster collective action among smallholder beef and dairy farmers, broaden market opportunities for farmers, increase milk and beef value chain efficiency, increase investment at different levels of the value chain, through better access to finance, promote green and sustainable solutions, and improve food safety as well as nutrition.

227. This Component will aim at achieving the Project Outcome 2 “Enhanced access to markets for smallholder producers and access to finance for value chain actors” through three outputs:

- Aggregation of production and access to markets for smallholder producers improved,

- Quality, food safety and local consumption of livestock commodities strengthened,
- Access to financial products for value chain actors improved. Each of the three outputs will be achieved through a specific sub-component.

II.2.1. Sub-component 2.1: Supporting aggregation of production and access to markets for smallholder producers

Expected results

228. The purpose of this subcomponent is to:

- Strengthen organization of livestock farmers
- Facilitate the implementation of value chain mechanisms that improve access of smallholder farmers to markets and services
- Promote energy efficiency including through use of renewable energy, and circular waste management in the post production stages of the value chain
- Strengthen network of public infrastructure for marketing of livestock
- Catalyse value chain relationship to improve its efficiency
- Digitalize the value chain to improve its efficiency, the traceability of products, and access to market information

Direct beneficiaries

229. The direct beneficiaries of this component will be 11,982 in total composed of:

- 11,500 poor dairy smallholder households including 40% women and 25% youth belonging to 190 cooperatives managing MCCs and 100 groups managing MCPs
- 452 off farm workers employed in newly created MCCs, MCPs, markets, abattoirs and small scale processing units
- 30 women and/or youth belonging to 2 groups will be provided training, cultures and BSF eggs and guidance and if successful benefit from business training and access to credit to establish a BSF farm.

Lessons learned and findings

230. This sub-component will build on the following lessons learned from IFAD and partners' interventions in the country and the region:

231. **Aggregation mechanisms for milk:** the cooperative led Milk Collecting Center model has shown its relevance and efficiency in several contexts in the Country (Southwestern Uganda) and the region (Kenya, Rwanda) but requires a strong social cohesion in the community as well as management and leadership capacities. Aggregation around a nucleus farmer can be a valid alternative and a good mechanism for engagement of smallholders in the value chain when the socioeconomic context is not adequate for the cooperative model.

232. **Dairy Hub mechanism:** the dairy hub mechanism which consists in a cooperative led MCC also providing services (inputs, AI, animal health, finance) to its members has been piloted in the Country and the region by the East Africa Dairy Development (EADD) project, with uneven success. The system requires very strong management capacities at cooperative level as the volume and nature of business is increased compared to a simple MCC. It is thus only applicable to the most mature cooperatives. A valid solution is however to alleviate the burden of cooperatives

managing hubs is to entrust services to a contracted service provider, instead of a direct management by the cooperative.

233. **Productive alliances:** the productive alliance model is now promoted under most of IFAD funded value chain projects. It is well adapted to the dairy value chain as it allows farmers to get guaranteed access to services and market, and aggregators to have a certain control on quality and quantity of commodities. It however can only be implemented where large scale aggregators (processors) are active. In the beef sector, this model can still be considered as an innovation but it should also be highly mutually beneficial and relevant.

234. **Multi-Stakeholder platforms at local level are powerful tools to initiate and promote value chain partnerships:** these types of arrangements have been supported under multiple IFAD funded projects for various value chains. In the dairy project, one of the main challenges is to ensure the participation of aggregators that are often highly concentrated and located in urban areas while the platforms are in rural ones. For the beef value chain, there are less lessons available but this challenge should be minored since buyers are often located locally.

235. **Solar energy and waste management solutions.** Careful planning is essential to ensure the lasting effectiveness of solar-powered systems. A notable risk associated with the implementation of solar systems is poor system design, which can result in inadequate power supply. A key risk mitigation strategy is to allocate a significant proportion of the investment to the engineering design (including formulation of technical specifications for procurement) and monitoring of the solar systems.

236. **Uptake of biogas technology.** Based on previous experience in the region, the uptake of biogas technology is uneven. It is strongly recommended that the design of biogas digesters and end-use equipment takes into account not only quality standards, but also socio-cultural factors for integration into the local context. There is also a need for training and capacity building to improve the supply and production of high quality biogas, building on existing structures such as farmer organisations and L-FFS.

237. **Recycling waste requires economic sustainability,** i.e. entrepreneurial skills, a constant supply of waste, demand for the products, and reliable pricing. Black Soldier Fly (BSF) maggots are able to digest organic waste, such as crop residues, manure and offal and produce compost, and when dried before pupation are a source of protein for animal feed. ICIPE Nairobi has developed egg cultures, training and monitoring and assisted in establishing some 1,000 SMEs in East Africa, including in Uganda, but mostly for recycling of plant source waste. The economic viability has had less attention as well as the use of the technology for recycling of animal waste. For a continuous business, security of supply of the right balance and volume of waste products and a ditto demand by off-takers of compost and maggot protein is critical and will be piloted in the project.

Description of activities

238. **Activity 2.1.1. Support producer organisations and cooperatives:** Livestock farmers in the proposed project area are poorly organised which hinders their bargaining power, market access opportunities and access to services including credit. RELIV will thus support the creation of farmers organisations to foster collective action and strengthen their position in the value chain. 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.

239. **Capacity building of cooperatives:** Support to groups and cooperatives will entail capacity building in governance, business management, market access, and technical aspects such as milk handling and processing. Initial capacity building will be provided to 190 cooperatives (150 existing, including those that are dormant, and 40 newly created) during the first 4 years of the project. Refresher training sessions will

then be provided after 4 years so that each cooperative benefits from two sessions during the project lifetime. Participants to the training will be the executive members, as well as the staff (management and technical). Training sessions will gather 3 to 5 cooperatives, to promote exchange between peers, and will be organized on selected cooperative's sites, to be as practical as possible, and enable participation of all members including women. The duration of the training will be 3 to 5 days.

240. **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 take into account livelihood activities women are mostly involved in and technologies developed to respond to women's needs.

241. **Coaching of cooperatives:** the 190 cooperatives will also receive regular coaching to ensure proper application of training content and support problem identification and solving. Each group will receive three visits per year. The coaches will work in teams of 2 to ensure that both management and technical issues are properly addressed.

242. **South South exchange between producer groups:** regional and national exchange visits will be organized for the supported cooperatives. 50 visits will be organized in total. Each visit will benefit a group of around 12 people representing 4 cooperatives, accompanied by 1 or 2 facilitators. Transport will be by bus. The foreseen destinations include SouthWestern Uganda, Kenya, and Rwanda, where farmers organizations are well structured and integrated into commercial value chains.

243. **Activity 2.1.2. Pilot and upscale green and sustainable business models for access to markets and services by smallholder farmers:** The project will upscale business models that are sustainable and with potential impact to improve market access, access to finance, improve smallholder farmer income, increase productivity, and promote food safety and value chain efficiency.

244. **Milk Collecting Centers (MCCs)** In the dairy sector, the main business models supported by the project and already operating successfully throughout the country are the cooperative-led Milk Collecting Center (MCC) and Milk Collecting Point (MCP). The project will support the creation of 20 new MCCs, and the rehabilitation of 24 existing ones that are no longer operational. Both rehabilitation and construction will involve provision of equipment including milk coolers, milk cans, and various equipment for milk handling, quality control (including lactoscans), and MCC management, in addition to civil works. The project will also provide new milk coolers to 66 existing MCCs to replace existing ones or increase their capacities. In total, the project will supply 110 coolers with capacities ranging from 1,000 to 5,000 liters. Coolers will remain the property of the Dairy development Authority but will be leased to the cooperatives and groups, which is the usual practice in the country and appears as a satisfactory setup. This allows in particular withdrawing the cooler to place it in another location in case it is not used, which is currently the case for around 25% of MCCs in the project area.

245. **Milk Collecting Points (MCPs):** The project will also support the creation of 100 MCPs. MCPs will be managed by farmers' groups that can originally be L-FFS groups having graduated to more business oriented organizations, without having necessarily reached the level of a cooperative. MCPs are simple premises without cooling facilities, equipped with cans and simple milk quality control equipment, where milk is collected from neighboring farmers and then ferried to the MCC. This setup is particularly indicated in areas with a loose network of MCCs and that the electricity grid does not reach.

246. **Beef cattle aggregation infrastructures:** The same principle of aggregation will also be applied to the beef sector, as piloted under the EU beef project. 30 cattle holding grounds with loading ramps will be constructed and entrusted to cooperatives or groups of beef producers. These infrastructures will enable farmers to market their animals as a group and thus improve their bargaining power, and will improve animal welfare, loading and unloading of animals being very critical stages in the transport process, leading to frequent injuries such as broken legs.

247. **Dairy hubs:** The project will also support the upgrading of the most mature MCCs into dairy hubs, whereby farmers can access essential services (AI, feed, credit,...) in addition to the market. It is expected that 40 MCCs will be upgraded to hubs. The project support will include technical assistance including business plan formulation and market assessment, initial training on management and technical aspects (tailored to the type of services provided through the hub), and regular coaching of the cooperative managing the hub. It will also involve provision of equipment/infrastructure which will depend on the type of services provided by the hub: some examples include semen conservation equipment in case of AI services, small veterinary clinic, input shop, feed storage facility, store for equipment, training facility...

248. **Nucleus farmer model:** Where cooperatives are not present, the "nucleus farmer" hub model, under which market aggregation is provided by a lead farmer instead of a cooperative, will also be piloted. This model is being successfully implemented in the oilseed sector under the National Oil Seed Project. In the dairy sector, the model will involve a medium to large scale dairy producer who will collect the milk of surrounding smallholder producers and deliver some services including breeding, technical advice, and inputs. In the beef sector, the nucleus farmer will typically be a beef ranch owner or a feedlot owner, who will collect animals from outgrowers for fattening, and provide services as well, including in particular breeding services to improve the quality of carcasses. Investments at the nucleus farmer level will be financed through the credit facility under sub-component 2.3 and the support provided under this subcomponent will consist in facilitation and technical support.

249. **The Productive Alliance model,** under which a farmer group/cooperative enters into a contractual arrangement with a private sector actor, often an aggregator, to strengthen its access to markets and services, will also be facilitated. This model is currently being implemented by some dairy processors and will be upscaled in the dairy sector, where aggregators are present and willing to enter into such arrangements. In the beef sector, the same arrangement will be piloted and upscaled if successful, in particular with feedlot operators and private abattoirs/meat processors.

250. **Solar energy and waste management solutions :** The project aims to improve energy efficiency and reduce greenhouse gas (GHG) emissions by introducing sustainable technologies for milk cooling, water heating and milk processing in MCCs and MCPs. The focus is on replacing fossil fuel with environmentally friendly alternatives, particularly solar energy. Examples include photovoltaic (PV) technology for milk coolers, water heaters, water recycling systems, IT systems, lighting, and possibly transport (electric bicycles and motorcycles for milk transport). Climate finance from the GCF will be leveraged through existing regional programmes (DaIMA and ARCAFIM). This initiative will start by piloting solar power in 50 MCCs, and will then be scaled up to other facilities across the country. Solar power systems for MCCs will include solar panels, batteries for night-time cooling, inverters, and digitally networked control and monitoring systems. Other energy efficient solutions will include heat exchangers (to produce hot water with heat extracted from milk during cooling), strategic positioning of the cooler compressors (often placed in the cooler room, leading to energy wastage), utilization of variable speed compressors for coolers (adjusting energy consumption to quantity and temperature of milk), etc.... Such solutions will be particularly beneficial to rural farmers with limited grid access, frequent power cuts and high energy costs, and will help reduce GHG emissions from processing activities. Adoption studies will be

conducted to adapt these technologies to local conditions and ensure broad community acceptance.

251. To address design and implementation gaps, a consulting firm with sector-specific expertise will be contracted to provide technical assistance. The selected service provider will design the system taking into account site-specific meteorological conditions and energy requirements. The consulting firm will assist in the preparation of procurement specifications (bills of quantities), but will not be involved in the supply of equipment, which will be procured through open international tenders. The terms of reference for the consulting firm are set out as an annex.

252. In addition, the project will include the implementation of wastewater and solid waste management solutions, such as soak pits, oxidation ponds, septic tanks, at MCC and MCP levels, which will be incorporated into the construction of new facilities or the rehabilitation of old ones.

253. Activity 2.1.3. Strengthen public livestock markets and slaughtering facilities and pilot circular waste management technologies

254. The lack of proper livestock marketing and slaughtering facilities affects disease control, animal welfare, quality and safety of products. The project will build or rehabilitate public livestock markets and slaughtering facilities in selected strategic districts. In order to ensure their sustainability, PPP arrangements will be favoured and facilitated for their management. Circular effluents management technologies such as biogas and Black Soldier Flies will also be piloted.

255. **Livestock markets:** 10 public livestock markets will be constructed in selected Districts. Selection criteria will include the presence of existing markets, the density of livestock, and the market dynamics. Each market will be composed of several holding grounds for different categories of animals, an office for the administration and management of the market, a cattle weight scale to improve equity of transactions, and a loading ramp to ensure animal welfare and security of operators during this critical stage. Construction will be preceded by the implementation of a technical feasibility study, and of an Environmental and Social Impact Assessment. The markets will be handed over to the towns or cities where they will be located. However, in order to ensure their sustainability, municipalities will be encouraged to enter into a PPP for the management of the facility. Operators could be private entities or stakeholder organizations such as cattle traders associations or cooperatives. Facilitation will be provided by the project to develop the PPP mechanism and draft the contract.

256. **Slaughtering facilities:** 6 public slaughter slabs/abattoirs will be constructed in strategic locations, in localities that do not have slaughtering facilities yet but where the market for meat is sufficient to justify such an investment. Each abattoir will be composed of an unloading ramp, a cattle holding ground, a covered slaughtering slab, a cutting room, an offal washing room, and storage rooms. It is not foreseen to create cold rooms in these facilities initially, but provisions will be made to add them afterwards if needed. As for markets, construction will be preceded by the implementation of a technical feasibility study, and of an Environmental and Social Impact Assessment. The abattoirs will also be handed over to the towns or cities where they will be located, and PPP arrangements for the management of the facility will be encouraged and facilitated. Operators could be private entities or stakeholder organizations such as cattle traders or butchers' associations or cooperatives.

257. **Circular waste management technologies:** Animal markets and slaughterhouses bring about biological waste that can also be an opportunity for re-use, through biogas installations and Black Soldier Fly farming for energy, feed and compost production. The project will pilot these circular effluents management technologies, to treat animal waste and other organic waste, as well as condemned carcasses and other

toxic waste. Untreatable, toxic or inorganic waste will be disposed of at NEMA-approved sites.

258. **Feasibility and suitability mapping studies** will be carried out to identify optimal solutions for a given context and ensure widespread adoption of the most appropriate technology, such as floating drum or fixed dome systems for biodigesters, in slaughterhouses and market facilities. Recognising that the success of these systems depends on individual ownership and operation, the project will invest in capacity building and technical assistance to address key challenges identified, such as high maintenance and logistics costs, significant water requirements and system complexity. To increase the effectiveness of the initiative, the project will support the training and accreditation of biodigester technicians, with a particular focus on women and youth in the target districts. Beyond biogas installation, the project will promote valorisation and quality management, including adherence to safe working standards.

259. **Black Soldier Fly (BSF)**: The project will test the right balance of crop residues, manure and offal to feed to the Black Soldier Fly (BSF) magots, and in a two-year pilot technically and entrepreneurially assist two small groups women/youth to farm BSF and study economic viability and the quality of the products. In case of positive results, the group members will be provided additional business training by the project to further expand.

260. **Activity 2.1.4. Support local value chain platforms**: Local multi-stakeholder platforms have been established at the national level for both the dairy and beef value chains. At national level, the purpose of these mechanisms is mostly to ensure stakeholder participation in policy processes (see activity 3.1.1.. Building on lessons from IFAD-supported interventions in other countries (Rwanda with Dairy District Platforms under RDDP), but also in other countries and value chains, as compiled in the 2023 technical note²⁸ published on this topic), the project will support the decentralisation of the national platforms at the local level (e.g. District level) to strengthen and catalyse value chain linkages and improve business relations between producers/traders/service providers/financial institutions. The roll out of District platforms will be progressive starting by the Districts with stronger value chain organization. The project will support the operations of the platforms (transport and meeting costs) and will also provide facilitation through a service provider. B2B events will be organised through these platforms, including with financial institutions to facilitate business arrangements.

261. **Activity 2.1.5. Digitalise the value chain**: The project will support the digitalization of the value chain, including through mobile-based solutions accessible to farmers and field market actors (traders, transporters), to improve the efficiency and traceability of transactions, the profiling of farmers for access to credit, the traceability of animals and commodities, as well as the quality and safety of products. Digital solutions promoted will include digital quality-based payment systems for milk (building on and scaling up the pilot implemented by SNV), Market Information Systems and Online Marketplace for beef.

262. **In the dairy value chain**, the project will partner with volunteering processors to establish a traceability and quality based payment system, based on the pilot implemented by SNV with one processor based in the project area. This will involve creation of data entry points (recording quantities and quality parameters) at the level of MCPs, MCCA, collectors, and at the reception points of the factory. At recording points, operators will be equipped with android devices and connected weights scale and "lactoscans" for data recording. Cooperatives and processors will be equipped with IT equipment and software for data compilation and analysis. The software will integrate

²⁸ <https://ioe.ifad.org/ru/web/knowledge/-/focus-on-multi-stakeholder-platforms-lessons-learned-about-their-role-in-ifad-value-chain-projects>

GIS functionality to enable tracing back of quality issues (e.g. mastitis hotspots, that can then be addressed through targeted prevention campaigns). The system will facilitate payment of farmers, including on quality criteria, which will contribute to create incentives for quality management and will improve milk quality. Data generated by the system will also enable Financing Institutions to profile farmers and select those that are eligible for credit, based on their historical sales records.

263. **In the beef value chain**, the first focus of digitalization will be to facilitate transactions, including through a Market Information Systems and Online Marketplace, that will contribute to mitigate market asymmetries. Online marketplaces for cattle already exist in some developing countries including Kenya in the region, and in South Asia, and are based on the same principles of other online marketplaces that are now common features everywhere in the world. Market information system is key in the beef market because of multiplicity of actors and disconnection between producers and end buyers. The system will build on existing MIS for agriculture (FARMIS, INFOTRADE) and support the extension of their scope to livestock (live animals and carcasses). Because of the nature of the dairy value chain (high concentration of processors, uniformity of prices, low flexibility for the choice of buyers), market information systems are not deemed relevant.

Phasing of activities under Sub-component 2.1

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity 2.1.1. Support producer organisations and cooperatives								
Initial training of cooperatives								
Refresher training of cooperatives								
Coaching of cooperatives								
Gender sensitization for producer groups/cooperatives								
South South exchange between producer groups								
Activity 2.1.2 Pilot and upscale green and sustainable business models for access to markets and services by smallholder farmers								
Construction of new MCCs								
Rehabilitation of existing MCCs								
Construction of cattle holding grounds								
Constructions of MCPs								
Upgrading of MCCs into dairy hubs								
Facilitation of productive alliances								
Adoption studies for biogaz								

Recruitment of consulting firm for solar energy								
Design of solar energy projects								
Implementation of solar energy projects								
Implementation of waste management solutions								
Activity 2.1.3. Strengthen public livestock markets and slaughtering facilities and pilot circular waste management technologies								
Construction of livestock markets								
Feasibility studies for livestock markets								
ESIA for livestock markets								
Facilitation of PPP and management support for livestock markets								
Construction of slaughtering facilities								
Feasibility studies for slaughtering facilities								
ESIA for slaughtering facilities								
Facilitation of PPP and management support for slaughtering facilities								
Feasibility study and suitability mapping for biodigesters								
Biodigester construction at slaughtering facilities								
Biodigester construction at livestock markets								
Technical assistance on quality management, infrastructure maintenance, safe working standards and equipment, etc.								
Black Soldier Flies pilots								

Implementing mechanism and partners

264. **Activity 2.1.1. Support producer organisations and cooperatives:** this activity including the facilitation of group and cooperative formation, the training of cooperatives, their coaching, and the facilitation of South South exchanges, will be implemented with the support of a service provider with experience in the domain of

cooperative support in the livestock sector, possibly a local or international NGO. The ToRs for this service provider are annexed.

265. Activity 2.1.2 Pilot and upscale green and sustainable business models for access to markets and services by smallholder farmers: The construction and rehabilitation of MCCs and MCPs will be entirely under the responsibility of the Dairy development Authority (DDA) which has a long experience in the domain and since this is entirely part of its mandate. DDA will be responsible for selection of sites and groups, feasibility studies, procurement of equipment, commissioning of civil works. For cattle aggregation points, because of the absence of a dedicated agency for beef, this will be implemented directly by the PMU. The same service provider engaged for supporting cooperatives under 2.1.1. will also provide support for facilitation of dairy hubs and productive alliances, and nucleus farmer mechanism.

266. Solar energy and waste management solutions. Specialised service providers will be mobilised to carry out adoption and feasibility assessments. Solar energy and waste management solutions at MCCs and at MCPs will be implemented by the Dairy Development Authority (DDA), the Ministry of Energy and Mineral Development (MEMD), and the Ministry of Water and Environment (MWE). A consulting firm will be engaged to provide technical assistance for design and implementation. Other partners, such as Heifer International and SNV, will be consulted for potential synergies.

267. Activity 2.1.3 Strengthen public livestock markets and slaughtering facilities and pilot circular waste management technologies: in the absence of a specialized MAIF agency for beef, this activity will be implemented directly by the PMU, in collaboration with beneficiary municipalities. Engineering firms and consultancy companies will be engaged for the design and supervision of works, ESIA studies.

268. Circular waste management technologies: The activity will be implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the National Agricultural Research Organisation (NARO), the Ministry of Energy and Mineral Development (MEMD), private sector service providers to support installation of biogas plants (Biogas National Alliance, Bio Solutions Uganda) and other specialised implementing partners (e.g., SNV).

269. BSF pilots: The PMU will recruit an experienced NGO to work with NARO on testing the right percentage of animal waste for Black Soldier Fly (BSF) maggots. The NGO will then train two women/youth groups and set out a pilot in two sites near a project slaughterhouse/livestock market. During the two year pilot, NARO will monitor and study the economic viability and quality of produce (compost and protein for animal feed) and the NGO provides technical assistance and assists in establishing contracts for constant supply of waste and demand for products against reliable prices.

Exit strategy / sustainability

270. Sustainability of MCPs, MCCs and dairy hubs will be based on the cooperative model, on which their management will be based. Activity 2.1.1 (support to producers organizations and cooperatives) is thus of foremost importance, as it will aim at strengthening their capacities for proper technical and business management of these facilities. Each cooperative will benefit from two waves of training (initial and refresher, to cope with turnover in management) and continuous and regular coaching during all the project duration. Newly constructed MCCs will however remain the property of DDA as per the usual practice in the country, in order to secure the investment in case of failure of the cooperative (investments can in this case be handed over to another group).

271. Sustainability of productive alliances is based on the mutual benefits it provides to both parties (farmers and aggregators). The project will not finance investments needed for productive alliances except through the climate financing facility

in some cases, but through credit in this case. The PA model should be self-financing as the cost of services provided by the lead enterprise to the participating farmers should generate a return on investment, and on the other hand, participation of farmers in the PA should also increase their incomes. If it is not the case, a PA would not be sustainable and should not be supported.

272. **Sustainability of livestock markets and slaughtering facilities** is mostly based on the PPP arrangements. Management of such facilities by public entities doesn't appear as a sustainable model, as illustrated by the poor condition of most of the public abattoirs and markets in the country. This is due to the fact that, despite the significant revenues these facilities generate in terms of local taxes and fees, these revenues contribute to the general budget and are not earmarked for maintaining the facilities. With a PPP mechanism, taxes will be paid back to the municipality, but fees will be managed by the PPP operator.

273. **Sustainability of digital solutions for value chain:** for dairy value chain, the digital payment and quality management solutions promoted will benefit directly to the cooperatives and aggregators, as it will lower their transaction costs. They should thus be able to cater for the costs of maintenance. For online marketplaces for animals, the operating cost should be covered through fees on transactions, as it is the case for all similar mechanisms. The main sustainability challenge will be for the Market Information System for beef, which can only be sustainable if users pay for the service. This will require intense awareness raising but also subsidies during the first years of operation to create an appetite for the service, and reach the breakeven point.

274. **Sustainability of solar energy and waste management solutions:** investments in energy efficiency and renewable energy solutions play a critical role in improving energy access and independence, particularly in areas with limited or no access to electricity. This approach reduces reliance on unreliable grid infrastructure and diesel generators. Reliable power not only facilitates the operation of essential equipment, but also catalyses improvements throughout the value chain, adding value to final products. Combining energy efficiency measures with other solutions can reduce operating costs. In addition, the introduction of new technologies requires the development of new skills among users and operators, creating demand for specialised services and providing opportunities for entrepreneurship and employment. Finally, the adoption of climate-smart technologies not only contributes to national climate goals, but also promotes sectoral and community development. However, careful design is essential to ensure the longevity of these systems. Technical specifications must be stringent enough to prevent the use of substandard equipment, and provisions should be made from the outset for the timely replacement of critical components such as panels and batteries.

275. **Sustainability of Circular waste management technologies:** Recognising that the success of biogas systems depends on individual ownership and operation, the project is committed to investing in capacity building and technical assistance. This strategic investment aims to address key challenges such as high maintenance and logistics costs, significant water requirements and system complexity, ultimately ensuring the sustainable and efficient operation of biogas systems.

276. Re-use of waste, through biogas installations and Black Soldier Fly farming for energy, feed and compost production, can sustain itself when made economically viable, which is assessed during the BSF pilot. BSF farms are low cost farms and can be replicated at other slaughterhouse sites.

Main risks and mitigation

277. **MCPs and MCCs operating under capacity:** it usually takes several years for an MCP or MCC to reach its optimal volume of operations. This can be exacerbated by mistrust of producers, which can be addressed through awareness campaigns and

training that can improve their ownership, participation and commitment. But the main risk resides in the competition from the raw milk sector/traditional milk traders, who sometimes offer better conditions (higher prices, upfront payment) since they have lower transaction costs (no taxes, no chilling costs). This risk can be mitigated by reinforcing controls on the raw milk sector, to ensure that it complies with regulations, which is often not the case (under Sc 2.2, DDA will be supported to reinforce controls). Attractivity of MCCs can also be reinforced through the hub model, if they receive in addition to market access essential services such as AI, inputs, as well as payment facilitation through the system of offchecks (payment in kind through deduction on milk sales).

278. **Elite capture:** this risk exists in the cooperative led MCC model, where benefits can be captured by a small group of better off and more powerful members, but also in the nucleus farmer model, where the nucleus farmer can benefit more than the participating smallholder. In the first case, training and coaching on governance and management of coops should minimize the risk. In the second case, the service provider in charge of facilitating the arrangement should ensure that benefits are equitably shared, and stipulated in contractual documents.

279. **Biosecurity in markets and abattoirs:** at market level, the main sanitary risk is related to the spread of diseases among animals present at the market, especially for unsold animals that then return to the herd and can contaminate others. This risk will be mitigated by ensuring that animals at markets are subject to clinical inspection at the entrance (an office will be constructed for the veterinarian and market staff). Animal identification and mass vaccination against main contagious diseases, supported under component1, will later during project life help in identifying animals that have been properly vaccinated and can be accepted in markets.

280. **Low digitalization and access to networks:** in the project area, white zones without mobile networks are still common, and a large proportion of farmers (to be assessed precisely) are not using android mobile phones but instead simple mobile ones without internet access. This may hinder access to mobile services for MIS or online marketplaces. The system will thus have to include MMI functionalities, which is the case of the existing MIS system. Development of digital systems will also have to include a preliminary assessment of digitalization among stakeholders to tailor the system to the prevailing context.

281. **Solar energy and waste management solutions.** The upfront costs associated with purchasing and installing photovoltaic (PV) systems can be a significant barrier for farmers and business owners, especially those with limited capital. However, providing up-front capital through grants can reduce this financial barrier and enable farmers to purchase and install essential equipment. This approach also gives them the time to familiarise themselves with the technology and ensure its long-term maintenance. Dairy farmers, in particular, may face challenges in operating and maintaining the equipment. Therefore, capacity building initiatives and technical assistance will be provided to enhance their skills and ensure the sustainability of the infrastructure. Another potential challenge is the intermittency of power supply due to weather conditions. To mitigate this, the integration of energy storage solutions, such as batteries, will be essential. These solutions ensure a consistent power supply to production processes by matching power supply to demand periods.

282. A significant risk associated with the installation of solar systems is inadequate system design, which could lead to insufficient power supply, resulting in milk spoilage and potentially discouraging stakeholders from adopting the technology. A key mitigation measure is to allocate a sufficient proportion of the investment to the technical design of the solar systems. To ensure cost-effectiveness, PV systems should have the capacity to meet the peak demand of the primary consumer. In cases where the consumer expands its production capacity, the PV capacity must be increased and factored into the expansion cost estimate.

283. **Circular waste management technologies.** A potential challenge is the lack of professionals with the necessary technical knowledge and skills to design, install, operate and maintain biogas systems, and limited access to construction materials and equipment for biogas systems due to logistical constraints and high transport costs. Regular maintenance and occasional repairs add to running costs. Furthermore, while digestate, a by-product of biogas systems, can be used as a high quality fertiliser, its high water content requires appropriate infrastructure for treatment (e.g. dewatering), storage and application. In cases where the biogas plant is inadequately planned and designed, digestate management becomes a significant challenge for farmers. Capacity building initiatives and technical assistance will ensure that these challenges are addressed from the outset and that beneficiaries are well prepared to use such technology throughout its lifetime.

284. Working with biological material (i.e. BSFs) can house ecological risks, e.g. eggs being pilled or maggots or flies escaping. BSF is native to Uganda and will be captured in the vicinity, when setting up a small scale insect farm. BSFs are very specifically targeting waste and are harmless to people, animals or other insects. In the absence of waste the (escaped) population will vanish and predators will reduce the (escaped) population to its natural size. In industrial settings BSF can be prone to infectious diseases, but the project supports only SMEs.

Contribution to IFAD's mainstreaming themes

285. **Gender and youth:** support to cooperatives will include gender sensitization on gender awareness and youth inclusion in order to ensure that women and youth are not excluded from the group dynamics as it is sometimes the case, especially at leadership positions; Youth, including women, will be especially targeted to become BSF farmers. At the level of MCCs and abattoirs, it is expected that the majority of workers will be youth.

286. **Nutrition:** Construction of MCCs and abattoirs in the project area will increase the availability of safe milk (chilled) and properly handled meat for rural populations, and will improve both the quantities consumed, and the quality and the safety of these commodities.

287. **Climate change:** The adoption of solar energy and energy efficient technologies will play a key role in mitigating climate change, particularly by reducing GHG emissions at the aggregation and processing stages of the value chain. In addition, these solutions contribute to climate change adaptation by reducing pressure on critical natural resources such as water and energy. Furthermore, solar energy offers an added advantage in that it produces minimal air pollutants, leading to a significant reduction in emissions of harmful substances such as nitrous oxide, sulphur dioxide and particulate matter, which are known to pose health risks and to contribute to various respiratory and environmental problems.

288. The estimated potential for Uganda to produce 25.17 PJ of biogas annually from various livestock wastes through anaerobic treatment is noteworthy. This potential represents approximately 40% of the country's total primary energy consumption of 62.56 PJ. Specifically, Uganda's expected biogas production from livestock waste, particularly cattle, is estimated at 17.76 PJ per year, underscoring the significant role that anaerobic treatment can play in shaping the country's sustainable energy future.

289. Given the depleting nature of fossil fuel resources and the environmental threats posed by their combustion, research into alternatives is crucial. Biomass, as an emerging viable option, is utilised through anaerobic digestion (AD), a process that converts biomass into biogas. Slaughterhouse waste, as a valuable source of organic waste for this process, requires effective management. Utilising these wastes for biogas and biofertiliser production holds great promise for reducing Uganda's environmental impact while addressing energy and fertiliser challenges. While biogas technology offers a long-

term solution to ensure environmental safety and public health, proper disposal serves as a short-term option.

290. In addition, biogas systems are recognised as effective manure management practices, reducing the risk of environmental pollution and unpleasant odours, while improving overall farm hygiene and providing diversified energy supply options. The integration of climate-smart technologies not only meets national climate change targets, but also promotes sectoral and community development, reinforcing the multiple benefits of sustainable and environmentally friendly practices.

291. The bioconversion of livestock waste using Black Soldier Flies (BSF) can recover valuable macro- and micronutrients that could be converted into feed or fertiliser products, thus closing the loop and increasing the circularity of agricultural system

II.2.2. Sub-component 2.2: Strengthening food safety and local consumption of livestock commodities

i) Expected results

292. The purpose of this subcomponent is to:

- Increase availability and affordability of quality and safe milk and dairy products on rural markets and small towns in the project area. Increase value added on dairy products in rural area
- Create jobs in rural areas, in particular for women
- Reinforce stakeholders capacities on quality/safety management and quality control on milk and meat in order to positively contribute to public health
- Increase the nutrition knowledge and awareness of the public through nutrition campaign
- Promote desirable food behaviour and nutritional practices, by providing information on the nutritional value of dairy and livestock products, the importance of ensuring the quality and safety of the dairy and livestock products
- Support school nutrition programmes to ensure young children benefit from dairy and livestock products.

Direct beneficiaries

293. The direct beneficiaries of this component will be 54,880 in total composed of:

- 1,280 off farm workers, 90% women, working in the 128 small scale processing units for milk
- 50,000 poor dairy smallholder households including 40% women and 25% youth benefitting from Nutrition education and social behavior change communication (SBCC) activities
- 18 schools in districts about 3,600 pre-and primary school age kids benefitting from school milk pilots

Lessons learned and findings

294. This sub-component will build on the following lessons learned from IFAD and partners' interventions:

295. Small scale dairy processing units (cottage industry) in rural areas, generate multiple benefits, including improving local consumption of animal source food by offering affordable and quality products, generating local added value, and empowering

women and youth as this type of business is particularly adequate for women job creation. It also diversifies the market and mitigates market risks while increasing market demand at the same time. The relevance of this business model has been illustrated by multiple success stories in Rwanda under RDDP (milk zones concept) and in Uganda through pilots implemented by DDA.

296. Social marketing and promotion of consumption of high quality and safe dairy and meat products shown to have a positive impact on nutrition and create demand for high quality diverse products for consumers.

297. The SNV School Milk Programme is driving transformation change in western Uganda. Under the school feeding programme, it is extending its impact to nearly a million students. The programme supporting alleviating hunger and malnutrition in schoolchildren. It also plays a crucial role in elevating dairy production in 130 cooperatives.

Description of activities

298. **Activity 2.2.1. Support local small-scale processing and promote short value chains:** Establishing local small-scale processing facilities ("cottage industry") yields multiple benefits including local value addition, access to quality and affordable products for consumers in rural areas, women's integration, and job creation. The project will support the emergence and development of small-scale processing and short value chains, mostly in the dairy sector, and with a specific focus on women and youth groups, building on pilots implemented by DDA.

299. 68 units will be established for women cooperatives, and 60 for private sector investors. In both cases a beneficiary contribution will be required, and financing of the rest will be through grants for cooperatives, and credit for the private sector. For each unit, a market and feasibility study will be implemented prior to the construction. Promoters of the processing units will be trained on technical aspects (processing technologies, quality management, food safety) and managerial ones.

300. In the newly created or existing small scale processing facilities, the project will promote energy-efficient and GHG-reducing technologies, with a focus on replacing fossil fuel and firewood-intensive technologies with environmentally sustainable alternatives, predominantly solar energy, and other highly efficient technologies such as heat exchangers and improved stoves.

301. **Activity 2.2.2. Enhance quality and food safety of milk, dairy products, and beef:** Improving the quality and safety of animal commodities will be achieved through a three-pronged approach combining: (i) capacity building and awareness raising of value chain actors on quality and food safety management, (ii) , and (iii) support to enforcement of standards and quality controls by national regulators.

302. **Capacity building of value chain actors on quality and food safety management:** DDA will organize training and awareness raising sessions on milk quality and safety for value chain actors including farmers (at MCP and MCC level), small scale processors, traders, milk collectors. Similar training and awareness raising sessions will be organized for meat value chain actors by contracted service providers.

303. **Support for enforcement of standards and quality controls by national regulators:**

304. In the dairy sector, the project will support DDA's capacity to conduct training on quality and food safety management, and implement controls along the value chain (including through the provision of equipment for milk quality and safety control), as per its mandate. The project will provide milk quality control equipment for 5 DDA sub-regional laboratories, and will also equip each District DDA milk inspector with a motorcycle.

305. In the beef sector, capacities of local veterinary services in charge of sanitary controls will also be strengthened through training (with strong focus on One Health aspects) and provision of equipment for quality control and post mortem examination.

306. **Activity 2.2.3. Enhance milk and meat consumption and raise nutritional awareness:** Nutrition education and social behavior change communication (SBCC) activities will be implemented in all project villages in the 41 target districts, drawing on the experiences and lessons learned from other partners implementing nutrition SBCC strategies in Uganda and in the region. Nutrition education and SBCC will be carried out specifically aimed at increasing consumption of dairy products (e.g. milk, yogurt, cheese, butter) and other animal sourced food products (e.g. meat, offals) within the context of a diversified diet, and encouraging important nutrition behaviours such as proper food handling, food safety and hygiene practices, combined with WASH. Raising awareness among consumers and producers on the nutritional benefits of animal sourced foods (e.g. dairy and meat), particularly for growth and development, is critical for increasing uptake in diets of these foods and creating market demand.

307. Nutrition education will be tailored for small-holder farmers, community leaders, cooperatives, L-FFs groups, processors. Nutrition messages, integrated into value chain activities, use language familiar to farmers and value chain actors – for instance, comparing the benefits to the family of diversifying diets with safe and of better-quality dairy and animal source food consumption and additional benefits of environmentally sustainable animal husbandry for the sustainable health of their land, nature, and their families. Consumers who regularly purchase and prepare a diverse range of dairy and livestock produce will add animal sourced foods to their diet and improve their dietary diversity, whilst increasing consumer demand. The following stages of implementation will be followed:

308. **Assessing the context at the local level through Knowledge, Attitudes and Practices (KAP) survey** will help to design appropriate nutrition messages and context specific information that address the types and causes of malnutrition, including chronic or acute undernutrition, vitamin and mineral deficiencies and obesity and chronic degenerative diseases. Context assessment can consider: knowledge about good nutrition, child feeding and caring habits, perceived nutritional value, taste preferences, sociocultural factors (taboos and or traditional beliefs for food prohibitions, preferential food allocation). This quick assessment will reveal the knowledge gap, a low level of the desired attitude, and high-risk behavioral practices which call for awareness creation about healthy diets with adequate intake of animal sourced foods such as milk and meat. In addition, it can provide more information on seasonality of production and income, including gender dynamics including gender access to productive resources (e.g. land of food insecure and nutritionally vulnerable groups), on understanding of food safety risks of consuming raw milk and inadequately cooked meat, on capacity of food chain operators to assure food safety and quality, on market opportunities and infrastructure, and on opportunities for collaboration with other sectors or programmes; and local priorities.

309. **Elaborating nutrition education and SBCC messages reflecting assessment results.** The aim of the nutrition education and SBCC activities will be to positively influence nutrition and health related Knowledge, Attitude, and Practices (KAP). The project will develop SBCC materials in local language and use images and other visuals to ensure messages are culturally and linguistically appropriate. SBCC activities will build on the key health and nutrition messages delivered in the various groups (e.g. L-FFs, farmers groups, women processing groups...) and the nutrition training delivered to value chain actors members (component 1 and component 2) and will be expanded to reach beyond that and target the whole community. Some activities will include village nutrition days (the whole community gathers to learn and apply nutrition knowledge in an interactive way, usually with nutrition games and activities), cooking demonstrations, and disseminating key messages via village loudspeakers.

Interconnectivity of nutrition with food safety, quality and hygiene, environmental sustainability, climate change and improved husbandry, will be provided as an integrated package to communities and various groups receiving services from the project.

310. Nutrition education and SBCC implementation. Training will be offered by the project Social Inclusion specialist with support of a nutrition consultant to L-FFS master trainers. The training will be designed in a way that is part of L-FFS sessions with a short module on nutrition and dietary diversity. Agriculture extension service staff will also be trained on nutrition and dietary diversity, with special focus on promoting safe and high-quality dairy and meat production. The training organized will be embed to the other trainings (e.g. deworming, fodder planning, fodder preservation, mastitis, silage making and milk management and etc.) planned by the project with some dedicated session and time for sensitizing on nutrition and food safety. The provision of materials for training will continue as per the need and requirement. Branding and communication material will include banners, brochures, lesson plans, diaries, and calendars will be developed as per need and occasion. In addition, Farmer Days will be arranged at the village level where project beneficiaries are already working. Master Trainers arrange awareness sessions on food safety (quality and safety of dairy and meat) and nutritional benefit of eating animal sourced food. Nutrition education will also be offered to value chain actors (off farm players).

311. Nutrition campaigns. In addition to the training and support services, there is a mass awareness campaign to support the actual trainings and promote awareness among consumers on safe and high quality dairy and meat and its contribution to dietary diversity. The awareness raising campaign is vital in supporting the project eventual goal as awareness of the benefits of consuming dairy and beef is the key to improving livestock productivity at the farm level, creating demand for high quality and safe animal sourced food products. At least about 50,000 people are to be reached through the mass awareness campaigns. The communications and media awareness work plan comprises both print and electronic media campaigns. Others include documentaries, website development, and written and visual success stories. School dairy product displays and community shows are also being planned by the project to raise awareness at the mass level. Some of the output includes a series of sixty seconds long public messages on the significance of dairy for child nutrition (reduction of stunting) to be aired on TV channels as well as national radio channels. These activities will be jointly planned by SI Specialist and KM Specialist. In order to have support from various partners, PMU team will reach out to others for exploring contributions and or linkages with various projects of partners.

312. Using digitalization of messages and information. The project will also explore digital ways of disseminating information in a meaningful way, which may include social media platforms or targeted messaging using mobile phones focused on key behaviours. Specific modules for adolescent girls and young women (age 10-19) will be developed to address nutrition issues, but also convey and touch on specific social issues such as childbearing and early marriage, school dropout, gender-based discrimination, sexual violence and other issues directly affecting adolescent girls. Furthermore, as adolescent girls have increased nutrient requirements compared to childhood, education will focus on ways to increase dietary diversity with high quality and safe dairy and meat, and meet their particular nutritional needs. In addition, digitalized information (e.g. SMSs and social networks) will be used for sensitizing value chain actors (SMEs, AI, private sector, veterinary service provider) on the importance of safety, quality and nutritional value of dairy and meat in improving nutrition and health. Simple and short messages will be used for the purposes.

313. Piloting school milk supply for better nutrition. Schools and educational institutions have been regarded to be primary aspects to impart nutrition education to the individuals. Nutrition education is essential for the physical and mental development of the children and can be accompanied with a supply of fresh, safe and better-quality

milk. When the children will consume a healthy and a well-balanced diet then they will be able to concentrate upon their studies and learn effectively. Making provision of information, knowledge and skills about the relationship between a good diet, physical activity and health. The project will select 3 primary schools in six districts initially for piloting milk supply to schools. Selection of districts will be based on the scale of existing MCCs, ability to supply milk on a continuous basis and also have interest in supporting local schools in their neighbouring communities. The selection will also be based on distance from MCCs to schools, number of kids that will benefit, strong local leadership and community support system that can also facilitate and promote such school-MCCs linkages. Selected schools will receive support with milk coolers to ensure that milk received can be stored in a safe manner before simple pasteurization (e.g. boiling) and distribution to school children. These activities are expected to start from the second year and it will run over time. The project will also document the challenges, issues, lessons learned and offer such cases for potential partners and or institutions for eventual scale up.

Phasing of activities under Sub-component 2.2

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity 2.2.1 Support local small-scale processing and promote short value chains								
Market study for SS processing units								
Creation of Small scale processing units								
Training on processing, quality and food safety, nutritional value and marketing								
Gender sensitization /awareness workshop								
Activity 2.2.2. Enhance quality and food safety of milk, dairy products, and beef								
Provision of equipment for DDA sub-regional laboratories								
Provision of equipment incl. Motorcycle for DDA inspectors								
Training and awareness raising of stakeholders by DDA								
Training of public vets on meat inspection								
Equipment of public vets for meat inspection								
Activity 2.2.3. Enhance milk and meat consumption and raise nutritional awareness								
Preparation of nutrition education and SBCC materials								
Identify service provide for layout, translation, printing and distribution								
Conduct nutrition education and SBCC								
Pilot school milk mechanisms								

Capture lessons learned, good practices for scale up								
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Implementing mechanism and partners

314. **Installation and support to small scale processing units** will be under the direct responsibility of DDA, who is already involved in this type of support but on a limited scale (using NAADS funds). DDA will be responsible for commissioning the studies, for construction of infrastructures, for procurement and provision of equipment, and for provision of training to beneficiaries.

315. **Capacity building of actors on quality and food safety:** in the dairy sector, this activity will be implemented by DDA, as it is fully part of its mandate and current portfolio of activities. Project support will enable DDA to increase the outreach in the project area, currently limited by availability of budget and means. In the beef sector, this will be implemented by a contracted private service provider.

316. **Support to enforcement of standards in the dairy and beef sectors:** this activity will be implemented by DDA in the dairy sector (procurement of equipment for quality control), and by the PMU in collaboration with MAAIF-Directorate of Animal Resources in the beef sector in the absence of dedicated government agency for this value chain (for provision of equipment and training of public vets on meat inspection).

317. **Nutrition:** In order to accelerate progress in nutrition, it is crucial to collaborate and coordinate among sectors (e.g. agriculture, health, food safety, environment, social protection, labour, water and sanitation, education, energy) and programmes, through joint strategies with common goals, to concurrently address the multiple immediate, underlying and basic causes of malnutrition. It is essential to establish and strengthen effective platforms at decentralized and central levels to coordinate nutrition and related actions across government ministries to ensure a multisectoral and convergent response to malnutrition. The actors should agree to support this agenda through a coordinated and focused set of priorities for actions and learning-by-doing which mainstreams nutrition in the development agenda, strengthens and fine-tunes delivery mechanisms and strengthens the evidence base for investing in nutrition. It is important to share knowledge and good practices, including exchange of information and experiences on a nutrition-sensitive dairy and livestock value chain. The project will seek collaboration with partner institutions such as WFP and FAO. It will ensure that the activities are also well coordinated with other component interventions.

Exit strategy / sustainability

318. **Small scale processing units** will be managed as private businesses including for those under women cooperatives' management; the cooperative led units will be coached by DDA and those under private management by BDSPs hired under sub-component 2.3. Their profitability will also be assessed ex-ante through the feasibility and market studies. This should be sufficient to ensure their sustainability. However, to reduce unfair competition from raw milk market dealers that do not abide with regulations (for instance those that trade unpasteurized raw milk, despite the ban), DDA will have to ensure that regulations are enforced, in particular in areas where these cottage industries are located. The additional means provided by the project to enforce the controls will enable DDA to do so.

319. **Nutrition education and SBCC** has a long lasting effect on people's knowledge, behavior, and attitudes towards healthy diets and good nutrition. Consistent and continued communication and dissemination of information is important to make tangible results. Therefore, nutrition education and SBCC using simple language and adapted to different local contexts need to be fully integrated into the government programmes related to food, agriculture, health, education and nutrition. Creating better linkages with

initiatives of other partners and strategic coordination among various sectors, can sustain the efforts and eventually scale up the success and lessons learned.

Main risks and mitigation

320. **Risk of unfair competition by the informal sector:** as for MCCs, the main risk faced by small scale processing units resides in the competition from the raw milk sector/traditional milk traders, who have lower transaction costs (no taxes, no chilling costs) and offer much cheaper but unsafe products. This risk can be mitigated by reinforcing controls on the raw milk sector, which will be supported under this component. But it can also be reduced by increasing awareness of consumers on the risks of consuming raw milk, and benefits of consuming processed products. This will be implemented under activity 2.2.3.

321. **Elite capture:** this risk exists in the cooperative led small scale processing unit model, where benefits can be captured by a small group of better off and more powerful members. Training and coaching on governance and management of coops, and continuous monitoring of the units, provided by DDA as part of the support to these cooperatives, should minimize the risk.

322. **The implementation of nutrition might be affected by the resistance to change** behavior and attitudes towards consuming safe and high-quality dairy and beef products. Certain traditional beliefs and taboos might also influence the resistance to change. The project will consult beneficiaries during KAP assessment to ensure that nutrition education and SBCC is tailored and reflect the challenges and issues of target groups. Community based participatory planning and coordination is a key entry point for prioritizing locally relevant options and reflecting their realities and issues.

323. **Lack of coordination among different sectors and partners for nutrition.** The district nutrition planning and coordination process can encourage harmonization of approaches and synergies between nutrition-related projects and initiatives on the ground. The project will seek such coordination at decentralized levels using and or optimizing existing coordination platforms.

Contribution to IFAD's mainstreaming themes

324. **Gender:** the 64 cooperative small scale processing units will be managed by women led groups who will generate additional incomes from this participation in the cooperatives. The 64 private units will also primarily employ women as milk processing is traditionally a women's responsibility in Uganda.

325. Gender equality and nutrition are interlinked and mutually reinforcing objectives, thus it is important to ensure that these are addressed in agri-food system related programmes and projects in a synergic way. Taking into consideration women's needs in nutrition-sensitive agri-food system interventions can positively result in gender equality, women's empowerment and improved nutritional status for the entire community.

326. **Youth:** It is expected that the 128 processing units supported under this sub-component will benefit a significant proportion of youth, including young women in particular. Young people will also have a greater awareness and understanding of diet diversity and good nutrition habits so that they can seek solutions to reduce hunger and malnutrition in their families, their communities and in the country.

327. **Nutrition:** Animal-source foods have long been recognized as an important component of diets, providing essential macro- and micronutrients. This sub-component will positively contribute to nutrition by availing affordable and good quality products on the market, and by promoting the consumption of nutritious and safe dairy and other livestock products by all people, especially those most vulnerable to all forms of malnutrition.

328. **Climate change:** The adoption of solar energy and energy efficient technologies at the processing stage will play a key role in mitigating climate change, particularly by reducing GHG emissions in small scale processing units, which often use energy intensive technologies such as open fire pasteurisation of milk. The main energy efficient technologies to be promoted at the level of small scale processing units will be: solar pasteurisers, solar powered refrigeration (for raw milk and processed products), energy efficient wood-fired pasteurisers with improved closed stoves, solar water heaters, heat exchangers to produce hot water using energy extracted during milk cooling, electric motorcycles for distribution, etc. These solutions will also contribute to climate change adaptation by reducing pressure on critical natural resources such as water and energy, and will also reduce air pollutants and improve the health of operators and surrounding communities.

329. Food loss also contributes significantly to greenhouse gas emissions throughout the food supply chain, from production to consumption. Food waste results in the unnecessary release of methane, a potent greenhouse gas, into landfills. In addition, the resources used to produce, process and transport the lost food, such as water, energy and land, also contribute to carbon emissions. By minimising food loss, we can optimise resource use, reduce emissions and reduce pressure on ecosystems.

II.2.3. Improving access to financial products for value chain actors

Expected results

330. The purpose of this subcomponent is to:

- Enhance financial accessibility: Enable livestock agricultural value chain actors to commercialize their activities and improve incomes and livelihoods by facilitating access to financial services.
- Provide business development services: Deliver technical assistance for business plan development and capacity building to empower stakeholders within the dairy and livestock value chains, enhancing operational efficiency and facilitating access to financial resources.
- Develop tailored financial products: Refine and create customised financial products to meet diverse stakeholders' financing requirements within the dairy and beef value chains, promoting financial inclusion and resilience.
- Promote financial literacy: Undertake comprehensive financial literacy initiatives to enhance the financial knowledge, skills, and confidence of smallholder farmers and other value chain actors, promoting informed financial decision-making and reducing credit risk for lenders.
- Improve financial resilience through insurance: Enhance awareness, accessibility, and affordability of livestock insurance products, thereby bolstering the resilience of livestock farmers against unforeseen adversities through enrollment in insurance schemes and awareness campaigns.

Direct beneficiaries

331. The direct beneficiaries of this component will be 100,000 in total, composed of:

- Smallholder farmers and agribusiness SMEs that are actively engaged in the livestock sector will benefit from tailored financial products, including 10,919 credit beneficiaries (USD 27 Million), insurance (36,190 premiums), and financial literacy training (820 Trainers and 82,000 trainees) to improve their financial accessibility and resilience.
- Livestock Agricultural Value Chain Actors: This includes input suppliers, small- and medium-scale producers, processors, and distributors within the

dairy and beef value chains that shall benefit from the financial services described above.

- 615 Cooperatives and SMEs within the dairy and livestock value chains will receive business development services and capacity-building support to enhance operational efficiency, develop bankable proposals and access financial resources.
- 30 Financial Services Providers (FSPs): Commercial banks, credit institutions, microfinance deposit-taking institutions (MDIs), Fin-techs, Ag-Techs, and savings and credit cooperative societies (SACCOs) that will receive support in product development and capacity building to refine and create financial products customized to meet the financing requirements of livestock value chain actors.

Lessons learned and findings

332. This sub-component will build on the lessons learned from previous IFAD investments in the rural finance sector in Uganda including:

333. **Demonstrations that sustained capacity building improves the profitability and viability of FSPs.** Project for Financial Inclusion in Rural Areas (PROFIRA) showed that moving away from classroom training to in-situ handholding of FSPs improved efficacy and reduced costs²⁹. The TORs for contracted BDS service providers should emphasize on-site customized support to FSPs.

334. **Tempering Community Expectations.** It is advisable to set the stage, as part of the initial stages of community sensitization, the exact nature of the Project's intervention and the extent of coverage. Levelling of expectations at the group/community levels is essential; community members tend to have high expectations of material support.

335. **Fostering Partnerships for Livestock Farmers' Prosperity.** Partnerships with the Relevant Institutions can positively Impact Beneficiaries – RELIV primary beneficiaries shall be small-scale livestock farming households. Increased access to credit should be matched with other component interventions to enable credit to translate into agricultural productivity enhancement effectively.

Description of activities

336. **Activity. 2.3.1. Provide Business Development Services for Business Plan development:** A critical bottleneck for smallholder farmers and Agribusiness Small and Medium Enterprises (SMEs) to access finance is inadequate financial and business management skills. To address this challenge, the project will deliver Technical Assistance (TA) through Business Development Services (BDS) to empower critical stakeholders within the dairy and livestock value chains, including cooperatives and SMEs. BDS aims to enhance operational efficiency and facilitate access to vital financial resources. The BDS intervention seeks to strengthen existing and newly established Cooperative-led Milk Collecting Centers (MCC) and Milk Collecting Points (MCP), women groups and SMEs managing small scale processing units, private service providers (AI and veterinary technicians) enhancing business operations and expanding market reach. Key activities within this intervention include:

337. **A mapping exercise** across 41 districts in Program Year 1 to streamline beneficiary identification processes to implement the sub-component effectively. This study aims to analyze the socioeconomic landscape, identify potential beneficiaries engaged in small and medium agribusiness enterprises within the livestock sector, and gather data using quantitative and qualitative research methods. The outcome will be a

²⁹ Project Completion Report – Project for Financial Inclusion in Rural Areas

comprehensive beneficiary identification report guiding subsequent project activities and beneficiary selection for participation in the access to finance component.

338. **Contracting of service providers:** Reputable firms will be contracted through competitive bidding to provide Business Development Services (BDS) tailored to specific regions, focusing on capacity building for SMEs in the livestock sector. Each firm will support at least 15 entities per district over three years, totalling 615 SMEs, focusing on women and youth-led enterprises. The consultancy aims to enhance operational efficiency and financial management capabilities, ensuring sustainability through hands-on mentorship and coaching sessions. TORs Attached

339. **Activity 2.3.2. Support the development of livestock-specific climate finance products by financial institutions:** The project aims to support agricultural credit tailored to smallholder farmers and agribusiness SMEs, crucial for rural livelihoods, productivity improvement and climate resilience. Technical assistance providers will help partner financial institutions, including commercial banks, microfinance institutions, and cooperatives, refine financial products customized for the dairy and beef value chains. These products will feature flexible repayment terms and minimal collateral requirements, benefiting lower-tier financial service providers and addressing stakeholders' unique needs. Key activities within this intervention include:

340. **Scoping Study.** A scoping study in Program Year 1 will identify and assess financial service providers (FSPs) operating within the project districts. This study analyses financing gaps within the beef and dairy value chains, enhancing access to appropriate financial products for value chain actors. The scoping study report will be a reference point for future product development initiatives.

341. **Stakeholder Engagements.** District workshops and meetings will be organized by the Livestock Development Project Management Unit (PMU), with two workshops per year in each of the 41 districts, from Year 2 to Year 6. These events will facilitate dialogue and collaboration among financial sector players, including financial service providers (FSPs), and promote financial linkages between wholesale lenders and local partner financial institutions (PFIs). Additionally, annual regional financial linkage events in each region will strengthen collaborations and resource mobilization for targeted financing initiatives, minimizing duplication of efforts and disseminating information on product offerings.

342. **Product Development TA.** The project will provide financial product development support to partner financial service providers (FSPs) in Years 2 through 5. Firms will be contracted to work with groups of 10 PFIs, assisting in refining and developing financial products tailored for dairy and beef value chain stakeholders, focusing on women and youth. This support will involve various stages, including market research, prototype development, and pilot testing, aiming to increase the variety of loan products offered by FSPs to meet the specific financing needs of stakeholders. (See TORs attached)

343. **Activity 2.3.3. Provide financial literacy support to smallholder farmers:** The project shall provide financial literacy support to livestock farmers, recognizing its importance in enhancing access to finance and sustainability in the livestock sector. Key activities within this intervention include:

344. **Adapting Financial Literacy Curriculum and Development of IEC Materials.** A contracted entity will adapt the Financial Literacy Curriculum available at the Bank of Uganda to cater for smallholder livestock farmers and stakeholders in beef and dairy value chains. Simultaneously, Information, Education, and Communication (IEC) materials, such as brochures and posters, will be created and distributed in local languages to ensure accessibility and comprehension. The project budget will cover these materials' translation, reproduction, and distribution costs.

345. **FL/TOT Sessions:** Four contracted firms will conduct 30 Training of Trainers (TOT) sessions across four regions, certifying 820 Master Trainers over Project Years 2 and 3. These Master Trainers, extension workers, and cooperative executives will oversee financial literacy training.

346. **Implementation of Training Programs:** Tailored financial literacy training programs will benefit 82,000 smallholder farmers, including all 50,000 L-FFS beneficiaries, enhancing their financial knowledge and skills to optimize available financial services and make informed decisions. With a focus on inclusivity, these initiatives aim to empower women and youth, fostering economic resilience within the livestock sector and promoting sustainable growth. (TORs Attached)

347. **Activity 2.3.4. Leverage climate change investments in the livestock sector:** The project aims to leverage climate change investments in the livestock sector through collaboration with partners such as the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM), the Global Environment Facility (GEF), and the Green Climate Fund (GCF). Key partnerships envisaged are:

348. **Partnership with ARCAFIM.** Equity Bank Uganda Limited (EBUL), a private sector partner operating in East Africa, has partnered with IFAD to channel climate adaptation finance. The project shall aim to ensure that project beneficiaries absorb approximately 7,030 adaptation loans totaling USD 15 million. Of these, 7,000 loans will primarily target micro-smallholder farmers with an average size of USD 1,500, while 30 loans will be allocated to small and medium enterprises (SMEs). To ensure inclusivity, 45% of the loan beneficiaries will be women or women-led SMEs, and 25% will be youth or youth-led enterprises. EBUL will explore mechanisms to channel funds through lower-tier FSPs such as SACCOs and VSLAs to increase accessibility for rural livestock farmers.

349. **Collaboration with the GCF DAima Project.** The project aims to disburse around 3,889 climate mitigation loans totalling USD 19 million. Of these, 3,800 loans will primarily target micro-smallholder farmers with an average size of USD 1,500, while 89 loans will be allocated to small and medium enterprises (SMEs). Upholding gender and youth empowerment principles, the project pledges to allocate 45% of the loan beneficiaries to women or women-led SMEs and 25% to youth or youth-led enterprises. The project will explore mechanisms to channel funds through these collaborations through government institutions like Pride Microfinance, Post Bank Uganda, and Uganda Development Bank.

350. **Activity 2.3.5. Support credit de-risking through promotion of livestock insurance:** The project acknowledges the crucial role of livestock insurance in mitigating farming risks and de-risking credit and is dedicated to promoting its uptake among stakeholders. By implementing targeted interventions, the project aims to improve awareness, accessibility, and affordability of livestock insurance products, thereby enhancing the resilience of livestock farmers against unexpected challenges, including climate-related challenges. Key activities shall include:

351. **Supporting rollout of National Agricultural Insurance Scheme in Livestock:** The project shall facilitate beneficiary enrollment in the National Agricultural Insurance Scheme promoted by the Agro Insurance Consortium, a PPP involving 14 private insurance companies and various Government organizations, in charge of implementing the National Agriculture Insurance Scheme. The Project Management Unit (PMU) shall provide subsidized insurance premiums for 36,190 beneficiaries, gradually reducing the percentage of premiums covered over time (100% during 2 years, 75% during 2 years, and 50% during 2 years). Each policyholder will receive an average subsidy of 75% of the premium or USD 105 per policy, which will be disbursed through the Agro Insurance Consortium, easing financial burdens and encouraging participation in the scheme.

352. **Promoting Awareness and Education on Livestock Insurance:** In partnership with the Agro Insurance Consortium, the project will conduct extensive awareness campaigns to educate stakeholders on the benefits of livestock insurance. These campaigns will emphasize the role of insurance in safeguarding livelihoods and mitigating risks in livestock farming. By promoting insurance uptake and supporting premium payments, the project aims to de-risk credit activities and enhance the resilience of livestock farmers against various hazards, fostering a culture of risk management and financial inclusion within the sector.

1. Phasing of activities under Sub-component 2.1

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity. 2.3.1. Provide Business Development Services for Business Plan development:								
Scoping Study								
Contracting of Service Providers								
Activity 2.3.2. Support the development of livestock-specific climate finance products by financial institutions								
Scoping Study								
Stakeholder Engagements								
Product Development TA								
Contracting of Service Providers								
Activity 2.3.3. Provide financial literacy support to smallholder farmers								
Adapting Financial Literacy Curriculum and Development of IEC Materials								
FL/TOT Sessions								
Implementation of FL Training Programs								
Activity 2.3.4. Leverage climate change investments in the livestock sector								
Climate adaptation finance with ARCAFIM								
Climate mitigation finance with GCF DAima Project								
Activity 2.3.5. Support credit de-risking through promotion of livestock								

insurance								
Supporting rollout of National Agricultural Insurance Scheme in Livestock								
Promoting Awareness and Education on Livestock Insurance								

Implementing mechanism and partners

353. This sub-component comprises various mechanisms and collaborates with key partners to achieve its objectives effectively. The sub-component uses a multi-stakeholder approach with government agencies, financial institutions, private sector entities, and community-based organizations to streamline operations and maximize impact.

354. One of the primary mechanisms employed is the strategic partnership with financial institutions such as Equity Bank Uganda Limited (EBUL), the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM), the Green Climate Fund (GCF), and the Global Environment Facility (GEF). Through these partnerships, the project facilitates the disbursement of tailored financial products and climate finance to support smallholder farmers and agribusiness SMEs. By channelling funds through various financial intermediaries, including commercial banks, microfinance institutions, and cooperative societies, the project enhances accessibility and inclusivity in delivering financial services.

355. Furthermore, the project implements capacity-building and financial literacy initiatives through contracted private sector service providers and adoption of livestock insurance through the Agro Insurance Consortium among stakeholders.

Exit strategy / sustainability

356. The access to finance sub-component is strategically designed for long-term sustainability and impact. By integrating financial literacy training into existing training programs under the L-FFS curriculum, the initiative ensures that financial education becomes an integral part of local agricultural practices beyond the project's duration. Through a Training of Trainers (TOT) approach, Master Trainers are equipped to perpetuate financial knowledge within their communities, fostering economic autonomy among farmers. Additionally, the promotion of financial linkages between local financial institutions and other private sector financial actors and government entities shall fortify institutional capacity, enabling continued access to financial resources for climate-resilient livestock practices post-project. This proactive approach empowers farmers and establishes resilient financial frameworks that endure beyond the project's lifespan, fostering sustainable economic growth within the livestock sector.

Main risks and mitigation

357. **Main risk: Limited Capacity of Rural Financial Institutions.** The financing institutions (FIs) with stronger capabilities, such as commercial banks, microfinance institutions, and fintechs, have inadequate coverage in the project areas. Instead, the predominant lower-tier FIs operating in rural areas are savings and cooperative societies (SACCOs) and village savings and loan associations (VSLAs). However, many lower-tier FIs suffer from weak governance structures and financial and operational weaknesses. Consequently, the proposed technical assistance (TA) for product development could take longer to create an impact due to the capacity gaps of the FIs. Additionally, their

limited capacity may hinder access to climate finance wholesale funds available through windows such as ARCAFIM, thereby reducing the project's effectiveness in improving access to finance for smallholder livestock farmers and agribusinesses.

358. **Mitigation:** Ensure adherence to strict selection criteria for beneficiary PFIs that demonstrate adequate financial, operational and governance capacity to meaningfully utilise the product development support and meet wholesale lenders' eligibility criteria. Additionally, the TA providers shall guide and support selected partner institutions in navigating the application and compliance processes to align PFIs with climate finance eligibility criteria. By leveraging climate finance opportunities, partner institutions can strengthen their financial position and expand their capacity to serve the target population effectively.

Contribution to IFAD's mainstreaming themes

359. **Gender:** By providing Business Development Services (BDS), tailored financial literacy training, and facilitating access to livestock insurance, the sub-component aims to empower women farmers and entrepreneurs, enhancing their financial management skills and resilience against risks. Additionally, strategic collaborations with financial institutions and climate finance partners seek to channel resources towards women-led SMEs and smallholder farmers, ensuring their participation in climate adaptation and mitigation initiatives. Through targeted interventions such as scoping studies, stakeholder engagements, and awareness campaigns, the project aims to address women's unique needs and challenges in the livestock sector, ultimately promoting gender equality and sustainable development within rural communities.

360. **Youth:** The sub-component aims to equip young farmers and entrepreneurs with the skills and resources necessary to thrive in the agricultural industry through financial literacy training, capacity building, and access to tailored financial products. By targeting youth-led enterprises and providing opportunities for youth participation in climate finance initiatives, the project seeks to harness the energy and innovation of young people to drive positive change and sustainable development within rural communities. By addressing the specific needs and challenges faced by youth in agriculture, the project contributes to building a more inclusive and resilient livestock sector that offers meaningful opportunities for the next generation of farmers and agribusiness leaders.

361. **Nutrition:** Access to finance strengthens livestock value chains and promotes sustainable agricultural practices; the sub-component supports increased production and availability of animal-source foods, such as meat and milk. These nutrient-rich foods are essential sources of high-quality protein, vitamins, and minerals, critical for addressing malnutrition and promoting human health. Additionally, by empowering smallholder farmers and promoting access to financial services, the project helps to increase household incomes, enabling families to afford a more diverse and nutritious diet. The sub-component addresses food security and nutrition challenges by enhancing livestock-based livelihoods' productivity, profitability, and resilience.

362. **Climate change:** Through various activities, such as supporting the development of climate-resilient financial products, leveraging climate change investments, and promoting livestock insurance, the project aims to enhance the resilience of livestock farmers and agribusinesses against climate-related risks, and to support mitigation by providing finance for improved productivity and energy efficiency. The project will help stakeholders manage climate-related shocks and adapt to changing environmental conditions by facilitating access to tailored financial services and insurance products.

II.3. COMPONENT 3: POLICY SUPPORT AND COORDINATION

Sub-component 3.1: Policy support and stakeholder engagement

363. Expected results: Component 3 will focus on policy and stakeholder organization and participation in policy dialogue, and will aim at achieving Outcome 3: "Strengthened policy and regulatory environment for sustainable and inclusive growth of the dairy and beef sectors in Uganda". This Outcome will be achieved through two outputs: i) Output 3.1 Policy dialogue supported, and ii) Output 3.2 Policy and regulatory framework supported. These 2 outputs will be achieved through the following activities:

364. **Activity 3.1. Supporting policy dialogue:** RELIV will amplify the inclusion of all key stakeholders within the dairy and beef value chains through the creation of multistakeholders platforms both at the local and national levels. ReLIV will build on the achievements of the 50x2030 initiative in Uganda, which supports countries to collect better and more reliable agricultural and rural data and assists them in using data for policy and in their decision-making processes. RELIV will make use of the knowledge already developed including the livestock brief. The initiative will also support the PMU in training and developing knowledge products.

365. ReLIV will support annually starting from PY2 the district level platforms as well as the national level. For the district level platforms, these will involve the key actors in the 2 value chains: smallholders, aggregators/offtakers, middlemen, processors, local government and the private sector. The platform participants will discuss jointly and identify practical opportunities and bottlenecks for developing the value chains in their respective districts and corresponding priorities for individual or joint actions. The platform will also foster trust among the different players which is vital for sustaining longer-term commercial relationships. The district platform will be the basis for the policy dialogue at the national level.

366. At National level, the platform will follow the bottom-up approach through receiving the feedback/reporting from the district level platforms. In addition to the issues raised at district level, the national platform will be discussing the strategic issues that affect the development of the 2 value chains in Uganda.

367. **Activity 3.2 Support to policy and regulatory framework:** Inline with DaiMA programme, RELIV will work on establishing a climate-responsive policy and regulatory environment by reviewing the policies and regulatory frameworks of the dairy sector, supporting value chain governance initiatives, and work on food safety and consumption. This will be done through policy and regulatory studies as well as annual policy and regulatory consultations. The project will also benefit from the regional cooperation and knowledge sharing within DaiMA to ensure coordinated strategies, amplify individual country efforts and foster joint learning. This collaboration will be key to overcoming institutional and knowledge barriers.

368. **Phasing of activities under Sub-component 3.1**

Activity/task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Activity 3.1.1 Supporting Policy dialogue								
National policy support								
Support of national platforms								
Activity 3.1.2. Support to policy and regulatory framework								
Policy studies								
Policy regulatory consultations								

369. Sub components 3.2 and 3.3 are presented under the relevant sections on M&E and Project Management.

PART III: PROJECT FINANCIAL AND ADMINISTRATION PROCEDURES

III.1. FINANCIAL MANAGEMENT

III.1.1. Lead Implementing Agency and with Fiduciary Responsibilities

370. The Lead Implementing Agency of the RELIV programme will be the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) of Republic of Uganda. The Programme Management Unit (PMU) will be responsible for overall fiduciary management of the Programme under MAAIF will be the overall accounting hub for the Programme. The PMU 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 PMU.

III.1.2. Planning & Budgeting

371. The Programme is funded by various sources of funds namely IFAD, GCF, GEF, Beneficiaries contributions and Government of Uganda 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.

372. Annual budgeting is a contractual obligation of the Financing Agreement. The Programme budgeting will be done in accordance with existing Government of Uganda 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.

373. 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.

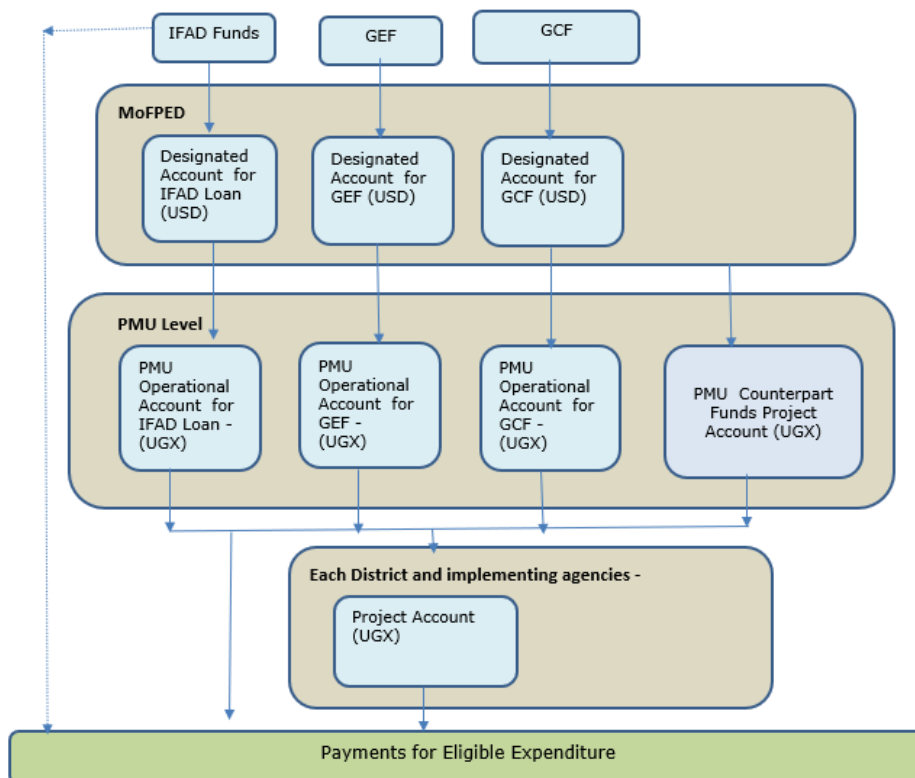
374. Cost estimates and budget allocations established during the development of the AWPB provide the basis for cost control and facilitate the release of funds by IFAD. The AWPB is the final document against which Programme performance shall be measured each year and the benchmark for monitoring physical 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.

III.1.3. Flows of Funds, Bank & Cash Management

375. 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.

376. 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 Uganda administrative system; hence, funds are disbursed to activities to be done in the districts. The PMU would pay for most project activities directly. However, it is envisaged for funds to disburse further to implementing districts for the payment of activities. The PMU 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



377. Direct payments would only be applicable under exceptional circumstances as will be described in the disbursements and Financial Management and Financial Control Letter.

378. All procurements and key activities and will be processed and paid from the PMU that will be anchored within the MAAIF. However, for efficiency and convenience in processing some operational expenditures, the implementing agencies (districts and the semi-autonomous institutions) will receive funds based on quarterly planned activities and be providing monthly financial and technical returns to PMU. At the implementing entities below PMU, there will be one dedicated project account for processing these minor payments. The reporting template will be tailored to be able to report clearly on each activity and easy to identify balances for each financier.

379. The PMU would use the Government IFMIS system for recoding financial transactions and reporting to both IFAD. 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 IFMIS system is 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.

380. 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.

381. 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.

382. 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.

383. 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 details for each disbursement method in section 3 of the Disbursement Handbook.

384. 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 level	Programme Staff position numbers and	Remarks
PMU	1. Finance Manager 2. Project Accountant 3. 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 performance which is expected to enhance performance.
Districts	4. Project Accountants	- The staff will be hired as part of start-up activities.

385. The Programme Accounting team duties and responsibilities shall include:

- Installation of IFMIS systems to ensure that the PMU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Uganda budget as required by the GoU 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/ districts 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 Uganda 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 Uganda 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/districts 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.

III.1.4. Accounting & Financial Reporting

386. The PMU under the MAAIF will use government IFMIS 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 IFMIS system is 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.

387. 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 (PMU, IFAD, GCF, GoU 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.

388. 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.

389. The IFMIS 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.

390. RELIV 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.

391. The Programme chart of accounts shall: (i) be based on the Programme budget and Cost Categories; (ii) capture financial data under the appropriate headings / RELIV 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 will be made as advances. Recording of expenditure to the Programme accounting system will be done by PMU based on expenditure reports submitted by the implementing agencies.

392. The Programme expenditure initiation, authorization and payments will be in line with RELIV organisational structure. The Programme Coordinator at PMU or the Principal Secretary at MAAIF shall approve all payments requests before they are forwarded for authorisation. The Finance Manager at the PMU 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.

III.1.5. Recording and processing of transactions

393. 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.

394. 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.

395. 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.

III.1.6. Financial reporting

396. Finance Manager at PMU 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.

397. 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 RELIV'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 Disbursement 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.

III.1.7. Cash flow forecast

398. 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.

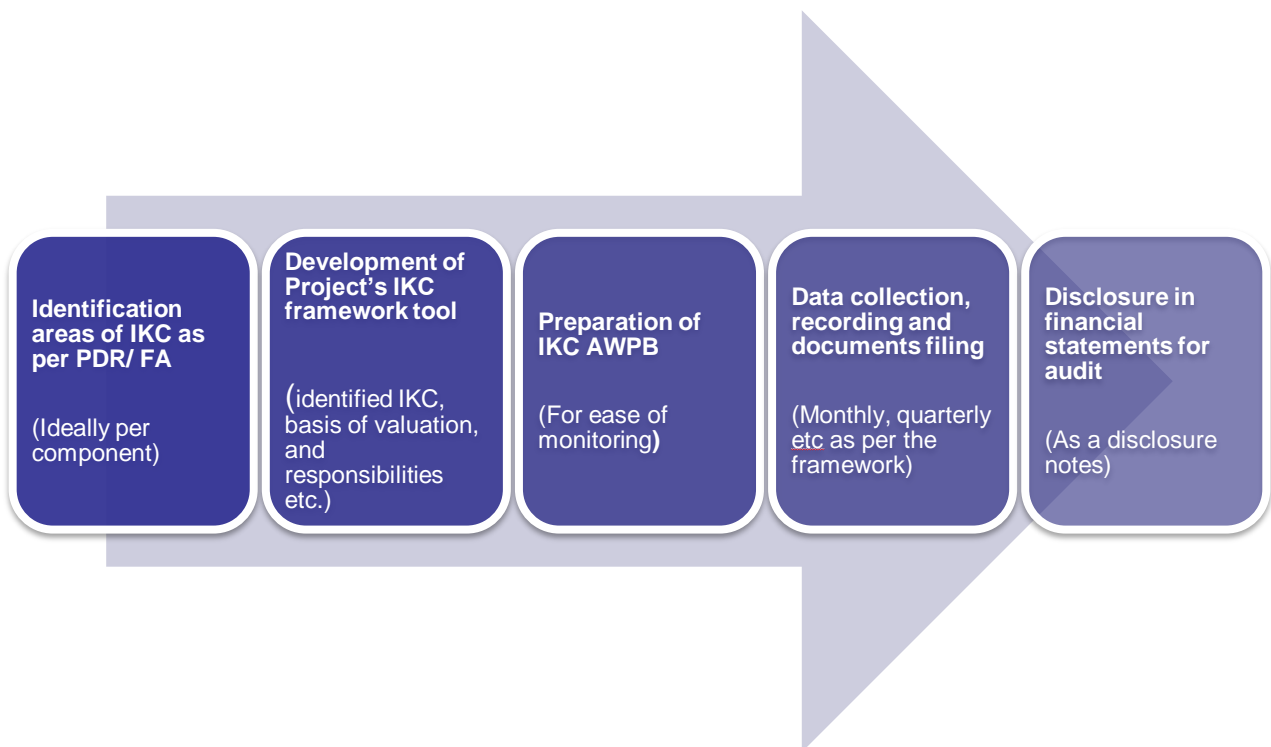
399. When preparing cash flow analyses, key sources of information shall include: the updated AWPB and procurement plan, the disbursement timetable of all signed contracts, and historic expenditure reports of the Programme as these some aspects assumed to stay relatively constant over the RELIV implementation 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.

400. **In-Kind Contribution**

401. Domestic contribution is the monetary and in-kind contribution (IKC) provided by governments, beneficiaries, implementing partners, other project participants.

402. 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.

403. 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: -



The IKC should meet the following criteria for recognition:

- IKC should directly be related to achievements of PDO
- IKC framework/tool should highlight IKC activities (per component/Sub-component), definition and measurement, monitoring tools, responsibilities and frequency and minimum supporting documents
- IKC shall be recognized at the fair market value and must be duly justified by supporting documents
- 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
- 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

III.1.8. Asset management

404. 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:

405. The Programme shall assign a unique, sequential asset tag number to all furniture and equipment items purchased for RELIV (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).

406. 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:

407. 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

408. 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.

409. 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 RELIV and may not be removed or destroyed during Programme implementation and up to 10 years after completion.

410. 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:

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 RELIV 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).

411. 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
412. 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.
413. 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.
414. 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.
415. 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.
416. 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

417. Internal control systems are defined as *"processes applicable at all levels of management designed to provide reasonable assurance of achieving the following objectives:*

- *effectiveness, efficiency and economy of operations;*
 - *reliability of reporting;*
 - *safeguarding of assets and information;*
 - *prevention, detection, correction and follow-up of fraud and irregularities;*
 - *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 Management Unit (PMU). 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

418. The management of the Programme funds shall be sufficiently rigorous to safeguard RELIV 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.

419. 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.

420. 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

421. 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:

422. 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:

423. 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 PMU 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:

424. 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:

425. 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

426. IFAD supervision missions, RELIV internal and external audits constitute the added layers of controls, which shall remain independent from Programme implementation.

IFAD Supervision Missions

427. RELIV shall be subject to extensive supervision from IFAD during the whole implementation period to ensure that the PMU fiduciary requirements are completed on time and to minimise the Programme's fiduciary risks. If financial arrangements of the PMU 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 PMU 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.

428. 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.

429. 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 PMU 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.

430. 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 RELIV 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 PMU, CVs, ToR of each position and RELIV 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.

PMU internal audits

431. 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 Ministry of Agriculture to carry out internal audit. The internal Auditors will be required to carry out the audit of the Programme at least twice annually.

432. 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 PMU: 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.

433. 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.

434. 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.

435. 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 PMU 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

436. The project will be audited by the Office of the Auditor General, which is the Supreme Audit Institution of Uganda. The auditor will prepare a work plan to ensure adequate coverage of the various districts/ 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.

437. 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.

438. 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:

- 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
- 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
- The expenditure shall be incurred by a Programme party
- 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.
- The expenditure shall be otherwise eligible in accordance with the terms of the financing agreement
- 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 SOE
- Income generated from advance withdrawals (if any) should be disclosed in the SOE
- Transaction Lists should provide a breakdown of individual transactions by expenditure category and should be easily reconcilable to the SOE.
- Transaction Lists should include and integrate detail transaction lists from the Sub-Recipients, when applicable.
- SOEs 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.

439. The GCF handbook will be provided which provide guidelines on the utilisation of GCF funds.

440. 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.

441. External audits shall be ex-post reviews of RELIV 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

442. The Programme Closing Date shall be six months after RELIV 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:

443. To ensure that RELIV 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:

444. 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 PMU 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, PMU maintenance cost or Programme completion workshop.

Programme closure:

445. IFAD requires the following to be provided by the PMU in order to close the Programme:

- Confirmation of last Withdrawal Application;
- Submission of final audit report; and
- Submission of Programme completion report.

446. 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 Uganda
Contract	Internal audit services.
Project	RELIV
Location	Republic of Uganda, 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 RELIV PMU 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 RELIV PMU and/or implementing agencies 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 RELIV PMU 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-to-date 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 PMU.

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:
 - Proven relevant working experience in Internal Audit.
 - 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.
 - 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 Uganda

Project: Resilient Livestock Value Chain Project (RELIV)

Financing Agreements:

IFAD: Loan xxx;

GCF: Grant xxx

GoU: 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 RELIV project shall be the Auditor General of Uganda.*
- 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) present fairly, 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 its cash flows for the years then ended, in conformity with the [applicable accounting standards].

Responsibilities of the Borrower

General

- Provide financial statements for the activities financed by loans/grants/contributions that are reconcilable to 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 and deemed necessary by the auditor.
- Ensure that the 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 agreements between the Borrower and IFAD/GCF.

- Provide the financial statements to the auditor within a reasonable time and be available for any queries that the auditor may have.

Financial statements

The Borrower shall:

- Prepare financial statements covering the reporting period [date] to [date], in accordance with IPSAS Financial Reporting under the Cash Basis of Accounting. In addition, the following IFAD specific disclosures will be included in the financial statements:
 - Budget to actual comparison
 - Withdrawal application summary
 - Sources and uses of funds statement
 - Designated Account statement and reconciliation
 - Fixed asset schedule

Responsibilities of the auditor

Auditing standards

The audit shall be conducted in accordance with the International Standards of Supreme Audit Institutions (ISSAI) published by the International Organization of Supreme Audit Institutions (INTOSAI). These standards require that the auditor plans and performs the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. The audit includes examining, on a test basis, evidence, supporting the amounts and disclosures in the financial statements. The audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In complying with ISSAI, the auditor is expected to pay particular attention to the following matters, including special considerations for public sector entities:

- In planning and performing the audit to reduce audit risk to an acceptably low level, the auditor should consider the risks of material misstatements in the financial statements due to fraud as required by the [International Standard of Audit 240: The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements](#).
- When designing and performing audit procedures and in evaluating and reporting the results thereof, the auditor should recognize that noncompliance by the entity with laws and regulations may materially affect the financial statements as required by the [International Standard of Audit 250: Consideration of Laws and Regulations in an Audit of Financial Statements](#).
- The auditor should communicate audit matters of governance interest arising from the audit of financial statements to those charged with governance of an entity as required by the [International Standard of Audit 260: Communication with those Charged with Governance](#).
- The auditor should communicate appropriately to those charged with governance and management deficiencies in internal control that the auditor has identified in an audit of financial statements as required by the [International Standard of Audit 265: Communicating Deficiencies in Internal Control to Those Charged with Governance and Management](#)
- In order to reduce audit risk to an acceptably low level, the auditor should determine overall responses to assessed risks at the financial statement level, and should design and perform further audit procedures to respond to assessed risks at the

assertion level as required by the [International Standard of Audit 330: The Auditor's Responses to Assessed Risks](#).

- In instances where certain aspects of an entity's operations are performed by a third party service provider, the auditor is expected to include an understanding and assessment of the internal control environment of the service provider during the audit process as required by the [International Standard of Audit 402: Audit Considerations Relating to an Entity Using a Service Organization](#).
- As part of the audit process, the auditor is expected to obtain written representations from management and, where appropriate, those charged with governance as required by the [International Standard of Audit 580: Written Representations](#).

General principles

By agreeing to these terms, the auditor confirms that:

- The audit service provider is independent from the Project, its staff and activities, in accordance with international best practices.
- The audit service provider is not providing consultancy 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 auditor is able to conduct the audit in line with international auditing standards.
- The audit service provider can assign an audit team to the audit that has the necessary competence and skills.
- The audit service provider has a proven track record in conducting audits of a similar nature and complexity.

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 management letter should:

- Outline the auditor's recommendations to improve identified accounting and internal control issues;
- Include the responses of Project management to the identified control issues, and its proposal to address the issues identified within a specific time period.
- Where applicable, follow up on the issues identified in the previous year's management letter.
- report on instances of non-compliance with the terms of the financing agreement;
- quantify and report expenditures that are considered to be ineligible and either paid out of the designated (special) accounts or which have been claimed from the IFAD;
- communicate matters that have come to their attention during the audit which might have a significant impact on the implementation of the project;

Reporting

The Auditor is required to deliver an audit package that includes:

- The audited financial statements, including additional specific disclosures as specified.

- An audit opinion on the financial statements and interim financial reports during the year
- A management letters
- A report on factual findings, within the scope of agreed-upon procedures as outlined. Any ineligible expenditure identified should be clearly mentioned.

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 English.

Scope of the financial audit

In performing the audit, at a minimum the auditor shall:

- Obtain an understanding of the internal controls related to the financial reporting process, to identify and assess any weakness in internal control that might result in misstatements, whether due to fraud or to error;
- Design and conduct audit procedures in response to any weaknesses identified in the internal controls relating to the financial reporting process, to obtain audit evidence that the financial statements are fairly presented and free from material misstatements, in accordance with the applicable accounting framework;
- Verify whether expenditure that was incurred in the name of the Project is in line with the terms of the financing agreement(s) and incurred for the purposes intended in this agreement. Both IFAD and third-party funding should be taken into consideration;
- Verify that the fixed assets held by the entity exist, are complete, are properly accounted and are used for the Project purposes;
- Note any weaknesses in the internal control environment and in the financial reporting process, and communicate those in the management letter.
- [List others].

Scope of the agreed-upon procedures

The auditor is required to perform the following specific procedures and report on factual findings as outlined:

Designated account statement(s) (page xxx)

- Confirm/agree that opening and closing bank balances (in USD and local currency) disclosed on the designated account statement(s) agree to the bank account statement and that such balances reconcile with disclosures in the notes the financial statements.
- Recalculate the closing balance of the designated account statement (in USD and local currency).
- Confirm/agree that the USD denominated amounts disclosed have been accounted for in local currency at the historical exchange rate, in line with the procedure as outlined in the IFAD Financial Management and Financial Control Letter (available on IFAD website).
- Recalculate the foreign exchange gain / loss as included in the designated account statement and agree to the amount disclosed in the Statement of Cash Receipts and Payments.

- Agree replenishments / transfers and direct payments to the bank account statement and IFAD historical transaction information.
- Confirm amounts disclosed for withdrawal applications agree to the information disclosed on the withdrawal application summary.

Designated account reconciliation(s) (page xxx)

- Confirm the accuracy of the reconciliation.
- Confirm that the designated account has been managed in line with the provisions of the financing agreement / Financial Management and Financial Control Letter.
- If applicable, review and determine the reasonability of the explanation for variance as disclosed on the designated account reconciliation.
- Agree disclosed amounts to supporting documentation (bank statements / IFAD historical financial information).

Withdrawal application summary

- Determine whether goods and services have been purchased through the approved procurement procedures.
- Determine whether the expenditures claimed were properly and appropriately authorized, classified and supported by audit documentation.
- Select a sample of withdrawal applications and confirm the accuracy of the disclosures to the underlying documentation submitted to IFAD.
- Test a sample of project expenditure transactions from the withdrawal applications and confirming eligibility of expenditure / adequacy of supporting documentation. Summarise all ineligible expenditures identified in the conclusions section.

Fixed asset register (page xxx)

- Select a sample of fixed assets from the fixed asset register and confirm the accuracy and completeness of the information included in the fixed asset register.
- Select a sample of project assets from the floor and confirm that the asset is accurately recorded in the fixed asset register.

Other

- Confirm the degree of compliance with the Borrower's procurement policy and identify non-compliance.

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 and audit opinion; and
- Management Letter.

Appendices [list as applicable]

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

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 National Auditing Standards and tax regulations. Performance of detailed audit procedures.	Minimum 5 years of relevant project experience	20
Audit Assistants (2)	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations. Primary review of	Minimum 3 years of relevant project experience	20 day each

	working papers, financial statements and performance of detailed audit procedures.		
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Useful links

Document	Link
<i>IFAD financial management e-learning</i>	https://www.ifad.org/elearning_cfs_a/index.html
<i>Revised IFAD policy on preventing fraud and corruption in its activities and operations (December 2018)</i>	https://www.ifad.org/en/document-detail/asset/40189695
<i>Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)</i>	http://www.intosai.org/issai-executive-summaries/detail/intosai-gov-9100-guidelines-for-internal-control-standards-for-the-public-sector.html
<i>IFAD General Conditions for Agricultural Development Financing</i>	https://www.ifad.org/documents/38711624/39421024/general_e.pdf/47c5f14b-2903-4285-b0b0-62c67cd650b8
<i>IFAD Handbook for Financial Reporting and Auditing of IFAD-financed projects (English)</i>	https://www.ifad.org/documents/38711624/39421009/IFAD+Handbook+for+Financial+Reporting+and+Auditing+of+IFAD-Financed+Projects/133b165d-15c7-4f79-8217-aef95b79dd67
<i>IFAD Loan Disbursement Handbook</i>	https://www.ifad.org/web/quest/document-detail/asset/39635782
<i>IFAD Financial Management and Financial Control (FMFCL)</i>	https://www.ifad.org/web/quest/document-detail/asset/39637251
<i>IPSAS Cash Standard</i>	https://www.ifac.org/publications-resources/revised-cash-basis-ipsas
<i>ICP page</i>	https://icp.ifad.org/
<i>ICP support email</i>	icpsupport@ifad.org

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
Text in blue: Provide period for the reporting statement
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 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 approval 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 respective 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 automatically.

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 year.

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" column.

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

Disbursement Category	Ref	IFAD Loan		
		Next Reporting Quarter	Following Reporting Quarter	Total for 2 Subsequent Quarters
		A	B	C
Forecast by Category:		DA Denominated Currency		
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	-	-	-
Forecast 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)	-	-	-
Total Cash Forecast Expenditure	III	-	-	-
Less: Planned Direct Payments/Reimburse	IV	-	-	-
Net projected expenditure from DA	V=III-IV			-

Authorized Signatory

Name
Designation
Organization/Project

Report II: Summary of Sources and Uses of Funds - DA Account

Project Name: SAPEMP
 Finance Instruments Numbers
 For the Period:

Starting Date TO End Date

Description	REF	IFAD Loan		
		Quarter	Year To-Date	Inception To-Date
		A	B	C
DA Denominated Currency				
Sources of Funds:				
DA Opening Balances		-	-	-
Operating account opening balance		-	-	-
Petty cash opening balance		-	-	-
Funds received		-	-	-
Total Cash Available	I	-	-	-
Uses of Funds by Category:				
		<i>Actual for Qtr</i>	<i>Actual for FY</i>	<i>Actual since inception</i>
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	II	-	-	-
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)	III	-	-	-
Category not yet identified/adjustments/advance, if any	IV	-	-	-
Closing Cash Balances:	V=I-II-IV	-	-	-
Represented by:				
DA Closing Balance		-	-	-
Operating account Closing Balance		-	-	-
Petty cash Closing Balance		-	-	-
Total Closing Balance (must equal V):	VI	-	-	-

Authorized Signatory

Name
 Designation
 Organization/Project

Report III: Designated Account Activity Statement

Project Name: SAPEMP
 Finance Instruments Numbers
 For the Period:

Starting Date

End Date

PART I		
	IFAD Loan	Remarks
	DA Denominated Currency	
PART I (Advances and Expenditure)		
1. Cumulative Advances into the DA by IFAD to the end of Reporting Quarter	-	
2. 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 justified 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.
PART II (DA Activity)		
4. DA balance at beginning of Reporting Quarter	-	
5. Advances by IFAD during the Quarter	-	
6. Add/Subtract - 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	-	
16. Planned Direct Payments, Reimbursements, if any	-	
17. 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)		
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" <small>*this line could be not considered for emergency advances applications</small>
23. DA Additional Advance - Cash requirement for Subsequent 2 Reporting Quarters, if required.*	-	This amount is to be submitted through a separate "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.	
Explanation for item 19 (if not zero):	FMR & AW Ref.	

Authorized Signatory

Name
 Designation
 Organization/Project

Report IV: Variance Analysis of Use of Funds by Quarter

Project Name: SAPEMP

Finance Instruments Numbers

For the Period:

Starting Date

TO

End Date

	IFAD Loan				
	Planned	Actual Expenditure from DA	Direct Payment/Reimbursements	Variance*	
	A	B	C	D	E
	Ref: AWP/Forecast	Actual for the Quarter	Actual for the Quarter	A-B-C	D/A
	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)	-	-	-		
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%

Authorized Signatory

Name
Designation
Organization/Project

Report V: Variance Analysis of Use of Funds - FY

Project Name: SAPEMP
 Finance Instruments Numbers
 For the Period:

FY Start Date To End Date

	IFAD Loan						
	Planned	Actual Expenditure from DA	Direct Payment/ Reimbursements	Balance	Forecast	Variance*	
	A	B	C	D=A-B-C	E	F=D-E	G=(B+C)/A
	Ref: AWP/ Forecast	Actual Cumulative year todate	Actual Cumulative year todate	AWPB Available Balance	Cash Forecast for next 2 quarters	Variance b/w AWPB Balance and Cash Forecast	Actual Progress against AWPB
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)	-	-	-	-	-	-	
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 Cash Forecast is over and above AWPB Balance (i.e. the Forecast includes the Quarter 1 of the Subsequent AWPB)

Authorized Signatory

Name
 Designation
 Organization/Project

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	Progress	
	A	B	C	D	E
	<i>As per Project Design</i>	<i>Actual Cumulative todate</i>	<i>Actual Cumulative todate</i>	A-B-C	D/A
	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)	-	-	-		
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

Name
Designation
Organization/Project

GCF Reporting Templates

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	<i>(Full name of the Accredited Entity)</i>
Funded Activity Number and Title	<i>(As per the approved Funding Proposal)</i>
Target Country(ies) of the Project	
Project Implementation Period	<i>From: dd/mm/yyyy To: dd/mm/yyyy</i>
Reporting Period covered in this report	<i>From: dd/mm/yyyy To: dd/mm/yyyy</i>
Date of submission of this report	<i>dd/mm/yyyy</i>
Reporting Currency¹	<i>(EUR/USD/JPY/GBP)</i>

Footnotes:

1/ Specify the reporting currency

3.1 GCF FUND BALANCE

			GCF Proceeds Only	
			CUMULATIVE THROUGH TO THE END OF THIS REPORTING PERIOD <i>(EUR/USD/JPY/GBP)</i>	FOR THE CURRENT REPORTING PERIOD <i>(EUR/USD/JPY/GBP)</i>
3.1.1	Opening Fund balance			
		Opening balance ¹		
3.1.2	Funded Activity Inflows			
a		Funded Activity Proceeds from GCF to AE:		
i.		<i>Grant Instrument</i>		
ii.		<i>Loan Instrument</i>		
iii.		<i>Equity Instrument</i>		
iv.		<i>Guarantee Instrument</i>		
b		Reflowed funds received by AE	-	-
c		Investment & Other Income	-	-
Total Inflows			-	-
3.1.3	Funded Activity Outflows			
a		Grant expenditure	-	-
b	Amount used for the Funded Activity	Loan disbursed or used ²	-	
c		Equity paid	-	
d		Guarantees exercised	-	
Sub-total Funded Activity Outflows			-	-
e	Reflowed Funds	Reflowed funds paid to GCF	-	-
Sub-total Reflowed Funds			-	-
Total 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/ 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 DETAILS- GRANT INSTRUMENT													
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	
Component 1, etc.**	Sub-component 1.1	GCF	Staff Cost									#DIV/0!	
			Local Consultants										#DIV/0!
			International Consultants										#DIV/0!
			Equipment										#DIV/0!
			Construction Cost										#DIV/0!
			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!	
	Sub-component 1.2, etc.	GCF	Staff Cost										#DIV/0!
			Local Consultants										#DIV/0!
			International Consultants										#DIV/0!
			Equipment										#DIV/0!
Construction Cost												#DIV/0!	
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 COMPONENT 1, ETC.												#DIV/0!	
Component Project Management Costs	GCF	Staff Cost										#DIV/0!	
		Local Consultants										#DIV/0!	
		International Consultants										#DIV/0!	
		Equipment										#DIV/0!	
		Construction Cost										#DIV/0!	
		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 COMPONENT 1, ETC.												#DIV/0!
	PROJECT TOTAL:												#DIV/0!
	PROJECT TOTAL GCF:												#DIV/0!
	PROJECT TOTAL Co-Financier 1 & 2, etc.:												#DIV/0!

**Edit or adjust Component/Output/Sub-component/Sub-output/Budget Categories rows based on the approved Funded Activity Agreement (FAA)
1/ The Output/Component/Sub-component/Activity/Budget Account description should be in line with the approved FAA.
2/ Refers only to the items as of the reporting date where the AE has signed binding contracts and the relevant expenses are not included under the expenditures column.
3/ Please provide explanation for the rate of budget expenditure, stating specific reasons for under or over expenditure of the budget.

3.3 FINANCIAL PROGRESS DETAILS- Loan, Equity and Guarantee Instruments¹

3.3.1 Loan Breakdown

Component/Output ¹	FINANCING SOURCE	Borrower Name	Loan Agreement Signing Date (DD/MM/YYYY)	Loan Amount Committed	Tenor (and Grace Period) ²	Cumulative Loan Disbursed from AE out of GCF Proceeds	Interest and Fees Earned (incl. Service Fee and Commitment Fee)	Undisbursed Loan 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
Component 1	GCF			0		0	0	0	0	0	0	0	0	
Component 2, etc.	GCF			0		0	0	0	0	0	0	0	0	
Component 1,2, etc.	Co-financiers			0		0	0	0	0	0	0	0	0	
Project Total GCF				0		0	0	0	0	0	0	0	0	
Project Total Co-financiers				0		0	0	0	0	0	0	0	0	

3.3.2 Equity Breakdown

Component/Output ¹	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 ⁵
Component 1			0	0	0	0	#DIV/0!
Component 2, etc.			0	0	0	0	#DIV/0!
Project Total GCF			0	0	0	0	#DIV/0!
Project Total Co-financiers			0	0	0	0	#DIV/0!

3.3.3 Guarantee Breakdown

Component/Output ¹	Name of Guarantor	Guarantee Agreement Signing Date (DD/MM/YYYY)	Amount of Maximum Guarantee ³	Cumulative Amount Exercised/Called
Component 1			0	0
Component 2, etc.			0	0
Project Total GCF			0	0
Project Total Co-financiers			0	0

Footnotes:

- 1/ Fill the section as applicable to the Funded Activity
- 2/ The Reported/Component Sub-component, should be in line with the approved IAA
- 3/ Indicate the total Tenor of the Loan (including any grace period) and specify the grace period in brackets. Eg. 10 years (2 years grace period). The 10 years includes grace period.
- 4/ Provide explanation for the basis of Loan Loss Provisions or Loan write-off.
- 5/ Represents the maximum possible amount of liability payable under the guarantee agreement

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.

3.5 REFLOWED FUNDS

REFLOWED FUNDS RECEIVED BY THE ACCREDITED ENTITY (if applicable)				REFLOWED FUNDS PAID TO THE GCF				
Date (DD-MM-YYYY)	TYPE OF REFLOW ¹	Amount for the reporting period	Cumulative Amount to the end of reporting period	Planned Date (DD-MM-YYYY)	Actual Date (DD-MM-YYYY)	Amount for the reporting period	Cumulative Amount to the end of reporting period	Comments <i>(Provide explanations of variances in the amount, date, prepayments, delinquent payments and others relevant information)</i>
Total amount		0	0	Total amount		0	0	

Footnotes:
^{1/} Indicate type of reflow: Reimbursement or repayment, payments of principal, interest on loans, dividends and fees, other.

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 Closing²	(EUR/USD/JPY/GBP)
Unused Amount	(EUR/USD/JPY/GBP)
Unused Amount paid to GCF	(EUR/USD/JPY/GBP)
<p><i>Please provide an explanation in the case of unused amounts not paid back to GCF at the date of Financial Closing (if any).</i></p>	

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.

Sources	Data fields	Values
List of data to be extracted for GCF's portfolio-level reporting		
N.B. This sheet is designed for GCF to automatically extract 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 generated with formulas.		
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	-
GCF 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	-
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	-
GCF proceeds only (from Section 3.1)	[GCF proceeds] Cumulative outflows: Amount used 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	-
GCF 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 used 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)	0
N/A	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid (Committed)	N/A
N/A	[GCF proceeds] Cumulative outflows: Amount used 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)	-
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)	0
GCF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Equity paid (Actual)	0
GCF proceeds only (from Section 3.3)	[GCF proceeds] Cumulative outflows: Amount used for the funded activity - Guarantees exercised (Actual)	0
Co-financing (from Section 3.2)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual+Committed)	-
Co-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)	0
N/A	[Co-financing] Cumulative outflows: Amount used for the funded activity - Equity paid (Committed)	N/A
N/A	[Co-financing] Cumulative outflows: Amount used for the funded activity - Guarantees exercised (Committed)	N/A
Co-financing (from Section 3.2)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Grant expenditure (Actual)	-
Co-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)	0
Co-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Equity paid (Actual)	0
Co-financing (from Section 3.3)	[Co-financing] Cumulative outflows: Amount used for the funded activity - Guarantees exercised (Actual)	0

III.2. PROCUREMENT PROCEDURES

III.2.1. Applicable Procurement Rules

447. 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. Public Procurement in Uganda is governed by is the Public Procurement and Disposal of Public Assets Act, 2003 (PPDA Act), supplemented by the Public Procurement and Disposal of Public Assets Regulations, 2014. The national framework will apply for procurements undertaken by ReLIV, to the extent that they are consistent with IFAD Project Procurement Guidelines. Procurement will follow the GoU rules as determined by the Public Procurement and Disposal of Public Assets Authority (PPDAA) where these are aligned to and consistent with the IFAD Procurement Guidelines. National Standard Bidding Documents (SBDs) will also be used and will be amended for consistency with IFAD Guidelines. International procurements 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 ReLIV to ensure compliance with the highest ethical standards. Other provisions stipulated in the Procurement Arrangement Letter (PAL) will be applied for all procurement activities.

III.2.2. Procurement Methods, Thresholds and Prior Review

Procurement Plans (PP)

448. Project procurement will be carried out as per the approved Procurement Plan (PP) processed in IFAD's Online Procurement End-to-End System OPEN. 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. 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.

Contract Register (CR) and Contract Monitoring Tool (CMT)

449. 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.

Tabular Summary of Applicable Methods and Thresholds

Method Selection Thresholds			Prior Review Thresholds
Currency: US\$			
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

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.

Standard Procurement Documents (SPD) to be used

450. National SBDs will be used and will be amended for consistency with IFAD Guidelines. The SBDs will include provisions 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>

Guidance Offered in the IFAD Procurement Handbook

451. The IFAD procurement handbook will be referenced for consistency to any procurement activity undertaken by the project when procuring goods, works or services under ReLIV, 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.

Prior Review Documentation

452. 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:

Procurement Plan (PP)

453. Procurement Plans submitted as part of Annual Work Plans and Budget and any subsequent amendment of these plans shall be subject to prior review.

The General Procurement Notice(s) (GPN)

454. General Procurement Notices that are drafted prior to their publication shall be subject to IFAD prior review.

Goods, Works, Consulting and Non-Consulting Services

455. 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

Other specific Prior Review requirements

456. 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 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 as long as 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 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 Consulting Services to firms above the threshold specified in PAL paragraph 6 c) vi). Any contract below this threshold does not need NO 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 PAL paragraph 6 c) vii). Any contract below this threshold does not need NO as long as the cumulative threshold stated in the same paragraph is not exceeded and the contract duration is three months or less.

Other procurement-related coordination with IFAD

457. 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 ReLIV's implementation. A proactive approach will be required to ensure procurement best practices are retained throughout project implementation.

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) Inclusion of counterpart funding in development projects as part of scope of the procurement framework could have interpretation that project procurement activities financed by counterpart funding may be exempt from IFAD procurement guidelines.
- b) There is procurement method for Restricted Domestic Bidding that in practice is applied based on thresholds as opposed to determination through appropriate justifications for such procurement arrangements.
- c) Procurement method of Micro Procurement has thresholds that differ from Direct Contracting for low value activities as defined by IFAD guidelines.
- d) Minimum period for international competitive bids is 30 days.
- e) Provision 48 on the Rules and Methods for Procurement of Supplies, Works and Non-consultancy services requires a bid shall be rejected during the preliminary examination of bids, if the bid is received from a bidder who is not listed as having bought or obtained the bidding document directly from the procuring and disposing entity. This may make bids downloaded from Website inadmissible thus limit access to bidding documents.
- f) Provision 24 of the Evaluation Regulations contains procedures for conducting merit points system, opening possibility of assigning scores in evaluation of Goods, Works, and Non-consulting service.
- g) Provision 55 of Contract Management Regulations permits up to 1% cumulative price increase without contract amendment.
- h) There is no policy in place to implement Sustainable Public Procurement (SPP) in support of broader policy objectives.

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.

No.	Component and Outputs	Cost (US\$ 000)	Percent	Items to be procured
1	Component 1. Increasing productivity and resilience and reducing the impact of production on climate:	96,074.16	47.9%	Seeds, Fodder choppers and other conservation equipment, RFID ear tags, Equipment for AI technicians in the Districts, elite bulls, IT equipment, Motor vehicles, Motorcycles, Construction and equipping of AI subregional centers, Upgrading of AI semen production laboratory in Entebbe, Regional lab rehabilitation, Construction and equipping of AI subregional centers,
	1)Sub-comp. 1.1: Improving feed and fodder production, rangeland management and access to water	47,583.89		
	1)Sub-comp. 1.1: Improving feed and fodder production, rangeland management and access to water	15,757.05		
	2)Sub-comp. 1.2: Improving Animal identification and breeding	26,186.16		
	3)Sub-comp. 1.3: Improving animal health services for resilient and low-emissions animals	6,547.06		

	4) Sub-comp. 1.4: Improving extension and delivery of technical support to farmers			Upgrading of AI semen production laboratory in Entebbe, Regional lab rehabilitation, Study for fodder pest management and soil conservation, Feasibility study privatisation mapping and pathway for implementation, Consultant to Develop training curricula for L-FFS and PFS
2.	Component 2 Enhanced access to market for smallholder producers and access to finance: 5) Sub-comp. 2.1: Supporting aggregation of production and access to markets for smallholder producers 6) Sub-comp. 2.2: Strengthening food safety and local consumption of livestock commodities 7) Sub-comp. 2.3: Improving access to financial products for value chain actors 8) Sub-comp. 2.4: Policy support and stakeholder dialogue	95,162.87 32,610.27 16,359 45,690.89 502.71	47.4%	Procurement of Milk Coolers (1,000L, 2000L, 3,000L, 5000L), Construction of new MCCs, Rehabilitation of existing MCCs, Biodigester construction at slaughtering facilities, Biodigester construction at livestock markets, Feasibility study and suitability mapping for biodigesters at abattoirs and markets, Technical assistance on quality management, infrastructure maintenance, safe working standards and equipment, etc, Feasibility study on digitalizing value chains, Development of software, MIS, application for digitalized value chains, Provision of BDS for Business Plan development, Provision of financial literacy support to smallholder farmers
3.	Component 3. Strengthened policy and regulatory environment: 9) Sub-comp. 3.1 Policy Support 10) Sub-comp. 3.2 Monitoring and Evaluation (M&E) and Knowledge Management	9523.19 352.16 1,225.11 7,945.92	4.7%	Purchase of IT Equipment, Procurement of Vehicles, Office Furniture, Accounting Software, Establishment of MIS, Baseline survey, Project Audit, Project Coordinator, Financial controller, Livestock specialist, M&E

	(KM) 11) Sub-comp. 3.3 Project Management			and KM specialist, Procurement specialist, Gender and Targeting Specialist, Environment and Climate Change Specialist, Agribusiness and Rural Finance Specialist
	Total	200,760.22	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 ReLIV
- Notify bidders of upcoming procurement opportunities
- Enable the ReLIV 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 Uganda 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 Uganda;
 - 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

ReLIV will be implemented by the MAAIF and all procurements will be implemented through the MAAIF contracts committee. The PMU will be directly responsible for project procurement. In addition, the Head of procurement at each of the implementing partners will be responsible to support procurement of the low value micro procurements as defined in the local framework, and consistent with project's PAL.

4.2 Implementing Partners

MAAIF will be the lead implementing agency and will establish a Project Steering Committee (comprised of representatives of other relevant ministries and agencies) that will provide overall strategic direction and ensure coordination among sectors. MAAIF will set up a lean PMU to be responsible for overall coordination of the agencies involved in implementation of the project. The PMU will handle core functions of coordinating the overall implementation and implementing agencies focusing on: Financial Management; Procurement; Monitoring, Evaluation and Learning, and overall reporting. Semi-autonomous institutions of MAAIF, i.e., DDA, NAGRIC and DB and NARO's NaLiRRI, plus Directorate of Animal Resources in MAAIF with Local Governments, will be implementing agencies. Private sector agencies will be contracted to perform functions where necessary.

4.3 Accounting for Procurement by Local Entities and Partners

Any small value procurements and procurements of operational expenditures undertaken by local entities will be subject to periodic reporting before replenishment of funding by the PMU 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 PMU members, to ensure sufficient skill mix; independent external members may also be used.

Approval of Procurement Documents – Except for contracts falling under shopping procurement method, solicitation documents must be approved by the Contracts Committee, depending on the type of procurement. 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 PCU.

2. **Duties and Responsibilities** – Under the direct supervision of the Programme Coordinator, the Procurement Specialist will have the following duties and responsibilities:

- Review and update the procurement section of the project PIM and initial 18-month procurement plan.
- 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 GoU procurement guidelines and the protocols and procedures applying to internationally financed programmes and Projects in Uganda;
- He/she would have at least 8 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 Office** – 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.
- Work closely with the Procurement Specialist and PMU 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 into during ReLIV implementation. The register must be continuously updated to reflect the physical and financial progress.
- 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.

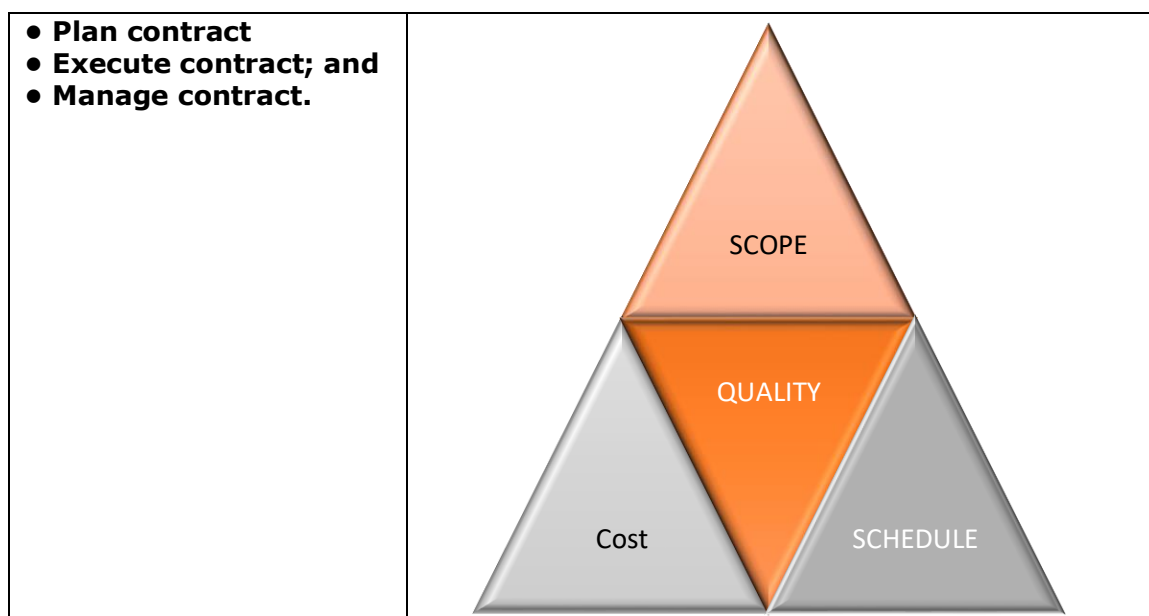
3. **Qualifications and Experience** – The ideal candidate must have a degree in purchasing and supply, economics, finance or law; or equivalent management qualification with significant training and practical experience in procurement within Government Programmes supported by international financial institutions. Other qualifications include:

- He/she will have a sound understanding of GoU procurement guidelines and the protocols and procedures applying to internationally financed programmes and projects in Uganda;
- 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).

Annex 1: Responsibility Assignment Matrix (RAM - RACI) Template

a) 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 PMU 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.

b) Responsibility and Accountability Matrix – Contract Management

Table 1: Responsibility and Accountability Matrix

	MAAIF	Procurement Specialist	Technical Dept. or Beneficiary	PMU
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	M
Review the construction management program/workplans submitted by the bidders	I	C, I	R	M
Conduct the site visits periodically and review the physical and financial progress	F	S	R	F
Accord time extensions, change in quantities, variations, etc.,	A	S	R	R
Monitor the stipulated quality assurance	I	S	R	F, M

	MAAIF	Procurement Specialist	Technical Dept. or Beneficiary	PMU
tests are conducted as prescribed in the technical specifications				
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/repared 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	C	S

R: Responsible; A: Approval; M: Monitor; S: Support; F: Facilitate; I: Inform; C: Consulted

- c) **Monitoring Instruments:** The following mechanisms and instruments will be used to implement project management following the above principles and levels of management.


Ref	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 PMU and/or Authorised persons.

Annex 2: Procurement Records and Files

Document	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 3: Guidance on using the Procurement Plan



IFAD | OPEN

IFAD
Investing in rural people

IFAD OPEN –Project Procurement End-to-End System

HOW TO VIEW PROCUREMENT PLANS AND RELATED FUNCTIONS, INCLUDING THRESHOLDS

USER TYPE: Procurement officer/assistant
(Other user profiles will only have viewing rights)

Quick card developed by **ITC**
International Training Centre



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

2

DISPLAY OF THE PROCUREMENT PLAN IN CARDS VIEW

1. Click the title of the procurement plan. For example "MAP - (2000002416)"

2. 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. →

4

CARDS VIEW EXAMPLES

Activities' list in cards view

Selected activity details in cards view

PDRMA (ZD)
 Current amount: 720,000.00 USD 7,280,970.00 MAD
 Approved amount: 660,000.00 USD

35 Activities found

Supply of Seeds
 Status: Draft
 Category: Goods
 Method: ICB
 Domestic preference: Yes
 Qualification: Pre-Qual
 Envelope: Single
 Review Type: Prior Review
 Estimated Amount: 60,000.00 USD (55,620.00 EUR / 611,280.00 MAD)
 AWPB Ref. Number: 101
 Sources of Financing: 2000001644 - (SAD KfW Loan (100%))

Category
 Consulting Services
 Goods
 Grants
 Non Procurement
 Works

Method

Estimated Amount (USD)

Validity

PDRMA (ZD)
 Current amount: 720,000.00 USD 7,280,970.00 MAD
 Approved amount: 660,000.00 USD

35 Activities found

Supply of Seeds
 Status: Draft
 Category: Goods
 Method: ICB
 Domestic preference: Yes
 Qualification: Pre-Qual
 Envelope: Single
 Review Type: Prior Review
 Estimated Amount: 60,000.00 USD (55,620.00 EUR / 611,280.00 MAD)
 AWPB Ref. Number: 101
 Sources of Financing: 2000001644 - (SAD KfW Loan (100%))

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.

DISPLAY OF THE PROCUREMENT PLAN IN TABLE VIEW

To display the table view, Click "Table"

The system will show the activities in a table format with an extensive view

Atlas Mountains Rural Development Project PDRMA (ZD)
 Region: NEM Country: Morocco Project ID: 2000001403 Status: Available for Disbursement (4) SECAP risk: Moderate

Plan Thresholds Documents People Holidays Info

All activities View Cards Table History Download

Category: Consulting Services, Goods, Grants, Non-Procurement, Works

Method: []

Estimated Amount (USD): []

Validity: []

PDRMA (ZD)
 Current amount: 720,000.00 USD 7,280,970.00 MAD
 Approved amount: 660,000.00 USD

35 Activities Found

Procurement: 1 Draft, 13 Implementing, 1 Approved, 2 Completed
 Non procurement: 12 Implementing, 6 Completed

Community Consulting Services Goods Grants Works

Reference number	Title	Method	Estimated Amount	Submission of Pre-qualification Docs	No-Objection	Pre-qualification Invitation	Pre-qualification Closing	Submission of Pre-qualification Report	No-Objection	Submission of Bid Documents	No-Objection
MAR-2000001403-ZD-0070-G-ICB	Supply of Laptops and Printers	ICB	70,000.00 USD	18/10/2023	17/10/2023	23/10/2023	22/11/2023	06/12/2023	13/12/2023	28/12/2023	05/01/2024
MAR-2000001403-ZD-0069-G-ICB	Supply of medical kits	ICB	10,000.00 USD	06/12/2023		06/12/2023	09/01/2024	23/01/2024		06/02/2024	
MAR-2000001403-ZD-0068-G-ICB	Supply of tractors	ICB	60,000.00 USD	17/10/2023	24/10/2023	30/10/2023	29/11/2023	13/12/2023	20/12/2023	05/01/2024	12/01/2024
MAR-2000001403-ZD-0067-G-ICB	text	ICB	70,000.00 USD	22/12/2023	29/12/2023	26/12/2023	23/01/2024	05/01/2024	12/01/2024	20/01/2024	06/02/2024
MAR-2000001403-ZD-0057-G-ICB	lots	ICB	90,000.00 USD	17/10/2023		19/10/2023	04/01/2024	15/12/2023		20/12/2023	
MAR-2000001403-ZD-0060-G-ICB	Supply of Tools	ICB	80,000.00 USD	11/06/2023		08/12/2023	09/01/2024	15/12/2023		21/12/2023	
MAR-2000001403-ZD-0066-G-ICB	lots	ICB	20,000.00 USD	06/12/2023		06/12/2023	09/01/2024	23/01/2024		06/02/2024	
MAR-2000001403-ZD-0065-G-ICB	lots	ICB	70,000.00 USD	06/12/2023	13/12/2023	10/12/2023	18/01/2024	01/02/2024	08/02/2024	26/02/2024	04/03/2024
MAR-2000001403-ZD-0064-G-ICB	tools	ICB	20,000.00 USD	09/12/2023		09/12/2023	08/01/2024	22/12/2023		22/12/2023	

Reference number	Title	Procurement Method	Estimated Amount	Submission of ROI & Terms of Reference	No-Objection	EOI Launch	EOI Submission Deadline	Submission of Shortlist Report	No-Objection	Submission of RFP	No-Objection	RFP Launch	Proposal Submission Deadline & Opening	Submission of Terms of Reference	No-Objection
MDV-2000002416-0012-CS-S5S/IC	Technical Support M&E	S5S/IC	30,000.00 USD	This activity has not been planned yet											
MDV-2000002416-0009-CS-QCBS	Baseline and Impact Assessment study	QCBS	80,000.00 USD	22/09/2023		26/09/2023	18/10/2023	24/10/2023		30/10/2023		01/11/2023	18/12/2023		

All the information available is consultable by moving the spacer along the timeline of the activities.

In this view, you are able to see one procurement category at a time. To move from one category to another use the menu on the left side of the screen.

Plan Thresholds Documents People

All activities View Cards Table

Consulting Services Goods Grants Works

Consulting Services Goods Grants Works

Consulting Services Grants Works

Consulting Services Goods Grants Works

When clicking on an activity title, you will be able to access/edit/delete it.

DISPLAY OF THE PROCUREMENT PLAN IN GANTT VIEW

To display the **Gantt chart** view, click "Gantt"

The system will display the activities in a timeline composed of a bar chart for each item

This view modality highlights how many activities will be taking place at the same time.

9

FEATURES OF THE GANTT VIEW

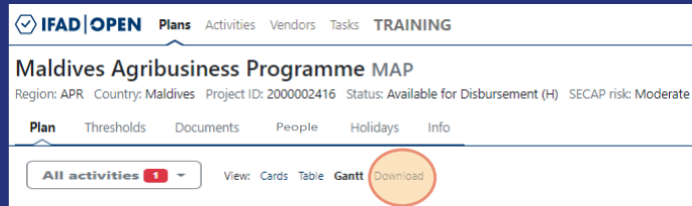
- The **length** of each rectangle corresponds to the duration in the planned timeline.
- The **arrows** in the timeline indicate *linked activities*.
- When clicking on an activity title, you will be able to access/edit/delete it.

*Refresh the process of linking activities in **Quick Card N.2**

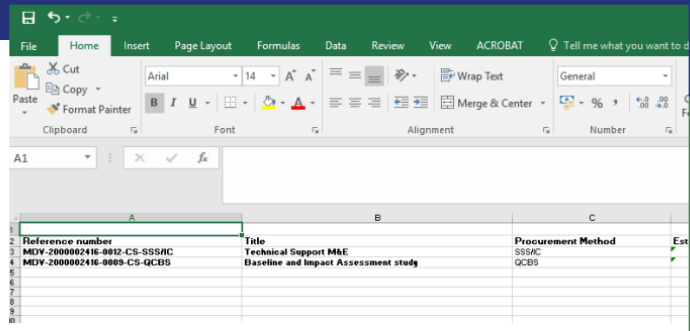
10

DOWNLOAD A PROCUREMENT PLAN

To download a procurement plan, click "Download"

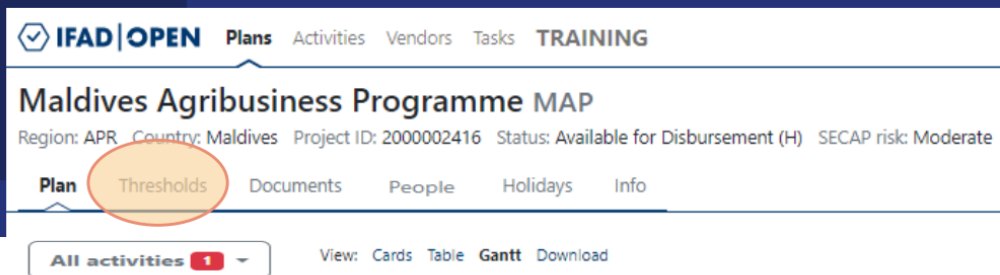


An excel file will be downloaded on your computer containing all the plan activities information



11

Thresholds



Click the "Thresholds" tab (next to the "Plan" tab) to see the procurement thresholds that apply to a specific project.

VISUALISE PROCUREMENT THRESHOLDS

Project users can visualise:

1) Prior Review Thresholds

Procurement Method	Prior Review Threshold
Works and related Non-consulting Services	
ICB International Competitive Bidding	Activity estimated amount is greater than or equal to 200,000.00 USD
NCB National Competitive Bidding	Activity estimated amount is greater than or equal to 200,000.00 USD
NS National Shopping	First 4 activities of any amount Activity estimated amount is greater than or equal to 200,000.00 USD

2) Procurement Methods Thresholds

Procurement Method	Procurement Method Threshold
Works and related Non-consulting Services	
ICB International Competitive Bidding	Always Allowed Domestic preference
NCB National Competitive Bidding	Activity estimated amount is less than (<) 700,000.00 USD Allow justification
NS	Activity estimated amount is

3) Shortlist Thresholds

Methods	Shortlist Threshold
QBS, QCBS, CQS, FBS, ICS, LCS	Shortlist required for activities with amount greater than or equal to 60,000.00 USD

4) International Advertisement Thresholds

Procurement Category	International Advertisement Threshold
Consulting Services and related Non-consulting Services	Activity estimated amount is greater than or equal to 300,000.00 USD Excluded Procurement Methods: CQS, SSS/IC, Sec. Proc, SSS

5) Beneficiary Type Thresholds

Category	Beneficiary Type Threshold
Grants	Activity estimated amount is greater than or equal to 5,000.00 USD Beneficiary Type: Small Organization Activity estimated amount is greater than or equal to 6,000.00 USD Beneficiary Type: Large Organization Activity estimated amount is greater than or equal to 8,000.00 USD

6) Approvals and version details linked to the plan and specifically, the SPO clearance and Country Director approvals along with the current status, version number, name of the creator and date of creation

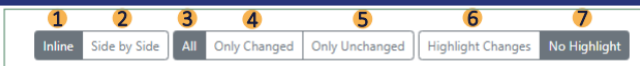
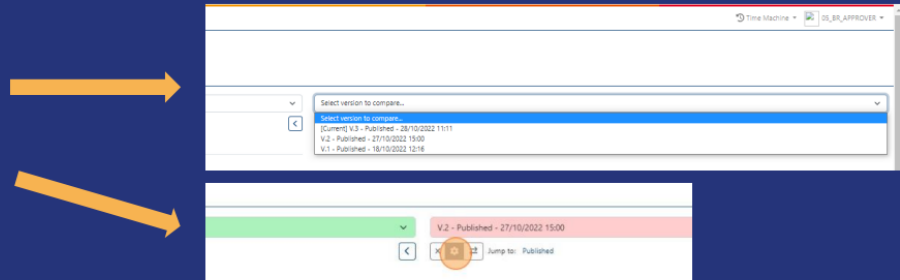
Approvals	
Procurement Specialist	✓ Cleared by Shankar Achuthan Kutty at 28/10/2022 11:11
Country Director	✓ Approved by Arund Hamelers at 28/10/2022 11:11

Version Details	
Status	Published - Current published version
Version Number	3
Created by	Arund Hamelers
Created at	28/10/2022 11:11

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COMPARING THRESHOLDS WITH PREVIOUS VERSIONS

- 1) Click the top-right dropdown and select the previous version you wish to compare with the current one.
- 2) Click the icon to display the menu



1. Default visualisation: **"Inline"**
2. Click **"Side by Side"** to visualize one version next to the other.
3. Default visualisation **"All"**
4. Click **"Only Changed"** to display only the new changes that have been made since the selected old version.
5. Click **"Only Unchanged"** if you want to display only the unchanged elements of the two versions.
6. Click **"Highlight Changes"** to visualize all the changes highlighted in the list.
7. Click **"No Highlight"** to remove all highlighter effects from the view.

14

PEOPLE

IFAD | OPEN Plans Activities Vendors Notifications 48 Tasks 10 STAGING

Atlas Mountains Rural Development Project PDRMA (L)
 Region: NEN Country: Morocco Project ID: 2000001403 Status: Available for Disbursement (H) SECAP risk: Moderate

Plan Thresholds Documents **People** Holidays Info

Project & Country team

Name ↑	Job Title	Role	Implementing Partner	Actions
Approver, 10_BR_APPROVER	Project Director	Project Director		
Author, 10_BR_AUTHOR	Procurement Specialist	Procurement Specialist		

To access the list of users assigned to a specific project, click the "People" tab.

They are divided into:

- Project and Country team and,
- IFAD Team

For each person, the system will display the following information:

- Name, Job title and role

IFAD Team

Name ↑	Job Title	Role	Actions
Neroni, Alessandro	Procurement Consultant	Procurement Consultant	
Saad, Youssef	Procurement Consultant	Procurement Consultant	



"Implementing Partner" indicates whether the user belongs to a specific implementing partner assigned to the project.

Once added in the system, implementing partners are able to insert activities into the procurement plan they are involved in.

They can only view the activities they have inserted and not those created by other users.

Instead, the procurement officer will be able to view all the listed activities but will not be able to edit the activities created by the implementing partner.

HOLIDAYS

1. To set up your holidays, click on the "Holidays" tab.
2. To start creating holidays, click on «Create holiday calendar» button.
3. Click on the «Add» button to add a holiday. Fill in the holiday name and date then click on «Save» to proceed.
4. In case you want to add more holidays, click on the «Add» button again. To delete a holiday, click on the «Delete» button.

IFAD | OPEN Plans Activities Vendors Notifications 48 Tasks 10 STAGING

Smallholder Agricultural Competitiveness Project SACP (TEST)
 Region: APR Country: Bangladesh Project ID: 2000001456 Status: Available for Disbursement (H) SECAP risk: Substantial

Plan Thresholds Documents People **Holidays** Info

Draft

Create Holiday Calendar

Draft is empty

Version Details

Status: Draft

Cancel Save

Holidays

+ Add

Holidays Info

Holidays

Name* Labour Day

Date* 01/05/2023

Delete

+ Add

Cancel Save

HOLIDAYS

1. Once the holidays are created and saved, click on "Publish" to publish the holidays in the system for these to take effect in the activities dates planning.
2. Compare feature is also available allowing you to compare different published holiday versions enabling to easily track the changes.

IFAD | OPEN Plans Activities Vendors Notifications 139 Tasks 33 STAGING

Smallholder Agricultural Competitiveness Project SACP (TEST)
Region: AFR Country: Bangladesh Project ID: 2000001464 Status: Available for Disbursement (H) SECAP risk: Substantial

Plan Thresholds Documents People Holidays Info

Draft successfully updated

Draft Holidays Calendar

Approvals

Project Procurement Specialist - 10_BR_AUTHOR Author

Not approved

Publish

You can publish the document directly, no approvals needed

Year: 2023

2023 Holidays	
Name	Date
Christmas Holiday	25/12/2023
Boxing Day	26/12/2023

Version Details

Status	Version Number
Published - Current published version	2

Version Details

Status	Version Number
Published - Version published in the past	1

17

INFO TAB

Click the "Info" tab to access the information linked to the project.

Here you can find:

- The logo
- The custom suffix
- The name and the email address of the PMU
- The PMU contact name
- The PMU Time Zone
- The sources of financing


IFAD | OPEN Plans Activities Vendors Notifications 139 Tasks 33 STAGING

Atlas Mountains Rural Development Project PDRMA (O)
Region: NEN Country: Morocco Project ID: 2000001403 Status: Available for Disbursement (H) SECAP risk: Moderate

Plan Thresholds Documents People Holidays Info

Edit

Logo



Email: author.10@ext.example.org

Procuring Entity: Project Management Unit

Contact Name: Author 10

Time Zone: (GMT+01:00) Rome

Sources of Financing: 2000001644 - IFAD KfW Loan
2000001646 - IFAD Grant
National Government Beneficiaries

These fields can be inserted only by the Senior Procurement Officer and can be amended only once.

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Annex 4: 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.

The screenshot shows the 'Project Procurement' interface with the 'Contract Monitoring' tab active. The form contains the following elements:

- Project Name:** A dropdown menu.
- Supplier Legal Name:** A text input field.
- Contract Number:** A text input field.
- Contract Status:** A dropdown menu.
- FILTER:** A button to apply the search filters.
- ADD NEW CONTRACT:** A button to create a new 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.

The screenshot shows the 'Project Procurement' interface with the 'Contract Monitoring' tab active. The 'Contract Number' dropdown is open, showing a list of contract numbers. The 'FILTER' button is circled. The table below lists various contracts with columns for Country, Project, ID, Supplier, Contract Status, Procurement Type, and Supplier Legal Name.

COUNTRY	PROJECT	ID	SUPPLIER	CONTRACT STATUS	PROCUREMENT TYPE	SUPPLIER LEGAL NAME	ACTIONS
THE KINGDOM OF SAUDI ARABIA	SMLP	6204290202	CO-FRILZOR	COMPLETED	WORKS	EMMANUEL TEST TEST	ACTIONS
REPUBLIQUE LIBANAISE	HRAD	INTERNAL_TEST_00...	CO-C30X4TUM	UNDER IMPLEMENTATION	SERVICES - NON-CONSULTANCY	TEST SUPPLIERS	ACTIONS
REPUBLIQUE TUNISIENNE	PROFITS-SILIANA	TEST06069919	CO-VSJEVW87	UNDER IMPLEMENTATION	WORKS	GAT	ACTIONS
REPUBLIQUE TUNISIENNE	PROFITS-SILIANA	152018PROFITISLO...	CO-DMGQAG7	UNDER IMPLEMENTATION	WORKS	SOCIETE DES TRAVAUX ET SERVICES (SOTRASS)	ACTIONS
THE REPUBLIC OF INDIA	FOCUS	TEST_UPDATE	CO-WRPLWYN	CLOSED	SP INVESTMENT AGREEMENT	ALEDO TECH	ACTIONS
REPUBLIQUE DU SENEGAL	PAFA-E	15	CO-G3572BZ	UNDER IMPLEMENTATION	WORKS	SUPPLIER 15	ACTIONS
REPUBLIQUE DU SENEGAL	PAFA-E	17	CO-8NAQTR6	UNDER IMPLEMENTATION	WORKS	SUPPLIER 1	ACTIONS
REPUBLIQUE DU SENEGAL	PAFA-E	19	CO-Q2M478T3	CANCELLED	WORKS	SUPPLIER 3	ACTIONS
REPUBLIQUE DU SENEGAL	PAFA-E	22	CO-TK0XRE58	COMPLETED	WORKS	SUPPLIER 22	ACTIONS
REPUBLIQUE DU SENEGAL	PAFA-E	29	CO-4H0CKV2	UNDER IMPLEMENTATION	SERVICES - CONSULTANCIES	SUPPLIER 29	ACTIONS

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 click 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:

Basic Data

New contract for Project *

Basic data

Contract Number *	Date of Signature of Contract *
Supplier Legal Name *	Supplier registration number
AWPB Reference	Procurement Plan Reference Number

Contract number	Unique number which you assigned to the contract
Date of signature of Contract	Date in which the contract is originally signed.
Supplier Legal name	Name of the supplier from your systems
Supplier registration number	Insert the registration number of the supplier that is a unique number enabling a supplier have an occupational licensure and be registered within the national systems.
AWPB Reference	Insert the Annual Work Plan and Budget Reference Number
Procurement Plan Reference Number	Insert the procurement plan reference number

Procurement Information

Procurement information

Procurement type *	Method of Procurement *
Country of Origin *	Defined At Design *
Prior/Post Review *	No Objection 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 Defined at Design	Country in which the supplier is registered 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 performance

Contract Status	Contract performance evaluation
Percentage of Financial Completion	Amount paid on Contract *
Percentage of Physical Completion	Amount Already claimed on contract under WA
Advance Payment Y/N *	Amount planned to be claimed under WA in the current calendar year
Advance Payment Percentage *	Total amount remaining to be claimed on contract
	Financial Security For Advance Payment Provided *
	Amount of Financial Security Provided

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 evaluation	This area can be used to evaluate the performance of the contract and/or 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 completion	This is automatically calculated as the Amount Paid on contract divided by the total amount of the contract (considering also any amendments).
Amount Paid on Contract	It is the amount paid on a contract.
Percentage of physical completion	This is an estimate, in percentage terms, of the progress in the implementation of the contract. It represents how much of the contract has been implemented.
Amount already claimed on contract under WA	In this field you insert the amount of money already presented in Withdrawal Applications for this contract.
Amount planned to be claimed under WA in the current calendar year	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 include all amounts to be claimed from IFAD whether or not the financing comes directly from IFAD or not (i.e. to include OFID funded financings).
Total amount remaining to be claimed on contract	This field displays the amount remaining to be claimed in Withdrawal Applications (WA) against the contract and is calculated automatically by the system.
Advance Payment Y/N	This is where you indicate if the contract has an advance payment or not. Select Yes or No
Advance Payment Percentage	This is where you indicate the percentage amount of the advance payment (if any) and is only available if you select Yes in the field above.
Financial Security For Advance Payment Provided	This where you indicate if the supplier/contractor provided a financial security for the advance payment (if any). Select Yes or No.
Amount of Financial Security provided	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 you select Yes in the field above

Contract Status

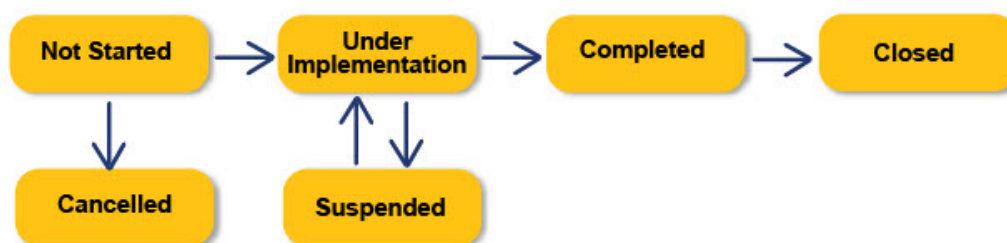
Not started
Under Implementation
Suspended
Cancelled
Completed
Closed

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
Comment:

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.

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 screenshot shows the 'Contract Monitoring' section of a web application. It features a search filter with fields for Project Name, Supplier Name, Contract Number, and Contract Status, along with a 'FILTER' button and a 'CLEAR' button. Below the filter are buttons for 'ADD NEW CONTRACT' and 'EXPORT TO EXCEL'. A table lists contracts with columns: COUNTRY, PROJECT NAME, CONTRACT NUMBER, CONTRACT ALIAS, CONTRACT STATUS, DESCRIPTION, and SUPPLIER NAME. Two contracts are visible: one from 'THE REPUBLIC OF THE SUDAN' and another from 'THE UNITED ARAB EMIRATES'. The 'ACTIONS' button for the second contract is circled in orange. Below the table, there are three buttons: 'View Contract', 'Update Contract' (circled in orange), and 'Contract Amendment'.

COUNTRY	PROJECT NAME	CONTRACT NUMBER	CONTRACT ALIAS	CONTRACT STATUS	DESCRIPTION	SUPPLIER NAME	ACTIONS
THE REPUBLIC OF THE SUDAN	WMPF	SUGAN74	CO-PZSUYG3B	NOT STARTED	WORKS	SUDAN LTD	ACTIONS
THE UNITED ARAB EMIRATES	IMPROVE AGRIC PRODUCTIVITY	4	CO-HSCGKRZ	COMPLETED	SERVICES - CONSULTANCES	GLAYZE	ACTIONS

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.

The screenshot shows a confirmation form for deleting a contract. It includes a 'Risk Flag' checkbox, a 'Comment' text area, and three buttons at the bottom: 'SAVE', 'DELETE' (circled in orange), and 'CANCEL'.

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.

The screenshot shows a web interface for 'Contract Monitoring'. At the top, there are search filters for 'Project Name', 'Supplier Name', 'Contract Number', and 'Contract Status', along with 'FILTER' and 'CLEAR' buttons. Below the filters are 'ADD NEW CONTRACT' and 'EXPORT TO EXCEL' buttons. A table lists contracts with columns: COUNTRY, PROJECT NAME, CONTRACT NUMBER, CONTRACT ALIAS, CONTRACT STATUS, DESCRIPTION, and SUPPLIER NAME. Two rows are visible: one for 'THE REPUBLIC OF THE SUDAN' and one for 'THE UNITED ARAB EMIRATES'. Each row has an 'ACTIONS' button. Below the table, there are three buttons: 'View Contract', 'Update Contract', and 'Contract Amendment', with the latter being circled in red.

COUNTRY	PROJECT NAME	CONTRACT NUMBER	CONTRACT ALIAS	CONTRACT STATUS	DESCRIPTION	SUPPLIER NAME	ACTIONS
THE REPUBLIC OF THE SUDAN	IMCP	SUDAN74	GO-PZSUVG3B	NOT STARTED	WORKS	SUDAN LTD	ACTIONS
THE UNITED ARAB EMIRATES	IMPROVE AGRIC PRODUCTIVITY	4	CO-H8CQKXZ	COMPLETED	SERVICES - CONSULTANCIES	GLAYZE	ACTIONS

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.

Contract Status Under Implementation		Pre/Post Review Post	
Revised End date 06-Jul-2021	Currency USD		
Current Contract Amount 750,000.00	Additional Amount 250,000.00	Total Revised Contract Amount 1,000,000.00	
Comments			
Contract performance			
<input type="checkbox"/> Risk Flag			
Comment			
		<input type="button" value="SAVE"/> <input type="button" value="BACK"/>	

Once the action is complete click on **Save**. The excel export will show only revised cumulative amounts under the column Amended Amount.

Annex 5: 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 6: 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					
Grand Total					

D. EVALUATION REPORT:

FINAL COMMENT:			
REVIEWER SIGNATURE:		DATE:	

Annex 7: 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 MAAIF/ReLIV. This explanation is known as the debrief. ReLIV will first have sent a notice that the evaluation is completed. After receiving this information, the unsuccessful bidder may request a debrief.
- b) ReLIV shall promptly provide an explanation in writing of why the bid was not selected. The bidder may then request a meeting. If ReLIV agrees to a meeting after providing the debrief, the bidder shall bear all the costs of attending the meeting. ReLIV 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 MAAIF/ReLIV. 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 be 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) MAAIF/ReLIV 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. MAAIF/ReLIV will extend this period **an additional five business days** if sufficient reasons are provided.

**MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND
FISHERIES (MAAIF)**

REPUBLIC OF UGANDA

Project Procurement Strategy (PPS)

For

Resilient Livestock Value Chain (ReLIV) Project

UGANDA

Dated: 7 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
GoU	Government of Uganda
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
OPEN	Online Procurement End-to-end system
PAL	Procurement Arrangement Letter
PCT	Project Coordination Team
PDO	Project Development Objective
PIM	Programme Implementation Manual
PMU	Programme Management Unit
PP	Procurement Plan
PPS	Project Procurement Strategy
QCBS	Quality and Cost-Based Selection
ReLIV	Resilient Livestock Value Chain (RELIV) Project
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
USD	United States Dollars
VfM	Value for Money

1. Project Overview

Table 2: Project components and allocations

Country:	Uganda
Full Project Name and Number:	Resilient Livestock Value Chain (ReLIV) Project
Programme Cost (US\$):	200,760,000
Loan/Grant Number:	
Name of Procurement contract or group of similar contracts	Goods, Works, Consulting and Non-consulting Services
Estimated Contract Cost (US\$)	

a) Project Description

The Resilient Livestock Value Chain Project (ReLIV), implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), will support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

ReLIV will mostly contribute to SDG 1 (end poverty), SDG 2 (end hunger), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth) and SDG 13 (Climate Action). It is fully aligned with GoU's NDP III under the Agro-Industrialisation Programme (AGI), whose goal is to increase commercialization and competitiveness of agricultural production and agro-processing, where dairy and livestock are among the key priorities. It is aligned with IFAD's current COSOP 2021 – 2027, contributing directly to its strategic objectives of: (i) production, productivity, and climate resilience of smallholder agriculture; (ii) integration of smallholders into the markets; and (iii) access to and use of financial services. Support to the livestock sector is one of the priority sectors mentioned in the current COSOP. This project is aligned with IFAD's Strategic Framework 2016-2025, on enabling inclusive and sustainable transformation of rural areas through smallholder-led growth and mainstreaming priorities (including climate change and nutrition).

ReLIV 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. ReLIV will also collaborate with other similar on-going projects especially in sharing knowledge products and to ensure complementarities of support and synergies. Implementation of the project will be largely carried out by MAAIF and its technical agencies.

b) Summary of Programme Objective

The proposed Project development Objective (PDO) is to **“Enhance income, nutrition and resilience of smallholder dairy and beef producers.”**

PDO Level Indicators. Achievement of the PDO will be measured by the following project outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

c) Project Components and Costs

The overall cost of the Project is estimated at US\$200.76 million, which will be disbursed over eight years. Of this total financing, IFAD's contribution amounts to US\$89.57 million from Uganda's IFAD12 Performance-based Allocation System (PBAS) and US\$10.00 million already confirmed from IFAD's Borrowed Resource Access Mechanism (BRAM) for a total of US\$99.57 million and representing 49.6 per cent of the total project costs. The Project will leverage financing from Green Climate Fund (GCF), specifically from the "Dairy Interventions for Mitigation and Adaptation (DaIMA)" project covering Uganda, estimated at US\$42.50 million (21.2 per cent of the total allocation), with 55 per cent as grant and 45 per cent as senior loan. Additionally, the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) from the GCF will contribute at US\$ 15.00 million (7.5 per cent of the project's financing). The Government of Uganda's contribution is expected to cover at least 14.4 per cent of total project costs in the form of in-kind and/or cash contributions amounting to US\$29.00 million. The Global Environmental Facility (GEF) will contribute with US\$ 7.50 million, representing 3.7 per cent of the total allocation. Beneficiaries will contribute to the project in cash or in kind, amounting to at least US\$ 7.19 million, which represents 3.6 per cent of the total project cost.

Table 3: Project components and allocations

No.	Component and Outputs	Cost (US\$ 000)	Percent	Items to be procured
1	Component 1. Increasing productivity and resilience and reducing the impact of production on climate:	96,074.16	47.9%	Seeds, Fodder choppers and other conservation equipment, RFID ear tags, Equipment for AI technicians in the Districts, elite bulls, IT equipment, Motor vehicles, Motorcycles, Construction and equipping of AI subregional centers, Upgrading of AI semen production laboratory in Entebbe, Regional lab rehabilitation, Construction and equipping of AI subregional centers, Upgrading of AI semen production laboratory in Entebbe, Regional lab rehabilitation, Study for fodder pest management and soil conservation, Feasibility study privatisation mapping and pathway for implementation, Consultant to Develop training curricula for L-FFS
	12) Sub-comp. 1.1: Improving feed and fodder production, rangeland management and access to water	47,583.89		
	13) Sub-comp. 1.2: Improving Animal identification and breeding	15,757.05		
	14) Sub-comp. 1.3: Improving animal health services for resilient and low-emissions animals	26,186.16		
	15) Sub-comp. 1.4: Improving extension and delivery of technical support to farmers	6,547.06		

				and PFS
2.	Component 2 Enhanced access to market for smallholder producers and access to finance: 16) Sub-comp. 2.1: Supporting aggregation of production and access to markets for smallholder producers 17) Sub-comp. 2.2: Strengthening food safety and local consumption of livestock commodities 18) Sub-comp. 2.3: Improving access to financial products for value chain actors 19) Sub-comp. 2.4: Policy support and stakeholder dialogue	95,162.87 32,610.27 16,359 45,690.89 502.71	47.4%	Procurement of Milk Coolers (1,000L, 2000L, 3,000L, 5000L), Construction of new MCCs, Rehabilitation of existing MCCs, Biodigester construction at slaughtering facilities, Biodigester construction at livestock markets, Feasibility study and suitability mapping for biodigesters at abattoirs and markets, Technical assistance on quality management, infrastructure maintenance, safe working standards and equipment, etc, Feasibility study on digitalizing value chains, Development of software, MIS, application for digitalized value chains, Provision of BDS for Business Plan development, Provision of financial literacy support to smallholder farmers
3.	Component 3. Strengthened policy and regulatory environment: 20) Sub-comp. 3.1 Policy Support 21) Sub-comp. 3.2 Monitoring and Evaluation (M&E) and Knowledge Management (KM) 22) Sub-comp. 3.3 Project Management	9523.19 352.16 1,225.11 7,945.92	4.7%	Purchase of IT Equipment, Procurement of Vehicles, Office Furniture, Accounting Software, Establishment of MIS, Baseline survey, Project Audit, Project Coordinator, Financial controller, Livestock specialist, M&E and KM specialist, Procurement specialist, Gender and Targeting Specialist, Environment and Climate Change Specialist, Agribusiness and Rural Finance Specialist
	Total	200,760.22	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 PMU. The project procurement will involve Goods, Works and Consulting and Non-consulting Services. An indicative list of procurements in first 18 months is included with the PPS.

e) Spend per category

Procurement activity commitments for the first 18 months is as tabulated below and include those funded under DaIMA. The procurement commitments of this period under ReLIV are approximately 11% of the project envelope.

Table 4: Project Spend Profile per category

Procurement Category	Amount in US\$		
	DaIMA	ReLIV	TOTAL
Goods	5,829,000	12,378,000	18,207,000
Works	900,000	1,496,000	2,396,000
Consultancy services – Firms and Individuals	5,260,700	8,382,000	13,642,700
TOTAL	11,989,700	22,256,000	34,245,700

2. Overview of Country, Recipient and Marketplace

a) Operational Context

1. Governance aspects³⁰

Since the second half of the 1980s, Uganda has enjoyed improved political stability and national security under the National Resistance Movement (NRM) government. The NRM is credited for stopping the political and economic chaos that had engulfed the country for a decade, returning it to growth. Although the NRM Government has been able to maintain relative peace and stability and underpinned social and economic development, Uganda suffers from a deficit in political inclusiveness. The sporadic violence during the 2021 election showed that more needs to be done to bolster national cohesion and inclusivity.

In terms of regional conflict, Uganda has played the role as peace broker. During the South Sudan civil war in the 2010s, Uganda took more than one million refugees. The refugee policy allows freedom of movement and the right to employment, education, health, and to start a business.

During the past 10 years, progress in governance reforms have slowed. Government is focusing its efforts on strengthening democracy, socio-economic transformation, and regional integration to create economic opportunities. Despite efforts to strengthen governance, international governance indices show slow progress. The 2020 Mo Ibrahim Governance Index score has increased by just 0.7 points between 2010 to 2019 to 51.8, slightly above the African average of 48.9. The Bank's CPIA Governance rating (3.47) marginally improved since 2015. This was attributed to improved property rights, while transparency and accountability deteriorated. Between 2015 and 2020 the CPIA scores deteriorated across most aspects. The perception of corruption has seen limited progress

³⁰ SOURCE: AfDB-REPUBLIC OF UGANDA COUNTRY STRATEGY PAPER 2022 – 2026
<https://www.afdb.org/en/documents/uganda-country-strategy-paper-2022-26>

since 2012, remaining unchanged at 27 out of 100 (2020 Transparency International Corruption Perceptions Index). Nonetheless, through independent institutions such as the Inspectorate of Government and the Auditor General, the Government aims to fight corruption.

Figure 1. Project area

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 | 02-08-2023

2. Economic Aspects³¹

Recent macroeconomic and financial developments: Real GDP grew an estimated 6.3% in 2022, more than the 5.6% in 2021, despite higher commodity prices, tighter financial conditions fueled by Russia’s invasion of Ukraine, and continued global supply chain disruptions. Agriculture, notably food crops, performed well, supported by good rains, while growth in industry weakened as output in construction waned. Services also performed well as trade and repairs and the health subsector demonstrated strong growth. During 2022, the Uganda shilling depreciated 3.8% against the US dollar. Inflation was 7.2%, driven by a 14.9% increase in food prices and a 12.7% increase in

³¹ SOURCE – Uganda Economic Outlook - AfDB

energy prices. Higher food and energy prices pressed households, especially subsistence farmers and urban dwellers. To curb inflation, the Bank of Uganda raised the policy rate four times in 2022, from 6.5% to 10%. The financial sector remains well capitalized, with a capital adequacy ratio of 21.7% in 2022. Higher public investment in roads, interest costs, and other nonwage spending stoked fiscal deficits until 2020. Since then, the government has slowed the pace of investment, reducing the deficit to 7.4% of GDP in 2021 and an estimated 5.3% in 2022. The deficit was financed through public borrowing, rising to 50.3% of GDP in June 2022. Risk of public debt distress is moderate, and public debt remains sustainable. The current account deficit remains elevated, at 8.6% of GDP, attributed to rising imports and lower tourism receipts after the COVID-19 pandemic, which were exacerbated by a short Ebola outbreak in 2022.

Outlook and risks: GDP is projected to grow 6.5% in 2023 and 6.7% in 2024, assuming any global growth slowdown will be short lived. This expansion is projected to be supported by stronger growth in East Africa, while the Chinese economy has eased lockdowns, reducing global supply chain disruptions, supporting higher growth. Following the final agreements in 2022, the oil sector is ramping up investments, underpinning growth beyond the medium term. Although inflation is expected to slow, it is projected to remain above the central bank's medium-term target of 5%. The fiscal position is projected to improve, reflecting consolidation efforts. External risks are tilted toward the downside, notably a prolongment of Russia's invasion of Ukraine and continued supply chain disruptions, while pockets of regional insecurity continue to pressure security-related spending. Domestic risks relate to unexpected increases in public spending on infrastructure amid weak tax revenue.

3. Sustainability Aspects

Uganda's development journey has been guided by a deliberate and well-planned effort to transform it from a peasant to a modern, industrial, and prosperous society. Since adopting the 2030 Agenda for Sustainable Development in 2015, Uganda has been steadfast in its efforts to realise the aspirations of her people. Since 2018, the economy registered strong recovery and was projected to grow at 6.0 percent in 2019/20, before the COVID 19 outbreak. Income per capita increased from USD 833 in 2016/17 to USD 891 in 2018/19, and Ugandans are living longer with an average life expectancy of 63.7 years. Gains have been registered in the education sector as manifested in improved literacy levels and increased enrollment at all levels. The Government has continued to strengthen institutional coordination for SDGs implementation. As part of efforts to operationalise the national SDG Coordination Framework, the President appointed the Minister in charge of General Duties in the Office of the Prime Minister as Cabinet Focal Point Minister in charge of SDGs. A fully-fledged national SDG Secretariat has been established to support the SDG Coordination architecture to ensure that Uganda stays on track in implementing the SDGs. While Government is enhancing statistical capacity to monitor and report progress, it is also building strong institutions at subnational level to accelerate the implementation of SDGs through localisation and voluntary local reviews.³²

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

³² <https://sustainabledevelopment.un.org/memberstates/uganda>

As part of the reforms to make the public procurement system more efficient and accountable, The Public procurement and Disposal of public Assets Authority (PPDA) is in final preparations to have public procurement go online through the roll out of the Electronic Government Procurement (eGP). eGP will comprise of all the modules/ stages in procurement. Currently, there is an ongoing dialogue to assess how best to fit the eGP in procurement for multilateral funded operations.

5. Legal Aspects

Public Procurement in Uganda is governed by is the Public Procurement and Disposal of Public Assets Act, 2003 (PPDA Act), supplemented by the Public Procurement and Disposal of Public Assets Regulations, 2014. Some of the shortcomings of the framework include (1) Inclusion of counterpart funding in development projects as part of scope of the procurement framework could have interpretation that project procurement activities financed by counterpart funding may be exempt from IFAD procurement guidelines; (2) There is procurement method for Restricted Domestic Bidding that in practice is applied based on thresholds as opposed to accompanying justifications. (3) Procurement method of Micro Procurement has thresholds that differ from Direct Contracting for low value activities as defined by IFAD guidelines. (4) Regulation 48 on the Rules and Methods for Procurement of Supplies, Works and Non-consultancy services requires a bid shall be rejected during the preliminary examination of bids, if the bid is received from a bidder who is not listed as having bought or obtained the bidding document directly from the procuring and disposing entity. This may make bids downloaded from Website inadmissible thus limit access to bidding documents. (5) Provision 24 of the Evaluation Regulations contains procedures for conducting merit points system, opening up possibility of assigning scores in evaluation of Goods, Works and Non-consulting service.

6. Conclusions on Operational context to be addressed through the procurement approach.

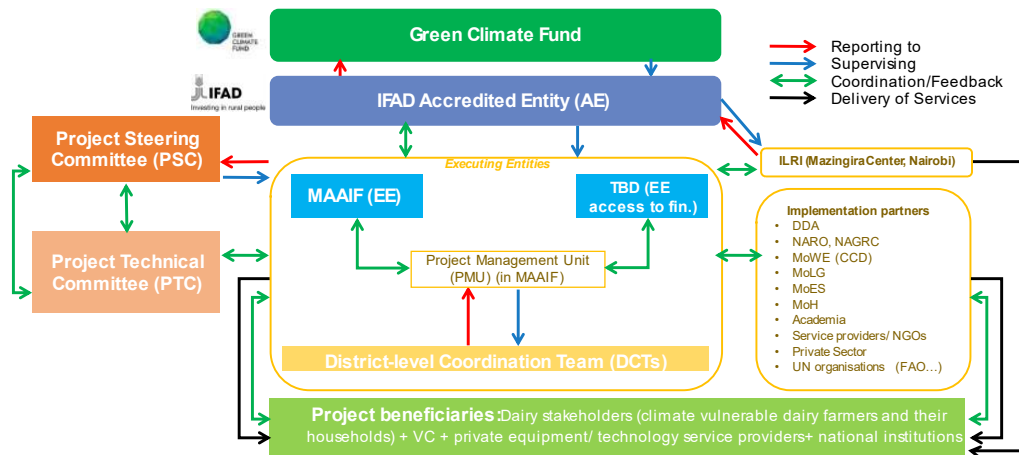
There is a positive economic outlook which will support participation of local and foreign bidders. High interest rates may hinder access to credit and participation in bidding opportunities due to expenses related in securities. Contractors/suppliers may also be unable to finance contracts from own revenues.

The national framework will apply for procurements undertaken by ReLIV, to the extent that they are consistent with IFAD Project Procurement Guidelines. Procurement will follow the GoU rules as determined by the Public Procurement and Disposal of Public Assets Authority (PPDA) where these are aligned to and consistent with the IFAD Procurement Guidelines. All procurements will be implemented through the MAAIF contracts committee.

National SBDs will also 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 on 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 ReLIV to ensure compliance with the highest ethical standards.

b) IA Capability Assessment

Figure 2. Proposed Institutional Arrangements in Uganda



MAAIF will be the lead implementing agency and will establish a Project Steering Committee (comprised of representatives of other relevant ministries and agencies) that will provide overall strategic direction and ensure coordination among sectors. MAAIF will set up a lean Project Management Unit (PMU) to be responsible for overall coordination of the agencies involved in implementation of the project. The PMU will handle core functions of coordinating the overall implementation and implementing agencies focusing on: Financial Management; Procurement; Monitoring, Evaluation and Learning, and overall reporting. Semi-autonomous institutions of MAAIF, i.e., DDA, NAGRIC and DB and NARO's NaLiRRI, plus Directorate of Animal Resources in MAAIF with Local Governments, will be implementing agencies. Private sector agencies will be contracted to perform functions where necessary.

1. Experience

The PMU will require to hire experienced Procurement Specialist and a Procurement Officer will be seconded from MAAIF to assist and augment the capacities. This is particularly considering the PMU will also be implementing GCF co-financed DaIMA project. In addition, the Head of procurement at each of the partner organizations will be responsible to support procurement of the low value micro procurements as defined in the local framework, and consistent with project's PAL. The procurement staff of PMU will require training on IFAD's BUILDPROC, OPEN system, and periodic capacity building activities on IFAD project procurement

2. Need for hands-on support

MAAIF is a government institution 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 PMU 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. Past IFAD reviews during supervision missions have found gaps in contract management especially in delayed deliveries, and records missing from file. 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 prior-review 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 5: SWOT Analysis

<p>STRENGTHS:</p> <p>g) The Lead Executing Entity, MAAIF, has Procurement and Technical specialists experienced in the local procurement framework.</p> <p>h) Procurement framework that is consistent with IFAD procurement guidelines.</p>	<p>WEAKNESSES:</p> <p>i) Limited experience in development of technical specifications and Terms of Reference for key requirements in the procurement profile.</p> <p>j) Limited capability, knowledge, and skills in contract management.</p> <p>k) There is no established programme to train internal and external auditors to ensure that they are qualified to conduct high-quality procurement audits.</p>
<p>OPPORTUNITIES:</p> <p>l) 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.</p> <p>m) Leveraging on the capacities of the ReLIV.</p> <p>n) Responsive local supplier market.</p>	<p>THREATS:</p> <p>o) Sudden increase in input prices driven by global supply dynamics and currencies of input markets weakening against the US dollar.</p> <p>p) Lengthy period before start-up of ReLIV could delay implementation.</p> <p>q) Increased procurement workload to the PMU from the large procurement profile of the DaIMA project could result in processing delays.</p>

Results of the SWOT Analysis. The project will require to have timely ReLIV start-up requirements and hiring of procurement and technical staff to ensure effective implementation of the procurement programme. To mitigate implementation delays at start-up, the project will rely on the NOPP PMU for procurement support of initial key start-up activities. All key and strategic activities should be backed by a detailed market research before their commencement.

5. Conclusions on Client Capability and PIU Assessment

The project will require hiring competent procurement and technical staff at PMU. Wherever necessary, technical consultants will be hired to assist with specification and TOR preparation for the project requirements. Project procurement will be carried out as per the approved Procurement Plan processed in OPEN and contract management be steered by User departments using simplified contract management plans.

c) Market Analysis

a) Market sector dynamics

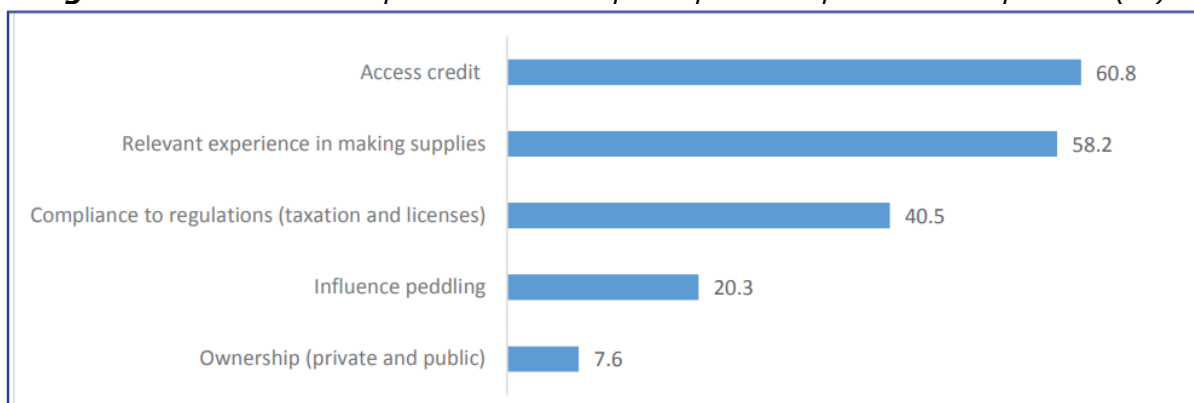
The envisaged procurement transactions comprise of few Works, various consultancies to support the project implementation and supply of various equipment / goods. Uganda has a robust construction industry that will be able to handle all project requirements. For equipment, motorcycles, and ICT hardware & 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

The 4th Public Procurement Integrity Survey Report of 2020 mentions consensus among MDAs, LGs, and suppliers, about 93 percent by each group, that big firms have an advantage over other firms. Therefore, the results suggest that big firms are more likely to have an advantage in public procurement compared to the small/medium firms. The survey also intended to establish whether the ground for participating in public procurement is levelled for both local and foreign firms. Results suggest that 47 percent of MDAs and LGs were of the view that the ground is somewhat levelled, 19 percent highly levelled and 34 percent not levelled.

Respondents of the survey provided the factors that impede the local firms' participation in the procurement process as demonstrated in Figure 30. MDAs and LGs identified limited access to credit (61 percent) as the main factor, followed by relevant experience (58 percent), compliance to regulation such as taxation and licenses (41 percent), influence peddling (20 percent) and ownership (7.6 percent).³³

Figure 3. Factors that impede local firms' participation in procurement process (%)



Experiences from recent IFAD funded projects in Uganda show that most of procurement packages attracted both local and foreign participation. A self-assessment on procurement trends by MAAIF using the IFAD PRM Pillar B was not availed and is targeted for completion during project supervision.

c) Indicative list of major procurement activities under both ReLIV and DaIMA:

³³ SOURCE: <https://www.pdda.go.ug/download/THE-4TH-PROCUREMENT-INTEGRITY-SURVEY.pdf>

Considering that the project procurement of ReLIV and DaIMA will be by the same PMU, a procurement profile combining both projects is prepared to provide an indication of the procurement workload. The PMU will be responsible for an estimated 21No Goods activities, 8No Works activities, and 38No Consulting activities.

Table 6: Goods

Ref. No.	Description	Estimated Cost (US\$)	Project
G1	Supply of equipment to Scale-up existing models for extension in dairy value chain - demo farms	600,000	DaIMA
G2	Supply of IT equipment – Computers, Laptops, Tablets, GPS equipment, 2 field cameras, 2 printers and GIS license	399,000	DaIMA
G3	Equipment for production and conservation of climate-smart “elite” germplasm in government farms	720,000	DaIMA
G4	Supply of equipment for Scale-up adoption of soil and water conservation practices	900,000	DaIMA
G5	Supply of equipment to Support establishment of pasture seed banks	300,000	DaIMA
G6	Establish and strengthen a pasture/fodder seed market information system	300,000	DaIMA
G7	Supply of Equipment, reagents and consumables for detection of priority TDAs and zoonosis to regional labs / mobile units	250,000	DaIMA
G8	Supply of surveillance equipment for TADs, zoonosis	360,000	DaIMA
G9	Procurement of digital solutions (e.g. DigiCow Africa, My Fugo...) for farmers’ quick access to insemination (AI), AI recording and herd management services	2,000,000	DaIMA
G10	Purchase of seeds for distribution through LFFS and coop	20,000	ReLIV
G11	Procurement of Fodder choppers and other conservation equipment	3,150,000	ReLIV
G12	Procurement of Equipment (computers, RFID readers, android devices for data entry)	300,000	ReLIV
G13	Purchase of RFID eartags	641,000	ReLIV
G14	Purchase of Equipment for AI technicians in the Districts	62,000	ReLIV
G15	Purchase of elite bulls (climate resilient breeds) for semen production	30,000	ReLIV
G16	Purchase of IT equipment (tablets, desktops, multi-functional printer, GSM enabled tablets, GPS units, Digital Camera, Desktop computer/server)	587,000	ReLIV
G17	Procurement of Motor vehicles in 3No Lots	1,092,000	ReLIV
G18	Purchase of Motorcycles	670,000	ReLIV
G19	Procurement of Milk Coolers (1,000L, 2000L, 3,000L, 5000L)	5,771,000	ReLIV
G20	Procurement of Office Furniture	30,000	ReLIV
G21	Procurement of Accounting Software	25,000	ReLIV

Table 7: Works

Ref. No.	Contract Description	Estimated Cost (US\$)	Project
W1	Establishment of micro-dams’ for rainwater harvesting in extensive systems	900,000	DaIMA
W2	Construction and equipping of AI subregional centers (in Lots)	300,000	ReLIV
W3	Upgrading of AI semen production laboratory in Entebbe	250,000	ReLIV

W4	Regional lab rehabilitation	176,000	ReLIV
W5	Construction of new MCCs (*including waste management solutions)	400,000	ReLIV
W6	Rehabilitation of existing MCCs	300,000	ReLIV
W7	Biodigester construction at slaughtering facilities	40,000	ReLIV
W8	Biodigester construction at livestock markets	30,000	ReLIV

Table 8: Consulting Services

Ref. No.	Contract Description	Estimated Cost (US\$)	Project
C1	ILRI Technical Assistance	1,500,000	DaIMA
C2	Consulting service for support in developing inputs for Mapping and profiling of existing dairy cooperatives in the main national milk sheds and cattle corridor	72,700	DaIMA
C3	Consulting service to Assess the clean energy needs within existing DDA-led dairy cooperatives and propose fit-for-purpose RE solutions (photovoltaic – PV, biogas systems etc.)	115,000	DaIMA
C4	Consulting service to Assess the waste management solutions within existing dairy DDA-led cooperatives	115,000	DaIMA
C5	Consulting service to Identify and evaluate potential low emissions and heat tolerant cattle breeds (local, exotic, cross breeds) appropriate to Uganda agroecological zones to be catalogued	345,000	DaIMA
C6	Consulting service in Supporting the multilocation evaluation of selected climate smart cattle breeds	115,000	DaIMA
C7	Consulting service to Prepare a communication strategy by mapping stakeholder needs, communication frameworks for extension services	115,000	DaIMA
C8	Consulting service to Strengthen regional demonstration feed production hubs under the national farms	138,000	DaIMA
C9	Consulting service to Develop production system-specific supplementation plans/feed packages	138,000	DaIMA
C10	Consulting service for Mapping and profiling the existing community governance structures	138,000	DaIMA
C11	Consulting service to Identify, assess, and map degraded pasture landscapes and grazing areas	188,000	DaIMA
C12	FAO - Capacity building of community on grazing management through L-FFS	1,215,000	DaIMA
C13	Consultancy Service to Review and finalize the National Livestock Development policy, integrating climate change mitigation and adaptation priorities	159,500	DaIMA
C14	Consulting service to Review and propose up-date of existing legal framework and support drafting of regulations to integrate CCM&A (Animal dairy industry act, animal diseases act, animal breeding act)	258,000	DaIMA
C15	Consulting service to Review of regulations and standards relevant to dairy at national level for harmonization with regional level and formulation of proposals for better climate responsiveness	148,500	DaIMA
C16	Establishment of a national data management system on emerging and re-emerging diseases as a result of climate change (TAD and zoonosis)	500,000	DaIMA
C17	Study for fodder pest management and soil conservation	70,000	ReLIV
C18	Pilot study on soil conservation for fodder plants	101,000	ReLIV
C19	Feasibility study under component 1.3	41,000	ReLIV

C20	Feasibility study privatisation mapping and pathway for implementation	104,000	ReLIV
C21	Consultant to Develop training curricula for L-FFS and PFS	150,000	ReLIV
C22	Feasibility study and suitability mapping for biodigesters at abattoirs and markets	30,000	ReLIV
C23	Technical assistance on quality management, infrastructure maintenance, safe working standards and equipment, etc.	75,000	ReLIV
C24	Feasibility study on digitalizing value chains	75,000	ReLIV
C25	Development of software, MIS, application for digitalized value chains	350,000	ReLIV
C26	Provision of BDS for Business Plan development	2,981,000	ReLIV
C27	Provision of financial literacy support to smallholder farmers	1,046,000	ReLIV
C28	Establishment of MIS	50,000	ReLIV
C29	Baseline survey	150,000	ReLIV
C30	Project Audit	15,000	ReLIV
C31	Project Coordinator	533,000	ReLIV
C32	Financial controller	373,000	ReLIV
C33	Livestock specialist	373,000	ReLIV
C34	M&E and KM specialist	373,000	ReLIV
C35	Procurement specialist	373,000	ReLIV
C36	Gender and Targeting Specialist	373,000	ReLIV
C37	Environment and Climate Change Change Specialist	373,000	ReLIV
C38	Agribusiness and Rural Finance Specialist	373,000	ReLIV

d) Supply Position Matrix

Based on the indicative list of major procurement activities envisaged in the, a supply position matrix has been prepared.

High						High
Risk Vulnerability	Strategic Critical		Strategic Security			Estim Cost (US\$)
	Ref. No.	Description	Ref. No.	Description	Estim Cost (US\$)	
	G3	Equipment for production and conservation of climate smart "elite" germplasm in government farms	G9	Procurement of digital solutions (e.g. DigiCow Africa, My Fugo...) for farmers' quick access to insemination (AI), AI recording and herd management services	2,000	
	G4	Supply of equipment for Scale-up adoption of soil and water conservation practices				
	G17	Procurement of Motor vehicles in 3No Lots	G11	Procurement of Fodder choppers and other conservation equipment	3,150	
	G18	Purchase of Motorcycles				
	G6	Establish and strengthen a pasture/fodder seed market information system	G19	Procurement of Milk Coolers (1,000L, 2000L, 3,000L, 5000L)	5,771	
	C2	Consulting service for support in developing input for Mapping and profiling of existing dairy cooperatives the main national milk shed and cattle corridor	C1	ILRI Technical Assistance	1,500	
			C12	FAO - Capacity building of community on grazing management through L-FFS	1,215	
	C3	Consulting service to Assess	C16	Establishment of a	500,0	

		the clean energy needs within existing DDA-led dairy cooperatives and propose for-purpose RE solutions (photovoltaic – PV, biogas systems etc.)		national data management system on emerging and re-emerging diseases as a result of climate change (TAD and zoonosis)		
	C4	Consulting service to Assess the waste management solutions within existing dairy DDA-led cooperatives	C26	Provision of BDS for Business Plan development	2,981,000	
	C5	Consulting service to Identify and evaluate potential low emissions and heat tolerant cattle breeds (local, exotic, cross breeds) appropriate to Uganda agroecological zones to be catalogued	C27	Provision of financial literacy support to smallholder farmers	1,046,000	
	C6	Consulting service in Supporting the multilocation evaluation of selected climate smart cattle breeds				
	C7	Consulting service to Prepare a communication strategy mapping stakeholder needs communication frameworks for extension services				
	C8	Consulting service to Strengthen regional demonstration feed production hubs under the national farms				
	C9	Consulting service to Develop production system specific supplementation plans/feed packages				
	C10	Consulting service for Mapping and profiling the existing community governance structures				
	C11	Consulting service to Identify, assess, and map degraded pasture landscape and grazing areas				
	C13	Consultancy Service to Review and finalize the National Livestock Development policy, integrating climate change mitigation and adaptation priorities				
	C14	Consulting service to Review and propose up-date of existing legal framework and support drafting of regulations to integrate CCM&A (Animal dairy industry act, animal disease act, animal breeding act)				
	C15	Consulting service to Review of regulations and standards relevant to dairy at national level for harmonization with regional level and				

		formulation of proposals for better climate responsiveness			
	C16	Establishment of a national data management system for emerging and re-emerging diseases as a result of climate change (TAD and zoonosis)			
	C17	Study for fodder pest management and soil conservation			
	C18	Pilot study on soil conservation for fodder plants			
	C19	Feasibility study under component 1.3			
	C20	Feasibility study privatisation mapping and pathway for implementation			
	C21	Consultant to Develop training curricula for L-FFS and PFS			
	C22	Feasibility study and suitability mapping for biodigesters at abattoirs and markets			
	C23	Technical assistance on quality management, infrastructure maintenance, safe working standards and equipment, etc.			
	C24	Feasibility study on digitalizing value chains			
	C25	Development of software, MIS, application for digitalized value chains			
	C28	Establishment of MIS			
	C29	Baseline survey			
	C30	Project Audit			
	C31	Project staff – Individual			
	C38	consultants			
	Tactical Acquisition		Tactical Advantage		
	Ref. No.	Description	Ref. No.	Description	
				Estimated Cost (US\$)	
	G7	Supply of Equipment, reagents and consumables for detection of priority TDAs and zoonosis to regional labs / mobile units	G1	Supply of equipment to Scale-up existing models for extension in dairy value chain - demo farms	600,000
	G10	Purchase of seeds for distribution through LFFS and coop	G2	Supply of IT equipment – Computers, Laptops, Tablets, GPS equipment, 2 field cameras, 2 printers and GIS license	399,000
	G20	Procurement of Office Furniture	G5	Supply of equipment to Support establishment of pasture seed banks	300,000
	G21	Procurement of Accounting Software	G8	Supply of surveillance equipment for TDAs, zoonosis	360,000

		W1	Establishment of micro-dams' for rainwater harvesting in extensive systems	900,000
		G12	Procurement of Equipment (computers, RFID readers, android devices for data entry)	300,000
		G13	Purchase of RFID eartags	641,000
		G14	Purchase of Equipment for AI technicians in the Districts	62,000
		G15	Purchase of elite bulls (climate resilient breeds) for semen production	30,000
Low	Estimated to Cost / Value			High

e) Supplier Preferencing Matrix

Project will undertake procurement for Goods, Works, 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 and Works contractors as 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 9: Supplier preferencing matrix

Supplier preferencing matrix			
High			
Attractiveness 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
	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 value 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 PMU on instances to make plans to ensure suppliers are the best match for the requirement.

- a) There are 3 No Goods that are strategic security. Suppliers will view the opportunity as Core since it will present an opportunity to reach a wider market audience. This is a good match.

- b) There are 5 No Consulting service activities (Firms selection) That are strategic critical. These will be preferred as core considering 2 of these are by ILRI and FAO, and the other is development of a national data management system. They are also a good match.
- c) G3, G4, G6, G17, G18 are strategic critical and may be packaged in lots depending on the readiness of assessed intervention areas, and thus the smaller awards may have the Suppliers prioritize them as Development. This presents strong potential.
- d) There are 9 Tactical Advantage activities, 8 of which are Goods. Most 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 PMU assessment, and market analysis that could be mitigated through the procurement approaches summarized in Risk Assessment Table below.

Table 10: Risk Assessment Table

Risk Description at the respective stage of the procurement process per each contract	A	B	Overall Risk Score A x B Assessed Inherent Risk	Proposed Mitigation Measure/s throughout the Procurement Process	Net Risk (taking only fully implemented and effective mitigation measures into account)
	Likelihood of Occurrence	Impact upon Occurrence			
Goods and Goods related NCS					
Implementation arrangement – Inexperience in processing procurements under IFAD operations.	M	M	M	• Retention of dedicated procurement and technical staff.	M
PP stage - Poor packaging of procurement requirements at planning and bidding stages.	M	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.	M	S	S	• Undertaking market research and procurement's participation in work planning.	M
Requisitioning - Limited experience in development of specifications and poorly defined specifications.	M	S	S	• Use of technical experts/ consultants as necessary. • Use of local and internationally acceptable standards when specifying Goods.	M

<i>Risk Description at</i>	<i>A</i>	<i>B</i>	<i>Overall</i>	<i>Proposed Mitigation</i>	<i>Net Risk</i>
Solicitation stage - Poorly customized procurement documents.	M	M	M	<ul style="list-style-type: none"> • BUILDPROC training and capacity building of PMU and use of technical experts/ consultants as necessary. • Project procurement refresher trainings by IFAD. 	M
Evaluation stage - Unresponsive competent market players resulting in failed procurement processes.	M	S	S	<ul style="list-style-type: none"> • Use of qualification requirements that match the procurement activities. • Adequate publishing of procurement opportunities. • Use of ICB to broaden pool of potential suppliers and maximize Value for Money. 	M
Contract implementation stage - Delays in meeting contractual milestones and low-quality deliveries.	S	S	S	<ul style="list-style-type: none"> • Contract monitoring and contract management plans, to include factory inspection, acceptance, and training during manufacture process by OEM. • Administering contracts as set out in executed agreements. • Use of technical experts to manage complex contracts. 	M
Works and Works related NCS					
Requisitioning stage - Limited experience in development of BoQs for Works and TORs for design and supervision consultants.	L	S	M	<ul style="list-style-type: none"> • Use of technical experts/ consultants as necessary. 	M
Bidding and Evaluation stage - Low participation due to contractor Limited access to domestic financing, Skilled labor shortages, High cost of construction materials.	M	S	S	<ul style="list-style-type: none"> • Application of domestic preference as prescribed in the national law 	M
Discussions and contracting stage - SECAP related risks in construction and refurbishment.	L	H	M	<ul style="list-style-type: none"> • Use of IFAD standard contract terms, development of ESMPs, inclusion of • ESS experts in construction supervision, and use of 	M

<i>Risk Description at</i>	<i>A</i>	<i>B</i>	<i>Overall</i>	<i>Proposed Mitigation</i>	<i>Net Risk</i>
				PPEs during construction.	
Contract implementation stage - Delays in meeting contractual milestones Extension of Time for completion.	M	S	S	•Contract monitoring and contract management plans, and use of supervision engineers for complex works.	M
Consulting Services					
Requisitioning stage - Limited experience in development of TORs	S	S	S	•Use of technical experts/ consultants as necessary.	M
Solicitation stage - Limited experience in use of IFAD project procurement framework and poorly customized procurement documents. Delays in processing consulting activities.	S	S	S	•BUILDPROC training and capacity building of PMU and use of technical experts/ consultants as necessary. •To include project procurement refresher trainings by IFAD during ISMs.	S
Contract implementation stage - Delays in meeting contractual milestones and contract completion.	M	S	S	•Contract monitoring and contract management plans, and use of design and supervision consultants for complex works.	M

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 11: Stakeholder Management Plan

Stakeholder (Name and Role)	Interest in the Project (Responsible, Accountable, Consult, Inform)	Stakeholder Objectives from the Procurement	Stakeholder management Approach
Government of Republic of Uganda – 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 Ministry of Finance, Planning and Economic Development – 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, Animal Industry and Fisheries	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 - Dairy Development Authority (DDA), the National Animal Genetic Resources Centre and Data Bank (NAGRC&DB), National Research Organization (NARO), Ministry of Local Government (MoLG), local private sector and NGOs	R, A, C and I	k) Deliveries within workplan schedules and proper budget implementation l) Achieve value for money m) Account for procurements undertaken through project budgets	Keep informed, consult often.
PMU	A	n) Achieve value for money o) Compliance with the Legal agreement p) Fit-for-purpose procurement	Accomplish the mandate and comply.
IFAD – Supervision, Implementation support, Financier	C and I	q) Achieve value for money r) 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/Service Providers/Consultants	I and A	t) Transparency and fairness of the process. u) Efficiency in decision making. v) Timely payments.	Keep communicated.
People of Uganda	I	w) Upholding public interest (transparency/disclosure, fairness, value for money,	Keep informed.

<i>Stakeholder (Name and Role)</i>	<i>Interest in the Project (Responsible, Accountable, Consult, Inform)</i>	<i>Stakeholder Objectives from the Procurement</i>	<i>Stakeholder management Approach</i>
		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 the 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 ReLIV.

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	Requisition, PPP packaging, Procurement	Commenced procurement proceedings resulting into signed contracts in the	- 95% of commenced procurement proceedings resulting into signed

(VfM, 3Es, Competition, Fairness, Accountability, fit-for-purpose)	document customization, clarification requests, evaluation of bids/proposals, and contract awards	first instance, and within the PP planned times and budget.	contracts in the first instance. - 90% of the planned procurements being executed without variation of the overall planned timeline. - All 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 bids. - Percentage 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.
	b. Efficiency, records, and accountability	Information is managed (shared, stored and communicated) in line with expectations defined in contract or as agreed between the parties.	- Supporting/ working documents submitted and archived (Templates, weekly 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 12: 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 13: 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 14: 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)	<ul style="list-style-type: none"> Direct approaches require prior justification.

	b) Consultant's Qualification based Selection (CQS) c) Least Cost Based Selection (LCS) d) Direct Selection e) Single Source Selection	• Onboarding of ILRI and FAO (under DaIMA) 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 15: 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.

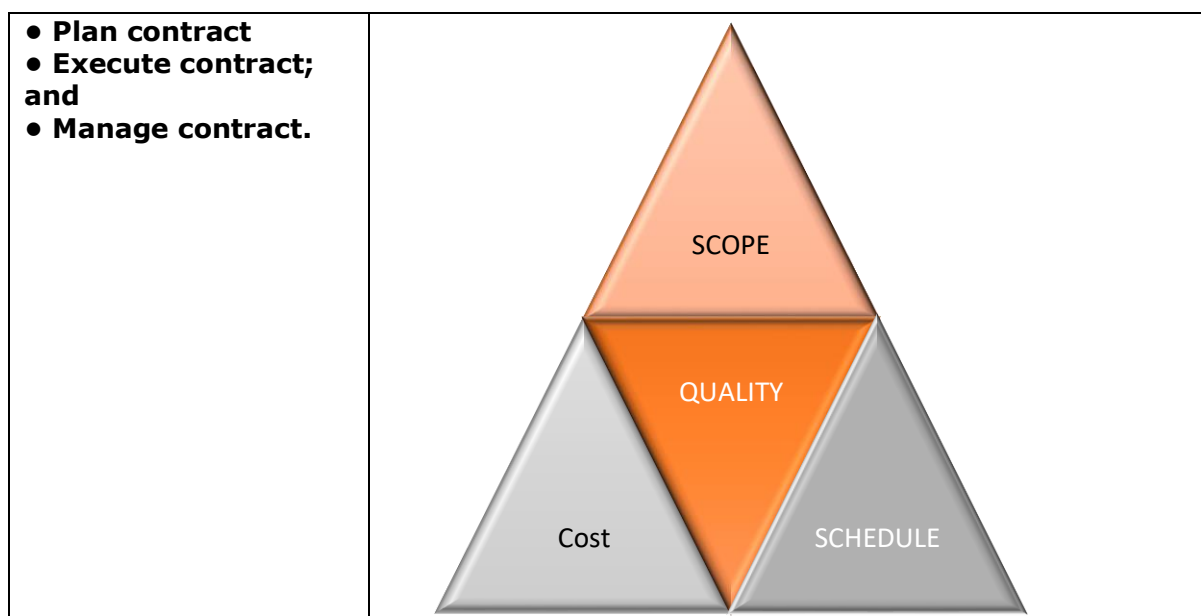
Operational Expenses: The project will also finance from the IFAD proceeds for costs associated with fuel, operational travel, per-diems, office consumables and maintenance, motor vehicle maintenance, telephone and internet charges, General salaries, and allowances for project staff. These expenditures 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: Simplified Contract Management Plan and Responsibility and Accountability Matrix (RAM)

a) 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 PMU 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.

b) Responsibility and Accountability Matrix – Contract Management

Table 16: Responsibility and Accountability Matrix

	MAAIF	Procurement Specialist	Technical Dept. or Beneficiary	PMU
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	M
Review the construction management program/workplans submitted by the bidders	I	C, I	R	M
Conduct the site visits periodically and review the physical and financial progress	F	S	R	F

	MAAIF	Procurement Specialist	Technical Dept. or Beneficiary	PMU
Accord time extensions, change in quantities, variations, etc.,	A	S	R	R
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	C	S

R: Responsible; A: Approval; M: Monitor; S: Support; F: Facilitate; I: Inform; C: Consulted

- c) **Monitoring Instruments:** The following mechanisms and instruments will be used to implement project management following the above principles and levels of management.

Ref	Description
1	Monthly Progress Report
	A monthly report following pre-defined format and designed to highlight key indicators and issues: f) Bifocal Emphasis – Physical and Financial progress with updates on the IFAD online CMT. g) Evaluation Techniques like PERT with clearly defined milestones through OPEN. h) Monitoring of cost escalations due to: (v) Change in scope, (vi) Variation of quantities, (vii) Change in quantities, (viii) Price adjustment i) Monitoring of admeasurements/payment schedule j) Conduct monthly progress meetings k) 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 PMU and/or Authorised persons.

Annex 2: In-country procurement training programme

Procurement Training Workshop for Members of Project Management Unit (PMU), MAAIF and All key User Departments implementing ReLIV

Venue: TBD - Kampala

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 PMU, MAAIF, 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	<ul style="list-style-type: none"> • POWER POINT SLIDES
	MID MORNING	Effective project implementation and the role of procurement: <ul style="list-style-type: none"> • Integrated project and procurement planning and budgeting (AWPB/PP) • Key considerations for effective procurement planning. 	<ul style="list-style-type: none"> • POWER POINT SLIDES • PRACTICAL SESSION: <ul style="list-style-type: none"> ✓ Actual project documents ✓ AWPB and PP
	AFTERNOON	Roles and responsibilities in the procurement cycle	<ul style="list-style-type: none"> • POWER POINT SLIDES
DAY 2	MORNING	Writing precise specifications, terms of reference and bidding documents (including SECAP consideration)	<ul style="list-style-type: none"> • POWER POINT SLIDES
	MID MORNING		<ul style="list-style-type: none"> • CASE STUDY
	AFTERNOON	Customization of Solicitation documents	<ul style="list-style-type: none"> • PRACTICAL SESSION: <ul style="list-style-type: none"> ✓ SBDs/SPDs
DAY 3	MORNING	Evaluating bids and proposals (including SECAP consideration)	<ul style="list-style-type: none"> • POWER POINT SLIDES
	MID MORNING	<ul style="list-style-type: none"> • Effective contract administration, management, and performance monitoring (including SECAP compliance) • CMT 	<ul style="list-style-type: none"> • POWER POINT SLIDES
	AFTERNOON		<ul style="list-style-type: none"> • CASE STUDY

Annex 9: SECAP Risks and Procurement Actions

Integration of SECAP risks into procurement This section provides indication to the PMU 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
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	Moderate	Minor Low potential for invasive species of flora or fauna to be introduced, but strict controls are in place, and the probability of invasion is therefore low.	Engagement of private sector/research institutions for seeds/breeds multiplication in relation of fodder is foreseen. Procurement is needed to limit the risk of spillage of invasive varieties and to use specifications for inputs and inspections.
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Substantial	Moderate Project requires procurement of natural resources through primary suppliers, and resource extraction is tightly regulated	Licensing will be a requirement of third-party providers and will be subject to preliminary evaluation checks whenever sourcing natural resource inputs.
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?	Substantial	Moderate Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment is highly sensitive.	Use of IFAD standard SECAP clauses in contracts to ensure the supply, proper management and disposal of pollutants and incorporate well-designed and functional waste management facilities wherever processing facilities are present.

Environmental and Social Safeguards			
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Substantial	Moderate The project will require consumption of raw materials, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Include specifications for energy efficiency of equipment.
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)?	Moderate	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extension.	Ensure Defect Liability Periods for water infrastructure to ensure it is functional upon delivery.
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Moderate	Minor The project only requires minimal amounts of fertilizer	Specify fertilizers and inputs using acceptable standards.
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?	Substantial	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Specify pesticides using acceptable standards. Require use of PPEs for use by third party contracted workers.
Cultural Heritage	Risk Rating	Consequence	Guidances for SPOs
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)	Low	Minor The project is thought to be close to an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage. The site has been comprehensively surveyed, and all tangible and intangible cultural heritage is well known.	N/A
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs

Environmental and Social Safeguards			
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)	Substantial	Moderate The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.	Procurement can introduce occupational health & safety (OHS) standards for the construction of infrastructure. Measures relating to working conditions, national and international (ILO) labour laws, and international commitments will be included in the technical specifications of bidding documents and contractors will be required to abide by them.
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	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Procurement can ensure labour standards are enforced in the contracts and respected. Contracts should include a clause for compliance with national labour laws and ILO labour standards that prohibit child labour.
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.)	Substantial	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.	Procurement can intervene in the design of nitrogen plants to avoid spillage of toxic chemicals and to enforce occupational health & safety (OHS) standards at all levels. Measures relating to OSH, aimed at protecting project workers from injury, illness or impacts associated with exposure to hazards encountered in the workplace or while working will be included in the technical specifications of bidding documents and contractors will be required to abide by them.
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?	Substantial	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.	Use of acceptable standards for vaccines.

Environmental and Social Safeguards			
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)?	Low	Negligible The project takes place in buildings or other infrastructure that has been independently verified as being structurally sound.	Service providers to have appropriate trading/business licensing and included as part of preliminary evaluation checks.
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Moderate	Minor The project involves the rehabilitation of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - less than 10 metre high wall; - less than 300m long crest; or - less than 1 million m3 reservoir capacity.	Use of IFAD SBDs for construction.
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)?	Moderate	Minor The project has only minor involvement with the transport, storage, and use and/or disposal of hazardous or dangerous materials, and regulation of hazardous materials is effective.	Suppliers to have appropriate licensing and included as part of preliminary evaluation checks.
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)?	Moderate	Moderate Moderate adverse impacts to ecosystems and their services that could negatively affect the health of communities in the direct vicinity of the project are possible, but similar projects have shown that impacts can be mitigated or offset through schemes such as Payment for Ecosystem Services.	For major civil works, contractors to include experienced Environmental and Social Safeguards Specialists among key staff; and use of IFAD SECAP provisions in contracting.
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?	Moderate	Moderate Moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence interventions are integrated into project design.	Solicitation and contracting should include provisions on prohibited practices and IFAD self-certification requirements.

Environmental and Social Safeguards			
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	Moderate	Minor The project will result in minor increases to traffic volume. Only minor increase in risk of injury or death.	N/A
6.9 Could the project lead to an influx of project workers?	Moderate	Minor The project requires the employment of new labour, but workers can be sourced from local communities, and so influx is kept to a minimum, and risks are effectively managed.	N/A
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	Moderate	Minor A small number of security personnel are required, but they are well trained, and protocols are in place.	N/A
Physical and economic resettlement	Risk Rating	Consequence	Guidances for SPOs
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?	Low	Minor The project will result in minor impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights. Legal recourse and other forms of arbitration/conflict resolution are available.	N/A
Financial intermediaries and direct investments	Risk Rating	Consequence	Guidances for SPOs
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?	Low	Minor The institution employs an ES Officer, and employs field staff to implement the ESMS.	Ensure selection processes have provisions and criteria on qualifications for key staff.

Annex 8: The Project Procurement Strategy (PPS)



ReLIV - PPS.docx

Annex 9: SECAP Risks and Procurement Actions

- Integration of SECAP risks into procurement This section provides indication to the PMU 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.

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Environmental and Social Safeguards			
Biodiversity conservation	Risk Rating	Consequence	Guidances for SPOs
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?	Moderate	Minor Low potential for invasive species of flora or fauna to be introduced, but strict controls are in place, and the probability of invasion is therefore low.	Engagement of private sector/research institutions for seeds/breeds multiplication in relation of fodder is foreseen. Procurement is needed to limit the risk of spillage of invasive varieties and to use specifications for inputs and inspections.
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Substantial	Moderate Project requires procurement of natural resources through primary suppliers, and resource extraction is tightly regulated	Licensing will be a requirement of third-party providers and will be subject to preliminary evaluation checks whenever sourcing natural resource inputs.
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?	Substantial	Moderate Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment is highly sensitive.	Use of IFAD standard SECAP clauses in contracts to ensure the supply, proper management and disposal of pollutants and incorporate well-designed and functional waste management facilities wherever processing facilities are present.

Environmental and Social Safeguards			
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Substantial	Moderate The project will require consumption of raw materials, energy, and/or water. This will be a significant component of the project, but impacts can be appropriately managed.	Include specifications for energy efficiency of equipment.
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)?	Moderate	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extension.	Ensure Defect Liability Periods for water infrastructure to ensure it is functional upon delivery.
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Moderate	Minor The project only requires minimal amounts of fertilizer	Specify fertilizers and inputs using acceptable standards.
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?	Substantial	Moderate The project requires use of pesticides, but options are available to replace potentially polluting pesticides with alternatives.	Specify pesticides using acceptable standards. Require use of PPEs for use by third party contracted workers.
Cultural Heritage	Risk Rating	Consequence	Guidances for SPOs
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)	Low	Minor The project is thought to be close to an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage. The site has been comprehensively surveyed, and all tangible and intangible cultural heritage is well known.	N/A
Labour and Working Conditions	Risk Rating	Consequence	Guidances for SPOs

Environmental and Social Safeguards			
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)	Substantial	Moderate The project operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. However, international value chains are not regularly audited for environmental or social performance.	Procurement can introduce occupational health & safety (OHS) standards for the construction of infrastructure. Measures relating to working conditions, national and international (ILO) labour laws, and international commitments will be included in the technical specifications of bidding documents and contractors will be required to abide by them.
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	Moderate The project does not operate in sectors or value chains where child labour was evident in the past. The status of forced labour regulation is currently unclear.	Procurement can ensure labour standards are enforced in the contracts and respected. Contracts should include a clause for compliance with national labour laws and ILO labour standards that prohibit child labour.
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.)	Substantial	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.	Procurement can intervene in the design of nitrogen plants to avoid spillage of toxic chemicals and to enforce occupational health & safety (OHS) standards at all levels. Measures relating to OSH, aimed at protecting project workers from injury, illness or impacts associated with exposure to hazards encountered in the workplace or while working will be included in the technical specifications of bidding documents and contractors will be required to abide by them.
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?	Substantial	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.	Use of acceptable standards for vaccines.

Environmental and Social Safeguards			
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)?	Low	Negligible The project takes place in buildings or other infrastructure that has been independently verified as being structurally sound.	Service providers to have appropriate trading/business licensing and included as part of preliminary evaluation checks.
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	Moderate	Minor The project involves the rehabilitation of dam(s) and/or reservoir(s) meeting at least one of the following criteria: - less than 10 metre high wall; - less than 300m long crest; or - less than 1 million m3 reservoir capacity.	Use of IFAD SBDs for construction.
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)?	Moderate	Minor The project has only minor involvement with the transport, storage, and use and/or disposal of hazardous or dangerous materials, and regulation of hazardous materials is effective.	Suppliers to have appropriate licensing and included as part of preliminary evaluation checks.
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)?	Moderate	Moderate Moderate adverse impacts to ecosystems and their services that could negatively affect the health of communities in the direct vicinity of the project are possible, but similar projects have shown that impacts can be mitigated or offset through schemes such as Payment for Ecosystem Services.	For major civil works, contractors to include experienced Environmental and Social Safeguards Specialists among key staff; and use of IFAD SECAP provisions in contracting.
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?	Moderate	Moderate Moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence interventions are integrated into project design.	Solicitation and contracting should include provisions on prohibited practices and IFAD self-certification requirements.

Environmental and Social Safeguards			
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	Moderate	Minor The project will result in minor increases to traffic volume. Only minor increase in risk of injury or death.	N/A
6.9 Could the project lead to an influx of project workers?	Moderate	Minor The project requires the employment of new labour, but workers can be sourced from local communities, and so influx is kept to a minimum, and risks are effectively managed.	N/A
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	Moderate	Minor A small number of security personnel are required, but they are well trained, and protocols are in place.	N/A
Physical and economic resettlement	Risk Rating	Consequence	Guidances for SPOs
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?	Low	Minor The project will result in minor impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights. Legal recourse and other forms of arbitration/conflict resolution are available.	N/A
Financial intermediaries and direct investments	Risk Rating	Consequence	Guidances for SPOs
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?	Low	Minor The institution employs an ES Officer, and employs field staff to implement the ESMS.	Ensure selection processes have provisions and criteria on qualifications for key staff.

III.3. MONITORING, EVALUATION, KNOWLEDGE MANAGEMENT AND COMMUNICATION

III.3.1. MONITORING AND EVALUATION

496. M&E for IFAD programme in Uganda has been consistently a low performing area for the programme. The necessary efforts to develop capacity to ensure the proper functioning of an M&E system has not been carefully supported enough. There has been very little data collection in relation to benefits achieved and over-emphasis on outputs - and not on the links between inputs and outcomes and impact. Furthermore, there were consistent delays in undertaking the relevant surveys to ensure timely data availability for Baseline, MTR, and Completion. ReLIV will ensure that a strong M&E system is in place and will build on lessons learnt from IFAD interventions in the ESA region.

497. Monitoring and Evaluation (M&E) system for ReLIV will be developed by the PCU M&E unit with the assistance of IFAD ICO within the first year of the project as a tool for effective project implementation management. The M&E system will enable IFAD, MAAIF and the stakeholders to monitor Project's internal performance. The objective of the tool is to collect reliable data and information for measuring performance and progress towards achievement of results; and to provide information about success and failures, so that corrective measures can be taken for successful implementation of project activities. It will be also used as a learning tool to provide information for critical reflection on project strategies and operations and supporting decision-making at various levels as a basis for results based management. During the initial years, the project monitoring system will provide information to see how the project activities are being implemented and what adjustments are required to be made in the course of implementation, and later as a tool to assess achievement of outcomes and impacts.

498. The results-based approach will be adopted, involving regular recording of, and accounting for progress against AWPB targets; and routine, periodic assessments of movement towards beneficiary impact. The M&E and Knowledge Management unit will be responsible for all M&E activities, based on the IFAD Guide, which specifies a matrix and performance checklist to orient the selection of indicators, baseline data, methods for data collection, synthesis and a communication strategy for lessons learned. Service providers, contractors, and beneficiary groups will be the prime sources of data emanating from grass roots activities. The Project draft M&E matrix will be prepared in a participatory manner as part of the start-up activities in line with the logical framework

3.1.1 Planning

499. The main planning tool for the ReLIV will be the Annual Work Plan and Budget (AWPB). The AWPB is an essential covenant in the legal Financing Agreement. The failure to prepare it on a timely, annual basis, may lead to delay or suspension of loan and grant disbursements on the part of IFAD. AWPB serves both as a tool for guiding project implementation and as a collection of benchmarks against which actual implementation progress can be measured throughout the year. A poorly thought-through and prepared AWPB may cause a loss of purpose and direction in implementation, give rise to the need for resource-consuming ad-hoc problem solving when unforeseen (but foreseeable) obstacles to implementation surface during the year, and make it difficult to ascertain if implementation progress is on track.

500. This will be prepared using a participatory bottom-up approach from the implementation partners. Each of the Agencies will be responsible for setting their priorities for the year as guided by the Project Design Report after which they will define the activities, prepare the AWPBs and submit their respective plans to the PCU. The same process will be undertaken at participating district level where input will be received from the beneficiary sub-counties and compiled at the district level, approved

by the District Councils, and submitted to the PCU. The submitted AWPBs from the Agencies and District Local Governments will be consolidated into one project AWPB which will then be submitted to the Project Steering Committee for review and approval. The PSC will review and approve the AWPB after which it will be submitted to the Ministry of Agriculture, Animal Industry and Fisheries to be consolidated as part of the Ministry AWPB and the Ministerial Policy Statement to the Parliament. The AWPB will be in line with the logical framework and guide implementation of activities in the Agencies and District Local Government against the benchmarks for measuring annual implementation progress. The PCU will prepare the AWPB as per the following table of contents:

Main Text:

A. Introduction

A.1 Project Outline

A.2 The Annual Planning Process and This AWPB

B. Implementation Progress and Performance

C. Project Strategy and Focus for the Coming Year

C.1 Key Constraints and Required Actions

C.2 Overall Strategic Focus

C.3 Components

D. Consolidated Annual Budget

Annexes:

Annex 1. The Logical Framework

Annex 2. Procurement Plan

Annex 3. Staff Development Plan

Annex 4. Detailed Work Plans and Budgets

Data and information to be provided in each one of the above sections are described in the following paragraphs.

A. Introduction

The introduction would give brief background information about the project and the AWPB in two sub-sections: (i) Project Outline; and (ii) the AWPB.

A.1 The Project Outline would give a quick overview of the project, summarizing the main features. This outline will be written once and used for all future AWPBs, with minor changes as may be necessary, as follows:

- The project cost and financiers (government, and financing agreements details);
- Key project dates (signing of agreements, project completion and closing dates);
- The project area and target group;
- The project goal and objectives;
- A short description of the project components and stating the purpose of the component, the types of interventions, and who is responsible for implementation;

- The main coordination and management bodies.

A.2 Annual Plan and Budget: This sub-section should briefly describe the process that has led to this AWPB, such as community-based planning that has taken place, consultations with other stakeholders, planning workshops held to discuss and synchronize the plans of various implementing agencies, etc.. It is useful to describe what really happened, and if there are weaknesses in the process, mention them and what should be done to improve the situation next year. This sub-section could also be used to highlight some key considerations that influenced the AWPB, for example: plans and budgets were reduced because they were considered too ambitious compared to implementation capacity and the performance of previous years. Finally, explain the structure of the AWPB itself, especially if it has changed since last time.

B. Implementation Progress and Performance

This section of about 2-4 pages should present information on the project's current status, progress with implementation to date, problems experienced, lessons learned and changes in the external environment. The stage the project has reached in general terms and overall performance from a financial point of view could be illustrated with expenditure to date: this information can be based on last year's Annual Report and updated with data for the current year. It will set the stage for next year's plan. Since this section looks at the past, the information can to a large extent be copied from last year's Annual Report, and then updated based on experience of the current year. This section would summarize at least the overall performance of the project and progress by component over the past years and what specific outputs have been produced, what interventions have been successful and why, where implementation progress has been good and where it has been problematic. Presenting this information by component would provide a basis for setting priorities for the next year. The facts and figures should be available from the M&E system, and analysis of implementation performance should be available in implementing agency reports and from (annual) review workshops.

C. Project Strategy and Focus for the Coming Year

The AWPB should explain the activities expected to be carried out during the next year. This section should describe the annual planning process that took place, summarize critical constraints that have been identified and that need to be addressed, and describe the main focus for the year, new strategic directions, and the scope of activities for each project component. It would typically be 4-8 pages in size. This key narrative section should find a balance between simply listing proposed activities without sufficient explanation and justification, and too complicated presentation with excessive detail, in which case the AWPB would almost become another appraisal report.

C.1 Key Constraints and Required Actions: The purpose of this sub-section in the AWPB is to list the constraints that will need particular attention during the coming year; to identify what should be done to resolve these constraints; and to indicate who should be involved in problem solving. A simple table may be a good way to present this in the AWPB and the "actions required" in this table should be translated into project activities in the detailed activity and budget tables.

C.2 Overall Strategic Focus: Any changes in the logical framework, and the general focus and direction of project implementation, would be described and justified in this sub-section. This could include aspects such as proposed expansion of the project area; changes in the management structure or implementation responsibilities; launching a general capacity building campaign; and an indication whether the focus is on consolidation and replication of interventions of previous years or the opposite, on venturing into new research and pilot activities.

C.3 Components: This sub-section would describe the general focus; types of activities to be implemented and specific outputs to be produced by each component and specific outputs to be produced; whether there is any particular geographical focus; and whether new implementing institutions or a different division of responsibilities among implementing institutions will be put in place. Where necessary, reference would be made to the planning and budget tables in Annex 4, where details can be found for each specific activity.

D. Consolidated Annual Budget

This section with budget summary tables should present a clear overview of the financial picture for the coming year: where and on what will the money be spent? As a minimum, budget summary tables should present three budget summaries: (a) consolidated budget by component and cost centres; (b) consolidated budget by category and cost centres 9); and (c) consolidated budget by financier.

Cost centres can be geographical areas where the project is implemented (e.g. the 3 governorates each could be a cost centre), or institutions, or both. For each component, category and cost centre, the budget amount should be given as the proportion of the total annual budget. This makes it easy to compare how the budget will be divided between different areas, institutions, components, and categories. The tables should be accompanied by brief comments; to explain anything that might raise questions in the tables, for example why a certain district will receive much less money or why a certain component takes such a high proportion of the overall budget.

Annex 1. The Logical Framework

The Project's Logical Framework should be presented as a part of the AWPB. This matrix may be a different version from the one in the project design or from last year, in which case the changes that have been made should be pointed out.

Annex 2. Procurement Plan

Procurement Plan for Works goods and services is an important requirement and should be included in the AWPB and updated every year. The format of the Procurement Plan should follow that of the 18 Month Procurement Plan presented in Project Design Report and in Annex B4 of this Manual.

Annex 3. Staff Development Plan

Staff capacity development involves defining the staff who should be involved in project implementation in the first place (numbers, qualifications and experience); and in addition, defining who should be trained, in what they should be trained, and how training should be carried out. This Annex should show the key areas where staff development will be focused, by listing the proposed capacity building activities for the year.

Annex 4. Detailed Work Plans and Budgets

In addition to the main text, the AWPB should contain tables with detailed output/activity tables and their costs listed as line items, organized by component, geographical area, or institution. See the following AWPB Forms.

TABLE -1: ACTIVITY BY QUARTER AND AREA OF OPERATION

Project Year: __ (1 July – 30 June 20__)

Component/ Sub-component: _____

Items of Expenditure	Units	Physical Target				Total	Area of Operation	
		Qtr 1	Qtr 2	Qtr 3	Qtr 4		District	County
I. Investment Costs								
Sub-component 1								
Activity 1								
Activity 2								
Activity 3								
Sub-component 2								
Activity 1								
Activity 2								
Activity 3								
II. Recurrent Costs								
Sub-component 1								
Activity 1								
Activity 2								
Activity 3								
Sub-component 2								
Activity 1								
Activity 2								
Activity 3								

TABLE - 2: DETAILED BUDGET

Project Year: __ (1 July – 30 June 20__)

Component/ Sub-component: _____

Items of expenditure by Subcomponent	Units	Unit Cost	Quantity					Cost (USD)					Category (according to Financing Agreement)
			Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total	
I. Investment Costs													
Sub-component 1													
Activity 1													
Activity 2													
Activity 3													
Sub-component 2													
Activity 1													
Activity 2													
II. Recurrent Costs													
Sub-component 1													
Activity 1													
Activity 2													
Activity 3													
Sub-component 2													
Activity 1													
Total Recurrent Costs													
Total Costs													

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TABLE - 3: DETAILED BUDGET BY COMPONENT; SUB-COMPONENT & FINANCIERS

Project Year: __ (1 July - 30 June 20__)

Component/ Sub-component: _____

Items of expenditure Component and Subcomponents	Q 1	Q 2	Q 3	Q 4	Total (USD)	Cat.	Financiers						
							GOU	IFAD	GCF	GEF	ARCAFIM	Bene	
I. Investment Costs													
Component 1													
Sub-component 1													
Activity 1													
Activity 2													
Sub-component 2													
Activity 1													
Component 2													
Sub-component 1													
Total Investment Costs													
II. Recurrent Costs													
Component 1													
Sub-component 1													
Activity 1													
Activity 2													
Sub-component 2													
Activity 1													
Activity 2													

Total Recurrent Costs													
Total Costs													

TABLE -4 ANNUAL FINANCING PLAN

Project Year: __ (1 July - 30 June 20__)

Component/ Subcomponents		Total Cost (USD)	Disbursement Category	Financiers								
				GOU	IFAD		GCF	GEF	ARCAFIM	Benef.		
					PBAS	BRAM						
Component Sub- Component Activity	Activity Item 1											
	Activity Item 2											
	Activity Item 3											
Component Sub- Component Activity	Activity Item 1											
	Activity Item 2											
	Activity Item 3											
Component Sub- Component Activity	Activity Item 1											
	Activity Item 2											
	Activity Item 3											
Component Sub- Component Activity	Activity Item 1											
	Activity Item 2											
	Activity Item 3											
Component Sub- Component Activity	Activity Item 1											
	Activity											

Activity	Item 2									
	Activity Item 3									

TABLE -5: THE TIME PLAN OF ACTIONS

Project Year: __ (1 July – 30 June 20__)

Component: _____

No	Planned Activities	Activity Schedule											
		1 st Quarter			2 nd Quarter			3 rd Quarter			4 th Quarter		
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
	Sub-component 1												
	Activity 1												
	Activity 2												
	Activity 3												
	Sub-component 2												
	Activity 1												
	Activity 2												
	Activity 3												

3.1.2 M&E system

501. ReLIV will develop a robust results based M&E system in compliance with IFAD and GOU requirements. The ReLIV M&E system will account for progress by the project against the AWPB targets; periodic assessment of movements towards achievement of the project outcomes and impact. The M&E Unit of the ReLIV PCU will have overall responsibility of the M&E system and will work closely with Planners/ M&E officers/ focal points of NAGRC & DB, NARO, DDA, DAR and, the Production and Marketing Officers of the different District Local Governments. These will be responsible for collection, entry, and analysis of data at the different Agencies/ District Local Governments after which the data will be submitted to the PCU for further analysis and aggregation onto M&E dashboards showing the projects Results Management Framework. The Operations Results Management System (ORMS) will be incorporated within the M&E system along with the Annual Outcome Survey tool which will allow for effective monitoring of the different project indicators. The M&E activities will take into consideration the following:

(i) data to be disaggregated by sex, age category, investment in either dairy or beef animals, targeting groups; (ii) progress reporting will be in comparison with the appraisal targets and the AWPB; (iii) quarterly meetings at the PCU with the presence of the M&E Officers of the Implementing Agencies to discuss implementation progress versus targets; (iv) regular visits from the M&E Specialist, Component Officers and the respective Agency Activity leads; (v) documenting stories from the field for different project beneficiaries in the different components; and, (vi) reporting on lessons learned and best practices and working on scaling-up.

502. The key M&E activities will comprise the (i) PIM; (ii) Baseline survey following the COI guidelines which will provide baseline data for the programme M&E indicators, cover both the beneficiary villages and control village (with a representative sample size), which will be updated annually in the ReLIV Results Management Framework to track the different indicators over time and support analysis to ensure that ReLIV activities are on the right track to achieve the targets; (iii) progress reports, involving physical and financial reports tied to the AWPB targets; and, (iv) annual outcome survey reports which will have representative samples to assess the progress towards achieving the project outcomes; (v) a COI midterm evaluation which will again cover both the beneficiary households and households from the control group and feed into the Project Mid Term Review; and, (vi) a COI completion evaluation also covering both the beneficiary households and the control group and will inform the Project Completion Report. The progress reports will compare the actual achievements against the planned, including expenditures, and explain any variations. Quarterly reports using the Government of Uganda format will be prepared and submitted to MAAIF. Half year and Annual reports will be prepared and submitted to IFAD and will have tabular spreadsheets showing activities, quantitative inputs and outputs, number of beneficiaries disaggregated by sex and activities they have participated in, and, implementation constraints and actions taken. The progress reports will also serve as knowledge products. The COI baseline, midline and endline evaluations will use the same questionnaires to allow for comparison against baseline results, enable qualitative analysis (by beneficiary status, village, district, and gender of the household head) of the project impact by interviewing a panel of households.

3.1.2.1 Setting up the system

503. The M&E system is the set of planning, information gathering and synthesis, reflection and reporting processes, along with the necessary supporting conditions and capacities required for the outputs of M&E to make a valuable contribution to decision-making and learning. Key project stakeholders need to develop the different elements of the system together if they are all to use the outputs to improve implementation.

504. Setting up an M&E system involves six steps that need to be dealt with twice - generally at initial design and in detail at start-up:

1. Establishing the purpose and scope - Why do we need M&E and how comprehensive should our M&E system be?
2. Identifying performance questions, information needs and indicators - What do we need to know to monitor and evaluate the project in order to manage it well?
3. Planning information gathering and organizing - How will the required information be gathered and organized?
4. Planning critical reflection processes and events - How will we make sense of the information gathered and use it to make improvements?
5. Planning for quality communication and reporting - What, how and to whom do we want to communicate in terms of our project activities and processes?
6. Planning for the necessary conditions and capacities - What is needed to ensure that the M&E system actually works?

505. These steps can be used at the start-up phase of ReLIV or when revising and expanding the M&E system.

506. The purpose of monitoring the activities and the different components of the project is to enable the management to track the progress or any obstacles facing the project and modify the plan if required. This requires designing a plan for monitoring and evaluation including the actual activities that are implemented and their indicators. In developing the M&E system, it was taken into consideration the IFAD requirements that were provided in the project design and the project implementation manual. In the following the tasks required for the monitoring and evaluation will be presented with highlighting the IFAD requirements.

507. The M&E system will be operationalized with the development of a thorough M&E plan that will define these operational details throughout the project document and will serve as a living document to guide the core M&E functionality of planning, tracking and assessing results. The M&E plan will include, but not be limited to the following: (i) a description of the M&E approach; (ii) thorough details of the processes and activities to be implemented; (iii) the tools to be used for data collection and processing; (iv) the deliverables to be produced and, (v) the responsibilities for each involved stakeholder.

508. The M&E plan will also provide guidance for the following: (i) development a Project Level Results Framework that encompass the broader Government and project indicators that will capture beyond the indicators outlined in the IFAD Logical Framework; and, (ii) glossary of the contextual elaborations of Project IFAD core indicators definitions and methods of measure and reporting.

509. The M&E plan will provide the necessary data collection forms, report templates, the progress report outline, survey terms of references (TORs) and questionnaires. A guideline of the development of the ReLIV M&E plan has been provided in the following sections of this manual.

510. The following table summarizes the expected M&E tasks during the different stages in IFAD projects life cycle.

Phase	Tasks
<i>Early design phase (formulation and appraisal)</i>	<ul style="list-style-type: none"> • Establish the scope and purpose of the M&E system. • Indicate key performance questions and indicators, plus associated monitoring mechanisms. • Identify organizational arrangements for M&E. • Develop terms of reference for M&E staff. • Indicate the process for how M&E is to be established during start-up. • Establish an indicative M&E budget. • Document the above in the M&E framework.
<i>Start-up prior to loan effectiveness (with the Special Operating Fund)</i>	<ul style="list-style-type: none"> • Revise performance questions, indicators and monitoring mechanisms after reviewing the project strategy. • Organize training with staff and partners likely to be involved in M&E. • Initiate baseline studies, as appropriate. • Prepare a project implementation manual with key staff.
<i>Start-up after loan effectiveness</i>	<ul style="list-style-type: none"> • Review project design in relation to M&E with key stakeholders. • Develop a detailed M&E plan, taking into consideration existing mechanisms with partners. • Put in place necessary conditions and capacities for M&E to be implemented.

Main implementation	<ul style="list-style-type: none"> • Ensure information needs for management are met. • Coordinate information gathering and management. • Facilitate informal information gathering and communication. • Support regular review meetings and processes with all implementers. • Prepare for supervision missions. • Prepare for and facilitate the annual project review. • Conduct focused studies on emerging questions. • Communicate results to stakeholders. • Prepare annual progress reports.
Mid-term review (MTR)	<ul style="list-style-type: none"> • Collate information for the mid-term review. • Facilitate the internal review process to prepare for the external review process. • Help respond to MTR feedback. • Adjust the M&E system, as necessary.
Phasing-out and completion	<ul style="list-style-type: none"> • Assess what the implementers can do to sustain impact and sustain M&E after closing down - and implement these ideas. • Hold workshops and do field studies with key stakeholders to assess impacts. • Identify lessons learned for the next phase and/or other projects.

3.1.2.2 Management Information System

511. The Project Management Information System (MIS) will be another key component that will feed into the ReLIV M&E system and will be the core basis for planning, data collection and reporting at the field level. ReLIV will leverage the current use of the MAAIF NFASS to create new modules of data collection and reporting templates that will allow data collection through digital mobile data collection applications, through tablets, to improve the efficiency and timelines of data collection and reporting.

512. The MIS will have a digitalized logframe and also dashboards with the project results framework that will capture additional indicators important at project level and detailed disaggregation's of indicators. The MIS will also have a digitized beneficiary database that will link each beneficiary to the ReLIV support provided. The specific standardized output data collection templates from the MCCs, MCPs, FFS, NARO, NAGRC & DB and DDA will need to be developed and digitized into the MIS. The ReLIV PCU will develop the data collection templates at start up to ensure early migration into the MIS.

513. The ReLIV MIS will have the capabilities of having innovative GIS application where a geo-database with spatial data on beneficiaries and interventions will be collected and allow the creation of different layered maps. These maps will be giving visual spatial presentations of analysis of interventions to stakeholders.

514. ReLIV will recruit an MIS firm to conduct the following: (i) assess the capacity of the NFASS to respond to the ReLIV requirements; (ii) design and upload an MIS and GIS module onto the NFASS; (iii) create an MIS and GIS operation manual; (iv) train the ReLIV team and partners on its use; and, (v) conduct routine maintenance on the ReLIV MIS modules.

515. A Database of programme beneficiaries will be established by each agency for use at their level. This database will include detailed information about each beneficiary (socio-economic indicators such as age, gender, targeting category, HH level assets and land size and farming activities). The database will be consolidated at the PCU by the

M&E unit and feed into the MIS. This database will be utilized for different purposes including sampling for the different surveys, tracking the beneficiaries outreach as well as selection of beneficiaries to visit during the supervision missions.

3.1.2.3 Reporting

516. The ReLIV M&E Unit will bear the overall responsibility for timely and quality reporting. The Unit will work closely with the M&E Officers/ focal points in the different Agencies and the District Focal Points assigned the ReLIV responsibilities by the Chief Administrative Officers. At the district level, the reports shall be reviewed and approved by the Chief Administrative Officers who will submit them to the PMU. At the Agencies, the reports shall be reviewed and approved by the Executive Directors/ Heads of Agency while at the Directorate of Animal Resources, the reports shall be reviewed and approved by the Director of Animal resources before submission to the PMU. At the PMU, the reports shall be reviewed by the respective technical unit/ section heads who will provide comments to the Project Coordinator. The M&E Unit will facilitate the review process and consolidate the periodic reports to both Government of Uganda and IFAD. Standardized progress reporting templates will be developed for the following: (i) MCCs, MCPs, FFS groups, NaLIRRI, NAGRC & DB, DDA and the Directorate of Animal Resources (tailored to each) and districts.

517. The PCU will consolidate and submit semi-annual and annual reports to IFAD, alongside the quarterly reports and annual reports to Government of Uganda. The semi-annual and Annual Reports to IFAD will consolidate input from all the agencies and DLGs showing progress against the AWPB. The six-month progress reports will be submitted to PCU no later than 15 July and 15 January, each year. The PCU will, in turn, submit the Project Progress reports to PSC and IFAD within one month from the end of these reporting periods (no later than 31 July and 31 January respectively). The Project Progress Report will have the following format and content.

518. Format of Progress Reports

519. Section A – Introduction: A brief summary of the Project Objectives and the design features as is given in the Project Design Report will be presented in this section. It will be written once and used for all future Progress Reports, with minor changes as may be necessary.

520. Section B - Executive Summary: A brief summary of the content of the report will be presented in this section, highlighting performance during the project period and to date; trends; explanations for large variations from the initially set Project Design Report targets and objectives; problems and issues, if any; and proposed action during the next reporting period and beyond.

521. Section C - Detailed Report: This section will include the following: (a) Descriptions of the Progress made during the reporting period and to date (by components, sub-components and activities); (b) Sources and Uses of Funds Statement; (c) Statement of Use of Funds by Expenditure Type and by Components; (d) Reconciliation of the IFAD funded Special Accounts; (e) Output Monitoring Report; (f) Procurement Report; and (g) Other Relevant Reports. The information contained in the above statements and tables will provide the linkages between physical and financial progress.

522. (a) Progress Made by the Project: This part will be a summary of the most important aspects of project implementation to date including any special issues that have surfaced and with suggestions for resolution. It will concisely describe and highlight: progress of all key project components including physical works, implementation and project output, actual costs incurred vs. estimates, financing received from IFAD and GOE, as well as major expenditures, large procurements carried out and disbursement performance, critical studies undertaken, technical assistance and

training received. It will assess performance in reaching and benefiting the intended target groups, in particular the poorer, as well as gender equity in participation and benefits. It will include numerical information on activities, numbers of participants (male and female) and information about the socio-economic status of individual participants.

523. (b) Sources and Uses of Funds Statement for the Reporting Period and Year-to-Date. This table will indicate the opening cash and bank balances, listing of the sources and amounts of funds received and expenditures by project component and in line with the IFAD loan/ grant withdrawal schedule in the respective agreements, and the cash and bank balances. It also shows cumulative figures to date side by side.

524. (c) Statement of Use of Funds by Expenditure Type - These tables list expenditures by component, by expenditure type, and by disbursement categories. An important feature of these tables will be the comparative listing of the actual expenditure figures with the estimates from the latest Annual Work Plan & Budget (AWPB) and the showing of the variances and appropriate explanation for each such variance. The total estimated base costs of the project components and expenditure categories as per the appraisal report will also be shown side by side.

525. (d) Output Monitoring Report - Physical progress and expenditures in relation to such progress will be presented here. The output indicators will be taken from the physical performance targets set at appraisal. Here again, actual and targets set at appraisal will be compared and explanation provided for deviations.

526. (e) Procurement Report (Updated Procurement Plan) - The Procurement Report consists of the approved Procurement Plan at grant effectiveness and duly up dated and all the key procurements made on behalf of the project and their status as at the end of the reporting period. The Procurement Report will also include all key procurement of works, vehicles, equipment, goods and consulting and other services undertaken by the project since project start up.

527. (f) Other Relevant Aspects - Status on the following aspects of the project will be included in this part of the progress report: (i) Organization and Staffing: The progress report will include the latest organization chart of the Project. The Chart will give the names, titles, and sex of all senior staff and any changes in the senior management and project compensation details will be reported. (ii) Accounts and Audit: This part will describe the status of the NPCU's books of accounts, preparation of quarterly accounts, readiness for the accounts for annual audit and progress or completion of the audit (during the appropriate quarter). Where audits have been completed, key findings, observations, qualifications, and recommendations of the auditors will be provided in this part of the progress report. (iii) Compliance with Conditionality/Legal Covenants: Status of compliance with all stipulated conditions included as covenants in the loan agreement will be given. Problem relating to non-compliance of any legal covenant will also be highlighted with suggested resolution.

528. **Internal Progress Reports.**

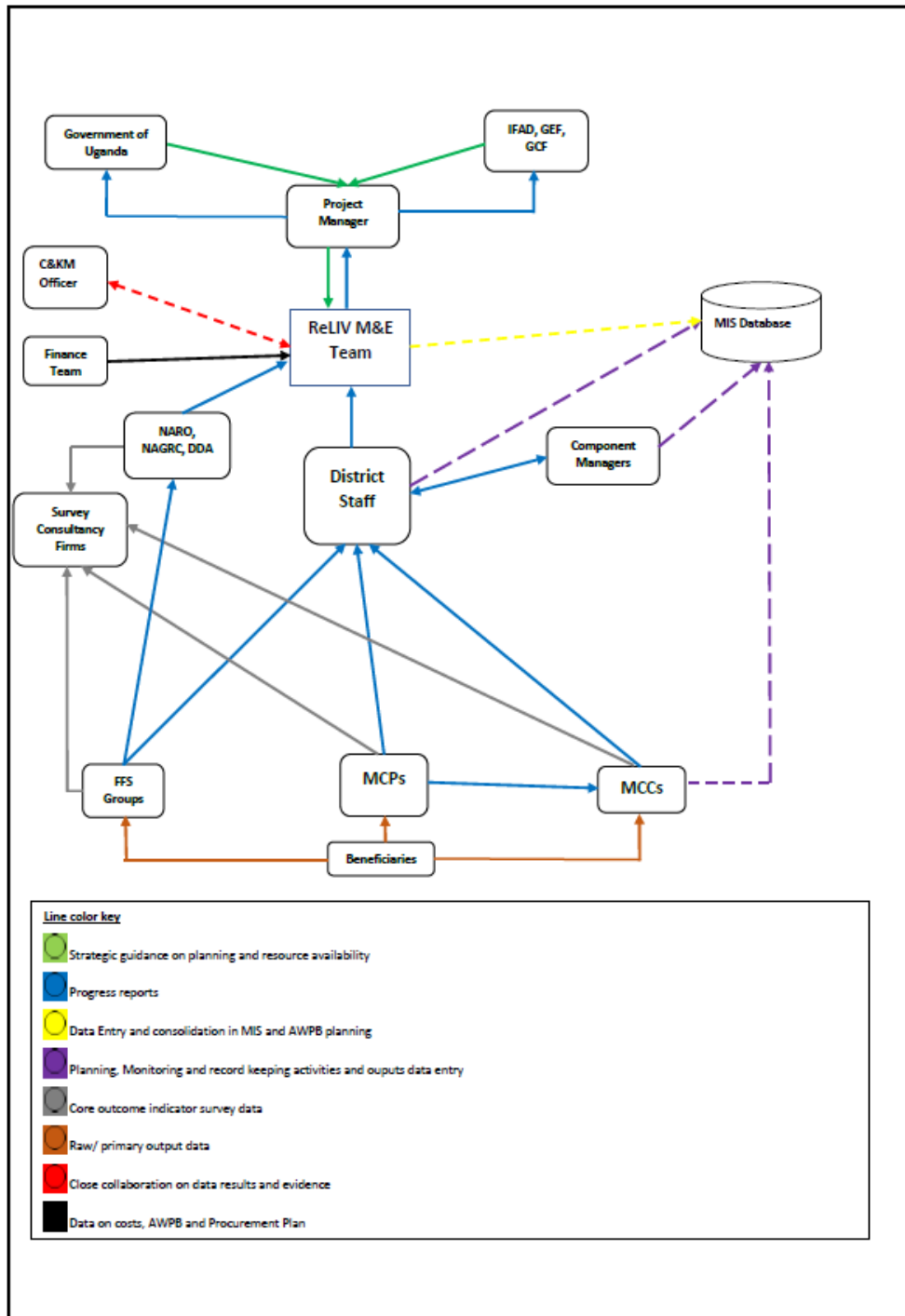
529. **Monthly progress reports.** Each Agency shall produce a monthly progress report covering the key issue related to the implementation progress and to be submitted to the M&E unit at the PCU no later than 7 days after the end of each month. The following sections will be included in the monthly progress reports: i) Introduction and summary of achievements: this will show the summary of the achievements in relation to what was planned under the AWPB. ii) Physical progress: the list of indicators under the M&E matrix will be shown in this table including the actuals for each month and the cumulative for the AWPB and the project targets. iii) Financial progress: financial table to show the actual expenditures by activity in comparison with the targets from the AWPB and the appraisal targets. iv) Key Issues for the month and recommendations: any issues related to delays in implementation or any obstacles that require management attention will be presented in this section.

530. **Quarterly progress reports.** Each agency will produce a quarterly progress report and submit it to the M&E unit at the PCU no later than 2 weeks after the end of the respective quarter. The progress reports will include: i) qualitative and quantitative progress made in implementing the project and achieving objectives; ii) problems encountered during reporting period; iii) steps taken or proposed to be taken to remedy these problems. This section includes proposals on how to resolve the issue, and will serve to inform decision-making in the PCU and the PSC; iv) the proposed programme of activities and progress expected during the following reporting period. While the primary users of the information on quarterly implementation progress are project management and other local stakeholders, there is also a need for M&E systems and reports to satisfy minimum requirements by IFAD

531. The flow of information with the several different stakeholders will be important as it will allow the PCU and its M&E function to understand the flow of information and what is the expectation from each stakeholder and implementation partner.

532. The ReLIV M&E team can use the following sample in the figure below, that is common with IFAD – funded projects, as a guide in creating the required flow in M&E data and information to the relevant stakeholders.

533. The development of this flow chart will also be important to all other stakeholders for them to know what is required from them in project implementation.



3.1.2.4 Core Outcome Indicator Surveys and Assessments

534. As per the IFAD requirements, ReLIV will be required to conduct surveys at baseline, midline and end line for all outcome indicators. In particular, ReLIV will contract an external evaluation consulting firm to conduct the surveys in line with the mandatory IFAD COI guidelines and methodologies. The COI guidelines and online video trainings are below:

535. COI guidelines: https://www.ifad.org/documents/38714170/42870514/coim_guidelines_e.pdf/bed6993e-1a1a-6683-bd3c-6fc9bb0e5aac?t=1619708052741

COI appendices of questionnaire and Survey:

https://www.ifad.org/documents/38714170/42870514/coim_guidelines_appendix_e.pdf/9982a2d3-e38f-5b88-e0f7-81baf5e509a0?t=1619708054014

COI training video module:

https://www.ifad.org/en/web/knowledge/-/core-outcome-indicators-measurement-guidelines-coi-online-training?p_l_back_url=%2Fen%2Fweb%2Fknowledge%2Flearning

Survey Methodology

536. It is essential for the whole ReLIV team to learn and thoroughly understand the COI guidelines and the provided tools are key for this learning process. For the questionnaire design, the COI appendices are the most important resource as this is where all questions from each indicator must be derived from and should be contextualized appropriately to the project interventions.

537. It will be important and more effective for the project to conduct the survey on the same sample throughout baseline, midline and end line, if feasible.

538. Furthermore, the sample will contain treatment and control groups where the treatment are those beneficiaries who are accessing support and the control groups are those that have not received any ReLIV intervention, either directly or indirectly. This will be important data when conducting a comparative analysis to ascertain attribution of ReLIV interventions in the survey reports at mid-line and end-line.

ReLIV Logframe COIs

539. The ReLIV team will use the guidelines referred to above to profile each of the relevant COI indicators. For each indicator, profiles show the definition, the data source and method of collection, the unit surveyed, how it will be measured, the COI related questions, the Determination of the value of the indicator, the mandatory disaggregation, and the SDG target it relates to. Beyond the COI indicators, the ReLIV M&E Unit will also profile the non-COI indicators and use the same profiling format as that of the COI indicators. For the baseline, midline and endline surveys, the consultancy firms will use the COI guidelines to select questions for the COI outcome and output indicators and work with the PMU and Agencies to determine the questions for the non – COI indicators in the logical framework and results management framework.

IFAD COI ref	Description
1	Persons receiving services promoted or supported by the project
1a.	Corresponding total number of household members
1b.	Estimated corresponding number of households reached
1.1.3	Rural producers accessing production inputs and/ or technological packages
1.1.4	Persons trained in production practices and/ or technologies
1.1.5	Persons in rural areas accessing financial services
1.1.8	Households provided with targeted support to improve their nutrition
1.2.4	Households reporting an increase in production
1.2.5	Household reporting using rural financial services
1.2.8	Women reporting minimum dietary diversity (MDDW)
SF. 2.1	Households satisfied with project – supported services
2.1.3	Rural producers' organizations supported
2.2.5	Rural producers' organizations reporting an increase in sales
2.2.6	Households reporting improved physical access to markets, processing and storage facilities
SF 2.2	Households reporting they can influence decision making of local

	authorities and project supported service providers
Policy 3	Existing/ new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment
Policy 1	Policy relevant knowledge products completed
3.2.1	Tons of greenhouse gas emissions (tCO2e) avoided and/ or sequestered
3.2.2	Households reporting adoption of environmentally sustainable and climate – resilient technologies and practices

Glossary of ReLIV IFAD Core Indicators’ definitions

540. Lessons from previous and current project data reporting has shown evidence that the M&E and Implementation teams require further capacity in fully understanding the definitions of IFAD Core Indicators that are in the logframe. Indeed, the IFAD Core Indicators guidelines provide the general indicator definitions of what can and cannot be captured pertaining to the indicator. However, it is important to contextualize the definitions to align with the Project development objectives and interventions. Reliv will ensure that all Project staff and implementing partners understand what they need to capture when conducting routine monitoring of activities. This will be done through providing capacity to implementation teams on contextual definitions of the Project core indicators.

541. A guideline to the Project indicator definitions can be found in the Appendix. As the PIM is a ‘living document’, the ReLIV and PCU team will require to review these definitions and add further details at Project start-up. This session will be important because it will ensure that all teams understand what they will need to capture. Moreover, these definitions will have to be digitized and linked to each indicator in the Management Information System. This linkage will also allow these capturing data at the field level to validate if the outputs being captured are aligned with the indicator definitions.

542. This glossary of core indicator definitions will also be important for Service Providers who will be contracted to conduct the baseline, midline and end-line COI surveys. A glossary of elaborated the Project core indicator definitions can support in the understanding of what needs to be captured and what questions need to be contextualized in the IFAD COI questionnaires.

3.1.2.5 Staffing for M&E

543. The Monitoring and Evaluation unit at the PCU will be responsible for ensuring that a responsive M&E system is established and regular monitoring and progress reporting is in place for Project activities. The M&E unit at the PCU will comprise one M&E officer and one specialist. At each agency one focal M&E persons will be assigned and will have day-to-day responsibility for collecting and analysing data and preparing, as required but at minimum monthly reports, on progress and results achieved and implementation issues arising from monitoring activities. The DLG will have a key role in collecting the data from the field and reporting to the M&E focal person at the district level. Consolidation will be done by each M&E focal person and data is to be sent to the M&E unit at the PCU.

544. An early task of the M&E unit will be to establish a Monitoring and Evaluation Plan including a matrix to identify data sources and periodicity of reporting for the agreed indicators. The reports will be directed at Project management, but may be shared with the Project Steering Committee. Provisions have been made under the Project Management Component for office equipment and supplies that may be required. Implementation support and training for M&E/KM will be provided by IFAD regularly.

545. All Project staff are expected to be active participants in the M&E system where the overall coordination of information collection and flow will be guided by the M&E unit at NPCU. Quantitative and qualitative information will be collected at beneficiary level by

the young professionals using M&E indicators that have been developed by the M&E unit based on the M&E plan that includes a matrix to identify for the Project.

546. The gathered information will be shared both with PCU staff involved with the Project at the district as well as at the district levels. Clear reporting lines will be established with PCU in Kampala. The objective is to develop and operate a systematic Management information system (MIS) that focuses on strategic analysis, rather than on data compilation with limited transformation into information. The task will be to go from outputs, up the monitoring scale, to outcomes by transforming the information into knowledge about Project's impact. The accurate dissemination and reporting of the transformation will be dependent on the M&E staff's capacity to generate narratives on the why and how of the changes documented.

III.3.2 KNOWLEDGE MANAGEMENT, COMMUNICATION AND LEARNING

547. Project implementation is a continuous learning process in which evidence-based data will continuously be collected on innovations, technologies and will be analyzed, disseminated as KM Products that will mainly target policy influence and change. The ReLIV KM function will be complemented by the M&E Management Information System (MIS, routine field M&E visits and thematic studies) on which quantitative and qualitative data will be assessed in order to primarily develop: (i) policy level KM Products (policy, briefs, case studies, and working papers); (ii) beneficiary success stories; (iii) training manuals on technologies; and (iv) lessons learned.

548. The KM Officer will develop a comprehensive C & KM strategy that will provide for dissemination, visibility of project interventions, knowledge transfer, participation of key different stakeholders and direct project beneficiaries as a tool to develop a ReLIV specific KM action plan. The KM action plan will be finalized in the first year of the project implementation and will elaborate on the following KM areas: (i) provide project beneficiaries with the necessary material to sustain the technical knowledge acquired with the support of the project through production of training materials and communication platforms for sensitization and continuously assess their adoption; (ii) generate evidence – based knowledge acquired from the experience of the project in various fields based on the information collected as part of the monitoring of results or thematic studies to inform decision making of implementation and evaluate the ToC; and, (iii) share this knowledge in the form of tailored KM products outlined in the ReLIV Project C& KM strategy with the Technical Departments of the Ministry, IFAD, other donors and implementing partners using various dissemination strategies, which will help to complement the policy support activities under Component 1, as well as the implementation of PADNET, GCF and GEF.

549. Communication will be a key part of the integrated C & KM Strategy and the strategy will outline specific activities on how information is to be obtained, analyzed, and disseminated. Plans to support each aspect of the Knowledge Management, Communication, and Visibility will be integrated in the Project's AWPB. Due to budget challenges in KM in previous projects, as a lesson learned, funding has been adequately allocated for ReLIV. Specifically, the following key activities will be part of the ReLIV KM action plan: (i) develop a digital KM and Communications System portal; (ii) publishing and disseminating high level KM products (such as policy briefs/notes in key areas identified); and (iii) development of visibility products of the project-funded interventions.

550. Moreover, the ReLIV KM action plan shall include an outline on how knowledge will be disseminated using, but not limited to, the communication channels with the clear targets and tools to report evidence-based results; therein. Effective communication at all stakeholder levels (especially direct beneficiaries and policy-makers) will be critical to beneficiary learning and adoption of innovative practices, and policy influence at the National level. Moreover, ReLIV will leverage the expansion of the 50 x 2030 activities in

Uganda through the support of the IFAD Country Office to align with IFAD initiatives in the country context. The 50x2030 initiative is implemented by World Bank, FAO and IFAD. The goal is to support 50 Low / Lower Middle Income Countries (L/LMICs) to improve their agricultural statistics system by 2030. More specifically, the initiative supports countries to collect better and more reliable agricultural and rural data and assists them in using data for policy and in their decision-making processes.

551. In Uganda, the initiative has been supporting the country to collect data since 2018/19 and IFAD has been working with MAAIF to use data to produce knowledge products such as briefs and factsheets. So far, three briefs were produced on extension services, livestock and seed use; and five factsheets were developed (maize, cassava, beans, banana and coffee). The initiative, through IFAD, has trained 22 MAAIF staff to produce and developed knowledge products. Furthermore, the initiative helped build a network of agricultural and rural data users to advance evidence-based policies in Uganda by organizing data users' workshop. The initiative also provided research grants to 8 researchers since 2021 to work on policy questions using agricultural and rural data collected in the country. For example, the project will make use of the knowledge already developed mainly the livestock brief. The initiative could support the PMU in training and developing knowledge products.

552. The ReLIV KM action plan will include the following: (i) Knowledge management: the goal, objective and activities of ReLIV KM, Communication and Learning plans; (ii) the Project Knowledge management structure outlining roles and responsibilities at the Project level; (iii) KM-specific Strengths, Weaknesses, Opportunities and Threats (SWOT) to learn, document and build on from the experience and lessons from other Uganda IFAD-funded projects; (iv) methodology on monitoring KM activities; (v) innovation KM approaches to be explored regarding what can work well and what did not work well in other investments; and (vi) a clear KM results framework outlining project specific activities, indicators, targets, baseline, dissemination, responsibility and budget.

APPENDIX M&E 1: M&E Plan Outline for Guidance

Introduction

Explain what an M&E plan is and describe its purpose: *The M&E plan operationalizes the M&E system and spells out all the necessary operational details, ensuring smooth and proper functioning of the M&E system. Its purpose is to define how M&E will be conducted throughout the project period. It includes a description of the M&E approach, details the processes and activities to be carried out, describes the tools to be used for data collection and processing, indicates the deliverables to be produced and defines responsibilities. It provides all the necessary data collection forms, report templates, the progress report outline, survey TORs and questionnaire, etc.*

1. PROJECT BACKGROUND

1.1. Project summary

- Briefly describe the project's main characteristics (ideally not more than two pages).
- This part may not be needed if the M&E plan is included in the PIM and these elements are already described there.

1.1.1. Project goal, objectives and expected outcomes

1.1.2. Project components and main activities

1.1.3. Implementation period/duration

1.1.4. Project financing

1.2. Targeting strategy

The targeting strategy is determined at the project design stage and should be validated at start-up. However, it may evolve during implementation (for instance, because of a reduction in geographical scope, abandoning of selected value chains, etc.). If this is the case, this paragraph, as well as the M&E system and plan, should be revised accordingly. The subsequent sections dealing with project area, target groups and outreach should indicate their link with and involvement in M&E activities and processes.

1.2.1. Project area

- Indicate the different areas or regions covered by the Project and describe their particular social and agro-ecological characteristics.
- Identify the selection criteria and implementation approach (phasing, for example) for selected project areas.

Both aspects are important for M&E purposes: For instance, key Project area characteristics and selection criteria are required for development of the sampling strategy (outcome and other surveys requiring sampling) to ensure the

representativeness of the sample. Distances/access and overall size of the project area may also be problematic for field monitoring and require decentralized M&E staff.

1.2.2. Target group(s)

- Clearly define the different subgroups targeted for each Project activity and whether the beneficiaries of various activities overlap;

- Identify and describe the selection criteria. This is important, as this aspect is at the core of the surveys' sampling methodology;

- Detail each subgroup of beneficiaries (a chart can be prepared to visualize the overlaps; see example below).

1.2.3. Outreach

Based on the description of the Project area, target group(s) and the chart below, explain who the people corresponding to the three core outreach indicators (COIs) are and how their targets were set. This information is also presented in the M&E matrix (see appendix 1: M&E matrix).

Explain how the calculations for CI 1a and 1b will be made and describe how overlap/double-counting will be handled (estimation or MIS data form).

1.3. ToC and logframe

The ToC and logframe are prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members. They may evolve during implementation, however, in which case the related sections should be revised accordingly.

1.3.1. ToC

The ToC section explains how and why the Project is expected to effect change. It is a visual, structured way of outlining the steps needed to achieve project outcomes. Include the ToC diagram and related explanatory narrative (see ToC and logframe guidance for details)

1.3.2. Logframe

The latest version of the logframe matrix and the original logframe from the PDR are included in appendix 2 of the M&E plan. This section discusses the following aspects:

- **Preparation and validation process**

Explain how the logframe was prepared and validated based on the theory of change and how it reflects the ToC. The logframe (as well as the ToC) is prepared during design and validated at start-up in an interactive and participatory manner involving government representatives and mission members.

- **Modifications**

Present and justify modifications to the original logframe, if any. Some aspects of the project may change during implementation (the indicators and targets originally set in the logframe may be revised and adjusted to ensure that they remain relevant and useful), and the M&E plan should be adjusted accordingly. Note that justification for logframe modifications must be provided and IFAD clearance obtained.

- **Alignment with IFAD requirements and systems**

Explain the link with and functioning in the Operational Results Management System (ORMS) (IFAD system) and briefly describe the IFAD CI framework and corporate requirements (gender- or nutrition-sensitive, etc.), if any.

- **Integration in the MIS**

- Explain how the logframe is integrated in the project MIS: measurement of logframe indicators, automatic reporting, logframe reports generated, etc.

- **Logframe results reporting**

- Explain how and when the logframe is updated:

An assessment of progress toward achievement of the intended results as described in the logframe should take place during every supervision mission for the preparation of the annual report. Outcomes associated with project output indicators and the related targets should be included for all indicators and all project years.

With regard to outcome indicators, the outcomes and target levels should be provided at midterm and completion. After the midterm review (MTR) and until new data are available (at completion), results from the years following the MTR should use the MTR value for each outcome indicator.

1.3.3. Use of ToC and logframe

The logframe and ToC are the key references for developing the project M&E system, processes and tools. This section describes how the ToC and logframe are used in the preparation and execution of the M&E plan.

- **Project´s visualization and communication**

The ToC diagram is a visual representation of the project. It can be used as a communication tool and shared with project implementers and other stakeholders to explicitly show how the project works and create a shared understanding of it.

- **Planning**

The ToC and logframe serve as the basis for the preparation of the AWPB. In fact, as schematized in the ToC, activities (planned for in the AWPB) are converted to results (outputs and outcomes). This link should be made clear, and targets, in terms of activities, outputs and outcomes, must be consistent.

- **Progress monitoring and presentation**

The logframe represents a roadmap for project implementation, determining what to monitor and how and enabling progress of the indicators toward set targets at all levels

to be monitored by visualizing them on an annual basis and throughout the course of the project.

- **Data collection tools and templates**

The logframe serves as the basis for the development of data collection tools and templates, which should include all the information required for measuring the logframe indicators.

- **Effectiveness and achievement of the objectives**

The ToC and logframe are the basis for evaluation. They show the progress toward achievement of the results and indicate whether changes have occurred as expected, making it possible to assess the project's effectiveness.

2. PURPOSE AND SCOPE OF THE M&E SYSTEM

2.1. Guiding principles

This section presents the main conceptual underpinnings of the project M&E system (the list below is neither mandatory nor exhaustive and can be modified).

2.1.1. Results-based management (RBM)

Explain briefly how RBM is applied in the project, for instance:

- How the management strategy and implementation of activities are guided by the commitment toward achieving results.
- How it ensures interconnection of the planning, M&E and decision-making processes (more details are provided in a specific section of the M&E plan).
- How it relies on clear accountability and effective communication for timely resolution of any issue encountered.
- How performance/feedback reporting is used to improve implementation and extract lessons for future operations.

2.1.2. Participatory approach

Explain how the project incentivizes and implements a participatory approach, for example:

- How it ensures the different stakeholders' participation during the design, planning, implementation, monitoring and evaluation of the project.
- How it ensures that the needs of the different stakeholders are taken into account and how they are addressed in decision-making.
- How information and knowledge are regularly and openly shared with different stakeholders.

2.1.3. Geographic information system

- Describe GIS, if used, and which data are collected and how. Explain how GIS data are used, as well as their value added and implications – for example for data management.

2.1.4. M&E for decision-making

- Describe how the project M&E system informs decision-making at different levels:
- How relevant information is generated and shared;
- How it is used to support project management in decision-making and improve services delivered by the project.

2.1.5. Alignment with the national system

Explain whether/how the project M&E system:

- Is designed in close collaboration with government;
- Is aligned and compliant with national and local systems, if any;
- Integrates government milestones and data needs;
- Facilitates logframe reporting;
- Assists project management

2.2. M&E steps

2.2.1. Planning

Process

- describe the (annual) planning process, which culminates with government clearance and IFAD approval of the AWPB, by describing participants, indicating the main implementing partners, describing the steps in the consultative process and noting deadlines.

- In particular, provide a detailed description of the planning workshop and its purpose, since it is the key step in the planning process. In fact, the planning workshop is intended to determine the expected outputs (physical targets) for the coming year for each project component. The AWPB then describes the activities to be implemented to deliver these outputs and the financial resources (financial targets) required to do so.

Structure of the AWPB

Present the overall structure of the AWPB and main aspects addressed by the AWPB, for example:

- Explain the AWPB's link and consistency with logframe indicators and targets and the procurement plan.
- Indicate how the annual budget has been prepared based on current costs, and note budget constraints/limited absorption capacity, if relevant.

- The AWPB template is provided in appendix 4 of the M&E plan and includes an indicative table of contents, workplan and budget template table.

2.2.2. Monitoring

- This section provides a general description of the monitoring process and its characteristics. Details are provided in the following sections: 3. Roles and responsibilities; 5. Tools; and 6. Project reports and deliverables.

- Describe the main tasks: assess rates of physical execution of yearly planned activities against targets; verify compliance with agreed calendar and deadlines; and assess rate of financial execution against planned targets.

- Present what is measured: activities, inputs and outputs, and to some extent outcomes, in the AWPB and logframe against physical targets

- Briefly explain how and when the data collection is carried out: monitoring sheet and/or annual surveys, COI surveys for outcomes.

- Explain how the data collected is analysed and presented (logframe as key reference).

2.2.3. Evaluation

- Describe the evaluation's scope, strategy and objectives. Provide information on the evaluation criteria or performance standards (relevance, effectiveness, efficiency, sustainability, impact) used and the rationale behind it. Specify the questions that the evaluation would address and the indicators against which it would be assessed.

- Describe the evaluation method: quantitative surveys and compliance with IFAD requirements (COI baseline, midterm and completion surveys, if applicable) and use of a comparison group.

- Describe qualitative study/survey for aspects/performance questions that may require investigation.

- Explain who conducts and analyses the evaluation: internal and/or external evaluators, use of procurement processes, etc. When feasible, mention whether RIA (IFAD's Research and Impact Assessment Division) is expected to conduct an impact assessment. Explain how the data collected is analysed: comparison with baseline situation.

- State when the evaluation is conducted (according to IFAD's rules, the process can begin any time after 85 per cent of the project funds have been disbursed).

- Describe project completion report requirements: make reference to IFAD's project completion report (PCR) guidelines; indicate who prepares the PCR and other reports required by the government.

2.2.4. Knowledge management

This section explains the importance of the information gathered by the M&E system for knowledge management (KM) purposes, the planned methods that will be employed to process it and the tools that will be used for its dissemination, provided that a separate KM plan/manual is created.

- Specify the link with M&E activities and how evidence-based information generated by M&E system is used for KM purposes.
- Explain which and how data/knowledge/lessons are gathered and shared with different stakeholders: methods, type of product (website, print, video, platform, etc.).
- Describe how KM supports capacity building among beneficiaries and within government and IFAD.
- Explain how KM contributes to greater effectiveness and efficiency and promotes scaling up.
- Describe the main KM activities (especially those to be implemented during the initial years of project execution).

3. ROLES AND RESPONSIBILITIES

3.1. Roles of stakeholders involved in M&E

- List the main M&E actors and other stakeholders involved in planning and M&E activities.
- Describe the roles and responsibilities of the main M&E actors and other stakeholders involved in planning and M&E activities.

3.2. Flow of information

3.2.1. Flow of information approach

- Explain how the monitoring data flows from the place where it is collected to the management team and on to other stakeholders, including the government and donor(s) (bottom-up approach).
- Describe how the information is entered in the M&E system.

4. M&E budget and activities

4.1. Budget and resources

- Provide the overall budget for PM&E activities.
- Describe how M&E activities are integrated into the AWPB and procurement plan.
- Present M&E line items and budget amounts. The line items and budget amounts can be taken from the PDR (cost tables) but must be adapted, if needed. Include additional resource requirements that were not anticipated or planned for. The description of the M&E budget items should be clear and brief, since all those items are detailed in other sections of the M&E plan.

4.2. M&E activities and workplan

- Present main planning, monitoring and evaluation activities, distinguishing between annual and recurrent activities and ad hoc ones occurring at specific point during the life of the project.

- Include M&E workplan including ad hoc activities from start-up to completion and recurrent activities with deadlines.

5. Tools

5.1. Management information system (MIS)

This section presents the main characteristics of the project MIS (the data collection tools are presented in the next section). Note that the MIS may be set up after preparation of the M&E plan; in that case, this section will need to be updated once the MIS is effectively defined and set up. If the MIS comes with a separate manual, this section could be shortened and should refer to the manual.

- Explain how the M&E officer has designed and set up the MIS and whether it is aligned with the national M&E system.
- Describe how information is inputted in MIS (web-enabled) and who is responsible for data entry and quality check.
- Describe how the collected M&E data is stored (spreadsheet/database, etc.) and backed up and explain how it can be accessed.
- Present the link and integration with the project's financial system to facilitate the comparison of physical and financial progress.
- Indicate whether a GIS is used to provide geographic location data for project interventions (infrastructure, beneficiary groups, land under conservation, etc.)
- Indicate which software/tools are used to analyse the data and transform large quantities of data into usable information (SPSS, Stata, Excel, Tableau Public, etc.). Note that the complexity of the MIS should depend on the resources available (human and budgetary), and that a complex MIS is not necessarily the best option if capacities are limited.
- Explain how the MIS incorporates project reporting requirements, such as logframe and AWPB.
- Describe tables/reports/dashboards automatically generated by the MIS, such as the AWPB monitoring table, logframe, etc.
- Explain how the MIS provides the project coordinator and other PMU members with timely, accurate information on implementation progress and results so that they can make informed decisions.

5.2. Data collection formats

This section describes the formats and tools used for collecting and recording data. It provides an overview with consolidated basic information. It is supplemented with the templates of the main data collection formats in Appendices.

- For each data collection tool, describe:
 - The approach and methodology used for data collection;

- The person/group/organization responsible for data collection;
- The form used to collect and record the data (paper forms, electronic templates, mobile apps on phones or tablets);
- The people/group interviewed and the composition of the sample (if any); Data entry in the MIS (if any) and data verification mechanism;
- The periodicity/timing of data collection;
- The type of information collected.

Project reports and deliverables

This section describes the formats of project reports and deliverables. It provides an overview with consolidated basic information and is supplemented with the templates of the main reports and deliverables

- Describe the contents, format, and frequency of internal and external reports. Indicate who the reports are intended for (the users of information produced by the PM&E function) and who is responsible for preparing each type of report.

M&E major activities timelines

Activity/ Task	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Baseline (COI) survey								
Midterm (COI) survey								
Endline (COI) survey/ Project Completion Report								
Annual Tracking Survey								
Annual Workplan workshop								

APPENDIX M&E 2: ReLIV IFAD Core Indicator definition guidelines

Indicator	
1. Persons receiving services promoted or supported by the project	Refers to the number of new individuals who have received services or participated to activities promoted or supported by the project during the considered period (annual reporting). In the case of ReLIV, these will be categorized as: (i) Members in LFFS Groups, MCC and MCP Committee members, Milk Collectors supported. When rural enterprises receive services promoted or supported by the project: only owners and co-owners of the enterprises are counted as persons receiving services.
1a. Corresponding total number of household members	Refers to the number of new households in which at least one member received services or participated to activities promoted or supported by the project, during the considered period (annual reporting).
1b. Estimated corresponding number of households reached	Refers to an estimate of the total number of persons in the households supported by the project (<i>as reported under the previous indicator</i>), during the considered reporting period (annual reporting). This estimate is based on the average number of persons per household recorded in the country or, if available, in the project intervention area.
1.1.3 Rural producers accessing production inputs and/ or technological packages	Refers to farmers, livestock owners or other rural producers who received support to access production inputs (e.g. chemical or organic fertilizers, pesticides, improved seeds, stocked livestock, veterinary medicines, etc.) or technological packages (e.g. processing equipment, farming tools, animal health and artificial insemination kits, drip irrigation systems, etc.) thanks to project interventions. Such inputs or technological packages and options may be provided on a free basis, or against some beneficiary contribution.
1.1.4 Persons trained in production practices and/ or technologies	Refers to the number of persons who have been trained at least once in improved or innovative production practices and technologies during the considered period (annual reporting). Training topics may concern livestock production (e.g. milking and milk handling, slaughtering, animal nutrition, disease prevention and veterinary practices, animal husbandry)
1.1.5 Persons in rural areas accessing financial services	Refers to the number of individuals who have accessed a financial product or service specifically promoted/supported by the project and its partner financial service provider (FSP), at least once during the considered period (annual reporting). Such services include loans and micro-loans, saving funds, micro-insurance/insurance, remittances, and membership of a community-based financial organization (e.g. savings and loan group).
1.1.8 Households provided with targeted support to improve their nutrition	Refers to the number of people that have directly participated in project-supported activities designed to help improve nutrition during the considered period. Activities may include people participating in nutrition related trainings, exchange visits, behaviours change communication

	campaigns, integrated food production, infrastructure (e.g. drinking water and sanitation), homestead food production, technical assistance on the use of inputs and technologies intended to improve nutrition outcomes (e.g. bio-fortified seeds, small livestock, labour-savings implements/technologies), socio-cultural related issues impacting on nutrition outcomes etc..
1.2.4 Households reporting an increase in production	Refers to beneficiary households interviewed (e.g. rain-fed and irrigated farms, livestock owners, fishers) who claim that project-supported activities (e.g. training, input provision) have helped them increase the quantity of key crops harvested as a result of better yields (i.e. quantity of crop harvested per unit of land area) or an increase in cropped area, compared to the pre-project situation. For cereals, grain and legumes, production is normally measured in metric tons or kilograms. May also refer to an increase in livestock production (e.g. increased milk production, reduced animal mortality, improved fertility), or in the volume of fish catches as compared to the pre-project situation.
1.2.5 Household reporting using rural financial services	Refers to beneficiary households interviewed who state that they are fully satisfied with and are using the financial products and services facilitated by the project, in order to invest in a productive or income-generating activity (i.e. as opposed to being used for consumption or other non-productive purposes).
1.2.8 Women reporting minimum dietary diversity (MDDW)	Refers to women surveyed claiming that they are consuming a diversified diet, which means that they are consuming at least 5 out of 10 prescribed food groups. It is a proxy indicator to judge adequacy of micronutrient (e.g. vitamins, minerals) consumption by women. It is also a proxy to gauge the adequacy of nutrition intake of the household members. MDDW is expected to provide a broader picture of a household's nutrient intake, taking into consideration that in most societies women are more likely to be nutritionally vulnerable because of their disadvantaged position in relation to intra-household distribution of nutritious foods in resource-poor settings, which are the primary targets for IFAD operations. Additionally, women, and in particular women of reproductive age (15-49 years), are more vulnerable due to their higher physiological demand for nutrients compared to adult men.
SF. 2.1 Households satisfied with project – supported services	<p>Refers to households reporting that they: (a) easily accessed or used the services provided by the public/private entities supported by the project, and (b) were satisfied with the quality of the services provided by the public/private entities supported by the project.</p> <p>The indicator aims at determining whether the main services delivered by the public/private entities supported by the project adequately meet target groups' productive/business/employment/livelihood needs. The indicator indirectly assesses (1) the responsiveness of the project in reflecting target groups' views and needs during the design, delivery and adaptation of services, and (2) the impact of the project's capacity building support to the service providers towards improving their service delivery capacities.</p>

2.1.3 Rural producers' organizations supported	Refers to first-level groups of farmers or other rural producers, whether formally registered or not, that have been newly formed or created, or strengthened with project support during the considered period, in order to enhance agricultural, livestock or fishery production, processing or marketing, and provide services to their members. These rural producers' organizations should be distinguished from groups formed to manage natural resources (natural resource management groups are reported only under SO3).
2.2.5 Rural producers' organizations reporting an increase in sales	Refers to producers' organizations interviewed claiming that they have recorded an increase in the volume of production sold or in the value of sales compared to the pre-project situation, thanks to project marketing and other capacity-building support.
2.2.6 Households reporting improved physical access to markets, processing and storage facilities	Refers to beneficiary households interviewed who claim that, as compared to the pre-project situation: (a) they can now more easily access the required market, processing or storage facilities; and that (b) these facilities are fully functional.
SF. 2.2 Households reporting they can influence decision making of local authorities and project supported service providers	Refers to households that participate in project-supported groups/organizations reporting that: (a) they have influence over decisions taken in the project-supported group/organization in which they participate; and (b) the project-supported group/organization they participate in can influence decision-making of local authorities and project-supported service providers.
Policy 3. Existing/ new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment	Refers to existing/ new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment
Policy 1. Policy relevant products completed	Refers to policy analyses, research papers, working papers, studies, strategies, pieces of legislation, by-laws or other policy-related material produced as part of the project's policy goals.
3.2.1 Tons of greenhouse gas emissions (tCO ₂ e) avoided and/ or sequestered	This indicator captures whether the project has the potential (or has succeeded) to avoid or sequester greenhouse gas emissions as a result of the introduction and uptake of mitigation technologies and practices.
3.2.2 Households reporting adoption of environmentally sustainable and climate – resilient technologies and practices	Refers to project beneficiaries who were trained in environmentally sustainable practices and/or the management of climate-related risks, and who claim that: (a) they have fully mastered these practices; and (b) they are now routinely using these technologies and practices.

PART IV: ANNEXES

IV.1. TERMS OF REFERENCE FOR KEY PMU STAFF (MAAIF)

IV.1.1. Project Manager

Reporting to the Permanent Secretary, MAAIF, the Programme Manager, will have overall responsibility for ensuring that the Project achieves its expected outcomes and development objective. He/she will lead the management team and staff of the PMU, and will be responsible for the effective planning, management, reporting and communication of all Project activities. He/she will also ensure compliance with all fiduciary requirements of the Project. These include Work Plans and Budgets, Disbursement of Funds, Progress Reports, Project Audit Reports, and Withdrawal Applications.

Specific responsibilities will include the following:

- Lead all key processes of project planning, both through the annual work plan and budget (AWPB) process and on a day-to-do basis; management of Project implementation; and monitoring and reporting on physical and financial progress.
- Directly supervise and support the work of section managers/ specialists, ensure that they are effectively leading their respective teams; and carry out their annual performance evaluations.
- Ensure that (i) the Project is implemented in accordance with the Annual Work Plan and Budgets (AWPBs) and the Project Implementation Manual; (ii) Project funds flow efficiently and are properly utilized; (iii) goods and services are procured quickly and in conformity with all GoU/IFAD requirements; and (iv) progress reports and audit reports are prepared and submitted to GoU/IFAD in accordance with the prescribed timeliness.
- Identify and guide implementation of training programmes for PMU staff, including technical and management aspects.
- Liaise with the Human Resource Department of MAAIF to coordinate the recruitment of Project administrative and support staff in accordance with procedures detailed in the Project guidelines.
- Facilitate Project evaluations, supervision and reviews in accordance with the Financing Agreement, and ensure that all recommendations from supervision and implementation support missions are effected and adhered to as agreed.
- Act as the principal spokesperson for the Project; disseminate its objectives, activities and achievements, and its role relative to Programme for Agro-Industrialisation, as authorized by MAAIF.
- Collaborate and network with relevant organizations/ programmes for effective Project implementation.
- Coordinate and facilitate networking and liaison with other stakeholders that provide complementarity and synergy to the Project activities, aims and objectives.
- Act as the Secretary to the Project Steering Committee and ensure implementation of the recommendations of the committees.

Specific Qualifications

The candidate should have a solid understanding and experience of the Livestock subsector and be able to provide visionary leadership to stakeholders and PMU staff. In addition to these general qualifications, the following specific qualifications are required:

- A Bachelor's degree in Agriculture, Veterinary medicine, Animal Nutrition, Rural Development, or related field, a Master's degree in Business Administration, Agribusiness, Agricultural Economics or related field from a recognized University.
- A minimum of 15 years' experience, 5 of which should have been in the management, administration and implementation of public, donor-financed agricultural and rural development projects.
- Demonstrable knowledge of participatory approaches in extension services.
- A professional of high standing with strong leadership and management skills.
- Strong Negotiation skills
- Knowledge and experience of Government planning and reporting procedures
- Demonstrated experience in networking and policy development.
- Computer literate with very good reporting and presentation skills.

IV.1.2. Financial Controller

The financial controller reports directly to the project manager and is responsible for financial management and for maintaining all project accounts in good order. As head of the finance unit, 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 loans and grants management and disbursement activities through MAAIF systems. Specific responsibilities include but are not limited to the following:

- Ensure timely capture of ReLIV in the GoU budget IFMS as required by the budgeting processes and calendars to be able to access counterpart funding.
- Communicate to all implementing 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;
- 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 review and finalisation 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 implementing agencies;
- Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Uganda;
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both GoU and IFAD;
- Liaise with the Accountants from Implementing agencies and the lead Project agency to ensure that SOEs are prepared in a timely manner and forwarded to Ministry of Finance, Economic Planning and Development;
- 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:

Qualifications and Experience: The candidate should have a Master's degree or equivalent in accounting, and must be a certified public accountant, duly registered with the Institute of Certified Public Accountants of Uganda (ICPAU).

- At least eight years of relevant work experience, including at least four as a financial manager or accountant in government/donor programmes or large institutions.
- Strong managerial skills and demonstrated capacity to manage people and interact with a wide range of private sector partners and government representatives;
- Knowledge of work planning, budgeting and reporting;
- Knowledge of IFMS and mapping of the system desired
- Excellent quantitative and analytical skills;
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

Contract: Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

IV.1.3. Project Accountant

The **Project Accountant** will report to the Financial Controller.

Specific responsibilities include but are not limited to the following:

- Follow-up the implementing agencies for expenditure justifications
- Review eligibility of expenditure in accordance with the financing agreements
- Report on the operation of internal controls including budget controls and report any deviations.
- Prepare project reports to enable the withdrawal of funds from financiers and manage the overall treasury/ cash flow planning aspects of the project.
- Assess compliance with Uganda laws and regulations governing the operation of the implementing institutions including accounting standards and the requirements for audits and financial reporting.

- Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Review reports of IFAD/GoU supervision or implement support missions and follow-up on the implementation of agreed to actions.
- Examine the financial management information provided to Project Manager, MAAIF and IFAD, in terms of its adequacy and timeliness.
- Evaluate systems for asset management, provision for asset maintenance and replacement.
- Review documented accounting procedures and accounting manuals in terms of their adequacy, and correspondence between actual and documented procedures.
- 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.
- Review other aspects of the accounting and financial control systems including: cash management and banking; procurement of goods and services; advances and acquittals; authorisation of expenditure and budget/actual comparisons.

Qualifications and Experience: The candidate should have a Bachelor's degree in accounting and at least Part II of CPA-U or its equivalent /or be qualified accountant. Other skills and experience should include:

- At least five years of relevant work experience
- Knowledge of work planning, budgeting and reporting;
- Excellent quantitative and analytical skills;
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups;
- Knowledge of IFMS and mapping of the system is desirable.

Contract: Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables.

IV.1.4. Agribusiness and Rural Finance Specialist

The Agribusiness and Rural Finance Manager will oversee the design and implementation of initiatives to enhance access to business development and financial services for smallholder farmers and agribusinesses within the dairy and beef value chains. Reporting to the Project Manager, his or her specific responsibilities include but are not limited to the following:

- Develop selection criteria for beneficiary FSPs and oversee the competitive procurement process following IFAD and Government procurement requirements.
- Establish communication channels and coordinate with major financial services providers in Uganda, including UCSCU, UCA, MCSL, AMFIU, and other relevant agencies.
- Oversee the implementation of technical assistance programs for product development and business development services (BDS), including preparing business plans and bankable proposals for SMEs.
- Prepare contracts, bidding documents, and memoranda of understanding for partnerships with other agencies involved in sub-component activities.

- Develop project management guidelines, procedures, and operating practices to ensure effective execution and monitor changes in project scope.
- Prepare the Annual Work Plan & Budget (AWPB) for the sub-component and ensure timely implementation and monitoring within allocated budgets.
- Identify opportunities for FSPs to access climate change adaptation funding through partnerships with EBUL and facilitate linkages with community savings and loan associations.
- Establish procedures for screening and selecting BDS applications and coordinate with implementing agencies to align activities with project plans.
- Guide the M&E Manager in establishing a monitoring, evaluation, and knowledge management system for the sub-component and ensure timely reporting.

Qualifications:

- Master's degree in Economics, Business Administration, Finance, Agriculture Economics, or a related field.
- Minimum of five years of relevant experience in financial inclusion, rural finance, agricultural finance, or related fields, focusing on project management and implementation.
- Proven experience designing and implementing access to finance programs, including technical assistance and capacity-building initiatives for financial service providers.
- Strong understanding of financial markets, banking regulations, and the dynamics of Uganda's agricultural and livestock sectors.
- Demonstrated ability to establish and maintain effective partnerships with financial institutions, government agencies, and development partners.
- Excellent leadership, communication, and negotiation skills, with the ability to work collaboratively in a multicultural environment.
- Familiarity with gender mainstreaming principles and experience in promoting gender equality and women's empowerment in development projects.
- Proficiency in project management tools and software, with a track record of managing complex initiatives from planning to evaluation.
- Strong analytical skills and attention to detail, with the ability to analyze data, identify trends, and generate actionable insights.
- Commitment to inclusive development principles and a passion for improving the livelihoods of smallholder farmers and agribusinesses in Uganda.

Contract: Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables.

IV.1.5. Monitoring, Evaluation and Learning Specialist

Reporting to the Project Manager, the M&E and Learning Specialist will have overall responsibility for the coordination of the timely establishment, operation and maintenance of the Project M&E system; for the generation of knowledge and evidence; and for the communication of Project activities, achievements and lessons learned. Specific tasks of the M&E and Learning Manager will include:

- Ensure the building of a monitoring and evaluation system that lends towards efficient and effective management of the project.
- Working in collaboration with other PMU members, oversee the design and development of the Project M&E system, its knowledge management agenda, and its communication strategy; and ensure that these are coherent and synergistic and support the objectives of the Project, and that they are effectively planned and implemented.

- Guide, support, supervise and monitor the work of the M&E Officer and the Communication Officer and KM Officer.
- Be in charge of designing of the central M&E system that will serve the project needs during implementation.
- Work in close coordination with all stakeholders to assess the data and information needs for the national oil seeds sector database, for Project management and for IFAD's requirements, ensuring that the M&E system is designed in a way that responds to these needs and that makes it possible to produce reliable M&E data in timely manner.
- Plan and execute and Monitoring and Evaluation surveys with a view of informing ReLIV management on the progress and areas that require improvement to ensure achievement of project objectives
- Planning and the execution of Baselines Studies, Impact and Outcome Studies and Project Completion Studies in line with the timelines of the project. Ensure that these facilitate management decision making and progress tracking for the project.
- Introduce and strengthen the application of Participatory Planning, Monitoring and Evaluation methodology by smallholder oil palm farmers.
- Work closely with the Finance Unit to ensure that project outputs and outcomes are closely linked with project financials to ensure value for money.
- Support the KM and Communication Officer to develop an approach for prioritizing and implementing Knowledge Management activities, and developing and disseminating knowledge tools and products.
- Support the KM and Communication Officer to develop a Project communication strategy, geared towards Project implementers, the target group and stakeholders.
- Take a led role to guide and coordinate the Project annual work planning and budgeting process.
- Oversee timely preparation of quarterly, bi-annual and annual project progress reports, their analysis and identification of lessons learned and potential bottlenecks for Project implementation, if/when relevant, and inform the Project management accordingly.

Qualifications and experience

- Bachelor's degree in Agriculture, Economics, Statistics, Development Studies, Rural Development, Planning or related field
 - Master's degree in Agriculture or Livestock, Agricultural Economics, Economics, or equivalent field.
 - Minimum of 10 years' experience of working at a Senior Position in the field of development, planning and ME&L
 - A post graduate diploma in M&E will be an added advantage.
 - Experience of at least 2 years in the of application and use of Geographic Information Systems and Global Positioning Systems technologies.
 - Solid knowledge of participatory M&E approaches and techniques.
 - Good knowledge in the development of performance-based indicators.
 - Evidence of hands – on experience in data management and analysis
 - 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
- (a) Evidence of reporting and report writing skills will be an added advantage

- (b) Good knowledge of computer applications (particularly MS Excel, Word, Access and Power point, STATA) will be an added advantage

IV.1.6. Communication and Knowledge Management Officer

Reporting to the M&E and Learning Manager and working closely with the Monitoring and Evaluation Officer, the Communications and Knowledge Management Officer will lead the development, implementation, evaluation and continued improvement of communication and knowledge management initiatives during the implementation of the Project.

The Communication and Knowledge Management Officer's duties and responsibilities will include the following:

- Conduct the research, including stakeholder analysis and needs assessment, and develop and implement creative communication strategy for ReLIV.
- Continuously review and improve the Project communication strategies and materials to ensure effectiveness.
- Develop, manage and fulfil a demanding annual production cycle of communication materials including campaigns and information materials to support awareness raising, sensitization and key messages (stories, videos, photos etc.) about the Project and articulate them in ways appropriate to the key stakeholders' target audiences.
- Provide functional direction to special events and in particular with reference to activities in the dairy and beef sub-sector, such as product launch, commissioning of works with special emphasis on effective use of the media.
- Prepare user-friendly information sheets that detail key facts and figures about beef and dairy farming development.
- Liaise with MAAIF communication unit staff and advise PMU staff on media engagement.
- Synthesize reports and write thematic case studies, lessons learned and stories about successes emerging from ReLIV implementation; package them and ensure that they are shared within the country, with Government and other development partners in and outside Uganda.
- Support the beef and dairy policy development process, develop and package targeted policy products as required, and ensure that key stakeholders at different levels are fully informed as to the issues in question.
- Ensure that systematic learning and knowledge management are fully embedded in Project management and implementation.
- Design and implement training activities for Project staff, government partners and other project stakeholders, as required, on KM and communication approaches, methods and tools.
- Develop and implement mechanisms to encourage individuals, organizations and functional networks to share their experiences for mutual learning.
- Carry out other duties related to the Project's activities, as may be assigned by the M&E and Learning Specialist.

Qualifications and experience

- a) A degree in mass communication, marketing, journalism or a related discipline. Experience in agriculture and rural development an advantage.
- b) Minimum of five years of experience in communications in the rural development sector.

- c) Proven experience in designing and implementing successful communication for sustainable development;
- d) Experience in the sphere of rural development project management and implementation, in particular a good basic knowledge of project M&E systems, will be a distinct advantage;
- e) Experience in, or solid understanding of, use of modern information and communication technology; print, broadcast media/interactive digital media in agriculture and rural development;
- f) Experience in building relationships with journalists, handling enquiries, pitching features and conducting interviews;
- g) Ability to translate agriculture and rural development work into compelling stories using excellent editing and copyright skills;
- h) Ability to draft clear and concise ideas and concepts in written and verbal form with special skills in writing press releases, articles, stories for traditional and electronic media;
- i) Excellent design and production skills;
- j) Knowledge of current practices in communication research and role of mass media;

IV.1.7. Procurement And Contracts Manager

Reporting to the Project Manager, the Procurement and Contracts Manager will have responsibility for coordinating and supervising procurement of goods and services for the Project.

The Procurement and Contracts Manager's duties and responsibilities will include the following:

- Ensuring the timely planning, controlling and delivery of procurement activities of the Project.
- Liaising with other staff of the PMU and implementing agencies, to compile all procurement requirements of the Project.
- Preparing periodic reports to Contracts Committee, PPDA and other stakeholders, as required.
- Ensuring compliance and conformity with legal and regulatory framework governing public procurements.
- Providing timely advice to the Project, contracts committee and other stakeholders on matters relating to procurement and disposal.
- Preparing and updating the procurement plan and ensuring availability of funds for procurements and timely payment for procurement commitments.
- Preparing solicitation/Bid documents for procurements and participation in evaluations.
- Providing secretariat services for the contracts committee.
- Guiding suppliers on procurement procedures.
- Give technical backstopping to Project implementers at different levels on procurement matters.
- Prepare advertisements for Project procurements.
- Carry out any other duties related to the Project's activities as may be assigned.

Specific Qualifications

In addition to the general qualifications detailed above, the following specific qualifications are required.

- A University degree in procurement and supply chain or procurement and logistics management or commerce or business administration or an equivalent
- Professional qualifications in purchasing and supply chain management from MCIPS/ISM- full member.
- A master's degree in related field is an added advantage.
- 10 years' procurement management experience in a donor funded Organisation
- Demonstrated knowledge of the Public Procurement and Disposal processes a requirement.
- Good knowledge of computer applications (particularly MS Excel, Word, Access and Power point, STATA) will be an added advantage.

IV.1.8. Climate and Environment Specialist

Reporting to the Project Manager, the Climate and Environment Specialist will be responsible for orienting and ensuring the climate resilient implementation of project activities. The specific tasks include:

- Supervise infrastructure assessments and develop a strategy/guideline for necessary modifications to make them climate resilient.
- Supervise the development of building codes/standards to ensure that investments are climate resilient.
- Work with appropriate local partners to ensure engineers and technicians can supervise infrastructure according to agreed building codes and standards.
- Provide guidance to Service Providers on climate risk management in ReLIV intervention areas.
- Develop detailed TORs and tender documents for climate and environment support services.
- Identify potential in-country partners to support climate and environmental needs.
- Assist in developing agro-meteorological products and decision support systems for transmission to various departments of the ministry, relevant extension services, and private sector/business partners.
- Provide specific recommendations, including opportunities to optimize climate adaptation, environmental management, and resource use in the dairy value chain.
- Explore existing lessons and good practices in dairy and beef production, assess scale-up options.
- Ensure sound integration of climate-resilient technologies in dairy and beef value chain development.
- Build ReLIV capacities in climate resilient approaches (adaptation and mitigation).
- Plan and implement a capacity-building program on climate and environment for key stakeholders, PMU staff, implementing partners, and service providers based on identified needs.
- Assist in the preparation and implementation of Learning Routes regarding climate resilience.
- Ensure application of safeguards defined in the SECAP studies, ensuring compliance with mandatory SECAP studies (Environment, Climate and Social Management Framework (ECSMF) and its Environment, Climate and Social Management Plan (ECSMP); Pesticide Management Plan (PMP); Solid and Liquid Waste Management Plan (SLWMP); Stakeholder Engagement Plan (SEP); Grievance Redress Mechanism (GRM); Labour Assessment and Management

Procedures (LAMP); ESG due diligence, Environmental and Social Management System (ESMS) and Environmental and Social Action Plan (ESAP) for financial intermediaries; Targeted Adaptation Assessment; GLEAM-*i* carbon assessment).

- Monitor GHG emissions generated by the project throughout its duration.
- Ensure activities of climate and environment are reflected in the AWPB.
- Assess IFAD corporate indicators related to climate and environment at baseline, MTR, and completion; ensure regular annual monitoring reflects data and information on key climate and environment indicators.
- Prepare and organize workshops on climate and environment for target beneficiaries.
- Ensure climate information services reach beneficiaries and draft quality climate risk assessments for target areas.
- Undertake regular field visits to monitor and assess progress on climate and environment.
- Serve as a channel of communication between the project and other stakeholders working on climate and environment issues.
- Keep updated on climate and environment policies in Uganda, including national policies, ministries, implementing institutions, and financing agencies, including IFAD.
- Establish linkages with other climate and environment programs by national, international, and intergovernmental agencies.
- Support evidence-based information creation on good practices in climate and environment.
- Act as a focal point for GEF and GCF supplementary projects.
- Carry out any other duties as assigned by the supervisor.

Expected outputs:

- Climate adaptation and mitigation activities are mainstreamed in all project activities.

Qualifications:

- Master's degree in Climatology, Climate or Environmental Sciences, Natural Resource Management, or similar.
- At least 5 years of working experience in climate, environment, and natural resource management and safeguards procedures.
- Experience in the country context of Uganda.

Key competences:

- Fluent in English and Luganda.
- Computer literacy.
- Good communication and results-oriented skills.
- Experience in mainstreaming climate adaptation and mitigation issues within both public and private sector organizations.
- Ability to work in an interdisciplinary team and meet crucial deadlines.

IV.1.9. Social Inclusion Specialist

Reporting to the project manager, the Social Inclusion Specialist will perform activities in main areas of social inclusion – gender, youth and nutrition

Project implementation:

- Advice and support the project management, other members of the PMU and field officers at all levels in the effective mainstreaming of targeting, gender, youth, nutrition in project activities.
- In close collaboration with the PMU, develop youth inclusion and nutrition strategies and fine-tune the project Social Inclusion Action Plan (SIAP) to be updated regularly.
- Work with each specialist in the PMU in critically reviewing project to see how each component or subcomponent addresses youth and nutrition issues and identify opportunities for strengthening implementation from an social inclusive perspective.
- Review basic project implementation processes to provide feedback and suggestions on how to achieve the best possible project outcomes with respect to youth and nutrition.
- Ensure that activities of youth and nutrition strategies are reflected in the following:
 - Preparation of the AWPB;
 - Ensure that baseline, mid-line and end-line have the IFAD corporate indicators related to youth employment and nutrition have been assessed at baseline, MTR and completion; and regular annual monitoring reflects data and information on key social inclusion indicators (youth and nutrition);
 - Development of detailed TORs and tender documents of service providers for nutrition support services.
 - Support development of training on youth and nutrition related issues and provide capacity-building/training with support from nutrition and youth specialists for staff at the field level, PMU, implementing partners and service providers.
 - Prepare and organize workshops on youth and nutrition to the target beneficiaries.
 - Prepare and implement national nutrition campaign, lease with potential partners for jointly conducting and or supporting campaign
 - Develop clear selection criteria and method for linking MCCs with schools
 - Contact education system authorities for engaging with school milk programme, including reaching out to partners implementing school milk programmes in the country to establish collaboration.
 - Prepare documents for materializing school milk pilot is selected districts
 - Reach out to TV, radio station and other potential stakeholders to support national campaign messaging and disseminating.
 - Undertake regular field visits to monitor and assess the progress on nutrition

- Serve as a channel of communication between the project and others working on nutrition issues in government, implementing agencies, other development projects and IFAD.
- Be familiar with nutrition policies of the institutions linked to the project, including national policies and those of ministries, implementing institutions and financing agencies, including IFAD.
- Establish linkages with other nutrition programmes implemented by national, international and intergovernmental agencies.
- Support evidence-based information creation on good practices in nutrition.

Qualifications and experience:

- A degree in social sciences or related discipline;
- At least five years' experience working in nutrition, nutrition education, community mobilization, social marketing and campaign;
- Familiarity with social inclusion issues in the country;
- Experience in agricultural, food security, livelihoods and rural development projects;
- Experience in designing and delivering training modules
- Understanding of social behaviour change and communication
- Working knowledge of spoken and written English;

IV.1.10. Office Administrator

Reporting to the Financial Controller, the office administrator will provide administrative support to the project.

Duties and responsibilities of the Office Administrator will include:

- Manage the front office; answer telephones and transfer to appropriate PMU staff.
- Project a good image of the project by courteously and expeditiously responding to inquiries and queries from visitors.
- Ensure that documents are appropriately photocopied, faxing, mailing (sign for and distribute courier packages), filing, compiling, transcribing and making project meeting appointments with relevant stakeholders.
- Maintain hard copy and electronic filing system for the Project.
- Coordinate and maintain records for PMU staff, office space, phones and office keys.
- Maintain and distribute PMU staff weekly travel schedules and coordinate both inland and outward travel itineraries for visitors to the project including those of mission members.
- Responsible for logistics including booking of accommodation in Kampala and in the Project area and allocation of the travel vehicles and drivers.
- Schedule meetings/calendar events and remind the relevant persons on the meetings.
- Open, sort and distribute incoming correspondence, including faxes and email.
- File and retrieve organizational documents, records and reports.
- Arrange for the repair and maintenance of office equipment.
- In liaison with Communications Officer, assist in special events, commissioning of works, product launch, and annual review workshops etc.
- Oversee all aspects of general office coordination and guide visitors, interns to responsible offices
- Supervise the project drivers and Office attendants.
- Carry out other duties as may be assigned by the Finance and Administration Manager.

Specific Qualifications

The following specific qualifications are required:

- a) An honors degree in Business Administration, Administration Studies or a related field
- b) Demonstrated training and/or experience in performing secretarial and administration work is required.
- c) At least Five (5) years' experience in general office responsibilities and procedures;
- d) Knowledge of principles and practices of organization, planning, records management and general administration.
- e) Ability to operate standard office equipment, including but not limited to, computers, telephone systems, copiers and facsimile machines;

IV.2. TERMS OF REFERENCE FOR TECHNICAL ASSISTANCE

IV.2.1. Draft Terms of Reference for service provider supporting the roll out of the Uganda Livestock Identification and Traceability System

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

As part of Sub-component 1.1, ReLIV will support the roll-out of the Uganda Livestock Identification and Traceability System (ULITS), which will enhance ownership identification and enable performance recording and productivity advisory for producers, effective breeding, more efficient disease control, theft control, and traceability. It will also facilitate access to services such as finance and insurance. . This will . The project support will aim at rolling out the system throughout the project area, and will include testing, and possibly upgrading, of the existing software developed under the EU-funded MOBIP project, awareness raising of stakeholders, training of users and co-financing of identification devices (ear tags) and equipment (readers, tablets for data entry).

General objectives of the assignment

A service provider with prior experience in establishing LITS will be hired to : (i) assess the existing LITS system and draw lessons from the first pilots; (ii) upgrade the system in accordance with international recommendations and standards, building on the pilots lessons; (iii) provide training to users; and (iv) develop technical specifications for equipment to be purchased by the project.

Specific tasks

The Consultant/s will perform the following tasks but not limited to:

Assessment and upgrading of the information system and software: the software and information system that was developed by Makerere University and a local consultancy firm under the the EU-funded MOBIP project has only been piloted in a few Districts so far. The consultant will assess the lessons of this first pilot, the compliance of the system with IGAD regional guidelines on LITS³⁴, and WOAHA standards³⁵, and will provide support for the system upgrading, if necessary.

³⁴ <https://icpald.org/wp-content/uploads/2019/04/Livestock-Identification-and-Traceability.pdf>

³⁵ https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_ident_traceability.htm

Training of users: the service provider will provide training for the users. Training will be provided first to the ULITS unit staff that will be managing the database at MAAIF. Then field users will be trained to use the data entry web interface, and perform animal identification.

support to procurement of equipment: the service provider will develop technical specifications for the equipment needed to roll out the LITS and suggest quantities need for each of them. This will include specifications for computers and tablets for data entry, ear tags, taggers, and readers for barcodes and Radio Frequency Identification (RFID) devices. Identification devices will be conform to international recommendations (WOAH and ICAR³⁶ global standards, IGAD regional guidelines).

Duration and scope of the assignment

- The assignment will be for a period of 4 years, including 4 years for the training that will be rolled out progressively through the project area, and 1 year for other tasks
- The assignment will cover the 41 Districts where RELIV is implemented;

Experience and competencies

The service provider should have the following competencies:

- Prior experience in supporting implementation of a LITS at national level
- The team should include at least a livestock expert and an IT specialist

³⁶ <https://www.icar.org/index.php/certifications/animal-identification-certifications/>

IV.2.2. Draft Terms of Reference for service provider supporting the implementation of Livestock Farmer field Schools and Pastoral Field Schools

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

As part of Sub-component 1.1, RELIV will implement Livestock-Farmer Field Schools (L-FFS) and Pastoral Field Schools (PFS) methodologies. The project support will include development of training curricula, training of trainers and facilitators, and facilitation of schools during a period of three years, including provision of inputs for field trials and demonstrations. 50,000 participants (2,000 groups) will be involved in L-FFS and PFS over the project cycle.

Objective of the assignment

A service provider will be recruited to provide support to provide support for the development of the training curriculum, train the master trainers, coordinate the training of facilitators by master trainers, and provide continuous follow up and backstopping during implementation

Expected outputs

1. **Development of FFS curricula:** The roll out of L-FFS and PFS will involve in the first-place development of a specific curriculum on climate smart dairy production, based on existing curricula developed by FAO in the country, and building on the dairy L-FFS curriculum developed in Rwanda under RDDP, successfully tested and improved over the 6 years of implementation.
2. **Training of trainers and facilitators:** The service provider will be responsible for organizing the training of master trainers, who will be selected among existing master trainers already trained by FAO. The master trainers will then be in charge of training the 1,000 facilitators, under the coordination and organisation of the service provider.

Duration and scope of the assignment

- The assignment will be for a period of 4 years: the training of facilitators will be rolled out progressively through the project area during a 4 year period, while formulation of curricula and training of Master Trainers will be implemented during the first year
- The assignment will cover the 41 Districts where RELIV is implemented;

Experience and competencies

The service provider should have the following competencies:

- Prior experience in supporting implementation of a Farmer field School
- Good knowledge of the livestock sector
- Proven working experience in Uganda
- The team should ideally comprise of at least a FFS specialist, and a livestock specialist

IV.2.3 Draft terms of reference for service provider on conservation agriculture

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

As part of Sub-component 1.1, the Project will pilot conservation agriculture for production of drought resilient fodder plants to improve resilience and productivity in dairy and beef production by smallholder farmers and (agro)pastoralists.

I. General objectives of the assignment

- i. The Project will pilot conservation agriculture for fodder plants to test the benefits for resilience and productivity, economic viability and adoption of the practices by smallholder farmers and (agro)pastoralists. Especially, minimal tillage, intercropping, push and pull methods and the use of crop residues will be of interest. The pilot will encompass four growing seasons (2 years) to complete. The outcomes, esp. with regard to soil health and fodder productivity, will be disseminated and inform the Project. In case of immediate positive results, a scaling up will be promoted by the Project via the L-FFS/PFS training method, to the benefit of 200 000 smallholder farmers and (agro)pastoralists households.
- ii. The Service Provider will work with NARO expert(s) in conservation agriculture for crops. NARO will lead the pilot and will test a CA set-up for the resilient fodder crops used in the Project and the various soil and agroecological conditions in the Project area.
- iii. The Service Provider will engage selected groups of smallholder farmers and (agro)pastoralists (10 to 20 members per group), and train, monitor and guide these groups. In addition, the Service Provider as part of the task team, will facilitate and assist in data collection and record keeping for the study carried out by NARO.

II. Specific tasks

The Service Provide will perform the following tasks (but not limited to):

- Familiarize with the test outcomes from NARO's CA for fodder plant adjustment study.
- Facilitate / assist data collection during a baseline and end study by NARO.

- Train approximately 300 participants that in close collaboration have been selected to join in the pilot by NARO and the PMU.
- Monitor and provide guidance to the selected farmers/(agro)pastoralists.
- Facilitate data collection by NARO and keep records as required, e.g. regarding production and adoption of the practices.
- Share experience and insights with the task team for design, analysis and reporting of the pilot.
- Any other task deemed necessary by the task team and relevant to the assignment.

III. Expected outputs

- App. 300 smallholder farmers/(agro)pastoralists trained, monitored and guided.
- Data collection facilitated and records provided on e.g. fodder production, soil quality, practice adoption and other relevant records.

IV. Timeline

Deliverable	Deadline
Facilitated / assisted baseline data collection	Project year 1
10 groups of participants trained, monitored and guided	Project year 1
All participants trained, monitored and guided	Project year 2
Facilitated / assisted data collection end study	Project year 2
Records shared with NARO	Project year 1&2 continuous

IV.2.4. Draft terms of reference for Veterinary Epidemiology Specialist (1.3.1)

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The project will increase the effectiveness of public institutions for the delivery of public-good related veterinary services, such as control of Transboundary Animal Diseases, parasitic diseases constraining animal production and zoonotic diseases, including disease surveillance and rapid response.

As part of Sub-component 1.3, the Project will test software on being fit for purpose for the national disease surveillance system and train District Veterinary Officers.

I. General objectives of the assignment

- i. For the digitalization of the animal disease surveillance system, the current open source software ODK is in use. This software will be independently tested for fit to purpose of supporting safe collection and storage of data and information exchange for the (inter)national disease surveillance and rapid response system (using ULITS for animal identification, tablets and desk tops), and support epidemiological investigations.
- ii. District Veterinary Officers (DVO's) and Subcounty para-veterinarians will be provided with hard- and software to support digital disease data collection and interpretation. The DVO's will need an IT and basic and practical epidemiology training. The Sc para-veterinarians will be trained via the Ministry (MAAIF/DAR) and assisted by their trained DVO's.
- iii. The Project Management Team (PMU) will seek the services of an independent (inter)national Veterinary Epidemiology Consultant that has no commercial or other interest for assessing software and developing training.

II. Duties and responsibilities:

Under the direct supervision of the Coordinator of the Project Management Unit, the (inter)national Veterinary Epidemiology Specialist will be responsible for testing disease surveillance software and developing basic and practical epidemiology training, ensuring a smooth implementation of the digitalization of Uganda's animal disease surveillance system. The specific tasks include:

- Familiarize with the goals and requirements of the Ugandan animal disease surveillance system and independently assess the software requirements and test if ODK is meeting these requirements;
- Endorse or select appropriate software;
- Develop a 5 day basic and practical epidemiology training, including software use for app. 150 DVO's, that is applicable for the needs of the DVO's and national surveillance system to operate well;
- Train two groups of DVO's and meanwhile train government assistant trainer(s) to execute the rest of the trainings and the trained trainers in turn assist the DVO's to help their SC paravets with proper use of the tablet software;
- Any other task deemed necessary and relevant to the assignment.

III. Expected outputs:

- Analysis and reporting of software choice;
- 5 Day basic and practical epidemiology and use of software training;
- Trainers trained (ToT) to execute the training to all DVO's.

IV. Qualifications:

- Master's degree in Veterinary Sciences or comparable;
- Qualification and at least 5 years proven work experience in Veterinary Epidemiology;
 - Proven experience with data management and epidemiological software;
 - Familiar with international standards concerning disease reporting;
 - Experience and skills in training professionals;
 - Experience in the international and country context of Uganda.

V. Key competences:

- Fluent in English, Luganda can be an advantage;
- Good communication and people-oriented skills;
- Can adapt and remain goal and results-oriented;
- Computer literacy.

IV.2.5. Draft terms of reference for two Senior Animal Health Contingency Planning Specialists (1.3.1)

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The project will increase the effectiveness of public institutions for the delivery of public-good related veterinary services, such as control of Transboundary Animal Diseases, parasitic diseases constraining animal production and zoonotic diseases, including contingency planning.

As part of Sub-component 1.3, the Project will engage two senior international experts to organize interactive workshops in the Ugandan context, including training on contingency planning, surveillance and response, and developing an enforcement system, involving the relevant participants in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and research.

I. General objectives of the assignment

ii. Animal diseases of trade, production constraint or zoonotic nature, entail a public service responsibility. National animal diseases control and prevention is costly and resources are always limited. Disease outbreaks and constraints require risk management strategies and preparedness.

ii. The Project seeks assistance of two international experts that will closely collaborate, and work with experts in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Directorate of Animal Resources (DAR) and the National Agricultural Research Organisation (NARO) / the University of Makerere on contingency plans, including surveillance and monitoring, and preparedness and response. In a Workshop Contingency Planning and follow-up, sound contingency plans will be established and a second workshop will be organized on developing an enforcement system.

II. Duties and responsibilities:

Under the direct supervision of the Coordinator of the Project Management Unit (PMU), the Senior International Animal Health Contingency Planning Specialists will be responsible for establishing animal diseases contingency and enforcement plans, formed and carried by the Ugandan experts that are responsible in MAAIF/DAR (with assistance of NARO/ University of Makerere experts). The specific tasks include:

- Familiarize with the relevant Ugandan and international policy frameworks, regarding animal diseases and One health;
- Familiarize with the Ugandan animal disease and One Health status quo;
- Adhere to international standards (e.g. GEMP[1])
- Co-organize and lead an interactive workshop (including training elements) and provide follow-up on contingency planning, surveillance and response regarding relevant diseases of trade, production constraint and zoonotic nature;
- Co-organize and lead an interactive workshop on developing an enforcement system with the relevant participants (one expert);
- Assist in identifying training needs;
- Assist in identifying policy and funding needs and sources;
- Provide guidance and report only to MAAIF /DAR and the PMU (adhering to confidentiality);
- Any other task deemed necessary and relevant to the assignment.

III. Expected outputs:

- Two workshops and follow-up, resulting in sound contingency and enforcement plans;
- Tailored trainings;
- Needs assessments;
- Timely reports.

IV. Qualifications:

- Master's degree in Veterinary Sciences or comparable, and specialization in Veterinary Epidemiology;
- At least 5 years and preferably 7 years proven work experience in Veterinary Epidemiology;
 - Proven experience in contingency planning, disease surveillance, preparedness and outbreak response;
 - Experience in performing veterinary epidemiological and economic assessments;
 - Practical experience in data management, and epidemiological software;
 - Familiar with international standards concerning disease reporting;
 - Experience and skills in training professionals;
 - Experience in the international and country context of Uganda.

V. Key competences:

- Professional in all aspects of the assignment;
- Fluent in English;
- Integrity and able to keep confidentiality;
- Good communication and people-oriented skills, diplomatic;
- Can adapt and remain goal and results-oriented;
- Computer literacy.

IV.2.6. Draft terms of reference for Senior International Veterinary Laboratory Specialist

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The project will increase the effectiveness of public institutions for the delivery of public-good related veterinary services, such as control of Transboundary Animal Diseases, and of constraining animal production and zoonotic diseases. Improved laboratory diagnostic services are important to confirm and to strengthen surveillance and disease outbreak response. For private livestock owners laboratory diagnostic confirmation is of growing importance for increasing productivity of their animals, as well as for veterinary care givers responsible for veterinary drug use stewardship to lower drug resistance and its One Health implications.

As part of Sub-component 1.3, the Project will engage a senior international veterinary laboratory expert to perform a laboratory infrastructure needs and feasibility study and develop training for Ugandan veterinary laboratory experts.

I. General objectives of the assignment

i. Animal diseases of trade, production constraint or zoonotic nature, entail a public service responsibility. Confirmed diagnoses by laboratory testing improve disease surveillance, preparedness and outbreak response. Livestock owners can also have an interest in confirmation of clinical diagnoses, especially when treatment decisions involve costs and health risks. Uninformed use of veterinary chemicals can lead to drug resistance, environmental health damage and can pose zoonotic risks.

ii. Veterinary laboratories require continuity in requests, bio-safety and economic viability. This can be a challenge in Low-and-Middle-Income Countries (LMICs). The Project invests in production, productivity and income increase for resource poor livestock owners. The Project therefore promotes laboratory capacity building in Uganda from the last mile up.

iii. The Project seeks the assistance of a senior international laboratory expert to perform a laboratory infrastructure needs and feasibility study in close collaboration with the Ministry of Agriculture, Animal Industry and Fisheries, Directorate of Animal Resources (MAAIF/DAR), and its division National Animal Disease Diagnostic and Epidemiology Centre (NADDEC).

II. Duties and responsibilities:

Under the direct supervision of the Coordinator of the Project Management Unit (PMU), the senior international veterinary laboratory expert will perform a laboratory infrastructure feasibility study and develop training for Ugandan veterinary laboratory experts. The specific tasks include:

- Familiarize with the relevant Ugandan and international policy frameworks, regarding laboratory diagnostics requirements for animal diseases and One health;
- Familiarize with the Ugandan animal disease and One Health status quo;
- Adhere to international standards;
- Review literature, work and investments already completed or still in operation by other agencies, projects and donors;
- Lead the diagnostic laboratory needs study, prioritizing last mile infrastructure and collaborate with NADDEC and report;
- Lead the diagnostic laboratory feasibility study, including economic viability and sustainability, prioritizing last mile infrastructure and collaborate with NADDEC and report;
- Identify feasible infrastructural needs (construction, equipment, bio-safety measures, testing materials, etc.) and devise and budget for these in collaboration with NADDEC and the PMU;
- Identify training needs for bio-safety level 1 and level 2 laboratories and budget for these in collaboration with NADDEC and the PMU;
- Provide a two week on site tailored training for the regional laboratory veterinarians in three upgraded regional laboratories (bio-safety level 2) and a follow up on site within three months in collaboration with NADDEC;
- Assist in identifying policy and funding needs and sources;
- Assist the Project's Procurement Officer in specifying purchasing needs;
- Provide guidance and report only to MAAIF/DAR/NADDEC and the PMU (adhering to confidentiality);
- Any other task deemed necessary and relevant to the assignment.

III. Expected outputs:

- Feasible last mile veterinary laboratory infrastructure plan, budget and procurement plan for project implementation;
- Tailored trainings developed for level 1 and 2 and provided for level 2 with NADDEC;
- Timely reviews, needs and feasibility assessments, and reports.

IV. Qualifications:

- Master's degree in Veterinary Sciences or comparable, and specialized in Diagnostic and Laboratory work;
- At least 5 years and preferably 7 years proven work experience in diagnostic and laboratory work, and setting up of laboratories and laboratory infrastructures;
 - Experience in economic assessments is essential;
 - Practical experience in data management, and laboratory software;
 - Experience and skills in training professionals;
- Familiar or experienced with animal disease surveillance or research is an advantage;
- Familiar with international standards concerning disease reporting is an advantage;
- Experience in the international and country context of Uganda.

V. Key competences:

- Professional in all aspects of the assignment;
- Fluent in English;
- Good communication and people-oriented skills, diplomatic;
- Can adapt and remain goal and results-oriented;
- Integrity and able to keep confidentiality;
- Computer literacy.

IV.2.7. Draft terms of reference for Veterinary Laboratory Specialist

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The project will increase the effectiveness of public institutions for the delivery of public-good related veterinary services, such as control of Transboundary Animal Diseases, and of constraining animal production and zoonotic diseases. Improved laboratory diagnostic services are important to confirm and to strengthen surveillance and disease outbreak response. For private livestock owners laboratory diagnostic confirmation is of growing importance for increasing productivity of their animals, as well as for veterinary care givers responsible for veterinary drug use stewardship to lower drug resistance and its One Health implications.

As part of Sub-component 1.3, the Project will engage a veterinary laboratory expert to train Ugandan District Veterinary Officers (DVO's) (bio-safety level 1).

I. General objectives of the assignment

i. Animal diseases of trade, production constraint or zoonotic nature, entail a public service responsibility. Confirmed diagnoses by laboratory testing improve disease surveillance, preparedness and outbreak response. Livestock owners can also have an interest in confirmation of clinical diagnoses, especially when treatment decisions involve costs and health risks. Uninformed use of veterinary chemicals can lead to drug resistance, environmental health damage and can pose zoonotic risks.

ii. The Project invests in production, productivity and income increase for resource poor livestock owners. The Project therefore promotes laboratory capacity building in Uganda from the last mile up. In line with a laboratory infrastructure needs and feasibility study in collaboration with the Ministry of Agriculture, Animal Industry and Fisheries, Directorate of Animal Resources (MAAIF/DAR), and its division National Animal Disease Diagnostic and Epidemiology Centre (NADDEC), a training for District Veterinary Officers (DVO's) has been developed. The Project seeks the assistance of a veterinary laboratory expert to provide this refresher course to DVO's in the project area. The course will include the importance of laboratory confirmation of clinical diagnoses, bio-safety, how to perform the tests and prescribe suitable treatments.

II. Duties and responsibilities:

Under the direct supervision of the Coordinator of the Project Management Unit (PMU), the veterinary laboratory specialist will perform a training for DVO's in the project area. The specific tasks include:

- Familiarize with the relevant outcomes of the Project's laboratory needs and feasibility study and training material for the DVO refresher course;
- Receive instructions for the intended DVO refresher training and provide feedback/co-develop the training under guidance and leadership of NADDEC and the senior international veterinary laboratory specialist;
- Provide the 2.5 day refresher training to 41 DVO's in two batches, once DVO's have received equipment and test materials;
- As part of the training, train the DVO's to instruct and assist the Sc para-veterinarians on how and when to use the pen site kits, do sample collection and transport, etc;
- Follow up on the training and visit (a subset) of trainees in their own bio-safety level 1 laboratories within three months;
 - Identify additional training and other needs for bio-safety level 1 laboratories;
 - Report to NADDEC and the PMU;
 - Any other task deemed necessary and relevant to the assignment.

III. Expected outputs:

- 41 DVO's in the project area have been trained in level 1 laboratory responsibilities and skills and guided in follow ups;
- Additional training and other needs have been identified;
- Timely reporting.

IV. Qualifications:

- Master's degree in Veterinary Sciences or comparable, and specialized in Diagnostic and Laboratory work;
- At least 3 years and preferably 5 years proven work experience in diagnostic and laboratory work;
- Knowledgeable on common veterinary (infectious) diseases, pathology and treatments;
- Practical experience in data management and laboratory software;
- Experience and skills in training professionals;
- Familiar or experienced with animal disease surveillance or research can be an advantage;
- Familiar with international standards concerning disease reporting;

- Experience in setting up laboratories and laboratory infrastructures can be an advantage;
- Experience in the country context of Uganda.

V. Key competences:

- Professional;
- Fluent in English and Luganda;
- Good communication and people-oriented skills, diplomatic;
- Can adapt and remain goal and results-oriented;
- Computer literacy.

[1] <https://www.fao.org/documents/card/en?details=cb3833en>

IV.2.8. Draft terms of reference for Senior International Veterinary Epidemiology and Vaccination Specialist

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The project will increase the effectiveness of public institutions for the delivery of public-good related veterinary services, such as control of Transboundary Animal Diseases, parasitic diseases constraining animal production and zoonotic diseases. Strategic vaccination campaigns can help control these disease burdens.

As part of Sub-component 1.3, the Project will engage a Senior Veterinary Epidemiology and Vaccination Specialist to assist in prioritizing and planning of strategic vaccination campaigns during the project and past project duration, involving the relevant participants in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and research.

I. General objectives of the assignment

i. Animal diseases of trade, production constraint or zoonotic nature, entail a public service responsibility. National animal diseases control and prevention is costly and resources are always limited. Disease outbreaks and constraints require risk management strategies and planned strategic vaccination campaigns.

ii. The Project seeks assistance of a senior expert that will closely collaborate and work with experts in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Directorate of Animal Resources (DAR) and the National Agricultural Research Organisation (NARO) and/or the University of Makerere on the planning and preparation of strategic cattle disease vaccination campaigns based on informed disease intelligence, priorities and feasibility.

II. Duties and responsibilities:

Under the direct supervision of the Coordinator of the Project Management Unit (PMU), the Senior International Veterinary Epidemiology and Vaccination Specialist will be responsible for establishing feasible strategic cattle disease vaccination campaign plans, including vaccine choice and delivery pathways for prioritized diseases, e.g. FMD, CBPP and LSD, in collaboration with the responsible experts in MAAIF/DAR. The specific tasks include:

- Familiarize with the relevant Ugandan and international policy frameworks, regarding animal diseases and One health;
- Familiarize with the Ugandan animal disease and One Health status quo, review collected data and literature;
 - Adhere to international standards;
 - Produce in collaboration with the responsible experts in MAAIF/DAR a long term national strategic cattle vaccination plan, including phasing and budgets for reducing animal disease burdens and One Health risks, and produce a report with recommendations;
 - Co-produce for the Project with MAAIF/DAR and PMU cattle mass vaccination campaign plans and preparations, including advice on vaccine choices, delivery and priority vaccination campaign areas and animal categories;
 - Assist in identifying policy, staffing and funding needs and sources, including coverage from other investors and donors;
 - Reflect, coach, share knowledge and experience with MAAIF/DAR experts as part of the collaboration;
 - Provide guidance and report only to MAAIF /DAR and the PMU (adhering to confidentiality);
 - Any other task deemed necessary and relevant to the assignment.

III. Expected outputs:

- Long term national strategic cattle vaccination plan, including phasing and budgets;
- Project cattle mass vaccination campaigns plans and preparations, including advice on vaccine choices, delivery and priority vaccination campaign areas and animal categories;
- Needs identified concerning policy, staffing and funding;
- Timely reports and guidance.

IV. Qualifications:

- Master's degree in Veterinary Sciences or comparable, and specialization in Veterinary Epidemiology;
- At least 5 years and preferably 7 years proven work experience in Veterinary Epidemiology and infectious livestock diseases;
- Well acquainted with disease surveillance, preparedness and outbreak response;
- Knowledge on vaccination and immune response impact on animal and herd disease prevalences and incidences;
- Proven experience in performing veterinary epidemiological and economic assessments;

- Familiar with international standards concerning vaccine production quality, transport and delivery pathways;
- Experience and skills in coaching/training professionals can be an advantage;
- Experience in the international and country context of Uganda.

V. Key competences:

- Professional in all aspects of the assignment;
- Fluent in English;
- Integrity and able to keep confidentiality;
- Good communication and people-oriented skills, diplomatic;
- Can adapt and remain goal and results-oriented;
- Computer literacy.

IV.2.9 Draft Terms of Reference for service provider supporting dairy and beef cooperatives

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

As part of Sub-component 2.1, the Project will support formation of producers groups and cooperatives in the dairy and beef sectors, build the capacities of newly formed groups/cooperatives and existing ones, provide them with regular coaching, and involve them in South South exchanges. These tasks will be implemented by one or two service providers (one for both value chains, or one for each of the two value chains).

General objectives of the assignment

The service provider will support formation of producer groups and cooperatives in the dairy and beef sectors, build the capacities of newly formed groups/cooperatives and existing ones, provide them with regular coaching, involve them in South South exchanges, and facilitate the establishment of productive alliances and hubs involving these cooperatives. These tasks will be implemented by one or two service provider (one for both value chains, or one for each of the two value chains)

Specific tasks

The Consultant/s will perform the following tasks but not limited to:

- Support creation of 40 new cooperatives - creation of new cooperatives will be a gradual process that will start by creation of producer groups which will, for some of them, later graduate into cooperatives
- Provide initial training and refresher training to 190 cooperatives (150 existing, 40 newly created). Training will cover technical aspects related to the sector of activity (milk handling and hygiene for cooperatives managing MCCs - beef production biosecurity and animal welfare for beef cooperatives), but also governance, business management, marketing.
- Provide continuous coaching (4 visits per year) to the new and existing cooperatives. Coaching visits will occur 4 times per year and will involve a technical coach and a business management coach
- Facilitate 50 South South exchange visits in the region or the country
- Facilitate the establishment of 40 dairy hubs, involving the most mature cooperatives
- Facilitate the establishment of 40 productive alliances, both in the dairy and beef sectors

Duration and scope of the assignment

- The assignment will be for a period of seven years, but could be the undertaken under several successive contracts or MoUs, with possible renewal upon successful implementation of the previous phase
- The assignment will cover the 41 Districts where RELIV is implemented; however, it could be divided in 2 or 3 geographical lots
- The assignment will be divided in two lots; one for the dairy sector, one for the beef sector. Depending on its expertise, a service provider could be allocated one or two lots

Responsibilities

The service provider will be responsible for the following tasks:

- Identify existing cooperatives to be supported by the project and assess their capacities and gaps
- Identify informal or formal groups that have the potential to be upgraded into cooperatives
- Recruit and train trainers, facilitators and coaches and manage them
- Organize training sessions and coaching visits including logistics
- Identify private sector actors that are willing to enter into productive alliance arrangements with cooperatives
- Facilitate productive alliances arrangements including business plans and contracts
- Identify cooperatives managing MCCs that have the potential to be upgraded into dairy hubs
- Facilitate creation of hubs including business plan development and coaching
- Identify location and groups with potential to receive exchange visits in the region or the country
- Organize and facilitate exchange visits including logistics

Experience and competencies

The service provider should have the following competencies:

- The SP could be a national NGO, an international NGO, a consultancy company, or a consortium of entities
- The SP should have a prior experience in support to cooperatives and producer groups in value chain development projects (in the country, or in the region)
- The SP should have a prior experience in the sectors that he applies for (dairy or beef)

IV.2.10. Draft Terms of Reference for consultancy services on energy efficiency and solar energy

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration

as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge.*

As part of Sub-component 2.1, the Project will focus on the promotion of solar energy at the processing stage for MCPs and MCCs.

General objectives of the assignment

The Consultant/s will: (i) provide energy and sustainability expertise; (ii) develop a detailed energy assessment of MCCs and MCPs; (iii) develop and install a digital monitoring system for M&E; (iv) provide technical procurement support; (v) develop a formal technical evaluation of installed equipment.

Specific tasks

The Consultant/s will perform the following tasks but not limited to:

- Assess fuel and energy usage and recommend energy efficiency measures
- Recommend sizing and define specifications for solar power and energy saving systems (for supply and installation by other service providers)
- Provide procurement support and engage in the installation of the equipment
- Engage in formal inspection of installed equipment
- Supply and implement a digital monitoring system to ensure reliability and lasting impact
- Conduct supervision and oversight, as well as evaluation and impact reporting (including regular engagement with MCCs and MCPs; impact metrics)
- Recommend scalability strategies for effective expansion of support – including financing and logistics

Expected outputs

- Detailed energy assessment report delivered, recommendations for efficiency improvements at MCCs and MCPs provided and calculation of potential impact performed
- Detailed design of installation
- Detailed specifications for procurement of equipment and civil works
- Digital monitoring system installed and operational
- Assessment report for all bidder documentation including financial analysis provided
- Installation inspection report including any corrective action requirements developed
- Visit report provided for all activities
- Any other task deemed necessary by the task team relevant to the assignment

IV.2.11: Draft terms of reference for service provider on waste management using Black Soldier Fly for upcycling.

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

As part of Sub-component 2.1, the Project will pilot upcycling of bio-waste from slaughterhouses with Black Soldier Fly farming (SME).

I. General objectives of the assignment

- i. The Project will pilot Black Soldier Fly farming for upcycling of bio-waste from slaughterhouses - non-consumable offal, blood and manure - to produce protein for animal feed, and compost for food and fodder cropping. Black Soldier Fly farming has already been introduced to Uganda at small scale, but evidence of economic viability is lacking for SMEs, and the bio-waste diet for BSF maggots will be tested and adjusted by NARO and/or ICIPE experts for establishing a right balance when introducing bio-waste of animal origin.
- ii. Upcycling bio-waste requires economic sustainability, i.e. entrepreneurial skills, supply of bio-waste and demand for the products, and reliable pricing. Supply of the right balance and volume of bio-waste products and demand by off-takers and reliable prices of magot protein and compost being critical for business continuity, needs securing (e.g. working with contracts). This will be technically and entrepreneurially assisted during a two-year pilot with 3 Black Soldier Fly SMEs. NARO will test the economic viability and the quality of the end products.
- iii. The Service Provider will work closely with NARO expert(s) and the Project Management Team (PMU), together forming the pilot task team, while engaging and assisting selected groups of women and youth (app. 5 members per group).

II. Specific tasks

The Service Provider will perform the following tasks (but not limited to):

- Familiarize with the test outcomes from NARO's BSF diet adjustment study;
- Train, assist setting up and guide the insect farms;
- Assist with finding contract partners for waste supply and product offtake;
- As part of the task team, facilitate data collection by NARO and keep records as required, e.g. regarding production and adoption of the practices;
- Share experience and insights with the task team for design, analysis and reporting of the pilot;
- Any other task deemed necessary by the task team and relevant to the assignment.

III. Expected outputs

- Two groups of insect farmers trained, assisted monitored and guided;
- Two BSF farms established, having sustainable supply, offtake and prices;
- Data collection facilitated and records provided on e.g. product quality, practice adoption, economic viability and other relevant records.

IV. Timeline

Deliverable	Deadline
2 groups of participants trained, monitored and guided	Project year 3
2 BSF farms set up and operational	Project year 3
Facilitated / assisted data collection and record keeping and sharing with the task team	Project year 3
2 BSF farms having sustainable supply and off take and economically viable prices (contracts)	Project year 4
Records shared with NARO	Project year 3 & 4 continuous

IV.2.12: Draft ToRs of Nutrition Specialist (Nutrition Education and SBCC)

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

Under the supervision of the Program Director/Coordinator (PMU), the Nutrition Specialist will work closely with PMU social inclusion specialist and provide support to the preparation and conduct of nutrition education and SBCC training modules, development of SBCC tools and materials.

Main tasks and responsibilities:

- Provide inputs for methodology for conducting assessments including Knowledge, Attitudes and Practices (KAP), farming households' dietary intake and gathering information on locally available foods, dietary habits, and patterns of seasonal availability as well as cost (at baseline, mid-term and at end).
- Review and assess current Social and Behavior Change Communication (SBCC) activities related to nutrition as well as key partners, activities, and materials.
- Design and carry out a mixed-method rapid participatory nutrition education and SBCC assessment to inform the development of SBCC activities/materials.
- Based on the SBCC rapid study findings, design relevant nutrition education and SBCC training modules, including appropriate tools and handouts.
- Develop a series of nutrition education and SBCC promotional materials in format that is suitable for different audiences, including proposals for ICT technology (radio, TV, mobile and etc.) to reach out wider consumers for encouraging increased consumption of dairy and encouraging healthy diets.
- Work closely with the service provider to ensure that nutrition education and SBCC training modules are well integrated into their implementation plan.
- Conduct rapid ToT on nutrition education and SBCC for project field staff, project service provider, district staff, agriculture extension staff.
- Provide inputs to a national workshop to share lessons, materials, and create national awareness across sectors/stakeholders.

Competencies:

- Bachelor's degree in social sciences, nutrition, communication, or related field
- Good understanding of behaviour change communication theory aware of good nutrition education SBCC strategies/examples, with previous similar experience will be an asset.
- At least 3-5 years of experience in designing nutrition education and social behaviour change communication materials.
- Experience in conducting participatory research, KAP surveys.
- Good knowledge of nutrition, its causes, and drivers (underlying causes) in Uganda context.

- Working experience in nutrition education, programmes on household food security
- Proficient in the use of computer programs to design materials.
- Good communication skills
- Languages: speaking Ugandan language and excellent knowledge of English

Expected Outputs:

- ToT on nutrition and SBCC for households and communities prepared.
- ToT on nutrition and SBCC conducted for project field staff, project service provider, district staff, agriculture extensions staff.
- Nutrition education and SBCC materials developed in English.
- Nutrition awareness campaigns conducted in close collaboration with the KM and SI Specialists of PMU

IV.2.13: draft ToRs of Service Provider - Nutrition-sensitive interventions

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

The project will engage a service provider to support the implementation of nutrition education and SBCC relevant activities.

Main Tasks and Responsibilities:

The service Provider will be engaged to support PMU and will be responsible to:

- In collaboration with Nutrition consultant and PMU Social Inclusion Specialist prepare campaign on nutrition.
- Implement nutrition education and SBCC at community and household levels.
- Organize village nutrition days and or any relevant venues where nutrition sensitization can be provided to various audiences.
- To implement communication interventions channelled through different project groups (L-FFS, alliances etc) aimed at increasing consumption of dairy and meat products as part of balanced diets.
- To implement nutrition education and communication campaigns aimed at promoting commercialization and consumption of high quality and safe dairy products. The implementation should include an approach to improve awareness and demand for dairy products targeting value chain actors to promote adoption of improved technology, quality, safety and standard application by farmers and consumption amongst farming households and other consumers in the implementation areas.
- Travel frequently to the districts to meet with communities and households and assess their acceptance and changes in terms of knowledge, attitudes and practices in consuming animal sourced food as part of a balanced diet.
- Visit communities frequently to assess effectiveness of linkages and areas of improvement/scaling-up.
- Collect lessons learned on uptake and challenges in implementing nutrition education and SBCC at various levels.

Required competencies:

- Capacity and proven records of supporting community and household food security, nutrition and livelihoods.
- Excellent understanding of agricultural systems, diets, and institutions.
- Excellent knowledge of nutrition, its causes, and drivers (underlying causes).
- Working experience with farmer's groups/rural communities.
- Experience in conducting participatory research.
- Experience in conducting nutrition education and SBCC.

- Excellent communication skills.

Expected Outputs:

- Nutrition education and SBCC communication materials distributed to communities
- Nutrition education and SBCC conducted to selected households and communities
- Nutrition sensitization and awareness raising carried out to value chain actors (transporters, processors, retailers and etc.)
- Village Nutrition days have been celebrated and supported with special emphasis on dairy and meat
- The social behavioural change campaign implemented using various channels (TV, radio)
- Provision of reports, including attendance list, campaign reports, all communication materials, and documents etc.

IV.2.14: Draft Terms of Reference for Provision of Business Development Services for SMEs in the Dairy and Livestock Value Chains

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

Rationale

Under sub-component 2.3.1, the project will deliver Technical Assistance (TA) through Business Development Services (BDS) to empower key stakeholders within the dairy and livestock value chains, including cooperatives and SMEs. BDS aims to boost operational efficiency and facilitate access to crucial financial resources. Contracted BDS providers will craft robust business plans, deliver financial management training, and assist in developing bankable proposals aligned with funders' and lenders' requirements. Additionally, BDS will include enterprise viability assessments and ongoing mentorship and coaching to support stakeholders throughout their business development journey. Particular emphasis will be placed on screening and supporting women and youth-led small-scale businesses, with coaching and training tailored to their business models.

The BDS enhances operational efficiency and facilitates access to crucial financial resources. As part of this initiative, contracted BDS providers will be engaged to offer comprehensive support to targeted stakeholders.

Objective

The main objective for this assignment is to provide Technical Assistance (TA) through Business Development Services (BDS) to empower key stakeholders within the dairy and livestock value chains, focusing on cooperatives and SMEs. The aim is to enhance operational efficiency and facilitate these stakeholders' access to crucial financial resources. Specifically, the contracted BDS providers will be tasked with developing tailored business plans, delivering financial management training, creating bankable proposals, conducting enterprise viability assessments, and providing ongoing mentorship and coaching. Special emphasis will be placed on supporting women and youth-led small-scale businesses, ensuring that coaching and training programs are customized to their needs and business models.

Scope of Work:

The contracted BDS providers will undertake the following tasks:

1. Develop robust business plans tailored to the specific needs and objectives of cooperatives, SMEs, and other stakeholders within the dairy and livestock value chains.
2. Offer financial management training to enhance stakeholders' understanding of financial concepts, budgeting, and cash flow management.

3. Assist stakeholders in crafting bankable proposals that align with funders' and lenders' requirements and expectations, ensuring feasibility and sustainability.
4. Conduct enterprise viability assessments to evaluate the economic feasibility and potential risks associated with business ventures.
5. Provide ongoing mentorship and coaching to support stakeholders throughout their business development journey, offering guidance and advice on strategic decision-making and problem-solving.
6. Special attention should be given to screening and supporting women and youth-led small-scale businesses, with coaching and training programs tailored to their business models and needs.

Deliverables:

The BDS providers will be expected to deliver the following outputs:

1. Comprehensive business plans for targeted stakeholders, including detailed financial projections and risk assessments.
2. Document financial management training sessions conducted, including materials used and participant feedback.
3. Bankable proposals aligned with the needs of funders and lenders, demonstrating the viability and sustainability of proposed initiatives.
4. Enterprise viability assessment reports outline identified business ventures' strengths, weaknesses, opportunities, and threats.
5. Regular progress reports documenting mentorship and coaching activities undertaken, highlighting key achievements, challenges, and recommendations.

Duration and Timeline:

The contract period for BDS provision is [insert duration]. The project work plan will outline the timeline for specific activities, with deliverables expected at predetermined intervals throughout the contract period.

Qualifications and Expertise:

The BDS providers should possess the following qualifications and expertise:

- Demonstrated experience providing business development services, preferably in agriculture or livestock sectors.
- Expertise in financial management, including budgeting, financial analysis, and cash flow management.
- Strong analytical skills and the ability to assess the viability and feasibility of business ventures.
- Experience working with cooperatives, SMEs, and marginalized groups, focusing on women and youth-led enterprises.
- Excellent communication and interpersonal skills, with the ability to effectively engage with stakeholders at various levels.
- Relevant academic qualifications and professional certifications in business management, finance, or related fields.

Reporting and Communication:

The BDS providers must submit regular progress reports to the project management team detailing activities undertaken, achievements, challenges, and recommendations. Close

coordination and communication with project stakeholders, including cooperatives, SMEs, and project staff, will also be essential throughout the contract period.

Budget: the budget allocation for BDS provision will be based on the scope of work and deliverables outlined in this Terms of Reference. Detailed budget breakdowns should be provided as part of the proposal submission process.

Evaluation and Selection Process:

BDS providers will be selected through a competitive bidding process, with proposals evaluated based on technical expertise, relevant experience, proposed methodology, and budget. Shortlisted candidates may be invited for further discussions or presentations before making a final selection.

Contractual Arrangements:

Successful BDS providers will enter into a contractual agreement with the project implementing agency, outlining rights, responsibilities, deliverables, payment terms, and other relevant terms and conditions.

Confidentiality and Intellectual Property:

BDS providers must maintain confidentiality and protect the project's and its stakeholders' intellectual property throughout the contract. Any materials or information provided by the project shall remain the project's property and may not be disclosed or used for any other purpose without prior written consent.

Amendments and Termination:

The terms of this contract may be amended or terminated by mutual agreement between the parties, subject to the terms and conditions outlined in the contractual agreement.

Compliance and Ethics:

BDS providers shall adhere to the highest standards of professionalism, integrity, and ethical conduct in performing their duties, ensuring compliance with relevant laws, regulations, and project policies.

IV.2.15: Draft Terms of Reference for Provision of Product Development Support to Financial Service Providers

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

Rationale

Under sub-component 2.3.2, the project will deliver Technical Assistance (TA) for product development support to 30 Financial Service Providers (FSPs) to enhance the capacity of partner FSPs in developing tailored financial products for the livestock sector. The project will contract firms, each assigned to work with at least 10 PFIs. The firms will provide technical assistance and guidance to FSPs in refining and developing financial products specifically designed for dairy and beef value chain stakeholders, emphasising providing loan products suitable for women and youth.

The product development TA will involve market research, product ideation, prototype development, pilot testing plan and protocol development, actual pilot product testing, product testing reviews, and product planning and roll-out. The outcome of this support is to increase the variety of loan products offered by FSPs to address the specific financing needs of the beef and dairy value chain actors, including women and youth. In total, 30 PFIs will be supported to develop at least four livestock-specific financial products, spanning PY2 through PY5, with the support provided over three years through consultancy services.

Objective

The objective of this type of assistance to financial service providers (FSPs) including commercial banks, credit institutions, microfinance deposit-taking institutions (MDIs), Fin-techs, Ag-Techs, and SACCOs, is to enhance their capacity to develop tailored financial products for the livestock sector. This includes refining existing products and creating new ones to meet the specific financing needs of stakeholders within the dairy and beef value chains, with a particular emphasis on inclusivity and addressing the needs of women and youth.

Scope of Work:

- The selected firms will build on the identified FSP needs in the scoping study to analyze financing gaps within the beef and dairy value chains. This serves as a basis for subsequent product development initiatives.
- Financial Product Development Support: Work with 10 PFIs in each lot (totalling 30 PFIs) to develop tailored financial products for the livestock sector. This support will involve market research, product ideation, prototype development, pilot testing, and product rollout, emphasising providing loan products suitable for women and youth.

Consultancy Duration:

The consultancy services will span three years, commencing in Program Year 2 (PY2) and concluding in PY5.

Deliverables:

The firms are expected to deliver the following:

1. Livestock-Specific Financial Product Proposals: Developed financial product proposals for each PFI, including market research findings, product ideation, prototype development, and pilot testing outcomes.
2. Final Report: A comprehensive report summarizing the consultancy's activities, outcomes, and recommendations.

Selection Criteria:

Firms will be evaluated based on their experience in financial product development, expertise in the livestock sector, understanding of climate finance, proposed methodology, team composition, and cost-effectiveness.

Submission Requirements:

Interested firms must submit a detailed technical proposal outlining their approach, methodology, team qualifications, relevant experience, and a separate financial proposal.

Timeline:

The timeline for the procurement process, including submission deadlines, evaluation period, and contract award, will be communicated to all prospective bidders upon release of the Request for Proposals (RFP).

Contract Terms:

The selected firms will enter into consultancy contracts with the project implementing agency, outlining the scope of work, deliverables, timelines, payment terms, and other relevant terms and conditions.

Confidentiality and Conflict of Interest:

Firms must adhere to strict confidentiality requirements and disclose potential conflicts of interest. Any conflicts identified will be addressed by the project's conflict of interest policy.

Budget Allocation:

The budget allocated for this consultancy will cover the costs associated with the scoping study, financial product development support, and other related activities.

Evaluation and Award:

The evaluation committee will assess proposals based on the specified selection criteria and recommend the most suitable firms for contract award. The project steering committee will make the final decision.

Communication:

All communication regarding the procurement process, including clarifications and updates, will be conducted through official channels designated by the project management unit.

Contact Information:

For inquiries and further information, interested firms can contact

[Insert Contact Information].

Note: The terms of reference outlined above are subject to any revisions or amendments deemed necessary by the project management unit before issuing the Request for Proposals (RFP).

IV.2.16: Draft Terms of Reference for Strengthening Financial Literacy in Livestock Beef and Dairy Value Chains

Background:

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

Rationale

Under component 2.3, the project shall provide financial literacy support to smallholder farmers. The consent shall involve the development and delivery of tailored financial literacy training programs that will be implemented for farmers, Dairy Cooperative executives, MCC and MCP managers, and other key personnel. These initiatives will equip participants with essential financial management skills and empower them to make informed financial services and investment decisions. Special efforts will be made to target women and youth participants in the financial education programs. This intervention seeks to enhance participants' financial management skills and empower them to make informed financial services and investment decisions. As part of this initiative, customized FL curricula will be developed, train-the-trainer courses will be conducted, and training sessions will be delivered to beneficiaries. Additionally, relevant Information, Education, and Communication (IEC) materials will be developed to support FL initiatives.

Objective

This intervention aims to enhance the financial literacy of smallholder farmers and other actors within the livestock value chains, such as Dairy Cooperative executives, Milk Collecting Center (MCC) and Milk Collecting Point (MCP) managers. By customizing financial literacy curricula and conducting tailored train-the-trainer courses, the aim is to build a critical mass of community-based trainers equipped to deliver effective financial education within the livestock sector. Participants will develop essential financial management skills Through training sessions covering budgeting, saving, borrowing, investment, and financial planning. Additionally, developing Information, Education, and Communication (IEC) materials will support outreach efforts, enhancing engagement and disseminating financial literacy initiatives. Special attention will be given to targeting women and youth participants, thereby promoting inclusivity and empowering marginalized groups to make informed financial decisions.

Scope of Work:

The selected consultant(s) will undertake the following tasks:

1. Customize existing financial literacy curricula to address the specific needs and challenges faced by actors in the livestock value chains, including smallholder farmers,

Dairy Cooperative executives, Milk Collecting Center (MCC) and Milk Collecting Point (MCP) managers, and other key personnel.

2. Develop comprehensive train-the-trainer courses to build a critical mass of community-based trainers with expertise in delivering financial literacy training within the livestock sector.
3. Conduct training sessions for beneficiaries based on the customized FL curricula, covering budgeting, saving, borrowing, investment, and financial planning topics.
4. Collaborate with project stakeholders to develop relevant Information, Education, and Communication (IEC) materials, including brochures, leaflets, posters, and audiovisual aids, to support FL initiatives and enhance outreach and engagement.

Deliverables:

The consultant(s) will be expected to deliver the following outputs:

1. Customized financial literacy curricula tailored to the livestock value chains, including detailed lesson plans, training materials, and assessment tools.
2. Train-the-trainer courses conducted, including training manuals, presentations, and participant evaluations.
3. Training sessions delivered to beneficiaries, with documentation of attendance, feedback, and outcomes.
4. Comprehensive Database of 820 Certified Trainers
5. Relevant Information, Education, and Communication (IEC) materials developed, including content for brochures, leaflets, posters, and audiovisual aids.

Duration and Timeline:

The consultancy period is [insert duration]. The project work plan will outline the timeline for specific training activities, with training reports (deliverables) expected at predetermined intervals throughout the consultancy period.

Qualifications and Expertise:

The consultant(s) should possess the following qualifications and expertise:

- Be a certified provider of Financial Education as per the National Financial Literacy Strategy
- Demonstrated experience developing and delivering financial literacy training programs, preferably within the agriculture or livestock sectors.
- Expertise in curriculum development, adult education, and train-the-trainer methodologies.
- Strong communication and facilitation skills, engaging diverse stakeholders and delivering interactive training sessions.
- Experience working with smallholder farmers and marginalized groups, with an understanding of their unique needs and challenges.
- Relevant academic qualifications and professional certifications in education, finance, or related fields.

Reporting and Communication:

The consultant(s) will be required to submit regular progress reports to the project management team detailing activities undertaken, achievements, challenges, and recommendations. Close coordination and communication with project stakeholders, including

farmers, Dairy Cooperative executives, and project staff, will be essential throughout the consultancy period.

Budget:

The budget allocation for the consultancy will be based on the scope of work and deliverables outlined in this Terms of Reference. Detailed budget breakdowns should be provided as part of the proposal submission process.

Evaluation and Selection Process:

The consultant(s) will be selected through a competitive bidding process, with proposals evaluated based on technical expertise, relevant experience, proposed methodology, and budget criteria. Shortlisted candidates may be invited for further discussions or presentations before making a final selection.

Contractual Arrangements:

Successful consultant(s) will enter into a contractual agreement with the project implementing agency, outlining rights, responsibilities, deliverables, payment terms, and other relevant terms and conditions.

Confidentiality and Intellectual Property:

The consultant(s) will be required to maintain confidentiality and protect the project's and its stakeholders' intellectual property throughout the consultancy. Any materials or information provided by the project shall remain the project's property and may not be disclosed or used for any other purpose without prior written consent.

Amendments and Termination:

The terms of this contract may be amended or terminated by mutual agreement between the parties, subject to the terms and conditions outlined in the contractual agreement.

Compliance and Ethics:

The consultant(s) shall adhere to the highest standards of professionalism, integrity, and ethical conduct in performing their duties, ensuring compliance with relevant laws, regulations, and project policies.

IV.2.17: Draft Terms of Reference (TOR) for Scoping Study inform the implementation of the access to financial services sub-component

Background

Government of Uganda and the International Fund for Agriculture Development (IFAD) designed the Resilient Livestock Value chain Project (ReLIV). The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance; and, (iii) strengthened policy and regulatory environment. RELIV will cover 41 districts across the cattle corridor. ReLIV will also contribute to greening the dairy and beef value chains through improving carbon sequestration as well as adaptation to climate change which is inline with *with national commitments in National Determined Contribution (NDC) and the Global Methane Pledge*.

Rationale

One of the project components shall support the development of livestock-specific climate finance products by financial institutions: The project will enlist technical assistance (TA) providers to extend support in product development for partner financial institutions (PFIs). This assistance aims to empower PFIs, which encompass commercial banks, credit institutions, microfinance deposit-taking institutions (MDIs), Fin-techs, Ag-Techs and savings and credit cooperative societies (SACCOs), to refine and create financial products customized to meet the financing requirements of diverse stakeholders within the dairy and beef value chains. Specifically, providing Product Development Technical Assistance to FSPs shall aim to benefit lower-tier FSPs operating the 41 project districts by helping them develop tailored financial products and services to meet their clients.

Objective

The overarching objective of the scoping study is to inform and guide the implementation of the access to financial services sub-component within the project's 41 districts. By thoroughly assessing the financial landscape, identifying key stakeholders, and evaluating the adequacy of existing financial products tailored to the livestock sector, the study aims to facilitate the development of targeted interventions that effectively address the financing needs of diverse stakeholders.

The contracted service provider shall undertake a Tier IV Microfinance Institutions (especially SACCOs, VSLAs, and community-based microfinance institutions) scoping study to inform the implementation of the access to financial services sub-component in 41 Districts. The objectives of the scoping exercise shall be to:

1. Generate a list of FSPs operating in the 41 project districts.
2. Assess the development and refinement needs of livestock-specific finance products by partner financial institutions (PFIs), including the climate change adaptation loan products offered by Equity Bank Branches operating within the 41 project districts.
3. Evaluate the coverage of equity bank branch networks within the project districts and highlight any existing gaps.
4. Identify gaps in livestock-appropriate funding provided by equity bank Climate Change Adaptation (CCA) micro, SME and Corporate products and those that cannot be addressed.

RELIV will use the findings and recommendations in the scoping report to refocus the interventions under sub-components **2.3.2** (*Support the development of livestock-specific climate finance products by financial institutions*) and **2.3.4** (*Leverage climate change investments in the livestock sector*)

Scope of Work:

1. Evaluate the current landscape of financial products offered by partner financial institutions (PFIs), including commercial banks, credit institutions, microfinance deposit-taking institutions (MDIs), Fin-techs, and savings and credit cooperative societies (SACCOs), targeting stakeholders within the dairy and beef value chains.
2. Document the current and key general smallholder livestock lending trends in Uganda. The consultant should provide specific insights about the trends in the cattle corridor, specifically, around livestock farmers' access to finance through FSDs, especially Tier-4 Microfinance Institutions, including government policies, private sector initiatives, complimentary non-bank issues, donor priorities and legal considerations.
3. Identify the specific financing needs of various dairy and beef value chain stakeholders, including smallholder farmers, cooperatives, and SMEs.
4. Assess the suitability and effectiveness of existing financial products in meeting the financing needs of livestock farmers.
5. Analyze the coverage and distribution of equity bank branch networks within the 41 project districts.
6. Highlight gaps in equity bank branch coverage and identify areas with limited access to climate finance products.
7. Identify potential areas of collaboration and partnership between partner financial institutions (PFIs) and equity banks to address financing gaps in climate change adaptation.
8. Review gender-related opportunities to support women and youth-led agri-businesses initiatives using credit.

Methodology:

1. Desk review of existing literature, reports, and data related to financial products and branch network coverage.
2. Stakeholder consultations with partner financial institutions (PFIs), equity bank representatives, livestock farmers, cooperatives, and SMEs.
3. Field visits to project districts to assess the on-ground situation and gather firsthand information.
4. Conduct surveys or interviews with key stakeholders to understand their financing needs and challenges.
5. Utilize Geographic Information System (GIS) mapping to visualize the distribution of equity bank branches and identify coverage gaps.

Scoping areas and key informants

1. The fieldwork will take place in the 41 project districts or a representative sample
2. Key informants will comprise, among others, managers of Tier-4 MFIs/SACCOs and other FSPs
3. Applicable District Commercial Officers.
4. The scoping will be implemented closely with the RELIV Project.

Deliverables:

1. The inception report is acceptable, presenting proposed methodologies, data collection, and specific plans with timelines for the scoping study.
2. Final scoping study report outlining context, opportunities, FSP product profiles, and limitations of FSPs to cater for credit needs of men, women, and youth livestock farmers and other actors in the beef and livestock value chains, including proposed list and justification for FSPs (SACCOs/MFIs) that can potentially be secondary project beneficiaries to be supported under sub-component 2.3.2 and 2.3.4.
3. GIS maps highlight the coverage of equity bank branch networks and identify gaps.
4. Presentation of findings to project stakeholders and relevant partners.

Timeline:

The scoping study is expected to be completed within 3 Months from the commencement date.

Budget:

Provide a detailed budget breakdown for conducting the scoping study, including expenses related to travel, stakeholder consultations, data collection, analysis, and report writing.

Qualifications

Team Structure and Qualifications of Service Provider: The service provider shall propose a team structure showing team members a mix of skills including, but not limited to:

- Strong experience in conducting scoping studies in the rural finance sector.
- Track record market research and data analysis.
- Experience in writing narrative and analytical reports.
- An understanding of the livestock Uganda context.
- Excellent communication skills in English.
- Team members with relevant tertiary qualifications.
- Relevant academic and professional finance, business, and financial analysis track record.

IV.3: TEMPLATE FOR DETAILED FM ARRANGEMENTS IN THE PROJECT DESIGN REPORT (PDR)

Summary of Financial Management arrangements

MAAIF, the lead implementing agency, will manage the project's financial management through a dedicated PMU. It will release funds against agreed AWPB, disburse funds to implementing agencies, and coordinate monitoring and financial reporting. MAAIF has experience in implementing IFAD funded projects (NOPP and NOSP) and would use lessons learned from going projects to improve financial management. MoUs will be established between MAAIF and participating districts/implementing agencies, outlining FM requirements and responsibilities. Signature of MoUs is required for fund disbursements.

The PMU will conduct project budgeting in accordance with IFAD procedures and public financial management regulations of the Government of Uganda. The AWPB will be prepared with sufficient details showing activities by categories, component and financiers and be approved by the Project Steering Committee before receiving a "no-objection" from IFAD. Budget submission calendar will be included in the FMFCL to the borrower.

The disbursement mechanism are advance withdrawal and direct payments. Disbursements from IFAD will be made by way of an advance to Designated Accounts, with subsequent replenishments quarterly based on interim financial reports (IFRs) cash forecasts, aligned to approved AWPB. Disbursement from IFAD will be based on quarterly Interim Financial Report (IFR) submitted by the project within 30 days after the end of reporting period with a withdrawal applications in IFAD Client Portal (ICP).

To prevent commingling of funds, designated accounts for different financing sources will be established, with separate USD bank accounts for each co-financier. IFAD, acting as the accredited entity for GEF and GCF funds, will ensure compliance with disbursement protocols. GoU funds will also be disbursed through a separate bank account in UGX. In-kind contributions from project beneficiaries and the Ugandan Government will be monitored and recorded by PMU. The AWPB will provide details on financiers and financing proportions for each activity, guiding finance teams in expenditure allocations. Each district/implementing agency will have a dedicated project account in local currency for receiving funds from PMU. A detailed fund-flow diagram is provided in the project implementation manual (PIM).

The project finance teams will be competitively selected and comprise qualified personnel with appropriate financial management expertise. Capacity building training will be organized at the start-up to familiarize staff with FM requirements. IFMIS will be used for recording financial transactions, and the finance team will produce analytical reports by components, categories, financiers, and accounting period by quarter, annual and cumulative inception to date. Regular field visit for financial monitoring of participating districts/implementing agencies by the project accountant will ensure compliance with project reporting requirements and capacity building on weaknesses.

MAAIF Internal Auditors will provide internal audits oversight, but each implementing entities must also plan and execute audits for their activities under their institutions, with guidance and collaboration from MAAIF Internal Auditors.

Uganda's supreme audit institution (SAI) will provide an external audit of IFAD-funded projects in Uganda. The auditor's annual work plan will ensure adequate coverage of institutions receiving project 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.

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, FM measures include annual external audit reviews, approved FM procedures, strong FM 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 project.

The overall inherent risk is rated moderate, and residual risk remains moderate. Mitigation measures will be implemented during implementation, followed by review and amendment of residual risks rating based on FM assessments during supervision.

I. Project financial profile

The goal of the project is to contribute to the improved livelihoods of smallholder livestock farmers in Uganda. The Project Development Objective is to enhance income, nutrition and resilience of smallholder dairy and beef producers. The project outcomes are: (i) increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) enhanced access to markets for smallholder producers and access to finance, (iii) strengthened policy and regulatory environment.

The overall cost of the Project of US\$200.76 million is expected to be disbursed over eight years. Of this total financing, IFAD's contribution amounts to US\$89.57 million from Uganda's IFAD12 Performance-based Allocation System (PBAS) and US\$10.00 million already confirmed from IFAD's Borrowed Resource Access Mechanism (BRAM) for a total of US\$99.57 million and representing 49.6 per cent of the total project costs. The Project will leverage financing from Green Climate Fund (GCF), specifically from the "Dairy Interventions for Mitigation and Adaptation (DaIMA)" project covering Uganda, estimated at US\$42.50 million (21.2 per cent of the total allocation). Additionally, the Africa Rural Climate Adaptation Finance Mechanism (ARCAFIM) from the GCF will contribute at US\$ 15.00 million (7.5 per cent of the project's financing). The Government of Uganda's contribution is expected to cover at least 14.4 per cent of total project costs in the form of in-kind and/or cash contributions amounting to US\$29.00 million. The Global Environmental Facility (GEF) will contribute with US\$ 7.50 million, representing 3.7 per cent of the total allocation. Beneficiaries will contribute to the project in cash or in kind, amounting to at least US\$ 7.19 million, which represents 3.6 per cent of the total project cost.

The project disbursements categories comprise of: - i) Works; ii) Vehicles; iii) Goods, services & inputs; iv) Equipment & material; v) Consultancies; vi) Consultancies; vii) Training & Workshop; viii) Salaries & allowances; and ix) Operating costs which are allocated across various co-financiers. GCF funding also includes grants and subsidies as part of investment costs. The overall programme recurrent costs are 4% for the total programme while under IFAD financing it results to 8% which is within acceptable limits. Trainings and workshops are considered high risks expenditure categories which will be monitored closely to ensure it is adequately supported and incurred as per procedures.

II. Implementation Arrangements

The Ministry of Finance, Planning and Economic Development will formally represent the GoU on matters of RELIV as the borrower of funds from IFAD, while the MAAIF will be the lead implementing agency, providing strategic policy guidance and oversight of RELIV. MAAIF has previously implemented various IFAD funded projects and currently has two ongoing projects namely NOSP and NOPP and would use lessons learned from the previous and existing projects to enhance financial management of the project. The day-to-day project implementation of RELIV will be the responsibility of an independent PMU, established under the MAAIF. Technical departments of MAAIF will closely interface with the PMU and support programme implementation by providing technical expertise in the relevant technical areas of the project. The finance positions are expected to fill before full conditions for disbursement are considered met for the release of funds. The MAAIF has implemented on-going projects with good

financial management and received clean audit opinion the last three years. There has been high quality FM performance in the on-going projects, and this is expected to continue in RELIV. The project would be implemented in 10 districts along the cattle corridor of Uganda. Semi-Autonomous agencies and districts would sign MOUs with the PMU before advances are released for implementation of activities in the field.

The PMU will be responsible for overall financial management of the Programme. It will be responsible to release funds against agreed plans, drawn out of the approved AWPBs, and make payments to supplier and contractors-based work completed, and coordinate monitoring and financial reporting for the Programme as a whole. The project would use the government IFMIS system for budgeting and financial reporting. Internal audit for the project would be performed by MoFPED internal auditors assigned to the MAAIF and the external audit oversight would be the responsibility of the Office of the Auditor General- Uganda. Both internal and external audit functions proposed are the same in the on-going projects.

III. **Financial Management Risk Assessment**

Table 2. Summary of FM Risks and mitigating actions:

Summary	Brief description of issues	Inherent Risk at design H/S/M/L	Agreed Measures (covenants precedent to disbursement)	Mitigation to Residual Risk H/S/M/L
A. Inherent risk assessment pillars				
i. Country level	In 2022, the TI Corruption Perception Index for Uganda scored 26 (deteriorating vs PY 28) which places the country in 142nd position out of 180 countries. Uganda has scored less than 29/100 points in the last ten years. A country with a score below the global average of 43/100 points or a score below 50/100 points indicates serious levels of public sector corruption. According to the Mo Ibrahim Index (2022), measuring governance performance, Uganda is among the lower half of table for African countries on governance policy performance. Uganda ranked 31 out of 54 African countries showing no improvements over the last decade, including the sub-dimension on Accountability & Transparency and Anti-corruption. The 2016 Public Expenditure and Financial Accountability (PEFA) assessment report in Uganda	Substantial		

	<p>showed improvements in the Public Financial Management (PFM) system. The IFMIS system produces a reliable national budget, provides transparent and comprehensive documentation, and provides adequate guidance for budget preparation. Cash forecasting is well integrated into accounting systems, ensuring reliable fund allocation. However, accuracy and timeliness of reporting need improvement. External audit scrutiny performed satisfactorily, but legislative scrutiny was weak due to late submission of audited financial statements. In summary, the assessment of PEFAs in 2012 and 2016 reveals improved credibility, better debt recording, improved internal control, and improved audits, despite resource constraints.</p>			
<p>ii. Entity level</p>	<p>The lead implementing agency is MAAIF which has two on-going project NOSP and NOPP in Uganda. NOPP is in the 4th year of implementation and has experience slow implementation and disbursement. The MAAIF and MoFPED has a comprehensive finance manual supplemented with IFAD finance procedure to ensure the project has a strong internal control environment. The Organization structure of MAAIF is sufficient to implement the project. Staff are recruited on a competitive basis and there is no shortage of finance talent in Uganda.</p> <p>Ongoing project performed satisfactorily on counterpart funding, receiving more than 90% of their counterpart funds. Financial management risks identified at design are insufficient compliance with Interim Financial Reports (IFRs) submission timeliness and quality and insufficient of</p>	<p>Moderate</p>		

	training of finance staffs at leading to errors in finance reports.			
iii. Project level	<p>The project would be financed by IFAD, GCF, GEF, Government and beneficiaries. The project has three components and is implemented with multiple government agencies in districts along the cattle corridor of Uganda. The financing arrangement is complex, involving multiple financing instruments of loans and grants. The current interest rates levels are likely to have an impact on the actual loan negotiation process. The PMU's core functions will include responsibility for financial management, procurement, Management Information Systems (MIS) and M&E. Financial management risks identified at project level include low budget execution due to slow procurement processes and risks of inadequate internal audit coverage.</p>	Moderate		
B. Control risk assessment pillars				
1. Organization and Staffing	<p>There are various administrative levels of implementation of the project namely the PMU, semi-autonomous government implementing agencies and participating districts which will have fiduciary responsibilities. Previous IFAD funded projects implemented through similar structures have had issues with timeliness and quality of financial reports from semi-autonomous implementing agencies and participating districts.</p> <p>Another risk is that RELIV also is a complex project due to multiple financiers. While PMU</p>	Low	<p>There will be MoUs between MAAIF and participating implementing agencies which will stipulate requirement on financial reporting. Any non-compliance implementing agencies may have their disbursements by PMU suspended as a penalty for non-compliance.</p> <p>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</p>	Low

	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.		familiarization with procedures on financial reporting, expenditures categorizations across components, categories, financial reporting timeliness and other financial management related to the Project.	
2. Budgeting	<p>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.</p> <p>There may also be a risk that annual work plans and budgets are not prepared or revised on a timely basis, 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 in Uganda, 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.</p>	Moderate	<p>The Cost-tables and PIM have adequate details on key activities to be implemented and sources of finances for these costs. Subsequently, the AWPB will be prepared with adequate details on financing for key activities to ensure adequate guidance to the accounting team in recording and summarizing transactions. The IFAD AWPB budget template is sufficiently detailed budget by category, component, and financiers.</p> <p>The PMU 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 PMU and project steering committee for remedial actions. Approved budget will be codified in the IFMIS system for ease of monitoring and control of expenditures during the year.</p>	Moderate
3. Funds flow and Disbursement Arrangements	There is a risk of commingling of funds at the entity which will be provided with advances for implementation of project activities. These includes Ministry of Finance which will receive advances from IFAD, MAAIF and implementing	Substantial	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 Uganda for which there will be monthly	Substantial

	<p>agencies (semi-autonomous entities and participating districts). Also, in addition to external development partners financing, there are Counterpart finances expected to be received from the Government and in-kind contributions from the beneficiaries.</p>		<p>bank accounts reconciliation and financial reports. All partnering institutions that will receive project funds will have sub-project accounts for segregating the funds received. There will be monthly financial reports to PMU for monitoring operations of sub-accounts and consolidation. All partnering institutions will sign MoUs clearly highlighting the requirements for a separate bank account and financial reporting requirements.</p>	
4. Internal Controls	<p>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.</p>	Moderate	<p>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.</p>	Moderate
5. Accounting and Financial Reporting	<p>There is a risk of delays in consolidation of project financial reports at PMU 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, and components. There is the risk of delays in receiving reports and support documentation from the implementing agencies and semi-autonomous government departments. There are also</p>	Moderate	<p>To mitigate on risks on financial reporting IFMIS will be 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</p>	Moderate

	possibility of delays and inaccuracies in financial reporting due to improper coding of transactions and the multiple currencies that may be involved.		expected reporting timeliness. The project would prepare quarterly interim financial reports (IFRs) and annual financial statements.	
6. External Audit	There is a risks of inadequate audit coverage of the project audit considering there are various implementing agencies 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.	Moderate	The auditor will prepare a work plan to ensure adequate coverage of the various institutions that receive project funds and cover all the major risk areas and adequate coverage as per coverage plan. IFAD finance Office 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.	Moderate
Overall FM Risk @ design	The programme has various FM risks as follows:- i) It has multiple financiers financing different activities hence risks of mix-up in budgeting and expenditure allocations to these multiple financiers during implementation, ii) risk of commingling of funds at the entity which will be provided with advances for implementation of program activities, iii) possibility of staff hired lacking familiarity with IFAD and GCF and other financiers key financial management procedures; iv) possible delays in commitment/ contracting by other co-financiers for instance GCF which is providing loans that will be negotiated separately, v) possibility of delays and inaccuracies in financial reporting due to	Moderate	Each implementing entities will have ring-fenced bank accounts for segregating funds received and tracking advances. The AWPB will be prepared with details showing financiers and proportion of financing for each activity, to guide finance teams in expenditure mapping. Project finance teams shall be competitively selected and will be made up of qualified personnel with appropriate expertise. Capacity building training will be organised at start-up to familiarise project staff with FM requirements. MoUs will be established between MAAIF and participating implementing agencies stipulating FM requirements and	Moderate

	<p>different policies and rules from different financiers, vii) risks of inadequate audit coverage.</p>		<p>responsibilities. A comprehensive audit coverage guiding plan has been prepared which will ensure adequate audit coverage throughout implementation. Efficient implementation of the above mitigation measures would ensure the project meets the overall programme objectives.</p> <p>The overall inherent risk is rated moderate, and residual risk remains moderate. Mitigation measures will be implemented during implementation, followed by review and amendment of residual risks rating based on FM assessments during supervision.</p>
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IV. Financial Management and Disbursement Arrangements

1) Financial management organization and staffing

The staffing arrangement for RELIV will comprise of the following finance staff: Finance Manager, Project Accountant, Assistant Project Accountant. Each implementing agencies and participating districts will also designate a finance focal person who will be tasked with coordinating and financial transactions within their entities, and further regular reporting to PMU. The finance manager at the PMU would head the financial management of the project and is expected to hold master’s degree in finance and accounting or a CPA/ACCA member. The accountant and assistant accountant positions would require a bachelor’s degree. The finance manager position should be filled by the start of the project and other positions should be filled within the first three months of the project. In Uganda context, all project staff are hired competitively by the implementing agency on fixed term contract for two years, renewable based on performance. Job description for each position are detailed in the position TORs as annexed to the PDR. Capacity building training will be organized at start-up to familiarize project staff with FM requirements.

2) Budgeting

In Uganda, the budget for project goes through multiple levels of approvals before funds can be made available for implementation. First, project budgets are prepared by the line ministry (MAAIF for RELIV project) and presented to MoFPED for consideration. Once accepted by the MoFPED, the project budget is then presented to the cabinet for approval. After cabinet approval, the full budget is then presented to the parliament for consideration and approval. The MoFPED has a process of collating budget estimates for three years cycle in advance. Budget circulars are normally issued on about 6-8 months before the next financial year begins.

National budget of the Government of Uganda is constructed on the IFMIS system which has been functions for many years. The project budget would be recorded in the IFMIS system for report reporting to both the Government and to IFAD. Project budgeting will be undertaken by the RELIV PMU in accordance with the existing IFAD procedures and Government financial laws and policies. The AWPB will be prepared with adequate details showing financiers and proportion of financing for each activity. The AWPB shall be prepared on time and submitted before the start of a new financial year. It shall be approved by the Programme Steering Committee and provided with a "no-objection" by IFAD before implementation.

3) Disbursement Arrangements and Flow of Funds

Two disbursement mechanisms will be available: Advance Withdrawal and Direct Payments. IFAD will advance to designated accounts, replenished quarterly based on interim financial reports cash forecasts, aligned with approved AWPB. The project will require designated accounts for different financing sources to prevent commingling. Each co-financier will have separate USD bank accounts for managing finances, with corresponding local currency accounts for processing payments at the PMU. IFAD, acting as the accredited entity for GEF and GCF funds, will ensure compliance with disbursement protocols. GoU funds will also be disbursed through a separate bank account in UGX. In-kind contributions from beneficiaries and the Ugandan Government will be monitored and recorded by the PMU. The AWPB will provide details on financiers and proportion of financing for each activity, guiding finance teams in expenditure allocations. Each participating district/implementing agency will have a dedicated project account in local currency for receiving funds from the PMU. All bank accounts would be held at the central bank of Uganda or a commercial bank acceptable to the Fund. PMU will be sensitized on regular recording of in-kind contributions as stipulated in PIM.

4) Internal Controls and Internal audit arrangements

The ongoing IFAD project uses MoFPED financial management policy manual which defines clearly what constitutes conflict of interest and corruption. Staff working for government projects are required to sign a conflict-of-interest declaration upon recruitment and but are not required to make declarations every year in line with best practice.

There is adequate internal controls over the authorisation of transactions in the ongoing projects. All transactions require a minimum of two signatories. The signatories include the Principal Secretary of MAAIF, Project Coordinator and Director of Resource Mobilization at the MoFPED. Withdrawal applications are approved by the same higher-level positions. There is sufficient segregation of duties over functions accounting, payments, and procurements.

The internal auditors from the MoFPED are well qualified and experienced in auditing government projects. The MAAIF Internal Auditors, assigned by MoFPED, will provide internal audits for PMU and districts. Each implementing agency will also plan and carry out audits for activities within their institutions, with guidance from MAAIF Internal Auditors. The internal auditors will review internal controls of all entities receiving funding under the project. RELIV will dedicate a budget line each year for bi-annual internal audits, focusing on field deliverables in participating districts.

5) Accounting Systems and Financial Reporting mechanisms

MoFPED and MAAIF uses a comprehensive government financial management policy manual and supplements it IFAD project implementation manual for financial management. The country has an IFMIS system capable of producing the financial reports to IFAD requirement with limited manual intervention. Programme financial reporting will be through quarterly interim financial reports (IFRs) in line with IFAD guidelines. To ease financial reporting, all required information would be coded into the IFMIS system, such that financial reporting would only entail extracting data from the accounting system with minimal refinements. Quarterly IFRs will be submitted to IFAD within 30 days after period end. Dedicated programme finance

staff will be put in place at the PMU to ensure adequate financial reporting. The interim financial reports and annual financial statements would base on IPSAS cash-basis accounting. Harmonised financial reporting templates for all financiers will be prepared at start-up. The project will also keep a record of fixed assets and produce quarterly reports to IFAD and external auditors. The required reporting templates are included in the PIM.

6) External Audit

The Office of the Auditor General (OAG) in Uganda is responsible for auditing and overseeing public entities, reporting annually to the parliamentary committee. The OAG has been providing external audits to the IFAD project in Uganda for the past five years, using experienced chartered accountants and IT systems experts. The OAG uses ISSAI auditing standards and has a record of quality audits and timely reports. The RELIV project will be audited by the OAG, with an annual work plan to ensure adequate coverage of all components and major risk areas. High-risk expenditure areas, such as training and workshops, will be sensitized to higher thresholds in all complementing agencies. The project must submit unaudited and audited financial statements to IFAD within four and six months after the end of the financial year. The project management unit must collaborate with the OAG to ensure timely accounts presentation.

7) Implementation Readiness

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

	Action	Responsible Party / Person	Target Date / Covenants ³⁷
1.	Recruitment of key staff including FM staff. Training of all finance staff at national and sub-national level to be conducted within the start-up phase of the project.	MAAIF	Recruitment of staff will be an effectiveness condition.
2.	Open designated and operational bank accounts for each project financier to facilitate traceability of funds. DA for each financier to the project and corresponding operational accounts immediately after signing.	MAAIF	Disbursement condition.
3.	Organize a capacity building training for all finance staff at all implementing agencies to sensitize staff on financial management and reporting requirements.	MAAIF	Immediately once financing agreement is signed
4.	Include the new project in the annual plan of the internal audit department and ensure internal audit reviews are done at least twice every year.	MAAIF	Within the first year of entry into force

FM Supervision plan

Based on the assessment during the project design, FM supervision during the life of the project should focus on the following:

1. Capacity building of project finance staff. FMD staff/consultants should provide training to project FM staff remotely and during supervision missions covering major components of

³⁷ Indicate if covenants are required in Financing Agreement for each of these: effectiveness condition or disbursement condition or dated covenant.

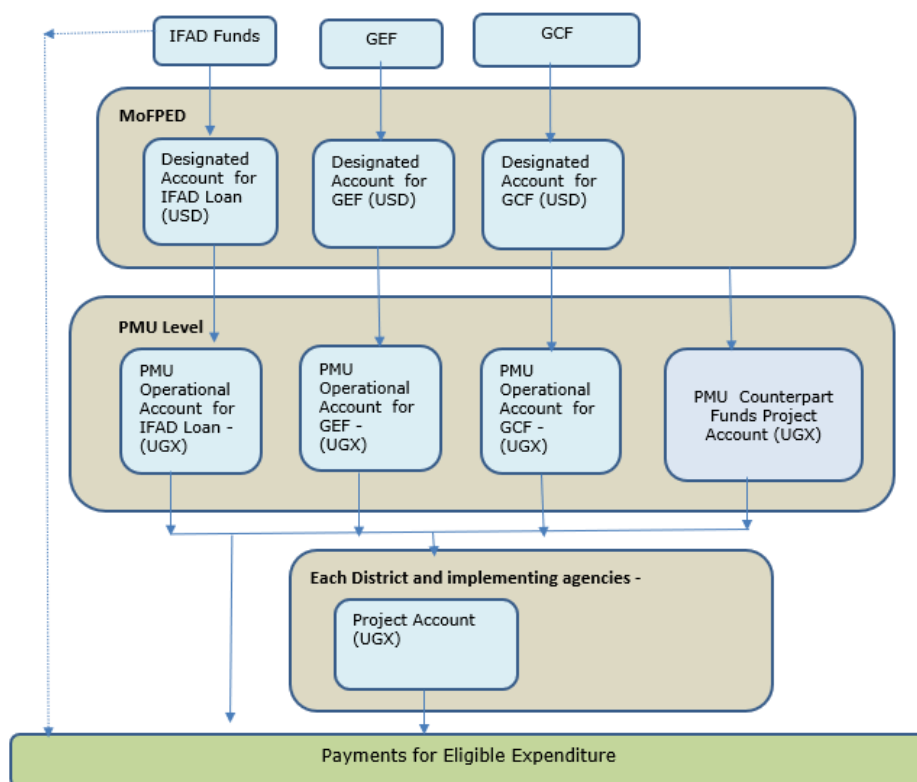
IFAD financial reporting. These should include interim financial reporting, compliance with financial reporting standards, preparation and submission of withdrawal applications.

2. Review of financial performance at national and districts levels. Such reviews will include visits to the semi-autonomous implementing agencies and districts to identify bottlenecks to implementation from FM perspective. Emphasis should be made on recognition of counterpart contributions from project inception.

3. Engagement with internal and external auditors. Engage internal and external auditors to obtain additional assurance, especially in areas not covered during supervision missions.

4. Monitor usage of the IFMIS accounting software during implementation, including assessment of reports generated. Further improvements that may be necessary to enhance financial reporting through the IFMIS accounting software should be communicated.

Appendix 1: Flow of Funds Chart



- i. Direct payments would only be applicable under exceptional circumstances as will be described in the disbursements and Financial Management and Financial Control Letter.
- ii. There will be Designated Account and Project Operational Account for each financier (GEF, GCF, IFAD, GoU).
- iii. All procurements and key activities and will be processed and paid from the PMU that will be anchored within the MAAIF. However, for efficiency and convenience in processing some operational expenditures, the implementing agencies (districts and the semi-autonomous institutions) will receive funds based on quarterly planned activities and be providing monthly financial and technical returns to PMU. At the implementing entities below PMU, there will be one dedicated project account for processing these minor payments. The reporting template will be tailored to be able to report clearly on each activity and easy to identify balances for each financier.

PART V: SECAP and annexes

V.1. SECAP Review Note

1. Introduction

This preliminary Social, Environmental and Climate Assessment Procedures (SECAP) Review Note assesses the social, environmental and climate change context and risks in Uganda for the Resilient Livestock Value Chain (ReLIV) project. The Note outlines strategic actions required to mainstream environment, climate change, nutrition, youth and gender, and to mitigate risks and enhance positive outcomes. The ReLIV project is well aligned with the Government of Uganda's policies and strategies, including the Third National Development Plan (2021-2025), the Agriculture Sector Strategic Plan (2021-2025), the updated Nationally Determined Contributions (2022), the National Biodiversity Strategy and Action Plans (2015-2025), the Land Degradation Neutrality Targets, and the National Climate Change Act (2021), among others. It is also aligned with IFAD's Strategic Framework 2016-2025, IFAD's Environment and Climate Change Strategy and Action Plan 2019-2025^[11], the new SECAP Guidelines (2021), the United Nations Framework for Sustainable Development Cooperation (2021-2025), and the Sustainable Development Goals (SDG).

The development of the SECAP note was informed by a review of secondary literature (e.g., Uganda COSOP 2021-2027, CSPE, 2021) and primary data collected through field observations and interviews during an in-country mission in February 2024.

3. Situational analysis and potential project impacts

Demography. Uganda has a population of approximately 42.9 million people, 72% of whom live in rural areas. The population has a life expectancy of 63.7 years, and the average household size is five people.^[2] The country has 146 districts, divided into four regions. The poverty rate by region is 35.9% in the northern region, 25.9% in the eastern region, 14.4% in the western region and 8.7% in the central region. Overall, 39% of Ugandan households are subsistence farmers.

Human development. 70% of the population aged 10 and over are literate with little significant variation between males and females. However, there are significant differences between rural and urban areas. 37% of Ugandans have enrolled in secondary school, with females (37%) slightly higher than males (36%). Uganda ranks 166/191 on the Human Development Index.^[3]

Agriculture. 78% of Uganda's population live in rural areas, where agriculture is the main activity.^[4] 39% of the Ugandan households are engaged in the subsistence economy, and 62% of these households are mainly in subsistence agriculture.^[5] Only 35% of Uganda's arable land is in effective production, and on average, agricultural households cultivate two parcels of 0.8 hectares each. Most rural households in Uganda rely on subsistence agriculture as their main source of income (61%). The remaining rural households derive their income from commercial agriculture, wage employment, non-agricultural activities, and property income. As of 2020, 6% of rural households derive their incomes from transfers. Agricultural productivity in Uganda is low despite the potential to feed the population and surrounding countries. Low productivity is due to several reasons, including low yielding varieties, extensive land use, low fertiliser use, and reliance on rainfed agriculture. In 2018, only 12% of farming households participated in farmer training or received agricultural advisory services. Only 24% of agricultural households in Uganda used fertiliser in 2018, of which 76% used organic fertiliser and 30% used inorganic fertiliser. Only 2% of agricultural households use irrigation for crop production, and 98% use traditional seeds.

Livestock. The livestock sector in Uganda accounts for about 17% of the country's agricultural value-added and 4.3% of its gross domestic product (GDP). Cattle is by far the most important species, with 2.4 million households keeping cattle (as of 2018), with an average of five heads per livestock household, contributing between 12% and 75% of their total income. Most of

these households are subsistence-oriented smallholders (FAO 2019:27), and 75% of them have fewer than 5 heads. Uganda is a net exporter of livestock products and live animals. Livestock exports are dominated by dairy products (USD 80 million), with beef (USD 6.2 million) playing a minor role. Livestock provide income, food, draught power, insurance and savings, social capital and other goods and services to the population. Per capita consumption of beef and cow's milk is 6 kg and 36 litres respectively per year, which is still low compared to other countries in the region. However, the Food and Agriculture Organisation (FAO) estimates that demand for beef and milk in the country will increase by 320% and 200% respectively by 2050.

Employment. In 2018/19, 52% of Ugandans were of working age (14-64 years). Of the working age population, 74% were working, with more women (53%) than men (51%). 78% of the working age population in rural areas were employed, compared with 70% in urban areas. 52% of the working population were employed, while 47% were engaged in subsistence agriculture. The largest employment sector in Uganda is agriculture (68%), followed by services (24%) and manufacturing (7%). More than 80% of the working population with no formal education work in agriculture, with more women (73%) than men (63%) working in agriculture. Most workers in Uganda are self-employed (42%), followed by employees (40%) and the rest are family workers. The majority of men (46%) are employees, while the majority of women (47%) are self-employed with no employees. The majority of rural residents (44%) are self-employed with no employees.

Child labour. Uganda has a National Child Labour Policy, which defines child labour as work that is hazardous or exploitative and endangers the health, safety, physical growth and mental development of children.^[6] The Employment Act No. 6 of 2006 states that hazardous work by children includes children working in industries that are gazetted as hazardous, children working in occupations that are gazetted as hazardous, children aged 14-17 working long hours, i.e. more than 43 hours per week in non-hazardous work, children aged 12-13 working more than 14 hours per week in non-hazardous work, and working conditions such as working at night, carrying heavy loads. In 2018/19, 18% of children aged 5-17 years were involved in child labour, with more males (20%) than females.

Migration. Overall, 5% of the population in Uganda had lived in a different place between 2014 and 2019, with 42% moving from rural to other rural areas and 12% moving from rural to urban areas. Of the households that migrated, 30% migrated to follow or join family, 24% migrated to look for work and 21% migrated due to marriage.

2.1 Socio-economic assessment

a. Overall poverty situation

Data from 2019/20 shows that 23.4% of the rural population is poor, higher than the national average of 20.3%. Poverty trends vary by region: Northern Uganda 35.9%, Eastern Uganda 25.9%, Western Uganda 14.4% and Central Uganda 8.7%. Apart from Eastern Uganda (34.1% in 2016/17), all other regions experienced an increase in the number of people living below the poverty line, i.e., Northern Uganda (33.6% in 2016/17), Western Uganda (12.5% in 2016/17) and Central Uganda (8.2% in 2016/17). Poverty remains a rural phenomenon, but urban poverty is on the rise. Overall, the incidence of rural poverty is more than twice that of urban poverty, but the gap appears to be narrowing, particularly with the strong growth in agriculture. As shown in the Eastern Region, there is no doubt that rural poverty is strongly linked to agriculture.^[7]

The main drivers of poverty in Uganda are systemic shocks such as erratic or heavy rains, droughts, animal and crop pests and diseases, floods, hailstorms, and the COVID-19 pandemic.^[8] In 2018, 74% of agricultural households in Uganda reported a shock. Of these households, 82% reported drought, 40% faced pests and diseases, and 17% experienced floods. Climate change and extreme weather events negatively impact livestock productivity, thereby affecting food security and rural livelihoods, and causing climate change-related

poverty for 70.2% of the population.^[9] The impact of droughts and pests and diseases is more pronounced in the north than in other regions, which explains why it is the poorest region. Conversely, poverty accelerates the rate of environmental degradation and climate change and limits the ability to adapt and cope with climate shocks. The poor also contribute to deforestation through over-dependence on fuelwood for energy, over-exploitation of wetlands, unsustainable agricultural practices, overgrazing and overstocking of inferior livestock breeds, all of which increase greenhouse gas emissions and ecosystem degradation.

In 2018, 47% of agricultural households experienced food shortages, the main cause of which was low production (93%). Other causes of food shortages include lack of capital, lack of adequate land, inability to work, overselling of produce and lack of off-farm employment opportunities. Households dependent on agriculture are more likely to fall into poverty than those engaged in other income-generating activities. The most vulnerable sub-regions are the north, north-east, Buganda (north) and parts of Ankole region, all linked to rainfall patterns. At the household level, poverty is strongly associated with large family size, limited education and dependence on subsistence agriculture. The Acholi and Karamoja sub-regions have very high proportions of the population dependent on subsistence agriculture.

Poverty indicators worsened during COVID-19, with the poverty headcount reaching 29.4% among household heads working in crop and non-crop subsectors. COVID-19 disrupted Uganda's poverty reduction trajectory, with rural areas being the hardest hit due to low prices for their produce. Poverty and inequality among the poor increased. A multidimensional approach to poverty shows that 42.1% of Ugandans are poor when considering deprivation in education, health, welfare, and empowerment.^[10] The eastern and northern regions have the highest proportion of people living in multidimensional poverty. Karamoja, Acholi, Busoga, West Nile and Lango are some of the sub-regions with multidimensional poverty rates above the national average. In Karamoja, 84.9% of the population is multidimensionally poor.

b. Gender

Uganda's population is estimated to be 40.9 million in 2019, of which 51% are estimated to be female and 49% male.^[11] The majority of the population is made up of children under the age of 18 (54%) and adolescents make up 19.1% of the country's population.

The Government of Uganda has identified gender equality and women's empowerment as critical to achieving accelerated socio-economic transformation. The country has ratified key gender equality instruments and commitments and has put in place a legal framework to promote Gender Equality and Women's Empowerment (GEWE). Although the Government of Uganda has established the Gender Equality Commission, which produces an annual report on the state of gender equality in the country, and signs Gender Equality Compacts with Ministries, Departments and Agencies to track the country's progress in improving the livelihoods and well-being of the most vulnerable, gaps remain in the economic, political and social inclusion of women in the development process, which widened during the COVID-19 pandemic.

Uganda is a patriarchal society with diverse social and cultural norms, beliefs, practices, and attitudes that undermine the situation and position of women and girls in society. There are unbalanced power relations between women and men, girls, and boys in the public and private spheres, at household, community, and national levels. In most communities, land and other productive assets belong to men, and women's access is mediated through men. Furthermore, women are disproportionately affected by climate change and environmental degradation due to their limited access to finance/credit, knowledge and skills, gender-sensitive technologies, decision-making and leadership, and poor access to and control over productive assets.^[12]

Multiple discrimination based on gender, age, class, and location is exacerbated for women and girls living with disabilities and/or HIV/AIDS. Due to the COVID-19 pandemic, women, young people, the elderly and people with disabilities and chronic illnesses are most at risk of falling

into extreme poverty.^[13] Finally, the amount of time spent on unpaid care work (UCW) in Uganda is disproportionately high for women compared to men. In 2019/20, women spent 10 hours more on UCW than men. UCW includes domestic services for own use within the household, care services for household members, and community services to help other households.

c. Youth

Youth in Uganda are defined as people between the ages of 18 and 30 and make up 19.1% of the country's population, of which 45.7% are male and 54.3% female.^[14] Uganda has one of the youngest populations in the world, with approximately 74% of the population under the age of 30 and 22% between the ages of 31 and 59. Young people, the majority of whom are female, make up over 60% of the working age population, making them a powerful and rich resource for the country's socio-economic transformation.

Uganda's youth bear a disproportionate burden of the country's high levels of poverty, unemployment, and disease. This is partly due to limited opportunities for practical skills acquisition and viable employment, as well as poor access to health and social services. Only about 37.4% of the youth, most of them males, are absorbed into the labour market in largely low-productivity activities such as subsistence farming, petty trading, and the informal sector. Most young people face considerable uncertainty about work, education, and their future. Three out of four working young people are in vulnerable employment, either as own-account workers or as contributing (unpaid) family workers, mainly in the agricultural sector. Young women in rural areas are more likely to be contributing family workers and less likely than young men to be in paid employment.

Most young people working in agriculture face harsh and poorly paid conditions. Against a backdrop of escalating youth unemployment, their involvement in agriculture is dwindling, while the service and industrial sectors have not created enough jobs for the growing youth labour force. This has profound implications for food security, unemployment and underemployment. In particular, the withdrawal of young people from agriculture is higher than that of older cohorts. Migration out of agriculture is skewed towards the service sector and is more pronounced among educated youth. In contrast, agriculture is often perceived as the only option for less skilled youth, who believe that their returns to labour can be improved with minimal investment in training and capital. In Uganda, a significant proportion of youth participate in various forms of agricultural activities. However, they do not see agriculture as an attractive primary income-generating activity. Instead, they see it as a secondary source of income. Many youth are actively seeking pathways into the labour market that still allow them to engage in agriculture, driven by the belief that they may ultimately rely on agriculture after formal employment. To address this, efforts should be directed at attracting youth into profitable agricultural activities, thereby nurturing the next generation of farmers, processors and traders. Providing decent work opportunities for youth is crucial, by supporting the integration of ICTs in agriculture and the use of innovative information and communication platforms to contribute to the development of various agricultural enterprises.

Youth in Uganda face a number of challenges, including: prohibitive aspects and contradictions in the legal framework that have prevented young people between the ages of 14 and 17 from engaging in gainful employment; low access to and control over productive resources, especially land; limited knowledge and skills in modern farming, processing and marketing techniques; income poverty that drives youth into small-scale income-generating activities such as motorbike transport, petty trade and other low-paying service sector jobs; lack of marketable skills, resulting in unstable earnings and job insecurity due to low levels of education; and scattered interventions targeting youth through government and non-government projects and programmes without a coherent focus on addressing the root causes of youth unemployment.^[15] Despite universal primary education, universal secondary education and affirmative action for young women's access to tertiary education, many young women are still illiterate and lack the vocational skills that would enable them to be employed or to create

their own jobs. Furthermore, young women (15-29 years) face several gaps in the labour market, including higher unemployment rates, wage differentials and higher rates of precarious employment.

e. Indigenous peoples

The Project will not affect any recognised indigenous peoples or territories.

f. Marginalised groups

The Washington Group considers six areas - seeing, hearing, communicating, remembering/concentrating, walking/climbing and self-care - as the standards for classifying disability. People who have a lot of difficulty and cannot do any of the above are considered disabled. In Uganda, 3% of people aged five years and over are disabled. Among adults, the most common types of disability are having a lot of difficulty/not being able to see at all and having a lot of difficulty/not being able to remember/concentrate at all.^[16] Of all Ugandans aged 18 and over, 4.4% have at least one disability, 1.8% have a visual disability, 1.6% have a walking disability, 1.1% have a memory/concentration disability, 0.5% have a hearing disability and 0.4% have a communication disability. The inclusion of people with disabilities in livestock value chain development requires further analysis to identify opportunities for improved income and access to services, technology, and finance.

f. Nutrition

Uganda is considered a food basket in the East African region, but some sub-regions such as Acholi and Karamoja face seasonal food insecurity that requires increased agricultural production. Malnutrition remains a major development problem affecting all regions of the country.

Nutrition is particularly important during early childhood growth, influencing an individual's health, cognitive development, and economic outcomes into adulthood. Addressing malnutrition is critical to the country's food security situation, as it is responsible for the deaths of many Ugandans, reduced agricultural productivity and poverty, among other things. Inadequate dietary intake is identified as the main driver of malnutrition, with three main causes: low food intake, particularly due to the seasonality of food production, dietary patterns, and fluctuations in food prices. Other factors include inadequate maternal and childcare, poor access to health care and micronutrient deficiencies, particularly vitamin A and iron, among others.^[17]

The average estimated Dietary Energy Consumption (DEC) in Uganda is 2,393 kcal/person/day and households in rural areas have a slightly lower calorie intake than those in urban areas. The Toro, Lango and Teso sub-regions had the highest calorie intake (2,918 kcal, 2,816 kcal and 2,607 kcal respectively). A slight decrease in calorie intake was observed during the COVID-19 period. On average, staple foods (cereals, roots, and tubers) are consumed daily, while milk and milk products are consumed least on a weekly basis. The largest share of household dietary energy consumption (DEC) by food source was obtained from own production (49%) in 2019, while in 2016/17 the largest share of DEC was obtained from purchases (57%).^[18]

About 51% of Ugandans have no access to safe drinking water^[19] and a tenth of the population practices open defecation. Diarrhoea kills 33 children every day. The poor bear the greatest burden of poor WASH facilities and conditions, affecting the overall health and well-being of communities.^[20] In the livestock sector, environmental health issues arise from the consumption of contaminated or diseased meat and dairy products, as well as food safety and hygiene problems along the beef and dairy value chains. Other risks include environmental pollution caused by the discharge of effluent into water and soil, which may end up in food.^[21]

2.2 Environment and climate context, trends and implications

Uganda is a landlocked country with an area of 241,555 square kilometres and a projected population of 45.5 million by 2023. The agricultural area of the country witnessed an increase from 106,656 square kilometres in 2017 to 107,728 square kilometres in 2019.^[22] Uganda is geographically diverse, with ten agro-ecological zones (AEZs), including Southern Highlands, Southern Drylands, Lake Victoria Crescent, Eastern, Mid-Northern, Albert Crescent, West Nile, Western Highlands, Southeast and Karamoja Drylands. The northern part comprises mainly drylands, para-savannah, and grasslands, while the central part consists mainly of grasslands, plains, rangelands, and highlands. The southern region is dominated by farmlands and pastures.^[23] Uganda is blessed with a rich and diverse natural resource base, encompassing gold, water, limestone, salt, copper, cobalt, petroleum, iron ore, natural gas, a favourable climate, fertile soils, numerous large water bodies, forests, wetlands, livestock, and remarkable animal and plant biodiversity.^[24]

a. Environmental assessment

Land. Uganda has almost 50% of East Africa's arable land and some of the most fertile soils in the region. However, it is estimated that about 41% of the land is degraded, exacerbating poverty and the economic vulnerability of smallholder farmers. According to the World Bank, degradation and soil erosion account for about 17% of the country's gross domestic product (GDP), with the agricultural sector losing 27% of its GDP to degradation. Soil erosion, deforestation and soil nutrient loss have increased dramatically over the last decade, negatively affecting productivity, food security and livelihoods.^[25] Mining activities, carried out by artisanal and small-scale miners using crude, indiscriminate and inappropriate mining methods, contribute to land degradation. Investment in sustainable land management practices, climate-smart agriculture and nature-based solutions can make a positive contribution to sustainable land management.

Forests. The country's forest cover is declining at an annual rate of 2.6%, one of the highest rates globally. From 1990 to 2015, the loss of forest cover resulted in an economic loss of \$1.2 billion. Between 2001 and 2022, Uganda is projected to lose 1.03 million hectares of tree cover, marking a 13% decline in tree cover since 2000 and emitting 463 million tonnes of CO₂ eq. Approximately 90% of the rural population relies on fuelwood for domestic energy needs, while a significant proportion of urban dwellers depend on charcoal. According to a 2022 survey by Afrobarometer, deforestation emerges as the most serious environmental challenge facing Ugandan communities.^[26] High population growth is a driving force behind communities clearing forests for farms and settlements. Uganda has committed to halting and reversing forest loss and land degradation by 2030. The goal is to increase forest cover from an estimated 12.5% in 2020 to 15% in 2025 and further to 21% in 2030. The country launched a 40 million tree campaign on March 2, 2021, focusing on forest restoration using indigenous trees.^[27] Implementing measures such as renewable energy, reforestation, and agroforestry is crucial to mitigating forest loss.

Water. Uganda is endowed with substantial surface and groundwater resources, making it a relatively water-secure country with pockets of scarcity. Almost 51% of Ugandans do not have access to safe drinking water.^[28] The country's water resources are threatened by soil erosion and sedimentation, industrial pollution, deforestation, and degradation of water catchments. Wetlands are being degraded by conversion for agricultural production and livestock production. Climate change has also had a negative impact on water availability, leading to localised water scarcity, for example in pastoral areas such as the Cattle Corridor, where most of the population lacks water for domestic and livestock use. Sustainable and efficient water management practices/technologies, irrigation, water harvesting, and wetland conservation are ways to address water issues in rural areas.

Energy. Uganda is rich in energy resources, including hydropower, biomass, solar, geothermal, wind, oil, and gas. However, the country's energy potential has not been fully exploited. Biomass continues to play an important role in Uganda's economy, accounting for more than 90% of total primary consumable energy. The majority of the rural population relies

on fuelwood for energy, while a large number of urban dwellers rely on charcoal, contributing to accelerated deforestation and greenhouse gas emissions.^[29] Investments in renewable energy (solar, biogas) and energy efficiency (e.g., improved cook stoves) are needed, especially in rural areas.

Biodiversity. Uganda boasts a diverse and high level of biodiversity, encompassing both terrestrial and aquatic ecosystems. Its landscapes range from mountains and montane forests to open water, grasslands, bushveld, and tropical forests. The country is globally recognized, ranking among the top ten most diverse countries. Uganda is home to a recorded 18,783 species of fauna and flora, including mammals, birds, reptiles, amphibians, fish, insects, trees, and other plants. Deforestation stands out as a major contributor to biodiversity loss, while climate change exacerbates water scarcity through droughts and prolonged dry spells. Other factors such as wetland degradation, pollution, human-wildlife conflict, and the introduction of invasive species also play a role in the ecological challenges faced by Uganda. The commitment to improving biodiversity conservation is clearly outlined in the country's NBSAP II (National Biodiversity Strategy and Action Plan).^[30]

Livestock. Livestock play a crucial role in the economy, especially for 80% of impoverished rural households in Uganda. These households are involved in rearing a variety of animals, including cattle, goats, pigs, poultry and sheep. There are currently 14.2 million cattle in the country, including exotic, indigenous and crossbreeds, reared mainly for food and milk. Livestock production in Uganda takes place in a variety of systems, including commercial, pastoral, agro-pastoral, semi-intensive and intensive. Data from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) shows consistent growth in the dairy subsector, as reflected in the increase in dairy exports from US\$131.5 million in 2018 to US\$205.4 million in 2019. However, there has been a gradual decline in beef production from 214,033 tonnes in 2016 to 194,959 tonnes in 2019. Notably, Uganda's cattle corridor covers about 35% of the country's land area, stretching from the southwest to the northwest (Figure 1).^[31]

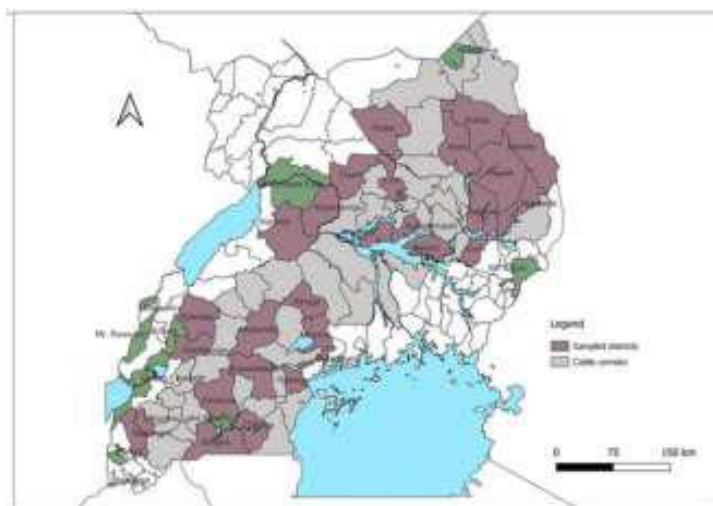


Figure 1: Uganda's cattle corridor

Several environmental challenges are associated with livestock production in Uganda, including diseases, some of which can be transmitted from cattle to humans (zoonoses), as well as concerns related to biosecurity, hygiene, overgrazing, overstocking, poor manure management, inappropriate breeds, inadequate feeding and sub-optimal herd management practices. Overgrazing, particularly in the cattle corridor, is emerging as a major problem, contributing to grassland degradation, biodiversity loss and soil erosion. Conflicts over resource use are common, especially in open-grazing livestock production systems, where scarcity of water and fodder triggers disputes. Livestock can have a negative impact on public health through zoonotic diseases. The combined economic impact of brucellosis and bovine tuberculosis is estimated at over US\$1 billion annually. Rift Valley fever and anthrax are also

major public health concerns with trade implications. Inappropriate use of antibiotics poses a risk of antimicrobial resistance in livestock.

Concerns extend to water and soil pollution due to inadequate solid and liquid waste management practices along the value chain and by service providers, particularly in abattoirs/slaughterhouses and laboratories. To address these issues, investments in manure management, circular waste management approaches, high quality feeds and forages, resilient and productive breeds, efficient herd and feed management practices, biogas and bioslurry production, sustainable pasture management, disease surveillance and management (e.g. using a One Health approach), water harvesting and sustainable land management practices (e.g. soil erosion control, controlled stocking, agroforestry fodder trees) have the potential for positive outcomes.

b. Climate trends and impacts

Climate overview. Located on the equator, Uganda is a tropical country with warm temperatures throughout the year, typically ranging from 15°C to 31°C in most regions. However, temperatures can drop as low as 0°C in the Ruwenzori Mountains. The country predominantly experiences a bimodal rainfall pattern with two main rainy seasons: March to May (MAM) and September to December (SOND). In the northern regions, there is a single rainy season that lasts from March to October. According to the 2021 Notre Dame Global Adaptation Initiative (ND-GAIN) report on climate change vulnerability and adaptive capacity, Uganda ranks 14th most vulnerable and 163rd least adaptive.^[32] Factors contributing to this vulnerability include the country's high population growth rate (3.6% annually) and its continued reliance on climate-sensitive sectors such as agriculture and forestry. As a result, Uganda faces increased vulnerability to climate change and extreme weather events, including erratic rainfall patterns, prolonged droughts, dry spells, floods, mudslides, and landslides.^[33]

Historical temperature trends. Mean temperatures in Uganda have increased by 1.3°C since the 1960s. During this period, minimum temperatures have increased by 0.5-1.2°C and maximum temperatures by 0.6-0.9°C. On average, temperatures have risen by 0.28°C per decade since 1960. Daily temperature observations since 1960 show a significant upward trend in the frequency of hot days and an even more significant increase in the frequency of hot nights. Between 1960 and 2003, the number of hot days increased by 74 days. In June, July and August in particular, the number of hot days increased by an average of 8.6 days per month. In addition, the average number of hot nights increased by 136 nights over the same period, with the largest increases observed in June, July and August. Conversely, the number of cold days has decreased by 20 days since 1960, with the fastest decrease occurring in September, October and November.^[34]

Historical precipitation trends. Rainfall patterns in Uganda show high variability, with an overall statistically significant decrease in both annual and seasonal rainfall. In particular, there has been a significant decrease in seasonal rainfall for March, April and May, with a decrease of 6 mm per month per decade. Certain northern districts, such as Gulu, Kitgum and Kotido, have experienced a significant reduction in rainfall. While trends in extreme rainfall are difficult to define due to data limitations and seasonal variability, Uganda has experienced an increase in droughts over the past six decades. In particular, the western, northern and northeastern regions have experienced more frequent and prolonged droughts over the past 20 years. For example, the arid northeastern district of Karamoja experienced seven droughts between 1991 and 2000, followed by additional droughts in 2001, 2002, 2005, 2008 and 2011. Projections show an expected increase in heavy rainfall, increasing the risk of disasters such as floods and landslides.^[35]

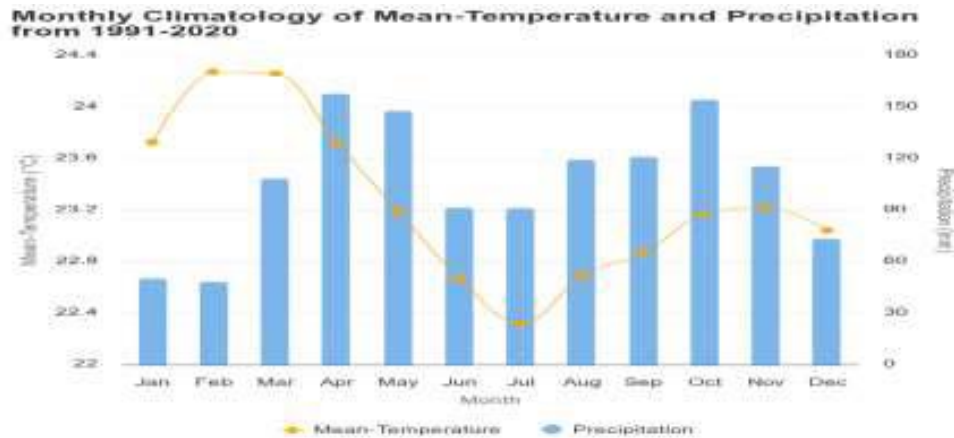


Figure 2. Uganda’s average monthly temperature and precipitation trends (1991-2020)^[36]

Projected temperature trends. Temperatures are projected to increase by the end of the century under all emission scenarios. As shown in Figure 3, under a high emissions scenario, average temperatures will increase rapidly by mid-century. Across the seasonal cycle (Figure 4), temperature increases will be felt from September to January. These hot days will have significant impacts on human and animal health, agriculture, ecosystems, and energy production.^[37]

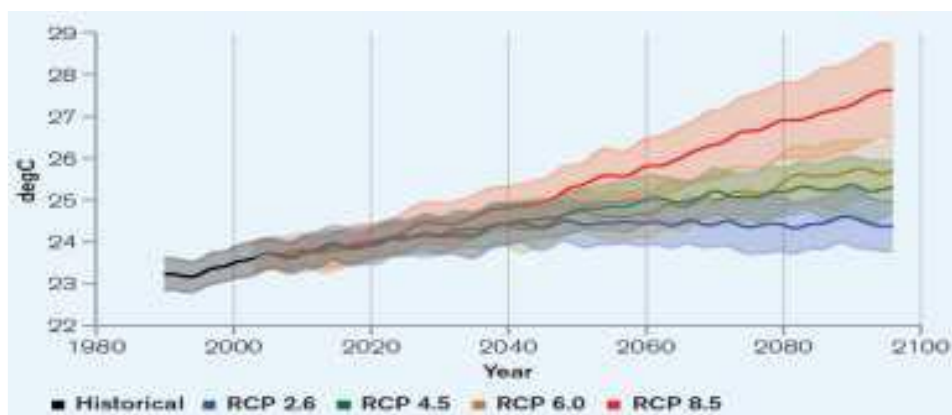


Figure 3. Uganda’s historical and projected average temperatures (1986-2099)^[38]

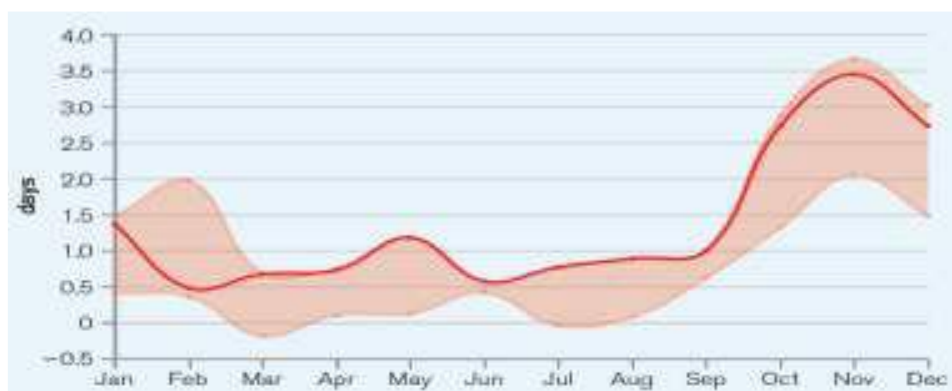


Figure 4. Projected change in summer days (Tmax > 25°C)^[39]

Under a high emissions scenario (RCP8.5/ SSP5), the monthly temperature change is projected to increase by 1.8°C in the 2050s and by 3.7°C in the 2090s. Average temperatures during the hottest months of January, February and March are projected to increase by ~1.7°C by 2050, while similar increases of 1.6-2.1°C are projected for all other months of the year. Predicted

changes in monthly minimum temperatures are similar, with consistent increases in minimum temperatures of at least 1.6°C and up to 1.9-2.1°C during the rainy season months of March-May and August-October.^[40] Under the SSP 2 4.5 intermediate emissions scenario, near-term (2021-2040) mean temperatures are projected to increase by between 0.7 and 1.2°C relative to the 1981-2010 baseline.^[41]

Rising temperatures will also increase aridity and the length and severity of the dry season (December to March). Projected rates of warming are greatest in Uganda's coolest season: June to September, with temperatures expected to increase by 1.5 to 5.4°C by the end of the century. Hot days are projected to occur on 15-43% of days by the 2050s and on 18-73% of days by the end of the century. Nights considered 'hot' (>26°C) are projected to increase more rapidly than hot days. Models used in the preparation of the IPCC's Sixth Assessment Report indicate that the number of annual days with maximum temperatures above 35°C will increase by between 2.7 and 10.6 by 2040 (SSP2 4.5 scenario) compared to the 1981-2010 baseline.^[42]

Projected precipitation trends. Under a high emissions scenario (RCP8.5/SSP5), projected monthly annual precipitation in Uganda shows a mixed trend, with increases in some regions and decreases in others, particularly in the northern and north-eastern areas. Significant and sustained increases in precipitation are projected for the western shores of Lake Victoria, the central-western region, the Mount Elgon region, and the area extending from Mount Rwenzori to the southern parts of Lake Kioga. Figure 5 illustrates the projected change in mean annual precipitation for Uganda. For the national annual aggregate, mean precipitation is projected to increase slightly by the turn of the century under the high emissions scenario of RCP8.5/SSP5. Alternatively, under a medium emissions scenario (SSP2 4.5), total precipitation across Uganda is projected to increase by 0.7 to 10.4% in the near future (2021-2040) compared to the 1981-2010 baseline period modelled for the IPCC's Sixth Assessment Report. The increase is likely to be concentrated in certain areas and driven by more intense precipitation events.^[43]

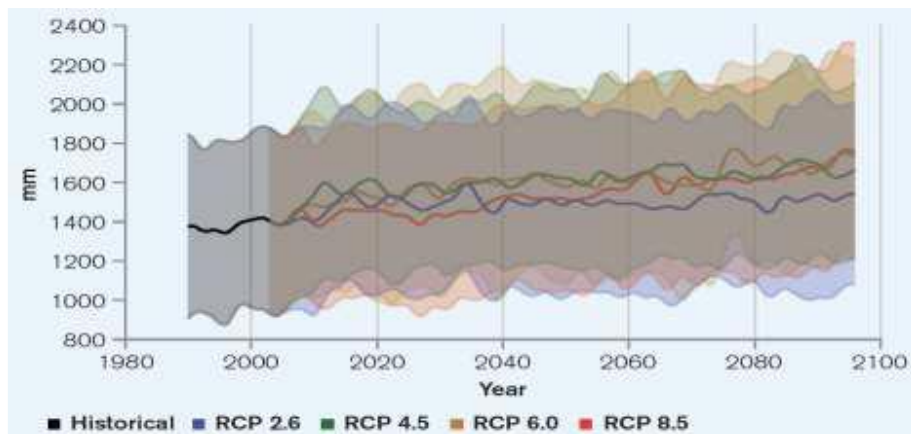


Figure 5. Uganda's historical and projected average annual precipitation (1986-2099)^[44]

Projections suggest that the most significant changes in the intensity and frequency of extreme precipitation events will occur between now and mid-century, affecting major agricultural and livestock areas and transport routes. Overall, the number of consecutive wet days throughout the year is expected to increase, and the number of days with more than 20 mm of rainfall in each of the two rainy seasons in Uganda is expected to increase. According to the models used for the IPCC's Sixth Assessment Report, maximum daily precipitation under the SSP2 4.5 medium emissions scenario is expected to increase by 2.6-16.4% in the near future (2021-2040) compared to the 1981-2010 baseline.

Climate change impact on the livestock sector. Uganda's livestock sector is characterised by challenges such as poor breeds, poor quality and insufficient fodder/pasture, limited water availability, ineffective disease surveillance and management, poor manure management, poor

AI and breeding services, poor herd management, inefficient rangeland management and governance, and generally low productivity. These are exacerbated by climate change and extreme weather events such as droughts, prolonged dry spells, and unpredictable rainfall patterns, which lead to water scarcity and fodder and pasture shortages, especially during the dry season, resulting in high seasonal variability of milk production. Heat stress also adversely affects fertility, reproduction, milk protein and fat content, milk yield, animal weight, and increases susceptibility to diseases. In addition, livestock mortality and disease incidence are exacerbated by climate change, with temperature and humidity being the main drivers of pathogen and parasite development. Large, exotic, and high-value breeds are particularly susceptible to heat stress and diseases, causing substantial losses to farmers through reduced productivity or animal deaths.^[45]

During transport and storage of animal products, high temperatures also lead to rapid spoilage, especially when the cold chain is absent or broken, or when unsuitable containers are used for milk, such as plastic jerrycans. Post-harvest losses of feed and fodder are also significant, with higher losses expected during the rainy season due to the proliferation of moulds and fungi. Extreme rainfall and flooding pose additional challenges, damaging road infrastructure and limiting access to milk storage, processing, and marketing facilities. This leads to milk spoilage and reduced sales and income for dairy farmers. In addition, supply chain costs, commodity prices and price volatility are likely to increase due to adverse impacts of climate change on feed availability. Finally, competition for scarce resources, including land, water and feed, may lead to conflicts between pastoralists and farmers, exacerbating food insecurity and increasing the extent of land degradation.^[46]

c. Climate change mitigation

Climate change mitigation. The livestock sector is a significant contributor to greenhouse gas (GHG) emissions, particularly the dairy sector in Uganda. The dairy industry alone emits approximately 19.1 million tonnes of CO₂ equivalent, with methane accounting for 98.6% of these GHG emissions. In particular, the traditional dairy production system, which accounts for 86% of national milk production, contributes 97.2% of total GHG emissions. The average emission intensity of milk produced in Uganda is 7.8 kg CO₂ equivalent per kilogram. Recent findings from a study conducted by FAO and IFAD highlight the potential for carbon sequestration in degraded rangelands and grassland soils that have not yet reached their optimum carbon sequestration potential. In Uganda, the potential is estimated at 0.51 tonnes of carbon per hectare per year. Interventions to enhance carbon sequestration include effective manure management, improved agroforestry systems, rotational grazing, fencing, cut and carry systems, improved pasture management and improved grazing systems.^[47] A comprehensive assessment using the Global Livestock Environmental Assessment Model - *interactive* (GLEAM-*i*) tool will be carried out to analyse the carbon impact of the project. This analysis will establish a baseline and provide future projections of avoided greenhouse gas emissions.

Climate finance. Uganda's estimated climate finance needs for 2020-2030 range from \$17 billion to \$28 billion, with an average annual funding gap of \$1.3 billion to \$2.2 billion. To bridge this gap, the government aims to mobilise private investment, particularly in sectors such as agriculture, forestry, and renewable energy. While the private sector is already contributing to projects in these areas, additional investment is critical. The total cost of implementing the actions outlined in Uganda's updated Nationally Determined Contributions (NDCs) is estimated at USD 28.1 billion. Of this, between USD 880 million and USD 2.3 billion is earmarked for renewable energy.^[48] The government plans to mobilise USD 4.1 billion, or 15% of the total cost of the NDC, and will seek international support for conditional policies and measures.^[49]

The ReLIV project is designed to leverage climate finance from the Green Climate Fund (GCF), specifically the Dairy Interventions for Mitigation and Adaptation (DaIMA) project. This initiative is expected to secure US\$42.5 million (23% of the total allocation), of which 55% will be in the form of grants and 45% in the form of senior loans. In addition, the GCF's Africa

Rural Climate Adaptation Finance Mechanism (ARCAFIM) will contribute US\$15 million (9% of the project's funding) and the Global Environment Facility (GEF) will contribute US\$7.5 million, representing 4% of the total allocation. These climate funds will be used for various climate change adaptation and mitigation activities, including investments in fodder conservation equipment, drought-tolerant fodder/pasture varieties, sustainable land management, water harvesting equipment, agroforestry, resilient and adaptive livestock breeds, renewable energy, livestock insurance, and climate and weather information systems.

2.3 Target group profiles

Project area. ReLIV will focus its efforts on 41 selected districts within Uganda's livestock corridor. Districts will be selected based on specific criteria including: (i) high incidence and density of poverty, food insecurity and malnutrition; (ii) district herd size; (iii) climate vulnerability and potential for emission reduction and carbon sequestration; (iv) potential for women and youth participation; and (v) potential for dairy value chain development.

Target group. ReLIV aims to reach 200,000 households, or about 1,000,000 people. The target group includes smallholder dairy and beef farmers in intensive and semi-intensive small-scale integrated production systems, as well as those in medium-scale extensive agro-pastoral systems. Other direct beneficiaries are (i) private service providers involved in artificial insemination (AI), veterinary services, feed and fodder seed production, mechanisation, with a special focus on youth; (ii) small-scale processors, including individuals and groups, especially women's groups; and (iii) public institutions involved in the provision of livestock-related services, such as research, extension, regulation and control, policy formulation, animal health and breeding services, and their staff.

The Project will use detailed selection criteria developed during the design phase to ensure a targeted approach, focusing on smallholder dairy and beef farmers with the potential to transition to commercial dairy and beef production. At least 40% of beneficiaries will be women and 25% will be youth. ReLIV will provide opportunities for skills development and training, introduce women- and youth-friendly enterprises and innovations such as mechanised production, milking and transport, and facilitate access to finance. The Project will apply a gender and youth sensitive approach to ensure equitable benefits for men and women in dairy and beef development.

3. Institutional analysis

Nutrition. The National Development Plan 2020/21-2024/5 (NDP III) aims to improve the foundations for human capital development. The key interventions are to promote optimal maternal, infant, young child and adolescent nutrition practices, through which the government plans to strengthen the enabling environment for scaling up nutrition at all levels; promote consumption of fortified foods, especially in schools, with a focus on beans, rice, sweet potatoes, cooking oil and maize; promote dietary diversification; and develop the national food fortification policy and legislation. The Government of Uganda is also implementing the second Uganda Nutrition Action Plan (UNAP II) - 2020/21 - 2024/25, which has a vision of "A well-nourished, healthy and productive population that participates effectively in the socio-economic transformation of Uganda", a theme of "Leaving no one behind in scaling up nutrition interventions in Uganda", and a goal of "Improving the nutrition status of children under five, school-aged children, adolescents, pregnant and lactating women and other vulnerable groups by 2025". During the implementation of the first UNAP (2011-2016), the country recorded a reduction in the prevalence of child stunting from 33% in 2011 to 28.9% in 2016, among other achievements.

Gender. The Government of Uganda considers gender equality and women's empowerment as critical to achieving accelerated socio-economic transformation. The 1995 Constitution guarantees equality of men and women before the law, promotes affirmative action for women and other marginalised groups and provides for women's rights. The country has ratified key gender equality instruments and commitments and has put in place a legal framework to

promote gender equality and women's empowerment (GEWE). Uganda's Vision 2040 prioritises gender equality as a cross-cutting factor for socio-economic transformation and identifies persistent gender inequalities in access to and control over productive resources such as land, limited female participation in wage employment in non-agricultural sectors, sexual and gender-based violence, and limited participation in household, community, and national decision-making. The Ministry of Gender, Labour and Social Development has developed a National Policy on the Elimination of Gender Based Violence in Uganda (2016) to address the critical issue of gender-based violence. The Equal Opportunities Commission produces the annual State of Equal Opportunities in the Country and Gender and Equity Compacts in Ministries, Departments and Agencies (MDAs), which track the country's progress in improving the livelihoods and well-being of the most vulnerable. Based on the EOC assessment, the Ministry of Finance, Planning and Economic Development issues an annual Gender and Equity Compliance Certificate to accompany each MDA's budget. This has forced MDAs to ensure that their annual budgets promote gender integration.

Youth. The Government of Uganda is implementing the National Youth Policy (2016), which aims to unlock the potential of youth for sustainable wealth creation and overall development. The National Youth Action Plan operationalises the policy and its priority areas are: sustainable livelihoods, employment promotion and enterprise development; information, communication and technology; education, training and capacity building; youth and health; youth engagement, participation and governance; youth, culture and gender; recreation, sports and leisure; environmental management; and management, coordination and partnerships. The Ministry of Agriculture, Livestock and Fisheries is implementing the National Youth Strategy for Youth Employment in Agriculture (2017) with 5 thematic areas: Strengthening the enabling environment for youth employment; Supporting youth-oriented agricultural extension; Improving youth education and learning; Supporting youth entrepreneurship; and Adapting to and mitigating risks and uncertainties in agriculture.

Environment and Climate. Uganda's Ministry of Water and Environment has overall responsibility for the development, management and regulation of water and environmental resources. The Ministry also initiates legislation, formulates policies, sets standards, inspects, monitors, coordinates, and provides technical assistance in the water and environment sub-sectors. The Ministry also seeks to avoid, minimise and mitigate adverse environmental and social impacts associated with its projects, and to adopt a gender-sensitive and gender-equitable approach in all its projects.^[50] The Ministry implements its mandate through various agencies, including the National Environment Management Authority (NEMA), the Uganda National Meteorological Authority (UNMA), the National Forestry Authority (NFA), the Climate Change Department (CCD), the National Water Quality Reference Laboratory and the Water Resources Institute, among others. The CCD is mandated to strengthen Uganda's implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP). The department operates through four sections/units, namely Adaptation (which coordinates adaptation and resilience projects), Mitigation (which focuses on addressing GHG emissions at the national level), CCD Outreach and International Relations.

UNMA is a semi-autonomous agency responsible for providing weather and climate services. It is also a focal institution of the Intergovernmental Panel on Climate Change (IPCC) in conducting scientific research on climate change. The agency provides services such as seasonal and daily forecasts, disaster warnings, research, mobile weather forecasting.^[51] The ReLIV project will work with UNMA to strengthen climate, weather, and early warning systems in the project areas and to provide climate and weather information to farmers and value chain actors.

NEMA is a semi-autonomous institution responsible for coordinating, monitoring, regulating and overseeing environmental management in the country. It leads the development of environmental policies, laws, regulations, standards, and guidelines, and guides the government towards sound environmental management in Uganda.^[52] The ReLIV project will work closely with NEMA to identify necessary environmental studies, categorise risks, monitor compliance and provide technical assistance in the implementation of safeguards.

The Ministry of Finance, Planning and Economic Development (MPED) hosts the Green Climate Fund National Designated Authority and the Global Environment Facility Focal Point. These focal points will play a key role in mobilising climate and environmental finance for the ReLIV project.

The National Environmental Management Policy (NEMP) (1994) recognises that Uganda faces several environmental problems, including land degradation, deforestation, loss of biodiversity and increasing pollution. The NEMP aims to address these problems by establishing a more comprehensive and integrated approach to environmental issues. The NEMP establishes the National Environment Management Authority and a legal framework for climate issues, as well as an effective monitoring and evaluation system to track the impact of different policies on the environment. In particular, the NEMP recognises the need to monitor climate change to better manage land use, promote sustainable economic development and control air pollution and greenhouse gas emissions.^[53]

The National Climate Change Policy (2015) has been developed to guide efforts to achieve Vision 2040 and move towards low-carbon development. The policy aims to ensure that stakeholders address the impacts and causes of climate change through appropriate measures, while promoting sustainable development and a green economy. The policy highlights climate change adaptation as a top priority for Uganda, as the country's greenhouse gas emissions are still relatively very low and yet the country is exposed to climate change risks, impacts and vulnerabilities. Uganda's Vision 2040 recognises that climate change affects all sectors of the economy and provides for the integration of climate change into development planning. In addition, the country has developed other policies, plans and strategies relevant to addressing climate change and environmental issues, such as the National Disaster Preparedness and Management Policy, 2010; Renewable Energy Policy, 2007; National Forestry Policy, 2001; National Irrigation Policy, 2017; National Land Policy, 2013; Uganda Green Growth Development Strategy 2017/18-2030/31; Uganda National Climate Change Communication Strategy 2017-2021; Climate Resilience Strategic Programme, 2017; National REDD+ Strategy and Action Plan, 2017; National Biodiversity Strategy and Action Plan II 2015-2025; Uganda Sustainable Land Management Strategic Investment Framework (2010-2020); and Climate Smart Agriculture Programme (2015-2025).

Uganda has updated its Nationally Determined Contributions in 2022 in accordance with Article 4 of the Paris Agreement. The country presents an ambitious economy-wide mitigation target of 24.7% below business as usual (BAU) in 2030, an increase from the 22% reduction target communicated in the first NDC in 2016. Uganda's GHG emissions are projected to increase from 90.1 MtCO₂e in 2015 to 148.8 MtCO₂e in 2030 and 235.7 MtCO₂e in 2050 under the business as usual (BAU) scenario. Mitigation measures in all sectors combined will reduce national GHG emissions by 24.7% below the BAU path to 112.1 MtCO₂e in 2030. The Agriculture, Forestry and Other Land Use (AFOLU) sector is expected to deliver 82.7% of the mitigation impact.^[54] The country's priority response to climate change is adaptation in the context of addressing key vulnerabilities, building adaptive capacity at all levels, addressing loss and damage, and increasing the resilience of communities, infrastructure and ecosystems. Priority actions for adaptation in the agricultural sector include scaling up climate-smart agriculture, including agroecology; water harvesting and irrigation; highly adaptive and productive livestock breeds; scaling up post-harvest handling, storage, value addition and marketing; and resilient crop varieties. Other proposed actions include strengthening climate information services, effective early warning systems, indigenous/local knowledge in early warning, education and awareness raising on climate change. Priority climate change mitigation actions in the agricultural sector include renewable energy and energy efficiency, forest restoration, sustainable land management practices, agroforestry, sustainable livestock and fodder agroforestry.^[55]

Since 2021, the country has initiated the formulation of the National Adaptation Plan (NAP) to strengthen adaptation planning, governance, and coordination, develop tools for adaptation planning and secure financing for adaptation. The country has established a National Technical Working Group on Adaptation to guide and support the NAP process and overall adaptation

planning. In 2018, Uganda formulated a National Adaptation Plan for the Agriculture Sector (NAP Ag).

Approximately 41% of Uganda's land is degraded and 20% of the country has been mapped as degradation hotspots. Geographically based targets for achieving neutral (no net loss) or improved (net gain) status will allow Uganda to focus on areas identified as degradation hotspots, which are of high priority for achieving Land Degradation Neutrality targets. At the national level, Uganda's LDN targets for 2030 compared to the 2015 baseline are: 21% tree or forest cover by 2030; 12% wetland cover by 2030; areas of declining or stressed land productivity reduced by 50% by 2030; and soil organic carbon (SOC) levels maintained or improved nationally by 2030 compared to the 2015 baseline. At the sub-national level (Water Management Zones - WMZs and Highlands), the targets are LDN is achieved in the four WMZs or catchments and the Highlands by 2030 compared to 2015; LDN is achieved in the four WMZs or catchments and the Highlands; and 50% of areas with declining or stressed land productivity have improved (net gain) by 2030. Some of the proposed measures to achieve these targets include afforestation and reforestation, rehabilitation of degraded land, climate smart agriculture, wetland restoration, agroforestry, water harvesting, irrigation, terracing and SLM practices (e.g., mulching, integrated soil fertility management, intercropping, crop rotation, etc.).

The strategic objectives of the National Biodiversity Strategy and Action Plan (NBSAP II) (2015-2025) are: (i) to strengthen stakeholder coordination and frameworks for biodiversity management; (ii) to facilitate and enhance capacity for biodiversity research, monitoring, information management and exchange; (iii) to take measures to reduce and manage negative impacts on biodiversity; (iv) to promote sustainable use and equitable sharing of costs and benefits of biodiversity; (v) to harness modern biotechnology for socio-economic development with appropriate safeguards for human health and the environment; and (vi) to promote innovative and sustainable financing mechanisms to mobilise resources for the implementation of the Strategy and Action Plan.

4. Environmental and social category

The ReLIV's environmental and social risk category is **Substantial**. Critical risks within the dairy and beef value chains include land-use change, overgrazing, deforestation, severe land degradation, inadequate waste management, water and soil pollution, increased pesticide use, increased dependence on wood-intensive energy and water, and potential conflicts over resource use. Additional concerns include biosafety and biosecurity risks associated with inadequate health management and hygiene, potential outbreaks of waterborne or vector-borne diseases, including zoonotic diseases, nutritional deficiencies, poor working conditions, child labour, and community health and safety issues.

To mitigate these risks, proposed interventions include sustainable land management, implementation of agroforestry practices, adherence to circular economy principles, improved waste management and integrated pest management practices, compliance with biosafety standards, effective pollution management, a One Health approach to disease control, improved pasture management, enforcement of international labour standards, nutrition awareness campaigns, and implementation of occupational health and safety measures.

5. Climate risk category

The ReLIV climate risk category is **Substantial**. Uganda's position in the upper left quadrant of the ND-GAIN matrix, marked by a high vulnerability score and low preparedness score, underscores the urgent need for investment and innovation to improve the country's preparedness. Ranked 14th most vulnerable and 163rd least prepared, Uganda faces notable challenges, particularly in social factors that could facilitate mobility of investment in adaptation.

The ReLIV target areas are exposed to significant climate risks, including rising temperatures, erratic rainfall, and extreme weather events such as dry spells, heat waves, droughts, floods, mudslides and landslides. These factors severely impact livestock production, leading to water and feed shortages, increased disease incidence, loss of productivity and disruption to livelihoods. In addition, livestock contribute to greenhouse gas (GHG) emissions, which are expected to increase unless mitigation measures are implemented in the dairy and beef sectors.

The Project aims to increase the climate resilience of the livestock sector. This will be achieved through the implementation of measures such as drought tolerant and improved fodder varieties, agroforestry, fodder conservation, ration balancing systems, pasture management, manure management, waste management, water harvesting facilities, climate information systems, efficient and renewable energy solutions, resilient, healthy and productive breeds, herd management, livestock insurance and animal disease control (One Health). These solutions will have an impact on both climate change adaptation, by increasing resilience to climate shocks, and climate change mitigation, by improving efficiency and reducing greenhouse gas emissions at various stages, including production, processing and distribution of dairy and beef products.

6. Recommendations for project design and implementation

Youth. ReLIV will be youth sensitive. Youth participation in livestock production in Uganda has been constrained by limited access to land and the skills required to participate effectively in the dairy and beef value chains. In addition, youth face challenges related to inadequate working capital and a significant proportion still hold the perception that dairy and beef production involves a long production cycle, resulting in delayed returns on investment compared to other economic activities, making it unattractive. The Project will promote decent employment, provide opportunities for skills development and training, introduce youth-friendly enterprises and innovations such as mechanised production, milking and transport, and facilitate access to finance. The capacity of youth to provide private services for feed mechanisation, private artificial insemination (AI) and veterinary services will be enhanced. Priority interventions for youth will take into account gender differences, recognising that young women are twice as likely to be unemployed.

Gender. ReLIV will be gender sensitive. In many communities, land, and production assets, including cattle, are predominantly owned by men, who play a more active role in milking cows, transporting milk to Milk Collection Centres (MCCs) on bicycles or motorbikes, and participating in marketing activities. In some MCCs, women have formed groups to produce and market products such as yoghurt by purchasing milk from the MCCs. Although women's participation in the dairy value chain is higher in eastern and northern Uganda, their participation in beef is generally lower. However, women still face constraints such as limited capital and access to finance, which limit their potential to scale up their businesses. There is also a notable lack of women's participation in livestock organisations and cooperatives, coupled with data gaps on gender roles in both value chains. To address these challenges, there is an opportunity for improvement by applying gender-sensitive approaches to ensure that both men and women benefit from dairy and beef development initiatives. In particular, activities such as small-scale processing and feed mechanisation will be prioritised for women.

Nutrition. ReLIV will be nutrition sensitive. The planned interventions aim to ensure the availability of nutritious fodder, water points and pastures closer to households, while also promoting water harvesting within homesteads. A nutrition-sensitive value chain has been identified as a promising strategy for improving household dietary diversity and promoting local production of better quality and more nutritious agricultural products. Nutrition, which is influenced by factors such as access, availability, affordability, safety and quality of food, can be positively influenced by a nutrition-sensitive value chain. This approach can focus strongly on increasing agricultural productivity for household consumption or sale. To further support improved dietary diversity and balanced diets, the project will include elements such as nutrition education, social and behavioural change, and effective communication.

Climate and environment. The ReLIV project will have a climate focus and will integrate climate considerations throughout its duration, ensuring that at least 40% of the PoLG portion is allocated to financing climate change adaptation, mitigation and resilience building activities (IFAD12 target). Climate finance for ReLIV amounts to USD 50.7 million (50.9% of the total IFAD financing). Environmental sustainability will also be mainstreamed into all project components. The table below provides an overview of the proposed climate change adaptation, mitigation, and environmental solutions, detailing how they address identified bottlenecks along the dairy and beef value chains and the benefits they generate. [\[56\]](#)

Bottlenecks	Proposed interventions	Usages	Benefits
Climate information systems			
<p>Increasing climate vulnerability (e.g., droughts, floods, etc.).</p> <p>Limited preparedness to cope with climate shocks and to plan ahead.</p>	<p>Climate risk assessments.</p> <p>Early warning of climate shocks and better planning of responses and coping mechanisms.</p> <p>Livestock-focused agromet advisory services (e.g., covering animal shelter locations, vaccination points, transhumance corridors, disease occurrence zones, flood zones, potential conflict zones, and market information).</p> <p>Strengthening of communication channels by developing user-friendly interfaces and providing training on digital applications (e.g., Lunda, iKnowFarm, AgriSharem, Jaguza).</p> <p>Workshops and digital learning.</p>	<p>Livestock production.</p>	<p>Climate change adaptation, by enabling smallholder farmers to cope with climate shocks and plan ahead.</p>
Water facilities			
<p>Insufficient access to water resources.</p> <p>Long distances to water points.</p> <p>Unreliable rainfall patterns and prolonged droughts.</p>	<p>Distribution of individual dam sheets or 3m³ water tanks for rooftop rainwater harvesting, linked to rooftop gutters to collect rainwater, coupled with filters such as sand bed filters, pop-up filters, or stabilisation tanks.</p> <p>Construction of solar-powered wells.</p> <p>Rehabilitation of charco dams for water extraction and collection in semi-grazing system areas.</p> <p>Capacity building for Community-Owned Water Supply Organisations (COWSOs).</p>	<p>Livestock watering.</p> <p>Cleaning, sanitation, and hygiene.</p> <p>Domestic use.</p> <p>Milk processing.</p>	<p>Climate change adaptation by enhancing year-round access to water.</p> <p>Decreased soil erosion caused by livestock moving to fetch water for drinking.</p>
Fodder and pasture management			

Bottlenecks	Proposed interventions	Usages	Benefits
<p>Poor feeding practices.</p> <p>Low availability of nutritious forage/pasture.</p> <p>Limited water availability and accessibility.</p>	<p>Plantation of fodder trees and shrubs into grazing land and cropland.</p> <p>Sustainable rangeland management (carrying capacity assessments and rotational grazing) and pasture restoration (reseeding, overseeding, restoration).</p> <p>Pilots on minimum tillage.</p> <p>Agroforestry, both in intensive systems for water retention and efficient resource use (e.g., leguminous forages can increase milk production and manure by +39% and 43%, respectively) and in grazing lands, to create microclimates acting as shelter and providing feed supplements for animals.</p> <p>Improved (climate-resilient and disease-resistant) fodder varieties (e.g., Chloris Gayana, Calliandra, Napier Grass, Gliricidia Sepium).</p> <p>Training in forage storage/conservation, valorisation of crop residues and concentrates, provision of equipment for silage and hay making (e.g., hangars, baler machines, plastic tubes, etc.).</p> <p>Implementation of digital ration balancing programmes.</p>	<p>Cattle feeding.</p>	<p>Climate change adaptation, by ensuring year-round availability of fodder, using locally adapted technologies, enhancing soil health and structure (through higher and more diverse microbial population and activity, and binding of soil particles for improved stability and infiltration), and reducing soil erosion.</p> <p>Climate change mitigation, through carbon sequestration (through high soil organic matter inputs from above-and below-ground biomass) and lower methane emissions from enteric fermentation per unit of livestock product, due to improved feed digestibility and higher nutrient intake (proteins, vitamins, minerals).</p>
Manure and waste management			

Bottlenecks	Proposed interventions	Usages	Benefits
Poor waste management.	Promotion of circular manure management practices (pit storage/manure ponds, manure covering with polythene or banana leaves, compaction, composting, liquid-solid separation, biochar addition).	Application of manure/bio-slurry on fodder land or cropland.	Climate change adaptation, by improving soil structure and fertility through the application of composted manure or bio-slurry (bio-slurry retains moisture, enabling seedlings to grow rapidly and remain healthy even in harsh climate conditions).
Effluent pollution.	Black Soldier Fly technology.	Use of biogas for energy generation.	Environmental conservation, through waste management tackling effluents' pollution and recycling.
GHG emissions.	Upscale of biogas digesters at farm level and at slaughtering facilities. Safe storage of drugs and vaccines, safe disposal of expired drugs and bio-waste. Biological treatment methods for effluents.	Management of effluents' pollution. Safe storage of waste.	Climate change mitigation, by reducing GHG emissions from on-farm manure composting and fuelwood/charcoal energy generation.

Energy efficiency

Inefficient and unsustainable wood-intensive energy sources for heating or chilling.	Installation of solar panels at MCCs and MCPs for lighting, water heating, milk chilling, cooling of milk products.	Cooking and lightning at household level.	Climate change adaptation, by reducing pressure on natural resources such as water and energy.
Firewood collection for domestic use, which increases women's workload and prevents the development of income-generating activities.	Installation of biogas digesters at farm level and at slaughtering facilities. Enhanced energy efficiency at processing facilities.	Water heating for milking, cleaning, sterilising, chilling.	Climate change mitigation, by reducing GHG emissions through to the use of renewable energies.

Climate-smart financing and policy development

Bottlenecks	Proposed interventions	Usages	Benefits
High animal losses due to climate-related shocks.	Livestock insurance.	Financial protection for farmers.	Climate change adaptation, by helping farmers recover from climate-related losses.
Disconnect between animal health and environmental impacts.	Promotion of the One Health approach in L-FFS, trainings and policies.	Improved animal health services for more productive, resilient, and less polluting animals.	Climate change adaptation, by increasing the resilience of animals to climate shocks (heat stress, droughts). Climate change mitigation, by reducing GHG emissions from livestock through healthier and more efficient animals.

7. Further studies needed

In line with IFAD's SECAP 2021 procedures, the ReLIV project will develop the following safeguard instruments as part of the design process: Environment, Climate and Social Management Framework (ECSMF) and its Environment, Climate and Social Management Plan (ECSMP); Pesticide Management Plan (PMP); Solid and Liquid Waste Management Plan (SLWMP); Stakeholder Engagement Plan (SEP); Grievance Redress Mechanism (GRM); and Labour Assessment and Management Procedures (LAMP). ESG due diligence will be carried out in accordance with Standard 8 of the SECAP procedures, under ARCAFIM ESCMF, considering that the project will involve financial intermediaries or direct investments. The project team will ensure that financial intermediaries have an Environmental and Social Management System (ESMS) and an Environmental and Social Action Plan (ESAP). ARCAFIM already includes technical assistance for these activities. A targeted adaptation assessment will be developed, and a carbon analysis of the project will be carried out using the GLEAM-*i* tool.

8. Monitoring and evaluation

The ReLIV project will develop a detailed stakeholder engagement plan and grievance redress mechanism to ensure that there are sufficient feedback loops from different project actors and stakeholders. Key social inclusion, environmental and climate change indicators have been identified and included in the project's M&E framework and logframe, such as: **Indicator 1.2.8** Percentage of women reporting minimum dietary diversity (MDDW), **Indicator 2.2.1** Number of new jobs created, **Indicator 1.1.8** Households provided with targeted support to improve their nutrition, **Indicator 3.2.1** Number of tons of greenhouse gas emissions (CO₂e) avoided and/or sequestered, **Indicator 3.2.2** (Number) Percentage of persons/households reporting adoption of environmentally sustainable and climate-resilient technologies and practices. An Environment, Climate, and Safeguards (ECS) specialist will be included as part of the PMU. The ECS specialist, in collaboration with the M&E specialist, will be responsible for ensuring that ECS data are collected at baseline, mid-term and completion, and will report annually on progress. The ECS Specialist will work closely with the NEMA and Component Leaders, as well as the M&E Specialist, to ensure that mitigation measures included in the overall ECSMP and in sub-project site specific ECSMPs are developed and implemented, with regular monitoring of compliance. During early implementation, GLEAM-*i* will be used to

calculate a baseline of greenhouse gas (GHG) emissions and to inform the M&E components on GHG emissions during and at the end of the project. This will be done through the GCF DaIMA project, which will provide co-financing and has already earmarked funds for GLEAM-i assessments for the 4 countries covered (including Uganda). ReLIV will also receive GHG assessment support from the Reducing Agricultural Methane Programme (RAMP) initiative. Procurement activities related to SECAP will be monitored throughout the project cycle by the PMU and IFAD during implementation, supervision, and MTR missions. The ReLIV project will use IFAD's Standard Procurement Documents, including IFAD's SECAP requirements, the "value for money" bid evaluation methodology, the specification of special contract conditions, and the frequency and rigour of implementation supervision. The Borrower/Recipient/Implementing Partner will be required to ensure that all contractors, subcontractors, and first-tier suppliers involved in the project comply with SECAP standards as specified in their contracts.

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ESCMP Matrix

This section is included as part of the Environment, Climate and Social Management Framework (ECSMF) (Table 5).

Footnotes

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V.2. ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT FRAMEWORK (ESCMF)

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries
(MAAIF)**

Kampala

Uganda

EXECUTIVE SUMMARY

Introduction

The Resilient Livestock Value Chain Project (ReLIV), implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), will support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market. As one of the prerequisites for the project through IFAD, an Environmental, Social and Climate Management Framework (ESCMF) must be developed in accordance with the Social, Environmental and Climate Assessment Procedures (SECAP 21).

RELIV Goal, Objective and Outcome

The proposed project goal is to **“Contribute to the improved livelihoods of smallholder livestock farmers”** (aligned to NDP III goal: “Increased Household Incomes and Improved Quality of Life of Ugandans”)

The proposed Project development Objective (PDO) is to **“Enhance income, nutrition and resilience of smallholder dairy and beef producers”**.

The PDO will be achieved through three outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

Objectives of the Environmental, Social and Climate Management Framework

The Uganda Resilient Livestock Value Chain Project (ReLIV) Environment, Social and Climate Management Framework (ESCMF) is intended to provide complete documentation for the requirements of a holistic Environment, Social and Climate Management system for the project. This ESCMF contains the findings of a study conducted for the Livestock sector of Uganda and the instrument has been developed based on the local conditions and findings.

The RELIV activities will directly and indirectly generate impacts that may result in varied social and environmental impacts, necessitating the establishment of an ESCMF. This ESCMF has been prepared because the location and design of the subprojects, and the magnitude of their impacts are not precisely known at project appraisal stage, although the types of potential project activities that could take place have been defined. The principal aim of this ESCMF is to provide a framework for addressing all environmental and social risks that the activities and subprojects may pose.

The ESCMF Process

In the process of developing the ESCMF the following steps were taken: (i) establishment of baseline socio-environmental conditions, (ii) development of the screening criteria/tool, (iii) review of policy, regulations, institutional framework, (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 measures.

Extensive review of related literature was undertaken, covering published and unpublished documents. The investigations also involved scanning of the potential project areas, and consultations with the various stakeholders.

Environment And Social Category

The environmental and social category for the RELIV 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 gender-based violence especially at household levels, child labour, youth unemployment and health and safety issues related to various activities along the beef and dairy value chain, discharge of poor-quality effluents from MCPs, MCCs, Milk processing plants, Abattoirs, and meat processing plants. Hence, the focus of the Project will be on employment creation for young men and women, household mentoring to minimise gender-based violence, reduced and or eliminated, application of ILO guidelines on child labour when engaging youth in beef and dairy value chain, and grievance redress mechanisms.

Climate Risk Category

The climate risk category is **Substantial**. Beef and dairy farming is perceived as both contributor to and victim of climate change. On the one hand, the sector may contribute to GHG emissions (associated with land use, from livestock or from processing and transportation); on the other hand, beef and dairy farming is highly vulnerable to climate change and variability, mainly through increased temperatures and alterations in rainfall patterns. These factors influence feed and water availability, as well as animal health, and consequently meat/milk production and quality. Although the Project's outputs and outcomes will be impacted by climate variability and change, some adaptation strategies exist, and more measures will be integrated along the beef and dairy value chain.

Policy, Legal and Institutional Framework.

This chapter assessed the relevant Uganda policies, regulations and acts that guide the environmental and social assessment for the RELIV activities, including relevant IFAD SECAP 21 and international conventions.

The policy and legal review established that the RELIV 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 Uganda. All these instruments are guided by the Uganda Constitution which emphasizes on prudent management of the environment and accords future generations full rights to the environment and benefits thereof.

Environmental And Biophysical/Climate/Social Baseline

The Republic of Uganda, located in Eastern Africa, is a landlocked country occupying a total area of 241 550 km², of which 18 percent is open inland waters and wetlands, and 37.8 percent is arable land. The country is endowed with significant natural resources, including ample fertile land, regular rainfall, mineral deposits, and water resources which accommodate diverse species of flora, fauna and fish resources.

41% of Uganda's total area is experiencing degradation, and 12% is in a severe state of degradation. Soil erosion is the most common form of degradation (found on 85% of degraded land).

Uganda has one of the highest population growth rates in the world. From 2000 onwards the population has grown at approximately 3.2% per annum and is estimated to be 64 million in 2030 and 106 million in 2050. The population growth is a key driver of deforestation and encroachment on wetlands as land is cleared for agriculture, settlement and access to resources. As more land is opened up for agriculture, buffer zones between human settlement and protected areas are lost. The high population growth is also placing demands on natural resources for non-agricultural products including fuelwood, clay mining for bricks and other raw materials.

Stakeholder Engagement Plan and The Grievance Redress Mechanism

The RELIV PMU must continuously engage the project stakeholders throughout the project cycle to achieve successful implementation and monitoring. The ESCMF outlines the Stakeholder Engagement plan (SEP) which describes the objectives of such a plan, the key stakeholders, information disclosure and consultation approach, grievance redress mechanism (Appendix 5), feedback, and monitoring.

As part of the continuous consultation process, a grievance redress mechanism (GRM) has been developed. The GRM will be a system by which queries or clarifications about the project will be responded to, 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 and addressing and resolving their grievances.

Screening, Approval and Implementation of Subprojects

Every sub-project that will be funded through RELIV will have to be screened for social and environmental issues. RELIV PMU will conduct the environmental and social screening at district level, using the Environmental and Social Screening Form (Appendix 1) together with information on typical subproject impacts and mitigation measures in the environmental social and climate management plan (ESCMP). In some cases, special planning reports (e.g., site specific ESMPs, Abbreviated ESIA, IPMPs) may have to be developed and implemented.

Environmental and Social Management in RELIV

The potential associated impacts were analysed and mitigation measures for the identified impacts proposed. The ESCMF then establishes a process for addressing all environmental and social policy issues in sub-projects from preparation, through review and approval, to implementation. The **expected positive impacts** of the proposed project include:

- a) Improved management of pastures and catchments,
- b) Reduce vulnerability of rural communities to environmental degradation and climate shocks because of diversified income,
- c) Economic Opportunities Employment (job creation)

The project's main **potential negative impacts** prior to mitigation measures include:

- a) Vegetation Clearing and potential soil erosion from bare ground and land preparations.
- b) Solid waste generation and Effluent Discharges from MCCs, MCPs, Abattoirs, Meat and Milk processing plants.
- c) Bio-waste generation and Biosafety issues posed by Artificial Insemination (AI) Stations and Veterinary Services centres.
- d) Habitat loss and biodiversity disturbances caused by construction activities.

- e) Ambient air and ambient water pollution.
- f) E-Waste Generation.
- g) Potential abuse and misuse of Agro-Chemicals resulting in pollution and poisoning.
- h) Limited and inadequate Stakeholder Involvement and Poor project Inception/Introduction.
- i) Vulnerable groups excluded from decision-making and affected by fencing off project sites and fields.
- j) Potential Gender Based Violence and SEAH
- k) Poor working conditions for people implementing project activities resulting in occupational Health and Safety Issues

Expected mitigation benefits

RELIV will implement "multiple-benefit" approaches which will typically build climate resilience alongside other benefits, contributing to poverty reduction, enhancement of biodiversity, increased agricultural productivity and lowering of greenhouse gas emissions from the livestock sector. Climate change mitigation benefits in RELIV are expected from:

- (i) improved net assimilation of crop residues and additional organic matter from leaf litter and minimized wind damage, and reduced soil erosion.
- (ii) capacity building in animal husbandry activities including artificial insemination,
- (iii) Capacity building in Fodder and feed production including fodder seed multiplication,
- (iv) intercropping of fodder with nitrogen-fixing plants and staple crops,
- (v) construction of erosion control and water holding structures and
- (vi) composting of cow dung and mulching among others.

Environmental And Social Monitoring Plan

The RELIV-PMU with the help of relevant authorities will monitor the environmental and social effects of project implementation and the success of mitigation measures. In addition to monitoring the implementation of mitigation measures proposed to address environmental and social impacts of the RELIV project, the overall performance and effectiveness of the project can be assessed through monitoring the following indicators:

Environmental Indicators.

1. Number and percentage of subprojects for which environmental issues are integrated into the project cycle.
2. Number of MCCs, MCPs, abattoirs, meat and Milk processing plants with functioning waste management facilities.
3. Increased use of incinerators by AI stations and veterinary services centres.
4. Evidence of anti-soil erosion measures such as terraces,
5. Re-planted vegetation,
6. intercropping of nitrogen-fixing plants with staple crops
7. Constructed drainage channels,
8. Rehabilitated and filled up burrow pits, etc.

Social indicators.

1. Number, sex and type of target groups participated on the ESCMF, IPMP, and SEP training and awareness creation program.
2. Number and percentage of subprojects for which social issues are integrated into the project cycle.

3. Representation on the community management committees,
4. Equitable sharing of benefits from the programme intervention,
5. Numbers of members attending programme planning and implementation meetings,
6. Effect of programme implementation on local household economies.

Capacity Building and Training For E&S Management

Currently there is little capacity within the MAAIF/RELIV PMU to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the RELIV project activities. Thus, the ESCMF recommends various trainings to build capacity within the MAAIF/RELIV PMU to manage environmental and social risks. This includes training in Environmental and Social Risks and Impacts of RELIV, Environmental and Social Impact Assessment of the Projects, Gender, HIV/AIDS awareness, Water and crop Management, and Agro-chemicals and Dairy-facility Management. Total training costs are estimated at approximately USD 123,600.00.

Funding For the Environmental Management Activities

The estimated cost for the implementation of the ESCMF, which covers technical assistance, site specific ESIA's and ESMPs, mitigation measures, monitoring, training and audits is USD **473,660.00**.

Conclusions and Recommendations

The proposed RELIV programme has potential to significantly enhance the livestock productivity and improve the livelihoods of smallholder beef and dairy farmers, including the beef and dairy value chain players in the target districts. An improvement in the productivity of the Smallholder farmers will translate to improved livelihoods as they now 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, and portable and livestock water resources management and value addition infrastructures construction activities, Solid and liquid waste generation, tree cutting and 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.

During the operation phase of the expanded Livestock services, the potential environmental impacts will include Solid and liquid waste, Chemical and Biological wastes, which will be generated from the normal operations of the facilities and can be managed by incorporating the requisite waste and effluent handling units to the facilities. This impact would be exacerbated by inadequately trained livestock staff, however the ESCMP presented in the study will be used to mitigate the impacts during and after the rehabilitation of the Livestock infrastructure. 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.

INTRODUCTION AND PROJECT CONTEXT

1.1 PROJECT BACKGROUND

The Resilient Livestock Value Chain Project (ReLIV), implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), will support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

ReLIV will address the development challenges related to poverty, food insecurity and high levels of malnutrition through working on production, marketing and regulatory environment in the dairy and beef value chains. The project support on production will include supporting access to feed and water, animal health and nutrition services, breeding services, training and the introduction of climate-resilient practices and nature-based innovations.

Improving production and with higher yields, the project will also work on ensuring access to markets for the target group through strengthening producers organizations/cooperatives for milk and meat aggregation, facilitation of partnership between private sector and producer groups, support for small-scale processing, creating awareness on nutrition and access to finance. Cutting across the production and marketing activities, the project will promote climate resilient practices, digital innovations, and creating a conducive policy and regulatory framework.

Those interventions will result in increased productivity and production, lower emissions, for the target group and thus resulting in higher incomes which will have impact on reducing their poverty, food insecurity, improving their nutrition status, reducing their environmental and climate impact, while building their resilience to shocks and climate change. With this impact, a sustainable and transformative change would take place in the present situation in the project area.

The project will target poor small-scale cattle farmers and (agro) pastoralists, in line with IFAD's mandate, and should also support the development of market-oriented production and creation of off-farm jobs. The project will target 41 districts in the cattle corridor, directly benefiting around 200,000 households (about 1,000,000 people), out of which 40% women and 25% youth.

1.2 ReLIV OBJECTIVES

1.2.1 The project goal

The project goal is to "Contribute to the improved livelihoods of smallholder livestock farmers" (aligned to NDP III goal)

1.2.2 Project development Objective (PDO)

The proposed Project development Objective (PDO) is to "Enhance income, nutrition and resilience of smallholder dairy and beef producers". This will be achieved through three outcomes: (i) Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) Enhanced access to market for smallholder producers and access to finance; and (iii) Strengthened policy and regulatory environment. Increased climate adaptation and mitigation is a crosscutting objective and will involve specific indicators and targets in the Log frame.

1.3 TARGETING

1.3.1 Geographical targeting

ReLIV will focus on selected districts in the cattle corridor of the country. The particular districts will be selected following the following criteria: (i) high incidence and density of poverty, food insecurity, malnutrition; (ii) herd size by the households; (iii) high potential for women and youth to get involved in the dairy value chain; and (iv) potential for dairy value chain development, including markets for dairy products. During the design stage, about 41 districts will be selected from the cattle corridor based on the criteria stated above.

1.3.2 Target group

ReLIV will target 200,000 households (1,000,000 persons), comprising of smallholder dairy and beef farmers engaged in intensive and semi-intensive small-scale integrated production systems, as well as medium scale extensive agro-pastoral systems. Other direct beneficiaries will be (i) private service providers engaged in AI, veterinary services, feed and fodder seeds production, mechanisation, with a specific focus on youth, (ii) small scale processors, including individuals, groups, women groups in particular (iii) Public institutions involved in delivery of livestock related services (research, extension, regulation and control, policy formulation, animal health and breeding services), and their staff.

1.3.3 Targeting strategy

Detailed selection will be developed during the design phase and ensure to target the smallholder dairy and beef farmers with the potential of becoming commercial dairy and beef farmers. At least 40 percent of the beneficiaries will be women and 25 percent will be youths.

1.3.4 Women and youth empowerment

ReLIV will provide opportunities for skills development and training, introduce women and youth friendly businesses and innovations, such as mechanized production, milking and transportation, and facilitate access to finance. The project will apply gender – sensitive lenses and implement gender-sensitive household models, to ensure that both men and women benefit from the dairy and beef development.

1.4 THE RELIV COMPONENTS

The project is composed by two main technical components and a third one related to project coordination and management (including policy support).

1.4.1 Component 1

Increasing productivity, resilience and reducing the impact of production on climate: Under this component, the project will support transformation of smallholder production systems in order to improve their productivity, their resilience, and lower their emissions. This will be done through the following activities:

- **Research, extension and capacity building of farmers:** the project will support public research centres for the development and testing of technical innovations, including community-based training and extension mechanisms (FFS model or similar).
- **Feed and fodder:** The project will strengthen the National Agricultural Research Organisation (NARO) and the National Animal Genetic Resource Centre (NAGRC)

for selection and multiplication of forage species, and their distribution through private seed producers, focusing particularly on legumes and drought resistant/resilient fodder varieties.

- **Animal health** support will strengthen both public veterinary services and private service delivery through better planning, support to digitalization of surveillance, and organization of targeted mass vaccination and vector control campaigns. Private veterinary services through cooperatives, and community-based animal health services (CAHWs model) will also be facilitated.
- **Animal identification and breeding:** ReLIV will support the roll out of the National Livestock Identification and Traceability System (LITS) which will allow effective breeding, more efficient disease control, theft control, and traceability. The public AI mechanism will also be strengthened to improve the quality of locally produced semen, and their availability throughout the country.

1.4.2 Component 2

Enhancing access to market for smallholder producers and investments in the value chain: The interventions under this component are intended to foster collective action among smallholder beef and dairy farmers, broaden market opportunities for farmers, increase investment at different levels of the value chain, improve access to finance, promote food safety, and increase milk and beef value chain efficiency. This will be done through the following activities:

- **Producer organisations/cooperatives support:** ReLIV will strengthen and develop cooperatives to foster collective action among smallholder beef and dairy farmers. Strong and well managed cooperatives will help farmers to obtain market access or broaden market opportunities, secure low-cost credit and strengthen access to veterinary, breeding and extension Services.
- **Upscale of sustainable business models:** The project will upscale business models that are sustainable and with potential impact to improve market access, access to finance, improve smallholder farmer income, increase productivity, and promote food safety and value chain efficiency. In the dairy sector, the Cooperative led Milk Collecting Center (MCC) business model will be supported. The same principle of aggregation and sale by cooperatives will also be applied to the beef sector.
- **Digitalization of the value chain:** the project will support digitalization of value chain, including through mobile based solutions, to improve efficiency of transactions, traceability of animals and products (e.g. digital quality-based payment system, electronic certification for export), profiling of farmers, and access to finance.
- **Small scale processing, and consumption of quality beef and dairy products:** ReLIV will support development and promotion of short value chains to increase milk output, value addition and consumption. The project will upscale the Quality Based payment system.
- **Access to finance:** ReLIV will work with financial institutions to support beneficiaries access to finance through various available instruments.
- **Local Multistakeholder Platforms:** ReLIV will engage Local Multistakeholder Platforms for policy participation at national level and local level (e.g. District level).

1.4.3 Component 3

Policy support: the project will support the formulation, review or updating of sector policies, strategies and regulations, based on MAAIF demand, as well as stakeholder participation in policy, through national stakeholder platforms. Policy support will focus on key missing strategic frameworks that are important both for sector development and

project implementation, including animal health strategy and action plans, animal feed strategy, breeding strategy, and sub sector strategies (Beef and Dairy strategies).

Policy support will also include climate action, in particular for updating the Nationally Determined Contribution (NDC) of Uganda as well as improving the GHG emissions inventories to include improvements in livestock production.

1. THE ReLIV ESCMF

2.1 JUSTIFICATION FOR THE PREPARATION OF THE ESCMF

The ESMF has been prepared to set out the principles, rules, guidelines, and procedures for screening, assessing, and managing the potential social and environmental impacts associated with the proposed RELIV Project interventions. The ESCMF identifies the steps for detailed screening and assessment of the Programme's potential social and environmental risks, and for preparing and approving the required management plans.

The main activities in components 1 and 2 of the project will have environmental, social and climate concerns. These activities may cause various impacts, most of which are localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures.

The environmental and social category of the project is "Substantial". The project may lead to adverse risks to the environment and humans which are reversible through proposed mitigation actions. Some of the sub-project's activities which are likely to have significant or adverse risks include: a) rehabilitation and or construction of water sources like dams, Rehabilitation of MCCs, MCPs, abattoirs, meat and milk processing plants, erection of water harvesting infrastructure close to homes, Milk -processing facilities construction and operations; operations of Milk Collection bays, and increased use of agrochemicals.

Potential environmental, social and climatic risks include vegetation clearance; land degradation; inappropriate use of agrochemicals leading to pollution; conflicts; gender-based violence; child labour etc. These lead to the requirement to prepare SECAP instruments to mitigate the potential adverse impacts from the project. In this case an Environmental, Social and Climate Management Framework (ESCMF) is required since the actual project sites are not yet known. The ESCMF must contain a generic Environmental Social and Climate Management Plan (ESCMP), which will be adopted by the individual sub-projects when they finally get selected. An ESCMF is a useful tool meant to guide environmental and social risk management considerations of the project Implementation.

2.2 SCOPE AND PURPOSE OF THE ESCMF

The ESCMF has been developed on the basis of the Programme risk categorisation and to outline the processes that will be undertaken during the Programme implementation phases for the additional assessment of potential impacts and identification and development of appropriate risk/impacts management measures. It contains measures and plans to avoid, and where avoidance is not possible, to reduce, mitigate and/or offset adverse risks and impacts.

The ESCMF also details the roles and responsibilities for its implementation and includes a detailed monitoring and evaluation plan, and guidelines for Terms of Reference to be used to guide the development of the required assessments and management plans.

2.3 OBJECTIVES OF THE ESCMF

The overall objective of the ESCMF is to provide a framework for environmental and social management of the planned activities under RELIV programme. The ESMF is aimed at establishing specific procedures and methods for addressing environmental and social impacts during the implementation of the programme.

2.4 APPROACH TO THE PREPARATION OF THE ESCMF

The ESCMF has been prepared in accordance with applicable Uganda 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, and National government level.

The strategies of preparing the ESCMF followed the following six steps:

- a) Review current conditions of the existing livestock livelihood activities, and provide an assessment of their status and operation levels,
- b) Review and analysis of the level of degradation of the grazing areas, and Fodder fields (Baseline Conditions) in the potential project areas.
- c) Review of typical implementation approach and processes for the proposed development activities within the smallholder sector,
- d) Identification and analysis of potential environmental and social impacts the implementation processes will likely trigger and generate within and around the agriculture activities,
- e) Development of a screening process for negative impacts for proposed programme sites and activities,
- f) 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 project activities.

In general, the study was then prepared in accordance with applicable IFAD's SECAP 2021 and policy documents and Uganda's Environmental Impact Assessment Guidelines, July 2020, and the Environmental Impact Assessment (EIA) Regulation, S.I. No. 13/1998. The distinct phases of the study are outlined below:

2.4.1 Literature Review

Review of the existing baseline information and relevant literature was undertaken to have better insight of the RELIV Program areas. Similarly, the national policies and legal framework and IFAD social, environmental, climate assessment procedures (SECAP 21) were also reviewed.

2.4.2 Field Visits

As part of the RELIV Design mission, visits were conducted to the project districts to carry out consultations with the stakeholders and with the beneficiaries of RELIV and to inspect such facilities as Cattle posts, abattoirs, meat processing plants, MCCs, MCPs and milk processing plants for their compliance or capacities to comply with the SECAP requirements. The design mission met the relevant institutions and communities including woman and youth at the district level.

The visits gave the 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 RELIV implementation.

2.4.3 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 beef and dairy value chains. The consultations were conducted at National, Provincial and District levels. The strategy that was applied included the following:

- Virtual (Zoom, Microsoft Teams, Skype, etc.) Meetings with some of the key stakeholders in IFAD, MAAIF, PMU, etc
- Physical meetings with some of the key stakeholders

2.5 STRUCTURE OF THE ESCMF

This ESMF is organized in thirteen chapters: -

Chapter One provides background information to the proposed Resilient Livestock Value Chain Project, (**RELIV**). It covers the Project Development Objectives, Project Design, project structure, target areas and socio-economic targeting and the project components.

Chapter two Covers the justification for the preparation of the ESMF. It also covers the scope and purpose of the ESMF, including the objectives and structure. It also provides an outline of the purpose of the Environmental and Social Management Framework, and the approach and methodology that was taken in developing the framework.

Chapter three describes the relevant legal frameworks which regulate and manage resource utilization, protection of sensitive areas including aquatic and land ecosystems, land use control and protection of endangered species in Uganda. It then explains in general terms IFAD's Social, Environmental and Climate Assessment Procedure (SECAP) and the GCF Guiding Frameworks including the GCF Revised Environmental and Social Policy.

Chapter four provides the environmental, (Biophysical), Climate and social baseline conditions of the potential project area.

Chapter five describes the Stakeholder engagement, information disclosure and the GRM. It sets out the Public Consultation plan to be followed throughout the project implementation process. It then outlines the current stakeholder engagement process that was conducted for the development of the ESCMF. In the process it outlines the importance of continuous consultation with relevant stakeholders throughout the project implementation cycle to ensure the success of the project. It identifies the measures which need continuous consultations and then defines the structure of the consultations and the reporting requirements. The chapter also outlines the disclosure plan and the Grievance redress mechanism for RELIV.

Chapter six provides the procedure for sub-project screening assessment and management. It is the procedure for ensuring that environmental and social potential impacts are adequately addressed through the institutional arrangements and procedures used by RELIV for managing the identification, preparation, approval, and implementation of sub-projects. It also provides a step-by-step screening process for sites for future sub-projects.

Chapter Seven outlines the nature and scope of the proposed activities under the proposed project, the process for environmental and social categorisation, impacts significance rating, components likely to be affected by the project activities, the nature and potential sources of the main environmental and social risks and impacts,

environmental and social impact analysis. The chapter then outlines the typical environmental management plan for the impacts for integration into the project activities. The plan includes responsible authorities for collaboration in the implementation of the mitigation measures and recommendations of appropriate monitoring activities by different stakeholders at local level, district level and national level to ensure compliance to mitigation measures.

Chapter Eight describes the institutional frameworks which will govern the project. It outlines how the project will be coordinated, the implementing agents, and the end beneficiaries. The chapter further describes the relevant environmental and social training and capacity building measures for stakeholders at all levels to adequately participate in the implementation. It includes specific training activities for the stakeholders and the cost estimates to facilitate the training programme.

Chapter Nine covers the costs and budgetary considerations for the implantation of the RELIV ESMF. This includes costs for conducting site specific ESIA's and ESMPs, costs for conducting any mitigation measures, costs for monitoring and evaluation, costs for capacity building, and costs for annual audits.

Chapter Ten outlines the monitoring Plan, reporting and document review process for RELIV. It outlines the areas of concern, the method of monitoring, the indicators, the frequency of monitoring and the responsible authorities. It covers collection of monitoring data, monitoring process, reporting, performance monitoring, results monitoring, and reviews. It explains that the lead implementing Agent (RELIV) with the help of relevant authorities must monitor the environmental effects of project implementation and the success of mitigation measures.

Chapter Eleven Provides a conclusion of the findings of the ESMF drawing from the analysis of the preceding chapters.

References, this provides the literature which was used in the study is then listed and,

Appendices, Six appendices are then attached at the end of the report covering (i) The environmental and social screening form, (ii) Methodology for significance rating of impacts, (iii) Guidelines for the development of sub-project ESMPs, (iv) Proof of public consultation and disclosure, (vii) Grievance redress mechanism, (ix) IFAD's environmental and social standards.

2. PROJECT ADMINISTRATIVE STRUCTURE, MANAGEMENT, AND IMPLEMENTATION

3.1 INTRODUCTION

This chapter describes the administrative, policy and regulatory framework relevant to environmental and climate change concerns in Uganda that may trigger the IFAD SECAP requirements. The objective is to ensure that project activities and implementation processes are consistent with local laws and policies and IFAD Safeguards Policies, and to point out possible gaps in local legislation in view of full compliance with IFAD Safeguards Policies. The proposed Uganda Resilient Livestock Value Chain Project (ReLIV) will be subject to a number of these pieces of legislation. The following paragraphs highlight some selected policies and laws which are applicable in the planning and implementation of the project:

3.2 THE UGANDA CONSTITUTIONAL PROVISIONS.

The Constitution of the Republic of Uganda, promulgated in 1995, articulates the rights and responsibilities of all citizens and the role of the state regarding the environment, providing that every citizen is entitled to a healthy and satisfying environment and that, every person has the duty to protect, safeguard and promote the environment.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO ReLIV
	The Constitution of The Republic of Uganda, 1995	This is the supreme law in the country and it, among other things, calls upon the Government of Uganda to promote sustainable development and public awareness of the need to manage, promote and protect the rational use of natural resources, in a balanced and sustainable manner for present and future generations. The right to a clean and healthy environment is enshrined in Article 39 of the Constitution of Uganda, 1995.	To ensure ReLIV compliance with the Constitutional obligations on sustainability, an ESMF has been prepared which outlines mechanisms for environment assessment and mitigation measures included therein.

3.3 RELEVANT POLICIES AND STRATEGIC PROVISIONS.

Table 3-1 below discusses the relevant Uganda policies and strategic provisions, their interpretation and relevance to the RELIV Project. Upon implementation, RELIV must recognize the requirements of these acts.

Table 2-1 Relevant Policies and Strategic Provisions in Uganda

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
1.	The National Gender policy 1997	The goal of the Policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development. The policy ensures that all Government policies and programmes, in all areas and at all levels, are consistent with the long-term goal of eliminating gender inequalities.	_RELIV is a gender and social inclusive program that will leave no one behind. RELIV has mainstreamed gender dimensions into its formulation, planning and implementation framework hence, its compliance with the National Gender Policy for Uganda.

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
2.	The national environment management policy 1994-NEMP	The Policy provides for sustainable economic and social development, through a number of strategies. The key policy objectives include the enhancement of the health and quality of life of Ugandans and promotion of long-term, sustainable socio-economic development through sound environmental and natural resource management and use; and optimizing resource use and achieving a sustainable level of resource consumption.	With regard to RELIV, aspects of Environmental Assessment have been integrated into the project with the objective of ensuring sustainability in the project.
3.	The National Development Plan III 2019/2020-2023/24	The National Development Plan (NDP) covers the fiscal period 2019/20 to 2023/24. It stipulates the Country's medium term strategic direction, development priorities and implementation strategies. According to the NDP, the share of agriculture in GDP was 51.1% in 1988 and 33.1% in 1997, declining further to 15.4% in 2008. The sharp decline in the share of agriculture in GDP represents significant structural transformation in the economy.	It is therefore recognized that, there is a compelling need to ensure that productivity growth in agriculture supports the high population growth, particularly in the Dairy sector.
	The Uganda Vision 2040	Uganda Vision 2040 provides development paths and strategies to operationalize Uganda's Vision statement which is "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years" as approved by Cabinet in 2007. Agriculture is the main stay of the Ugandan economy employing 65.6% (UBOS, 2010) of the labour force and contributing 21% to the GDP. Agricultural contribution to the GDP has been declining but remains very important to provide a basis for growth in other sectors. Dairy production is an important facet of the agriculture sector.	RELIV addresses issues of dairy production and nutritional uptake through local consumption of dairy products.
	National Agricultural Policy (NAP) 2013	The vision of the NAP is "A Competitive, Profitable and Sustainable Agricultural Sector", and the mission is "To transform subsistence farming to sustainable commercial agriculture and the 5 objectives being: a. Ensure household and national food and nutrition security for all Ugandans; b. Increase incomes of farming households from crops, livestock, fisheries and all other agriculture related activities; c. Promote specialization in strategic, profitable and viable enterprises and value addition through agro zoning; d. Promote domestic, regional and international trade in agricultural products; and e. Ensure sustainable use and management of agricultural resources. These have much in common with the agriculture component of NDPII, which built on the NAP. As in the NDPIII, pests are mentioned as a cause of limited production, and something that will be addressed. The policy also describes the roles of key stakeholders, and notes that as a	

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
		result of the creation of a number of agencies, several divisions and departments have been re-organized, including those with responsibility for disease and pest control.	
	Uganda Food and Nutrition Policy, 2003	The Uganda Food and Nutrition Policy has been formulated within the context of the overall national development policy objective of eradicating poverty. The overall objective of the policy is to promote the nutritional status of all the people of Uganda through multi-sectoral and co-coordinated interventions that focus on food security, improved nutrition and increased incomes. The goal of Government in the area of food supply and availability is to ensure an adequate supply of, and access to, good quality food at all times for human consumption, income generation, agro-based industries, and local, regional and international markets.	
	National Strategy for Youth Employment In Agriculture 2014	About seventy eight percent (78%) of Ugandans are below 30 years of age. Despite being the majority, they still face varying problems including inability to own or access land, lack of affordable financing for agribusiness start-ups as well as the technical know-how to be effectively employed in the sector. The gender differences among the youth have had a negative impact especially on the young women. The strategy therefore, has been designed to enable the youth to join the agriculture sector and in so doing enable them to find decent employment which will in the long run contribute in solving the major challenges facing agriculture in Uganda, such as low production and productivity, high post-harvest losses and low value addition.	
	The National Land Policy, 2013	The goal of the policy is to ensure efficient, equitable and sustainable utilization and management of Uganda's land and land-based resources for poverty reduction, wealth creation and overall socio-economic development.	The policy addresses the need to mitigate the impacts of investments (such as those that will be attributed to RELIV) on land and other natural resources to deliver equitable and sustainable development; and protect the land rights of citizens in light of such investments, including the rights of vulnerable groups.
	The National HIV/AIDS Policy, 2007	Provides a framework for prevention of further spread of HIV and mitigation of the socio-economic impact of the epidemic within the world of work in Uganda. It provides the principles and a framework for a multi-sectoral response to HIV/AIDS in Uganda's workplaces.	As required by this policy, it is important that MEMD, REA and UECCC as the implementing agencies have adequate measures to mainstream HIV/AIDS into the proposed RELIV interventions.

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
	The National Employment Policy (2011)	It is aimed at increasing productivity, competitiveness and employability of the labour force, especially the youth and other most vulnerable members of the labour force. It also aims at promoting and protecting the rights and interests of workers in accordance with existing labour laws and fundamental labour standards.	Employment to the RELIV will be carried out in line with this policy. Furthermore, no child labour will be practiced.
	The National Water Policy, 1999	This policy aims to manage and develop the water resources of Uganda in an integrated and sustainable manner. The water policy requires an integration of the water and hydrological cycle concerns in all development programs	The policy applies to component 1 of RELIV that may involve construction of distribution lines within or across the water sources. Implementation of RELIV components will be done in conformity with this policy.
	The National Land Use Policy, 2011	The aim of the policy is to: "achieve sustainable and equitable socio-economic development through optimal land management and utilization"	The implementation of RELIV component 1 will entail restrictions on the use of the land and this will be carried out in conformity with this policy
	The Climate Change Policy 2013	The Climate Change Policy 2013 promotes harmonized and coordinated approach towards a climate resilient and low carbon development for sustainable development. It promotes conservation of water, forests, wildlife and fisheries in climate change adaptation and mitigation measures	The RELIV will promote reduction on dependence of wood fuel and hence promote the conservation of forests through promotion of clean cooking technologies. RELIV will be implemented in conformity with this policy.
	<u>National Child Labour Policy, 2006</u>	This policy is aimed at prohibiting employment of children	Children may be enticed to the RELIV project areas in search of employment opportunities. The Project Coordination Unit will ensure child labour is not engaged by any of the project implementing agencies, partners or contractors.

3.4 RELEVANT UGANDA LEGISLATION

3.4.1 Relevant Uganda legislation

Table 3-2 below discusses the relevant Uganda legislation, their interpretation and relevance to the RELIV Project. On implementation, RELIV must recognize the requirements of these acts.

Table 2-2 Relevant Uganda legislation.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
1.	The National Environment Act, Cap 153.	<p>The objectives of the Act include: to provide for the management of the environment for sustainable development; to provide for strategic environmental assessment; and to address emerging environmental management issues, among others.</p> <p>This Act is the umbrella legislation in terms of environmental protection and has several sections which protects the environment from project which include the following:</p> <ul style="list-style-type: none"> • Section 70(3) stipulates that, a person shall not import, export, manufacture, formulate, distribute, or use hazardous chemicals or products containing hazardous chemicals prohibited under its subsections (1) and (2). • Part X of the Act in its Section 110 provides for preparation of environmental and social assessments whose purpose is to evaluate environmental and social impacts, risks or other concerns of a given project or activity, taking into account the environmental principles set out in its Section 5(2). 	<p>The Act through its respective schedules addresses dairy production (Agriculture) projects among those that may be subjected to environmental assessments. This to a large extent depends on the nature and scale of the projects.</p> <p>The ESMF outlines some of the salient impacts in RELIV as well as mechanisms for conducting further assessments on the project sub-components.</p>
	Environmental Impacts Assessment (EIA) regulations, 2020.	<p>The EIA Regulations gives a systematic EIA procedure in Uganda. It gives EIA a legal mandate, thus paving the way for an enabling environment for it to use as a tool for environmental protection. The regulation also has punitive measures for offenders. It recognizes three levels of EIA:</p> <ul style="list-style-type: none"> a. An environment impact review shall be required for small scale activities that may have significant impact; and b. Environmental impact evaluation for activities that are likely to have significant impacts; and c. Environmental impact study for activities that will have significant impacts. 	<p>In all, issues of EIA are being addressed in the project in line with these Regulations.</p>
	Biosafety and biotechnology bill 2012	<p>There has been much debate about the pros and cons of biotechnology, especially genetic modification. This is relevant to Dairy production because some of the most widely used modifications confer pest resistance, and in Uganda a number of such traits have been engineered and tested.</p>	<p>GMOs impact much on dairy production and this Bill is relevant in this sector.</p>

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
		Enactment of the Bill would provide the necessary regulatory framework for the commercialization and release of these materials, which would have substantial implication for the way in which pest problems are managed.	
2.	The Occupational Safety and Health Act, 2006	<p>The Act provides for the prevention and protection of persons at all workplaces from injuries, diseases, death and damage to property.</p> <p>It consolidates, harmonises and updates the law relating to occupational safety and health. Section III of the Act provides for duties, obligations and responsibilities of employers. Section VI of the Act provides for duties, rights and responsibilities of workers.</p>	<p>Potential hazards associated with the activities of RELIV project components jeopardise the safety and well-being of project workers as well as the project host communities.</p> <p>The ESMF provides for provision of safety gear for workers during implementation of RELIV school and selected Farmer Groups activities.</p>
	The Local Governments Act (CAP 243)	The Act creates a decentralized system of government based on the district as the main unit of administration. Administrative powers and functions are devolved from the central government to the local governments. The Act allocates responsibility for service delivery of a number of functions to local government councils (districts, cities, municipalities or town councils) and to lower local government councils (sub-counties / divisions). I	In conformity with this Act, the respective District Local Governments shall be involved in the implementation of RELIV.
	Land Act, CAP 227	The Land Act vests land ownership in Uganda in the hands of Ugandans and that, whoever owns or occupies land shall manage and utilize the land in accordance with the Forest Act, Mining Act, National Environment Act, the Water Act, the Uganda Wildlife Act and any other law [section 43, Land Act].	The planned RELIV has integrated Environmental Assessments in its ESMF in compliance with the Act provisions.
	The Land Acquisition Act, Cap 226	The Act spells out modalities that the Government has to follow for purposes of compulsory acquisition of land for public use whether for temporary or permanent use	Acquisition and restrictions on the use of land by the host communities of the RELIV will be carried out within the provisions of the Land Acquisition Act. The guidelines in the Resettlement Policy Framework (RPF) shall be closely adhered to during the lifetime of RELIV.
	The Public Health Act, Cap 281	Section 7 of the Act provides local authorities with administrative powers to take all lawful, necessary and reasonable practical measures for preventing the occurrence of, or for dealing with any outbreak or prevalence of any infectious, communicable or	Public health and hygiene are key in RELIV with regard to waste management arising from agro-chemicals use,

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
		preventable disease to safeguard and promote public health; and to exercise the powers and perform the duties in respect of public health conferred or imposed by this Act or other relevant laws.	including use of pesticides.
	The Workers Compensation Act, 2000	This law provides for compensation to be paid to workers (or their dependents) for injuries suffered and scheduled diseases incurred in the course of their employment.	Workers that are injured or ill due to employment during the implementation of the RELIV, especially component 1 will need to be compensated in line with the Act.
	The Water Act, Cap 152	This law provides for the management of water resources and the protection of the water supply. It regulates public and private activities that may influence the quality and quantity of water available for use and establishes the Water Policy Committee to maintain an action plan for water management and administration. It gives general rights to use water for domestic use, firefighting or irrigating a subsistence garden. A permit is required to use water for constructing or operating any works.	Water may need to be abstracted for use in some of the project activities and so such use will be governed by the provisions of the Act.
	Employment Act, 2006	Provides for the recruitment, contracting, deployment, remuneration, management and compensation of workers. Section 32 of the Act prohibits employment of children under 12 years. A child of 12-14 years can only be employed for light work under supervision of an adult and not during school hours. The Act also prohibits employment or work, which is injurious to a child's health, dangerous, hazardous or otherwise unsuitable.	<p>Labour conditions and relations during the implementation of RELIV will be governed by the employment Act. In accordance with the Act and standard 5 of SECAP, RELIV implementing partners and contractors shall ensure that children below the legal age requirement are not employed. Even under employment for light works that are possible at the project campsites, contractors shall ensure that children do not work beyond permitted working hours and for a permitted time period. The most important consideration is that any piece of work should not jeopardize the health and wellbeing of a child.</p> <p>It is worth noting that there is no conflict between the Employment Act and ESS2. Both emphasize that work should not jeopardize the</p>

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
			health, education, and morals of a child.
	The Local Government Act, 1997	This Act provides for the decentralised governance and devolution of central government functions, powers and services to local governments that have their own political and administrative set-ups	The respective district local governments in the host project districts will be consulted and involved in the implementation and monitoring of the project activities in their areas.
	The Historical Monument Act, Cap 46	The main goal of the reservation and protection of historical monuments and objects of archaeological, paleontological, ethnographical and traditional interest. It requires that any person who discovers any portable object in the course of an excavation shall surrender such objects to the Minister who shall deposit them in the museum.	Archaeological, paleontological, ethnographical, traditional and historical monuments may be discovered as part of project construction activities and particularly where excavation work is involved.
	The Uganda Wildlife Act, 2019	The main goal of the Act is the conservation and sustainable management of wildlife.	There is a possibility that RELIV project activities might be undertaken in areas neighbouring protected areas although efforts will be made to avoid routing of lines within such areas. Nevertheless, the provisions of the Wildlife Act will regulate the electrification of communities, refugee settlements and public institutions that are adjacent to protected areas such as wildlife and forest reserves.

3.4.2 Relevant Statutory Instruments (SI)

Several regulations have been enacted to support the implementation of the main Acts. Table 3-3 below discusses the subsidiary legislation which supports the legislation in table 3-2. These are the regulations which give teeth to the legislation and on implementation, RELIV must recognize the requirements of these regulations.

Table 2-3 Relevant Statutory Instruments (SI).

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
1.	Environmental Impacts Assessment Regulations, 2020	The EIA Regulations gives a systematic EIA procedure in Uganda. It gives EIA a legal mandate, thus paving the way for an enabling environment for it to use as a tool for environmental protection. The regulation also has punitive measures for offenders. It recognizes three levels of EIA: a. An environment impact review shall be required for small scale activities that may have significant impact; and b. Environmental impact evaluation for activities that are likely to have significant impacts; and c. Environmental impact study for activities that will have significant impacts.	In all, issues of EIA are being addressed in the project in line with these Regulations.

3.5 INTERNATIONAL CONVENTIONS AND TREATIES

The key international conventions and treaties ratified by GoU that are applicable to the planning, implementation and monitoring of RELIV are discussed in **table 3-4** below:

Table 2-4 Overview of the relevant International Conventions and Treaties.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
	Convention on Biological Diversity, 1992	The three main goals of the convention are conservation of biodiversity; sustainable use of biodiversity; and fair and equitable sharing of the benefits arising from the use of genetic resources.	The components of the RELIV project that may affect protected areas and the associated biodiversity will be implemented in line with this convention.
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	This convention seeks to ensure that international trade in species of wild fauna and flora does not threaten their survival in the wilderness.	This Convention will be relevant to prevention of poaching of wildlife in wildlife conservation areas imprinted by RELIV project activities.
	Convention on Wetlands (Ramsar, Iran, 1971)	The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.	The implementation of RELIV shall promote the conservation of wetlands and waterfowl in case of project areas within wetlands.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
	The African Convention on the Conservation of Nature and Natural Resources, 1968	This Convention encourages the conservation, utilization and development of soil, water, flora and fauna for the present and future welfare of mankind, from an economic, nutritional, scientific, educational, cultural and aesthetic point of view.	This will be relevant to the conservation, utilization and development of soil, water, flora and fauna within the RELIV project areas.
	The World Heritage Convention, 1972	The primary mission of the Convention is to identify and protect the world's natural and cultural heritage considered to be of Outstanding Universal Value.	The convention will be relevant to the protection of cultural heritage (if any) that may be identified in the RELIV project areas during project implementation.
	The Stockholm Declaration, 1972	The objective of the declaration is to coordinate global efforts to promote sustainability and safeguard the natural environment.	The declaration will be relevant in the management of environmental and social risks of RELIV.
	Bonn Convention, 1979	The objective of the Bonn Convention is the conservation of migratory species worldwide.	The RELIV in line with this convention will be mindful of the effects of it's activities that may be located along migratory routes.
	East African Community Protocol on Environment and Natural Resources, 2006	The objective of this protocol is to provide for EAC joint effort to co-operate in efficient and sustainable use and management of natural resources and promote adaptation to climate change.	The protocol will be relevant in promoting efficiency and sustainable use and management of the natural resources in a way that promotes adaptation to climate change mainly through the use clean energy.
	The Nile Basin Cooperation Framework Agreement, 2010	The Objective of this agreement is to achieve sustainable socioeconomic development through the equitable utilization of, and benefit from, the common Nile Basin water resources.	The impact of RELIV could have a ripple effect on some of the Nile Basin riparian countries.
	The Paris Agreement	The Paris Agreement requires all countries both developed and developing to make significant commitments to address climate change through decreasing global warming described in article 2 of UNFCCC.	The RELIV will be deploying clean technologies or low carbon project interventions that are critical for reversing the effects of climate change.
	UN Declaration on The Elimination Of Violence Against Women 1993	The Declaration on the Elimination of Violence Against Women (abbreviated as DEVAW) recognizes "the urgent need for the universal application to women of the rights and principles with regard to equality, security, liberty, integrity and dignity of all human beings". It recalls and embodies the same rights and principles as those enshrined in such instruments as the Universal Declaration of Human Rights, and Articles 1 and 2 provide the most widely used definition of violence	In the course of implementation, RELIV will take into consideration the provisions of this declaration and respect the dignity of all human beings

No.	LEGISLATION	INTERPRETATION	<i>RELEVANCE TO RELIV</i>
		against women	
	<p>The Safety and Health in Agriculture Convention</p>	<p>The Safety and Health in Agriculture Convention (Convention 184) adopted by the conference of the International Labor Organization (ILO) addresses the protection of workers in the agricultural sector. In addition, more children work in agriculture than in any other sector and they are differently and particularly vulnerable to the toxic effects of chemicals such as pesticides.</p>	<p>Application of the Convention is an important step in improving the health and safety of the workers in a project as such; there will be need to ensure workers in the project are provided with appropriate PPEs during project implementation.</p>

3.6 GAP ANALYSIS OF LEGISLATION

The following is a gap analysis between the IFAD SECAP and Uganda Legislation.

3.6.1 Project Classification

The Uganda legislation classifies projects and activities into four categories which are Category 1 to Category 4. Similarly, IFAD classifies projects into four categories as “high, substantial, moderate and low” Categories. These categories are outlined in table 3-5 below:

Table 2-5 Comparison of Uganda and IFAD Classification.

NO.	UGANDA CLASSIFICATION	IFAD CLASSIFICATION
1.0	<p>Category 4: A full EIA is normally required because the project may have diverse significant impacts. The screening process shows that the project will have significant impacts on the environment and that the project brief discloses no sufficient mitigation measures to cope with the anticipated impacts, to the level that the project be required to conduct a Full EIA. Projects in this category could include:</p> <ul style="list-style-type: none"> (i) storage dams, barrages, weirs, valley tanks and dams, (ii) river diversions and inter-basin water transfer, (iii) irrigation and drainage schemes. 	<p>High Risk Category: A proposed project is classified as High-risk Category, if it is likely to have sensitive, diverse, irreversible or unprecedented significant adverse environmental and social impacts. These impacts may affect an area broader than the sites or facilities subject to physical works and may be cumulative and transboundary in nature. The risks and potential impacts are not readily remedied by preventive actions or mitigation measures.</p>
2.0	<p>Category 3: A limited environmental analysis is appropriate, as the project impacts can be easily identified and for which mitigation measures can be easily prescribed and included in the design and implementation of the project. The screening process shows that the project will have less significant impacts on the environment and that the project brief discloses no sufficient mitigation measures to cope with the anticipated impacts, to the level of the project being required to conduct a partial EIA. Projects in this category could include:</p> <ul style="list-style-type: none"> (i) rural water supply, (ii) large earth reservoirs, (iii) big gravity flow schemes 	<p>Substantial Risk Category: A proposed project is classified as Substantial risk Category, if its potential adverse environmental and social impacts on human populations or environmentally important areas – including wetlands, forests, grasslands and other natural habitats – are less adverse than those of the High-Risk category projects. Its environmental and social scale is not in such a sensitive area but may pose significant risks and impacts if not adequately managed. These impacts are site – specific, mostly temporary, predictable, few if any of them are irreversible. They affect medium to large geographical areas and in most cases mitigatory measures can be designed more readily than for High-Risk category projects. 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.</p>

3.0	<p>Category 2: Environmental analysis is normally unnecessary, as the project is unlikely to have significant environmental impacts. The screening process shows that the project should be approved on the basis of already identified mitigation measures, so the project brief is enough. This could include project location in less sensitive areas or where many such schemes are in the same locality and their synergetic effects have potential impacts.</p>	<p>Moderate Risk Category: 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 predictable and expected to be temporary or reversible, Site-specific, without the likelihood of impacts beyond the project life cycle. The project's risks and impacts can be easily mitigated in a predictable manner.</p>
4.0	<p>Category 1: Small projects which do not have potential significant impacts and for which separate EIAs are not required, as the environment is the major focus of project preparation. The screening process is used to determine that the project is exempt from EIA. These could include borehole drilling, hand augured shallow wells, protected springs and earth reservoir construction.</p>	<p>Low Risk: A project should be classified as Low Risk if it will have negligible or no environmental or social implications. Such projects include technical assistance grants for agricultural research and training, Health, Nutrition, Education and Capacity- and institution building.</p>

Both IFAD and GoU require that all its projects be screened for their potential environmental and social impacts to determine the appropriate extent and type of environmental work. It then requires that the requisite environmental assessment work be carried out based on these screening results.

3.6.2 Environmental and Social Assessment Procedures

While Uganda's EA procedures are generally consistent with the IFAD policies, there are some gaps regarding the screening of subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project. Therefore, under the ReLIV the environmental and social screening processes as described in this report will be used. Table 3-6 describes the gap analysis and comparison of IFAD and Uganda environmental and social assessment procedures.

Table 2-6 Comparison between IFAD and Uganda ESA Procedures.

REQUIREMENT OR CATEGORY	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
EIA process	<p>EA is initiated as early as possible in project processing and is integrated closely with the economic, financial, institutional, social, & technical analyses of all proposed projects.</p> <p>projects with substantial risk require Abbreviated ESIA.</p>	<p>A project cannot receive authorization for implementation unless issued with a certificate stating that an EIA is not required or, basing on an EIA report, NEMA has approved the project.</p>	<p>EIA should be initiated as early as possible in project processing to inform design of all projects (Appendix 3)</p>

REQUIREMENT OR CATEGORY	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
	Projects with High-Risk Category require a full EIA study.		

3.6.3 The Framework Approach

The Uganda Laws do not provide for the Framework Approach (ESCMF and RPF) but rather only, specific instruments (ESIA, ESMP, Environmental Audits). This ESCMF prepared for ReLIV in line with SECAP will guide the preparation of the specific instruments; Table 3-7 summarises the comparison of the Framework Approach Requirements.

Table 2-7 Comparison of the Framework Approach Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
The Framework Approach	<p>IFAD requires an ESCMF, RPF, etc. for projects whose location and design of the Program activities and subprojects, and the magnitude of their impacts are not precisely known at project appraisal stage.</p> <p>ESCMF used for screening of subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project.</p>	<p>Uganda Legislation does not provide for screening of subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project.</p>	<p>This ESCMF prepared for ReLIV in line with SECAP will guide the preparation of the specific instruments for the sub-projects as and when deemed necessary.</p> <p>ReLIV will use the environmental and social screening process as described in this ESCMF.</p>

3.6.4 Environmental and Social Categorisation.

The IFAD requires that all its projects are screened for their potential environmental and social impacts to determine the appropriate extent and type of environmental and social work. The Uganda EIA regulations provide for screening of all projects. This is via a project brief submitted to NEMA. NEMA process screens proposed projects into 3 screening categories (1, 2 and 3) and during screening exempts projects from EIS; requires EIS or determine whether adequate measures have been incorporated. The screening requirements are compared in table 3-8 below.

Table 2-8 Environmental and Social Risk Classification.

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
High Risk Category (Category 4)	The programme/project may have significant environmental and social implications that are sensitive, adverse, irreversible or unprecedented	Category 4 projects listed in the third schedule of the National Environment Cap 153 are subject to a full EIS. The list	Category 4: projects require a full EIA Study where potential impacts of a project and their magnitude are identified

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
	<p>and affect an area broader than the sites or facilities subject to physical interventions.</p> <p>Relevant Project Type and Scale:</p> <p>Irrigation projects exceeding 999ha per scheme.</p> <p>SECAP 21 categorises the following as High Risk and requiring full ESIA:</p> <ul style="list-style-type: none"> • New construction, rehabilitation or upgrade of large/major dams or reservoirs (more than 15 metre high wall, more than 500-metre long 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); <p>Requirements: For High-Risk Category projects a formal ESIA, RAP and/or IPMP, as applicable, are required with ESMP elaboration.</p>	<p>contains no minimum thresholds or location criteria. NEMA may also screen projects that are not listed in the third schedule but are likely to be out of character with the surroundings and conclude that these are subject to EIS.</p> <p>At the LG level, screening of projects is provided for using an existing Environmental and Social Screening Form (ESSF) and is a key task of the Environmental Officers (EO) and District Technical Planning Committees (DTPC).</p> <p>The municipal government screening and ESMP development procedures and associated screening form incorporate the same concepts to an extent that is appropriate for the scale and riskiness of projects for which EA is handled locally.</p>	
<p>Substantial Risk Category (Category 3)</p>	<p>The project may have some environmental and social impacts on human populations or environmentally significant areas, but which are site-specific and less adverse than High Risk Category. SECAP 21 categorises the following as Substantial Risk projects:</p> <ul style="list-style-type: none"> • New construction, rehabilitation or upgrade of medium dams/reservoirs (between 10-14 metre high wall, and/or with a reservoir between 100,000 – 3 million m³ 	<p>Category 3 Projects are believed to have adverse, but not irreversible environmental impacts and for which mitigation and management measures can be readily designed and incorporated into the project.</p> <p>Requirements: A limited environmental analysis is appropriate since the project brief discloses no sufficient</p>	<p>EIA is mandatory in this level to identify environmental impacts of the project and their magnitude.</p> <p>There will be need to conduct site-specific EA studies, monitoring, inspections, and compliance auditing.</p>

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
	<p>);</p> <ul style="list-style-type: none"> • 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). <p>SECAP 21 categorises the following as Moderate Risk projects:</p> <ul style="list-style-type: none"> • Small dam or reservoir construction (between 5-9 metre high wall, and/or with a reservoir below 100,000m³); • Construction of small-scale irrigation schemes rehabilitation/development (below 300 hectares per scheme); and/or • New construction, rehabilitation or upgrade of rural roads (AADT below 400). <p>Requirements: <i>While no formal ESIA is required, environmental analysis will be undertaken in the course of project implementation. This can be in the form of an ESMP which may be a stand-alone document or an output from environmental analysis</i></p>	<p>mitigation measures to cope with the anticipated impacts,</p>	
<p>Moderate Risk Category (Category 2)</p>	<p>The project will have negligible environmental and social implications.</p> <p>Requirements: <i>No further environmental analysis is specifically required.</i></p>	<p>Category 2 projects: Projects believed to have minimal adverse impacts, that can easily be identified through a Project Brief and not requiring further environmental analysis. Category 2 project are exempt from further EA work.</p>	<p>In both regulations there is no demand for ESIA.</p>

3.6.5 Climate Risk Classification

Climate Risk Classification is discussed in table 3-9 below.

Table 2-9 Climate Risk Classification.

Climate Risk Classification	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
High Risk:	<p>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.</p> <p>Requirement: High Risk investments require a detailed vulnerability impact and adaptation assessment in order to identify measures for reducing risks and impacts.</p>	<p>The Uganda EIA guidelines do not have a climate risk classification methodology but suggest climate risk analysis during the analytical development of qualitative profile of areas affected by a policy, programme or plan.</p>	<p>Climate risk analysis not yet a requirement at National level but it is essential to meet IFAD requirements, and therefore must be conducted.</p>
Substantial Risk:	<p>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.</p> <p>Requirement: Substantial Risk projects require a targeted adaptation assessment in order to identify measures for reducing risks and impacts.</p>		

Climate Risk Classification	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
Moderate Risk:	<p>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.</p> <p>Requirement: Literature Review of Climate assessment</p>		
Low Risk:	<p>Low Risk: No negative impact from climate change is expected based on the best available data. Financial, environmental and social underperformance or failure appears very unlikely.</p> <p>Requirement: No Climate Assessment is required.</p>		

3.6.6 Disclosure Requirements

Table 3-10, below gives a comparison of the disclosure requirements:

Table 2-10 Comparison of disclosure Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Disclosure	<p>IFAD's Policy on the Disclosure of Documents, approved in 2010, adopted the principle of "presumption of full disclosure".</p> <p>The sharing of draft and final ESIA's and other relevant documents with project stakeholders and interested parties is subject to this principle. It is mandatory to disclose these documents, when available, in a timely manner at the DRM, on IFAD's website and in an accessible place in the project-affected area, in a form and language understandable to project-</p>	<p>NEMA, in consultation with the lead agency determines whether or not a public hearing is necessary based on the submitted project brief of the proposed development. NEMA arranges and facilitates at least 3 public consultations on the final report from which justified objections may result in the refusal to proceed.</p>	<p>Uganda Legislation will be applied as far as is possible. Where there are gaps the provisions of SECAP will apply</p> <p>Upon completion of ESA reports, these must be:</p> <ul style="list-style-type: none"> circulated for written comments from the various agencies and government agencies. notify the public of the place and time for its review; and solicit oral or written comments from those affected.

	<p>affected parties and other stakeholders.</p> <p>The documents to be disclosed include information notes on projects being developed for Board presentation, agreements for approved loans and grants, and project/programme design documents which include ESIA's, ESCMFs, RAPs and RAFs.</p>		
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3.6.7 Public Consultation Requirement

The table 3-11 below gives a comparison of the requirements for public consultation Requirements.

Table 2-11 Comparison of public consultation Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
<p><i>Public Consultation</i></p>	<p>IFAD is committed to engage stakeholders and mobilize their feedback in its supported projects. Consultations with target groups, communities and other stakeholders likely to engage with IFAD's operations are sought throughout the project life cycle, commencing as early as possible in project development in order to ensure that their feedback is considered. The objective is to ensure:</p> <ul style="list-style-type: none"> (i) that communities contribute to the development of management plans and provide feedback on draft ESIA reports and other important documents. (ii) broad community support of projects (especially High-Risk projects or those sensitive to climate, social and environmental risks, and impacts); and (iii) that affected people endorse the proposed risk reduction, mitigation, and management measures. <p>Consultation is mandatory and inclusive, ensuring non-discrimination⁹ and aims to provide opportunities for disadvantaged and vulnerable groups or individuals to participate in and benefit from projects on an equal basis with others.</p>	<p>According to the Guidelines for EIA in Uganda, 1997 and EIA Regulations, 1998, consultation and public participation constitute an integral part of the EIA process. It is, therefore, a requirement that appropriate mechanisms for ensuring full involvement and participation of the public is accorded priority and should be a continuous process from screening, scoping, during EIA Study report preparation, draft EIA report, and during EIA finalisation and review.</p>	<p>Consultation Process in this ESCMF will guide the consultations for the project.</p> <p>Identification of affected persons must consider vulnerable persons (disabled, women, youth, etc.).</p> <p>Notification periods should allow adequate time to salvage property being removed for the project (i.e., two weeks prior to any construction activity).</p>

	FPIC must be sought when project activities affect communities' land access and use rights.		
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3.6.8 Labour and working conditions.

The Employment Act of 2006 is discussed in table 3-12 below, comparing the labour and working conditions requirements.

Table 2-12 Comparison of health and labour safety requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Labour and working conditions	<p>IFAD is commitment to inclusive and sustainable economic growth, full and productive employment, and decent work for all including protecting the rights of project workers, ensuring their fair treatment and providing them with safe and healthy working conditions.</p> <p>Thus it :</p> <ul style="list-style-type: none"> • Promotes 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. • Protects and promote the safety and health of workers. • Ensures that projects comply with national employment and labour laws, and international commitments. <p>Leaves no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g. maternity protection), young workers, migrant workers,</p>	<p>Part III, General Principles, Sections 5 to 7 of the Employment Act 2006 deals with issues of Forced labour, Discrimination in employment, and Sexual harassment in employment and unequivocally discourages these acts at work.</p> <p>Part IV, deals with the employment relationship covering such issues as contract and conditions of service including treatment of death issues. It also includes occupational health and safety where employers are required to ensure the health, safety and welfare in the workplace for employees. The law includes measures relating to OHS for protecting workers from injuries, illness or impacts associated with</p>	<p>Uganda Legislation will be applied as far as is possible. Where there are gaps the provisions of SECAP will apply.</p>

	workers in the informal economy and workers with disabilities.	exposure to hazards encountered in the work place during work (Section 10).	
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3.6.9 Cultural Heritage

Table 3-13 below gives a comparison of the Physical Cultural Resources Requirements for the ReLIV project.

Table 2-13 Comparison of cultural heritage Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Physical Cultural Resources and chance finds procedures	<p>IFAD is committed to preserve, protect and promote cultural heritage in all IFAD supported projects in a manner consistent with UNESCO cultural heritage conventions, and other applicable national and international legal instruments.</p> <p>Cultural heritage is defined as encompassing both tangible (sometimes referred to as physical cultural resources) and intangible heritage. Thus, IFAD sets out to:</p> <ul style="list-style-type: none"> • 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. 	<p>EIA guidelines indicate criteria for EIA compliance requirements to include location and potential to affect environmentally sensitive areas including National Parks and Protected Areas, wetlands, productive agricultural land, important archaeological, historical and cultural site and areas containing rare or endangered flora or fauna.</p>	<p>Uganda Legislation will be applied as far as is possible. Where there are gaps the provisions of SECAP will apply</p>

3.6.10 Grievance Mechanisms

Table 3-14 below gives a comparison of the Grievance Mechanisms.

Table 2-14 Grievance Mechanisms.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Grievance Mechanisms	<p>IFAD has developed a Complaints Procedure for "Alleged Non-Compliance with its Social and</p>	<p>It is common practice in development projects that grievance mechanisms are</p>	<p>IFAD has an established Grievance redress mechanism (GRM) this could</p>

	<p>Environmental Policies and Mandatory Aspects of Its Social Environmental and Climate Assessment Procedures". Parties adversely or potentially adversely affected by IFAD-funded projects and programmes may bring issues to the Fund's attention using SECAPcomplaints@ifad.org</p> <p><i>Any Sexual Exploitation and Abuse (SEA) complaints received shall be directed to IFAD's Ethics Office</i></p> <p>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. IFAD does not provide monetary compensation to resolve complaints. The IFAD website provides a clear summary of the steps involved and guidance on how to report issues</p>	<p>formulated during project design for all stages of the project in order that affected parties present grievances to the project authorities without cost and with assurance of satisfactory and timely solutions. They commonly include institution of a grievance resolution committee and its working procedures as well as grievance logging and monitoring systems.</p> <p>Uganda is required by the UNFCCC to put in place an effective mechanism for grievances and dispute resolution.</p> <p>As part of Uganda's readiness for entering the "Carbon phase" of REDD+ processes, the country was required to put in place an effective mechanism for grievances and dispute resolution. The Country did so at National, regional and even district level. Each level of local governance has developed their own GRM.</p> <p>Uganda's GMR aims to contribute to conflict detection, prevention and resolution, as well as transforming the conflict into peaceful co-existence and community cohesion. In this regards, Uganda's GRM.</p>	<p>compliment Uganda Legislation.</p>
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3.6.11 Physical and Economic Resettlement

Chapter 15 of the Constitution also provides for Land and Environment. Article 237 provides that Land in Uganda belongs to the citizens of Uganda and shall vest in them in accordance with the land tenure systems provided for in this Constitution.

Notwithstanding the above, an exception is provided in Article 237 (2) (a) which states that; "the Government or a local government may, subject to article 26 of this

Constitution, acquire land in the public interest; and the conditions governing such acquisition shall be as prescribed by Parliament.”

The Constitution of the Republic of Uganda (1995) provides government and local authorities a statutory power of compulsory acquisition of land in public interest, and makes provision, inter alia, for the “prompt payment of fair and adequate compensation” prior to the taking of possession of any privately-owned property.

Such compensation is assessed in accordance with the valuation principles laid out in the Rules of Procedure under Section 78 of the Land Act (Cap 227), briefly outlined below:

- The value for customary land is the open market value of unimproved land.
- The value of buildings on the land is taken at open market value for urban areas, and depreciated replacement cost for rural areas.
- The value of standing crops on the land is determined in accordance with the district compensation rates established by the respective District Land Board. Annual crops which could be harvested during the period of notice to vacate given to the landowner/ occupier of the land are excluded in determining compensation values.
- In addition to the total compensation assessed, there is a disturbance allowance paid of 15% or, if less than six months’ notice to vacate is given, 30% of the total sum assessed.

Article 237 of the Constitution, 1995, vests land ownership in citizens of Uganda and thus recognizes ownership of property and every person’s right to private property. Consequently, private property, whether individually or collectively owned, is inviolable. Exceptionally, the right to property may be overruled in the case of public interest as outlined above. In these cases, circumstances and procedures are determined by the law and subject to fair and prior compensation.

On the other hand, IFAD SECAP 21 policies require the need to provide alternative land, resettling the Project Affected Persons (PAPs) to levels or standards of livelihood similar to or better than before compensation. The Uganda legislation also does not provide for restoration of livelihoods, resettlement assistance and compensation at replacement value. Under circumstances like these regarding shortcomings in the Uganda law on compensation process, the provisions of SECAP 21 shall be applied. Table 3-15 below gives a comparison of the Involuntary Resettlement Requirements.

SECAP 21 not only considers resettlement as the physical relocation of people but as economic, social, and cultural displacement restricting people’s access to livelihoods and culturally important sites.

FPIC should be obtained from all people potentially affected by resettlement to ensure that mitigation and benefit-sharing measures improve their livelihoods and are appropriate and sustainable.

Table 2-15 Comparison of Involuntary Resettlement Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Involuntary Resettlement	Involuntary resettlement should be avoided wherever feasible, or minimized, exploring all viable alternative project designs.	Ugandan legislation make provision for involuntary resettlement (Constitution 1995) including expropriation.	The project design will seek to avoid physical and economic displacement. Where such impacts cannot be avoided, best efforts will be made to minimize

			impacts through design review. Acquisition of land will only be pursued once all viable alternatives have been considered.
	Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.	Uganda legislation provides for public notification of the intention to take land and allows for objections to be lodged.	Affected persons will be meaningfully consulted throughout the preparation of implementation of resettlement plans. Any severely affected persons will be consulted on the development of mitigation measures for relocation or livelihood restoration.
	Affected land and non-land property is required to be compensated at full replacement cost.	Uganda legislation provides for terms of payment of compensation, as assessed in accordance with the valuation principles laid out in the Rules of Procedure under Section 78 of the Land Act (Cap 227).	Compensation will be provided at full replacement cost. For land, compensation will be based on market value plus transaction costs. For structures, compensation will be sufficient to replace the affected structure without depreciation plus the cost of any transaction costs such as registration fees. For non-land property that can be feasibly moved, assistance will be provided to restore the affected property.
	WHO IS ELIGIBLE: IFAD requires compensation/assistance to informal land users & illegal occupants ("squatters and encroachers")	Uganda Legislation does not recognize illegal settlers.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation, since the most stringent standard has to be applied every time.
	VALUATION: IFAD requires compensation equal or better than replacement value of land/assets	Uganda legislation make a provision for fair compensation using market values and depreciated values.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation.
	BEYOND COMPENSATION: IFAD requires assistance for restoration of livelihoods (not worse off as result of project	There is no provision for beyond compensation restoration of livelihoods.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation.

	TIMING: IFAD requires compensation/assistance provided in full prior to beginning implementation of works	No provision for compensation/assistance in full prior to implementation of works.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation.
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3.6.12 Summary of the Comparisons

The IFAD SECAP 21 procedures and the Uganda legislation have a number of differences which include the following:

- Uganda’s EA procedures do not provide for screening of small-scale subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project. Therefore, ReLIV will use the environmental and social screening process as described in this report.
- Uganda categorises projects into four categories which is similar to SECAP 21 categorisation. Thus the risk thresholds for the national laws are in line with SECAP 2021 requirements.
- SECAP 21 has a comprehensive Climate risk classification system ranging from low, moderate, substantial to high risk, with specified actions for each risk category, whilst Uganda policies do not specifically provide for climate risk categorisation, and FPIC.
- SECAP 21 outlines a comprehensive GRM process whilst Uganda, though there is no distinct law providing for grievance redress, it has adopted a policy of developing feedback and Grievance Redress Mechanisms at all governance levels down to project sites.
- In terms of physical and Economic Resettlement, IFAD SECAP 21 policies require the need to provide alternative land, resettling the Project Affected Persons (PAPs) to levels or standards of livelihood similar to or better than before compensation. However, Uganda legislation provides for market and depreciated value compensation of compulsory real property acquisition for public purposes and does not provide for restoration of livelihoods, resettlement assistance and compensation at replacement value. Further Uganda legislation does not provide for economic displacement.

Under such circumstances regarding short comings of either laws, the provisions of the most stringent standard will be applied at all times.

3.7 RELEVANT IFAD POLICIES

RELIV has been designed and informed by IFAD’s Climate Change Strategy, Environment and Natural Resources Management (ENRM) Policy, Indigenous Peoples Policy, Gender and Targeting Policy and Land Policy. The Project 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.

3.7.1 IFAD Environment and Natural Resources Management (ENRM) Policy

The goal of the ENRM policy is: “To enable poor rural people to escape from and remain out of poverty through more productive and resilient livelihoods and ecosystems”.

The purpose of the policy 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 ENRM. 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.

3.7.2 IFAD's Strategy and Action Plan on Environment and Climate Change (2019-2025)

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 (IFAD, 2018)

3.7.3 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 per cent of the world's population, but 15 per cent of those people living 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.

3.7.4 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.

3.7.5 IFAD Land Policy

Secure access to productive land is critical to the millions of poor people living in rural areas and depending on agriculture, livestock, 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.

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.

3.8 THE SOCIAL, ENVIRONMENTAL AND CLIMATE ASSESSMENT PROCEDURES (SECAP 2021)

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 has 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

3.8.1 IFAD’s Environmental and Social Standards

IFAD’s Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects (Table 3-16, Appendix 6).

Table 2-16 Standards most relevant to RELIV

STANDARDS	RELEVANCE TO RELIV	
	Less Relevant	More Relevant
Standard 1: Biodiversity conservation		X
Standard 2: Resource efficiency and pollution prevention		X
Standard 3: Cultural heritage	X	
Standard 4: Indigenous peoples	X	
Standard 5: Labour and working conditions		X
Standard 6: Community health and safety		X
Standard 7: Physical and economic resettlement	X	
Standard 8: Financial intermediaries and direct investments	X	
Standard 9: Climate change		X

The IFAD’s Environmental and Social Standards are detailed in Appendix 6.

3.8.2 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:

- i. Result in sensitive, irreversible or unprecedented significant risks and impacts (for example, resulting in loss of major natural habitat or conversion of wetlands),
 - ii. 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.
- **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.

- **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.

- **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.

In addition, the environmental and social screening exercise of sub-projects is used to determine the exposure of the programme objectives to climate-related risks (High, Moderate or Low). SECAP provides guidance statements on biodiversity and protected area management; agrochemicals; energy; fisheries and aquaculture; forest resources; water; small dams; physical cultural resources; rural roads; development of value chain, microenterprises and small enterprises; and physical and economic resettlement – most of which are applicable in the context of the RELIV programme. Where resettlement or economic displacement is envisaged, SECAP requires that the principles of “do no harm” and “free, prior and informed consent” are adhered to at all times and for all beneficiaries for any intervention that might affect the land access and user rights of communities.

Included in SECAP are a series of standards which focus on nine environmental, social and climate issues that should be met through the project life cycle. These standards are aimed predominantly at borrowing governments and private sector partners, which are responsible for undertaking environmental, social and climate risk assessments, and for implementing projects. The table 3-17, below indicates which ones are most relevant to RELIV:

3.8.3 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”³⁸:

- **Free** implies no coercion, intimidation, or manipulation.

³⁸ United Nations Development Group (UNDG), Guidelines on Indigenous Peoples' Issues, 2009:30

- **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.

IFAD requires the application of FPIC in two scenarios:

1. 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.

Figure 3-1 below, depicts the process of seeking FPIC in IFAD’s project cycle.

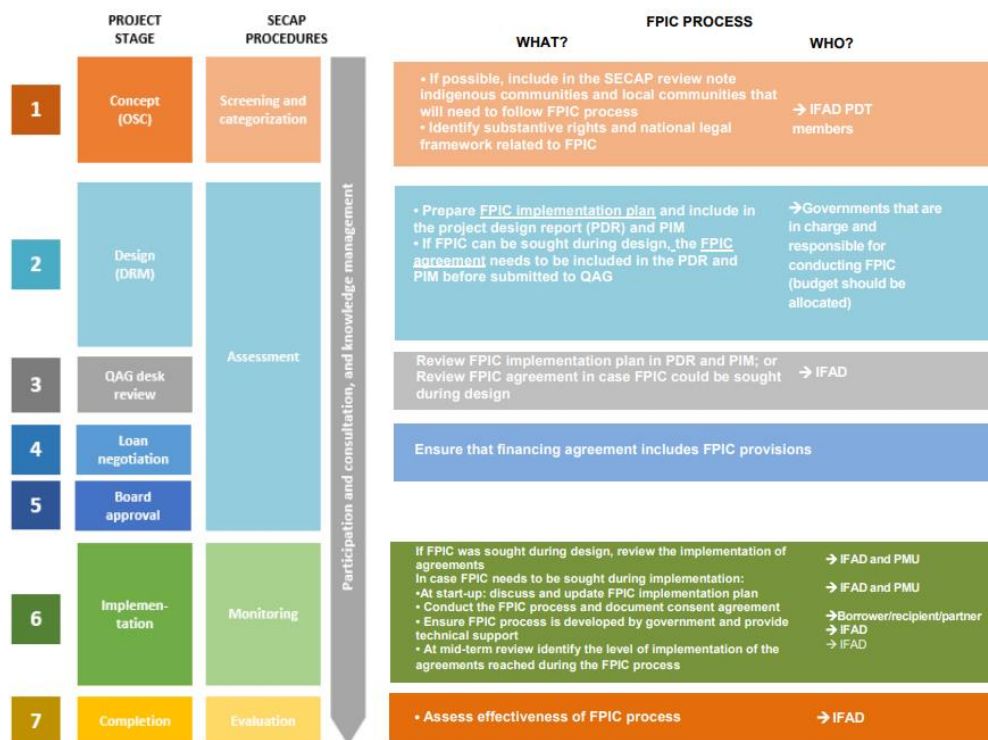


Figure 2-1 Free, Prior and Informed Consent (FPIC)

3.8.4 General guiding principles

a) Identification of parties to the negotiation and decision makers

In order to ensure legitimacy, it is crucial that FPIC be obtained from the representative institutions of local communities. Understanding how communities make decisions is an important step in the FPIC process. There may be a need to go beyond traditional institutions – for example, to ensure participation of women, youth and people with

disabilities in decision-making. Representative institutions must strive to adhere to the principles of inclusive consultation, participation and consent in their internal decision-making processes.

The important criteria are that representation should be determined by the concerned peoples and communities themselves to avoid misrepresentation or manipulation. This can be done in line with the community structure for representation, figure 3-1 below.

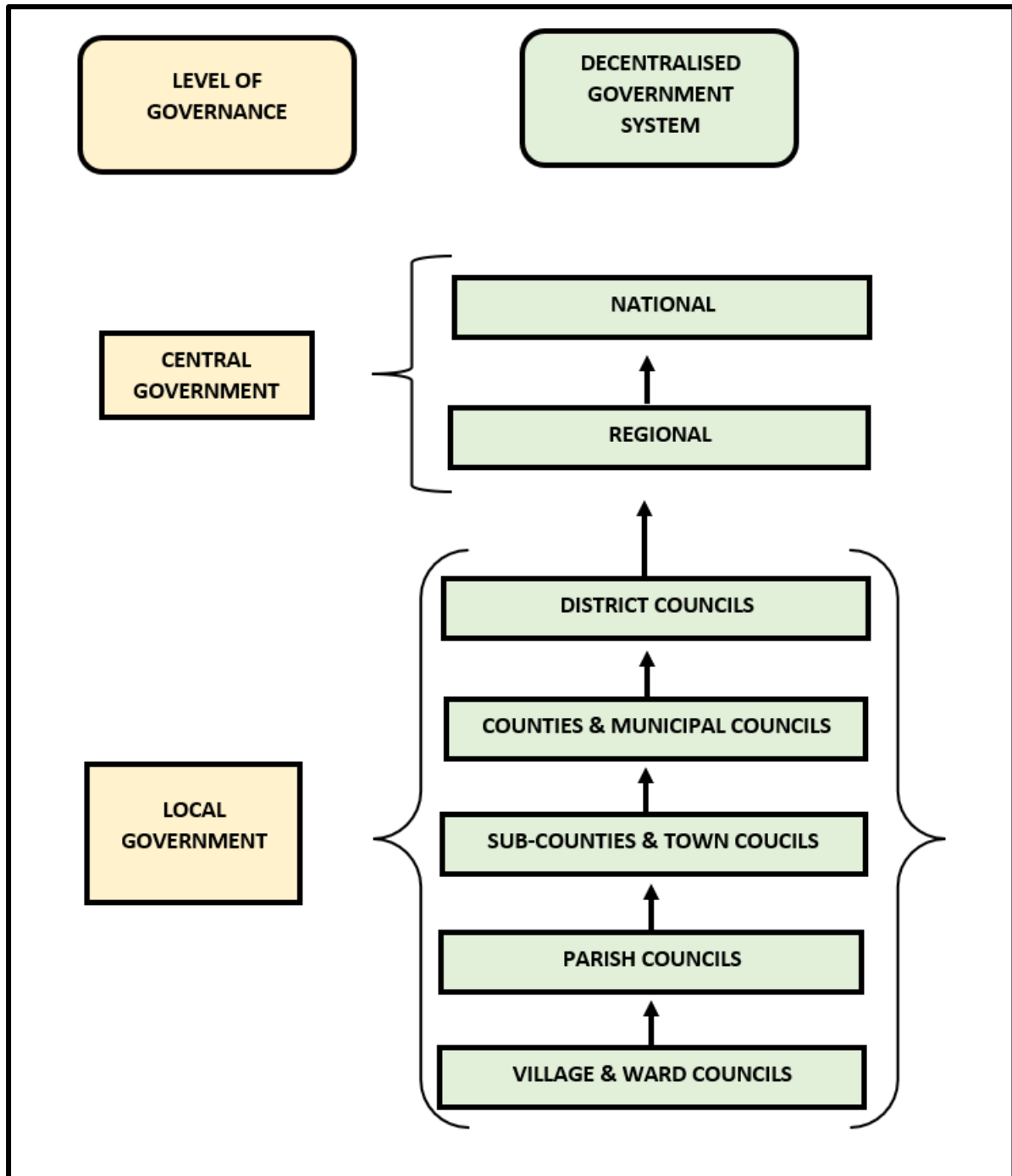


Figure 2-2 The Local Governance structures in Uganda.

(Disclaimer: This structure is aimed at improving understanding of the administration.)

a) Elaboration of the decision-making processes of the respective parties.

FPIC is not just a means to obtain consent to a particular project; it is also a process in itself, and one by which indigenous peoples and local communities are able to conduct their own independent and collective discussions and decision-making. They do so in a culturally appropriate way, on matters affecting their rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible). An early agreement must be reached with the indigenous peoples/local communities on the modalities of the consultations, most likely in their territory, where they may feel more able to express themselves, and where they have the support of their community. This includes the right to privacy in negotiations and deliberations for them to discuss and decide freely.

b) The role of outside counsel and expertise.

(Including a third-party mediator/negotiator.)

Some local or indigenous peoples' institutions may require additional technical capacity to ensure that their right to FPIC is respected. Facilitators may play an important role in the FPIC process, as the process itself is an empowering tool to build the capacities of local institutions and communities.

c) Identification of and respect for community protocols.

It is fundamental to respect the traditional and customary protocols, including social norms, for both verbal and non-verbal communication. The latter can include body language, personal space and eye contact.

d) Sharing of information.

(In a meaningful, accessible and culturally appropriate manner.)

It is important to take into consideration information needs, communication channels and media (ranging from traditional/local media to information and communications technology, and communication activities. Consideration should be made for the diverse levels of literacy, local languages and interest in the technical aspects of the project. Ensure that the process is as participatory as possible and keep community members informed at every step.

f) Identification of other project activities or circumstances.

(activities or circumstances that might trigger additional consent processes.)

The project must establish a process of mutual trust and reach an agreement on the project activities. This should be done by obtaining full and effective participation of and engagement with indigenous peoples and local communities.

g) The format for documenting the agreement.

There is no universal way of documenting consultation, participation, and consent. However, the main suggestions for documenting the FPIC process are as follows:

- **Keep records of consultations undertaken:** how participants were selected; their roles or accountability links to their communities; how they were invited; which consultations they participated in; what documentation/information they received beforehand and in which language; who participated; what was discussed.

- **Document FPIC agreements:** Often FPIC is expressed as an agreement between the designated project management unit and the concerned local communities. These agreements should clearly articulate: what has been agreed (e.g. issues, commitments, time frames, budgets, roles, responsibilities); 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.

3.8.5 Seeking FPIC at the design stage.

Ideally, project components and activities that require FPIC should be identified early in the project design. When the precise nature and specific location of an investment is known and well defined, FPIC must be solicited at design stage. In the case of RELIV the precise nature and specific locations of the potential investment were not known, thus the Government of Uganda was not expected to directly seek FPIC at this stage.

However, ReLIV was required to carry out an Environmental, Social and Climate Management Framework (ESCMF) study using the IFAD Social, **IFAD Social, Environmental and Climate Assessment Procedures (SECAP)**. SECAP is a key mechanism to identify requirements for FPIC at the design stage. As an integral part of the design phase, the RELIV undertook an Environmental, Social and Climate Management Framework study (ESCMF) with support from IFAD.

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 3-17 below summarizes a step-by step approach to ensure FPIC through SECAP.

Table 2-17 Seeking FPIC at design stage (IFAD, 2021)

Conduct sociocultural and land tenure assessment and analyse substantive rights and legal framework	Identify decision making institutions and representatives	Conduct consultation leading to FPIC	Formalize consent agreement
From Concept Note through first design mission	During first design mission	From first design mission through appraisal	Before QAG (to be annexed to the PDR)
Identify: <ul style="list-style-type: none"> • Customary laws, informal rules and organizing practices on land ownership. • Institutions and governance systems. • Types of livelihoods. • Mutual support and solidarity mechanisms. • Community stakeholders, land users and 	<ul style="list-style-type: none"> • 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 for the consent 	<ul style="list-style-type: none"> • Share objectives and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC. • Inform them on the actors financing and implementing the project and their respective responsibilities. • Provide clear and transparent information on the 	Include: <ul style="list-style-type: none"> • Respective expectations. • Proposed project duration. • expected results and activities. • Participatory monitoring and verification plan and procedures. • Identification of grievances procedures

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<p>assess who has the right to give or withhold the consent.</p> <ul style="list-style-type: none"> • Substantive rights and national legal framework related to FPIC. • Assess consequences from the proposed project that may result in the change of the status of the lands, territories and resources. 	<p>agreement.</p>	<p>benefits and risks of the project.</p> <ul style="list-style-type: none"> • Share the findings of the sociocultural, land tenure and environmental assessment. • Formalize consent agreement. 	<p>and mechanisms.</p> <ul style="list-style-type: none"> • Terms of withdrawal of consent. • Record of process through means and languages accessible to all stakeholders and parties involved.
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3.8.6 Seeking FPIC at the implementation stage.

When investments in specific communities and territories are not identifiable during the project design stage, FPIC can only be sought during the implementation phase. 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 assessment (as part of the IFAD standard poverty analysis, which needs to be deepened in certain aspects as described in Table 3-19 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 2-18 Seeking FPIC at implementation stage (IFAD, 2021)

Prepare FPIC Implementation Plan.	Present to participants at the start-up workshop.	Conduct Consultations leading to FPIC	Formalise Consent Agreement	Asses FPIC Implementation
During Design Phase (Annexed to design report)	At start-up workshop.	After start-up workshop.	Before any investment is made	Implementation support/joint review/Mid-term review missions
<p>The FPIC implementation plan should specify:</p> <ul style="list-style-type: none"> • How and when to conduct the sociocultural 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 peoples' organizations and agree on the FPIC plan (use the Farmers' Forum and the 	<ul style="list-style-type: none"> • Confirm/revise FPIC implementation plan at start up workshop. • Conduct/(review if available) sociocultural 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 for the consent agreement 	<ul style="list-style-type: none"> • Share objectives and scope of the project with the representatives identified by the communities and identify project component (s) requiring FPIC. • 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 sociocultur 	<p>The format for a consent agreement to include:</p> <ul style="list-style-type: none"> • Respective expectations . • Proposed project duration, expected results and activities. • Participatory monitoring and verification plan and procedures. • Identification of grievances procedures and mechanisms . • Terms of withdrawal of consent. • Record of process through means and languages accessible to all stakeholders and parties involved 	<ul style="list-style-type: none"> • Engage experts in joint review missions to analyse: (i) quality of project target group engagement and feedback; (ii) Implementation of FPIC processes; (iii) SECAP requirements for implementation; and (iv) to inform corrective/adaptive measures and learn lessons for subsequent dissemination and uptake in other projects. • Engage with national agencies in charge of Indigenous peoples' consultations.

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Indigenous Peoples' Forum networks). • Grievance mechanisms.		al, land tenure and environmental assessment		
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3.8.7 FPIC Implementation Plan

The purpose of the present FPIC Implementation Plan is, among others, to provide information on how the FPIC Process will be conducted throughout the course of the project and which methods will be used as part of the process; as well as to outline the responsibilities of MAAIF AND ReLIV PMU.

3.8.7.1 Decision-Making Institutions And Representatives

The key institutional actors involved with issues of resettlement, property and land rights, access to resources, etc, are the local government departments both at National level and District level. The implementing agency will be the **MAAIF** through the RELIV PMT.

ReLIV PMU's Environmental and Social Specialists will work very closely with the National Environmental Management Authority (NEMA), Local Government officials and District Council Officials to facilitate consultations leading to FPIC with concerned communities /project affected persons (PAPs).

3.8.7.2 Consultations Leading To FPIC

Subsequent to the socio-cultural and land tenure assessments and the identification of key decision-making institutions, consultations will be held with the sub-project communities and Cooperatives /Cooperatives /Associations during programme implementation – when site specific ESMPs and designs are being updated or prepared, as the case may be. Consultations will be conducted by the RELIV Environmental and Social Specialist, or by an independent facilitator/advisor hired by ReLIV PMU.

The use of participatory mapping will be instrumental for the consultation process leading to FPIC. This is because of the advantages of participatory mapping and accompanying participatory enquiry techniques which allow the assessment of ownership, occupation and use of land and resources as well as the social dynamics (e.g., movements and relationships among the different social groups) and right holders.

Given that the sub-projects are initiated by the communities and proposed to the ReLIV PMU the consultations will:

- Confirm that the sub-project is a community-driven initiative.
- Share the objective and scope of the proposed sub-project with the communities/Cooperatives /Cooperatives /Associations directly or through their representatives (existing or elected by the communities in the process).

- Clearly inform the Cooperatives /Cooperatives /Associations/communities' representatives 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 socio-cultural, land tenure and environmental assessment and reality check/confirmation of findings.
- Engage selected Association/community members or their representatives in the resources and social mapping activities, in order to assess ownership, occupation and use of land and resources as well as the social dynamics (relationships among the different social groups).
- Share the objective and scope of the mapping exercise with the Cooperatives /Cooperatives /Associations/communities.
- Ensure inclusive participation - men, women, young people, the elderly, representatives of different communities present on the same land and neighbouring villages - and provide for multiple maps by the different Cooperatives /Cooperatives /Associations/communities.
- Share the maps with all stakeholders and actors; and,
- Formalise ownership of the land use maps by the communities that have developed them.

3.8.7.3 Formalising The Consent Agreement

Once project activities and project sites requiring FPIC agreement are identified, this will be formalised in a written form in English as well as in the local language. The effective time the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made.

The consent agreement will be prepared by the RELIV District Teams. The format for a consent agreement would, among others, include:

- Project activities on which consent is provided,
- Respective expectations,
- Proposed project duration, expected results and activities,
- Participatory monitoring and verification plan and procedures,
- Identification of grievances procedures and mechanisms,
- Terms of withdrawal of consent,
- Record of process through means and languages accessible to all stakeholders and parties involved.

The FPIC agreement and record of process will be made available through means and languages that are accessible to all stakeholders and parties involved.

3.8.7.4 Disclosure

The FPIC Implementation Plan will be disclosed together with the Programme Design Report (PDR), Environmental, Social and Climate Management Framework (ESCMF), and other documents to be submitted to the Executive Board (and Evaluation Committee).

3.8.7.5 Documenting The FPIC Process

FPIC process will be documented through minutes of consultations, mapping documents prepared by the Cooperatives /Associations/communities, videos where feasible, and FPIC agreements/formalisation documents.

3.8.7.6 The FPIC Implementation Plan

The following is a summary of the RELIV FPIC implementation Plan:

Table 2-19 Summarised RELIV FPIC Implementation Plan

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
1.0	Conduct sociocultural and land tenure assessment:		
	<p>Identify:</p> <ul style="list-style-type: none"> • Customary laws, informal rules and organizing practices on land ownership. • Institutions and governance systems. • Types of livelihoods. • Mutual support and solidarity mechanisms. • Cooperatives /Associations/Community stakeholders, land users and assess who has the right to give or withhold the consent. <p>Assess:</p> <ul style="list-style-type: none"> • Consequences from the proposed project that may result in the change of the status of the lands, and resources 	District offices of the ReLIV PMU (who may hire consultants to carry out the sub-project specific socio-cultural/land tenure assessments.	<p>At the beginning of programme implementation phase.</p> <p>This could be part of the participatory mapping exercise.</p>
2.0	Identify decision-making institutions and representatives		
	<ul style="list-style-type: none"> • Conduct preliminary consultations with the Cooperatives /Associations/community and explain the nature of the proposed project. • Allow time for Cooperatives/Associations/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 for the consent agreement. 	District offices of the ReLIV PMU, possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	At the beginning of programme implementation phase (this could be done in tandem with the socio-cultural and land tenure assessment and mapping exercise)
3.0	Capacitate the implementors and the stakeholders		
	<p>Conduct various capacity building workshops for both the implementing partners and the stakeholders so that they are all on the same page and will make informed decisions (See Section 5 for Details):</p> <ul style="list-style-type: none"> • Training of implementing partners on background of project: Environmental and Social Risks and Impacts of RELIV. • Training of Extension staff on background of project: Environmental and Social Impact Assessment of the Projects: • Cascading training to lower levels on background of project: Environmental and Social Impact Assessment of the Projects: • Training of Stakeholder on Gender, HIV/AIDS awareness: • Training of Stakeholder on land issues: <ul style="list-style-type: none"> ○ Land Tenure and rights ○ Land rights ○ Use of land ○ Pollution and degradation. 	<ul style="list-style-type: none"> • MAAIF • National Aids Council (NAC) • Ministry of Environment • Private Consultant 	Programme implementation phase - before individual sub-projects start and throughout the project cycle

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
4.0	Conduct consultation leading to FPIC on the proposed project/specific component/activities	on the proposed	project/specific
	<ul style="list-style-type: none"> Share objective and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC. 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 Formalize consent agreement. 	District offices of the ReLIV PMU possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	At the beginning of programme implementation phase and before individual sub-projects start.
5.0	Formalize the consent agreement		
	<p>Formalize the consent agreement (written or in other form if so, requested by the community)</p> <p>The format for a consent agreement would include:</p> <ul style="list-style-type: none"> Respective expectations Proposed project duration, expected results and activities Participatory monitoring and verification plan and procedures Identification of grievances procedures and mechanisms Terms of withdrawal of consent <p>Record the process through means and languages accessible to all stakeholders and parties involved.</p> <p>Annex the FPIC agreement and documented process to the PDR.</p>	District offices of the ReLIV PMU possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	Programme implementation phase. Timing agreed upon during the consultation process and before individual sub-projects starts.
6.0	FPIC implementation		
	Implement the FPIC agreements throughout the project life.	MAAIF/ ReLIV PMU, IFAD implementation support and joint supervision missions	Programme implementation phase - before individual sub-projects start begins and throughout the project cycle
7.0	Monitoring the FPIC implementation		
	<p>Assess FPIC implementation as part of the M&E exercise during the project life.</p> <p>Appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement</p>	MAAIF/ ReLIV PMU, IFAD implementation support and joint supervision missions	Programme implementation phase - before individual sub-projects start begins and throughout the project cycle

3.8.8 Timeframes for Seeking FPIC.

When the precise nature and specific location of an investment is known and well defined, FPIC must be solicited at design stage. In the case of RELIV the precise nature and specific locations of the potential investment were not known, thus the Government of Uganda was not expected to directly seek FPIC at this stage.

FPIC will be sought at Implementation stage before any of the sub-projects is implemented and the FPIC process will be implemented throughout the project life cycle with constant monitoring and evaluation.

3.8.9 FPIC Implementation Arrangements

The following is a description of arrangement responsibilities and mechanisms for seeking FPIC, as well as the role of independent, impartial entities to monitor the FPIC implementation process.

The lead implementing agency for the project is MAAIF with the assistance of ReLIV PMU. RELIV PMU will be tasked with the day-to-day coordination, planning and management of select project activities.

Due to the multifaced nature of RELIV, a project steering committee (PSC) will be established and will contribute to the project oversight.

The ReLIV PMU will spearhead the implementation of the FPIC process and will be assisted by several key implementation ministries who have staff down to district level. The structure of the implementation is outlined in figure 3-4 below.

ReLIV PMU staff with their District teams comprised of the staff from the key implementing partners will be capacitated by undergoing training as explained in section 5 of this report. The target beneficiaries will similarly be capacitated. All the training will be conducted by designated Ministries or private consultants. Once capacitated the teams will start the consultation processes leading to FPIC. This process will also be assisted with private consultants.

3.8.10 Assess FPIC Implementation.

To assess FPIC implementation, the appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement. Subsequent workshops and stakeholders' reviews of the FPIC plan may also amend the various indicators to be established in the FPIC agreement. Joint supervision missions assessing project progress will also assess the implementation of FPIC agreements on a regular basis. Whenever possible, supervision and evaluation missions would include experts of relevance.

3. ENVIRONMENTAL AND BIOPHYSICAL/CLIMATE/SOCIAL BASELINE

4.1 INTRODUCTION

Livestock sector accounts for 17% in value addition and 4.3 % of national Gross Domestic Product (GDP). Cattle are by far the most important species with 14.2 million heads, and 1.4 million households keeping cattle, which contribute from 12 to 75 % to their total income. Most of these households are subsistence-oriented smallholders (FAO 2019³⁹), and 75% of them own less than 5 heads.

Total meat and milk production is valued at USD 8.7 million per year (UBOS, 2017). Cattle represent 1 % of export value. Uganda is a net exporter of livestock products and live animals. Livestock exports are dominated by dairy products (USD 80 million), with beef (USD 6.2 million) playing a minor role. There is a high potential for further increasing exports, mostly within the region for milk, but also to the Middle East for beef.

Cattle provide income, food, draft power, insurance and savings, social capital and other goods and services to the population. Per capita consumption of beef and cow milk is 6 kg and 36 litres per year, respectively, which is still low compared to other countries in the region. However, the Food and Agriculture Organisation (FAO) estimates that demand for beef and milk in the country will increase by 320% and 200% by 2050 respectively due to ongoing population growth⁴⁰.

4.2 CONTEXT

The expected growth in demand for beef, dairy products will provide major business opportunities for cattle and poultry farmers who will invest to expand their herd/flock and improve productivity. There will be business opportunities also for value chain actors, such as input and service suppliers, traders, processors, wholesalers and retailers of animal source foods (ASFs). Most importantly, consumers might benefit from the availability of affordably priced ASFs in the market. However, these developmental opportunities come with some major challenges that, if not properly addressed, risk jeopardizing the development of the livestock sector itself, with broader negative impacts on public health, environment and livelihoods

An inclusive, competitive and climate smart livestock sector in Uganda offers important opportunities for economic growth, improved livelihoods for smallholder producers, inclusion of women and youth and employment along the VC. It also brings important benefits in the areas of nutrition and public health, and there is a good potential for mitigating environmental and climate impact, while improving resilience.

4.3 BIOPHYSICAL BASELINE

4.3.1 Topographical Features & Agro-Ecological Zones

Uganda is located in the heart of Africa and includes within its borders part of Lake Victoria, the largest African lake. The territory consists of a plateau at an altitude of 1,200 meters, enclosed by various mountain ranges culminating in the south-west in the over 5,000 meters of the Ruwenzori; the economic and population situation is slightly better than in neighbouring countries.

³⁹ FAO & New Zealand Agricultural Greenhouse Gas Research Centre. 2019. Options for low emission development in the Uganda dairy sector - reducing enteric methane for food security and livelihoods. Rome.

⁴⁰ FAO. 2019. The future of livestock in Uganda. Opportunities and challenges in the face of uncertainty. Rome

Uganda (located in East Africa) has an area of 241,500 km² sharing borders with South Sudan to the North, the Democratic Republic of the Congo to the west, Tanzania and Rwanda to the South and Kenya to the East. The country is divided into four regions of Northern, Central, Eastern and Western. Uganda contains and shares some of the world's most important ecosystems with its neighbors such as Lake Victoria, Albert, Edward, the Nile Basin, its mountain ranges such as the Ruwenzori, Elgon and Virunga series.

Crops and livestock kept in Uganda are dependent on a number of factors such markets, farming systems, agro-ecological zones, government interventions, policies, pests and diseases and environmental conditions (Hill, 1997; Nkonya et al., 2005; Epule et al., 2018). The agro-ecological zones are classified as Western mid-altitude farmlands, Lake Victoria Crescent, Karamoja, South Kyoga floodplains, Afro-montane, Northern Moist farmland and South-west rangelands.

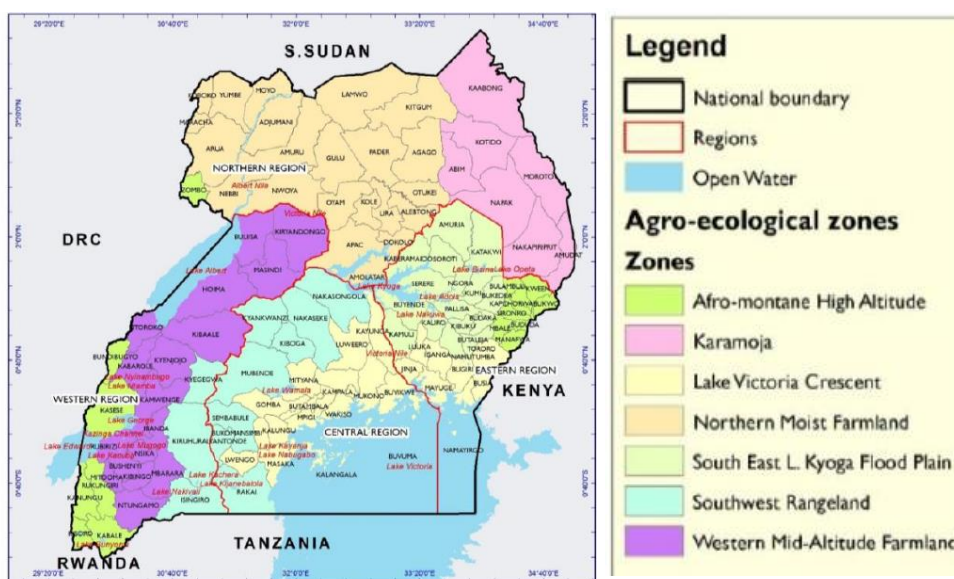


Figure 3-1 Agro-ecological Zones (Source: AgriFoSe2030 Report 5, 2018)

Cattle are considered the most important livestock although other animals such as goats, sheep, pigs and poultry are equally important. Cattle are the main source of meat in the country and are reared on rangelands which occupy 84 000 km². The greatest concentration of livestock is found in the "cattle corridor", extending from South-Western to Northeastern Uganda. This corridor covers the districts of Ntungamo, Mbarara, Mpigi, Kiboga, Luwero, Apac, Lira, Soroti, Kumi, Mbale, Moroto, and Kotido (INFOTRADE, 2011).

Cattle production is considered as the critical means to liberate smallholder farmers from hunger and poverty (MAAIF, 2009). 60 % of the population is directly involved in livestock rearing as source of livelihood, though the nomadic pastoral livestock keepers are amongst the poorest in the country because livestock rearing is a matter of cultural pride and pristine other than trade. (MAAIF, 2002; UNHS, 2017). The 2008 national livestock census estimated that about 94% of the Ugandan cattle herds were indigenous comprising of Ankole (30%) and Zebu/Nganda (70%) (UBOS, 2010).

Regionally, nomadic pastoralism constitutes the principal livelihood for many households in the Northeastern part of Uganda (Karamoja agro-ecological zone). Also, the 'cattle belt' or the 'cattle corridor', which stretches across the central Uganda starting from the

highlands in Southwest through Lake Kyoga basin to the Northeast of Uganda (Ransom et al., 2017). The cattle belt offers vast and scattered patches of savanna grasslands and thickets/shrubs that are palatable to cattle and available most of the year (Katongole et al., 2016).

Agro-ecological landscapes	Regions	Livestock systems	Animal/bird type
Afro-montane	Eastern	Mixed farming	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Karamoja	Northeastern	Pastoral system	Cattle, goats, chicken, sheep, pigs, camels
Lake Victoria Crescent	Central	Agro-pastoral system	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Northern moist	North	Mixed farming system	Cattle, goats, pigs, chicken, ducks, sheep, turkey
South East L.Kyoga floodplain	Eastern	Mixed farming	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Southwest rangeland	Western	Agro-pastoral system	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Western Mid-altitude	Western	Agro-pastoral system	Cattle, goats, pigs, chicken, ducks, sheep, turkey

Figure 3-2 Agro-ecological Zones and type of livestock Source: AgriFoSe2030 Report 5, 2018)

Commercial beef ranching is limited accounting for less than 10% of the national herd. The main sources of meat are the culled animals and excess steers in the various farming systems. In western-central Uganda cattle corridor, even up to Luwero, zebu a long horned cattle are kept for beef production. Zebu and the Ankole-Watusi cattle are small, hardy and well adapted to local conditions, but beef yields are relatively low because the animals don't grow too big. The Ankole-Watusi is medium in size weighing between 900 – 1,200 pounds and the bulls weighing 1,000 -1,600 pounds (Uganda Investment Authority, 2016)

4.3.2 Hydrology

The country's precipitation is highly variable, but overall, Uganda has experienced a significant reduction in annual as well as seasonal rainfall. Seasonal rainfall that covers the months of March, April, has been mostly affected, with decreases of 6.0 mm per month, per decade (McSweeney, 2010). The prominent decline in rainfall has been observed in some of the Northern districts of Gulu, Kitgum, and Kotido. While trends in extreme rainfall conditions are more difficult to define due to the lack of data and seasonal variability. Droughts have increased over the past 60 years, the western, northern and north-eastern regions have experienced more frequent and longer-lasting droughts over the past 20 years (WBG, 2021).

In the highly arid, north-eastern district of Karamoja, seven droughts occurred between 1991–2000, with additional droughts occurring in 2001, 2002, 2005, 2008 and 2011. The percentage of rainfall occurring from heavy precipitation events is anticipated to increase, which would also escalate the risk of disasters such as floods and landslides (Future Climate for Africa, 2016).

Drought and heat-induced livestock mortality has increased in Uganda due to starvation and lack of water; this causes significant economic losses, and negatively impacts on livelihoods of pastoral communities and increases their impoverishment (Stites et al. 2010, Mwaura and Katunze 2014).

4.3.3 Vegetation Types and Associated Habitats

Rangelands cover 44% of Uganda's total land area. This area support 80% of the national livestock herd and 90% of the cattle). Most of the rangelands in Uganda are dominated by pastoralists, and approximately 64% of them (22% of Uganda's human population) are categorized as poor (Kirkbride and Grahn, 2008 & MAAIF et al. 2010).

Vegetation zones can be classified according to the rainfall or climatic zones: the Lake region, the Northern Region, and the highlands of the Southeast. The south of Uganda has the heaviest vegetation and typically becomes wooded savannah in central and northern Uganda. However, cultivation is intensive in the highlands southwest, even on the high mountain slopes. Scattered patches of thick forest or elephant grass and mvuli trees provide excellent timber.

Over time, a high proportion of the vegetation has been modified by cutting, cultivation, burning, grazing and other human actions, and many of these vegetation types have been significantly reduced in quality and range over time. Majority of the remaining natural areas are found in places where they have been protected from human encroachment and other disturbances in officially designated protected areas (International Resources Group,2006)

Increased bush expansion in Ugandan rangelands by several native species, including *Acacia (Vachellia) hockii* De Wild and *Lantana camara* L., and increasing non-palatable grass species such as *Cymbopogon afronardus* Stapf have contributed to a decline in rangeland productivity, especially for grazers (Mugasi et al. 2000, Oba et al. 2008, Roschinsky et al. 2012)

4.3.4 Biodiversity inventories

Uganda has a unique combination of biological diversity in both its topography and wildlife. The majority of the country's biodiversity is found in natural forests and other natural ecosystems which are mountains, savannahs, wetlands, lakes and rivers. Uganda has approximately 18,783 species of which 7.5% are mammals, 10.2% of birds, 6.8% butterflies and 4.6% dragonflies. (MWE, 2015)

The ecosystems range from the snow-capped peaks of the Rwenzori (Mountains of the moon), the Virunga Volcanoes and Mount Elgon to high altitude montane forests, to the open waters of Lakes Victoria, Albert and others. A unique blend of semi-arid woodlands, savannah and forest communities as well as a wealth of montane and lake habitats.

Most of the remaining natural areas are found in those places where they have been protected from human encroachment and other disturbances. They include various subsets of forests, wetlands, grasslands/savannas and open water bodies. Wetlands contain significant habitats, flora and fauna. They are categorized into lakes and estuarine wetlands, riverine swamps and flood plains. The lakes and estuarine wetlands comprise Lakes Victoria, George, Edward, Albert, Wamala, Bisina, Opeta, Kyoga, Kwania and Bunyonyi. The riverine swamps and flood plains include the Okole, Kafu and Nile systems (NRSP, 2001).

Grasslands/savannas cover more than 50% of the land area various locations are dominated by variety of species ranging from grasses, palms or acacias. However much of these habitats have been converted to agricultural productivity. The remaining pockets of natural savannas and grasslands are primarily found in protected areas.

4.3.5 Forests

Forests in Uganda occur as gazetted areas, protected areas and on private and ungazetted public land. Forest reserves constitute around 7% of the area of the country with 700,000 hectares in tropical high forests, 632,000 hectares in savanna forests and 24,300 ha in plantation forest. Tropical high forests are found in western Uganda around Lake Victoria and on Mt. Elgon in the east. Over the years, these forests have been cleared, and from a coverage of 12.7% of the country's land area at the start of the century, tropical high forests now account for only 3% of Uganda's land area. Plantations make up 2.2% of gazetted forests and were established to meet the demand for industrial wood. They consist of conifer (pine) and hardwood (mainly eucalyptus) plantations and are located in almost every agro-ecological zone, but particularly in the southwestern part of the country and along the northwestern areas of Lake Victoria. UNEP (1988).

The woodlands are natural forests with a sparse cover comprising of shrubs and average size trees. Woodlands produce high quality fuel wood, particularly charcoal. This makes woodlands easy target for charcoal production for domestic consumption in urban areas. It is asserted that the high deforestation rate that occurred between 2005 and 2015 was largely linked to charcoal production. Moreover 75% of forests were lost on private land between 1990 and 2015, this came as consequence of changes in forest governance (NEMA et al. 2016).

Tropical High Forests represent prime natural forest estate for wood products such as timber and poles, while a well stocked and low stocked are a good for timber and land conversion for agriculture (Turyahabwe et al. 2015). The Tropical High Forests are important habitats for mammals, birds and other species. Efforts to expand reforestation on private land and in central forest reserves (CFR) have had limited impact. Between 1990 and 2015, Uganda forest plantations expanded by only 75,533 ha against a forest cover loss of 3.05 million ha.

An increasing population (population growth rate of 3.2%) exert pressure on demand for wood, coupled with poorly segregated governance system have proven a good recipe for high deforestation. Other factors such as civil strife in the mainly woodland areas and limited livelihoods options contribute to the high rates of deforestation

4.3.6 Water Resources

Uganda is enriched with water resources in both surface and ground water. Surface water resources are found in the form of streams, rivers, lakes and wetlands divided into eight water catchment basins.

- Lakes in Uganda cover one fifth of the total area of the country. Water resources comprise
- open water bodies, ground water and rain harvest. NEMA (1996) indicates that on a regional
- basis, 39.1% of water bodies are found in central, 30.3% in eastern, 3% in northern and 8% in
- western regions. The whole of Uganda lies in the upper Nile catchment consisting of numerous rivers and streams flowing into principal lakes such as Victoria, Kyoga, Edward and
- Albert and eventually into the River Nile. (EPRC, 2000).
- The natural state of some of these water bodies was greatly impacted by the introduction of exotic species, including Nile perch, other fish species and water hyacinth.

Uganda's wetlands are not only enormous source of water, they provide a large array of ecosystem services in urban and rural areas. According to NEMA (1996) wetlands can be characterised as papyrus swamps, swamp forests, riverine wetlands, lake edges, flood plains, dambos and artificial wetlands. Wetlands possess distinct trees, shrubs and grasses and their soils are quite unique. They are used for farming, fishing, and livestock grazing, and are primary supplies for water for many rural households. Wetlands also play a crucial role at a regional level by filtering pollutants and regulating water flow. Wetland coverage across the country is in decline, at 15.6% in 1994 and 10.9% in 2008. These changes have been attributed to massive wetland degradation for rice cultivation and dairy farming, flower farming along the shores of Lake Victoria; especially in Buikwe, Mukono, Wakiso and Kampala districts, with occasional conversion for human settlement (WBG,2021).

Decline in water resources is further worsening due to degradations exhibited in poor quality and quantity in the major freshwater bodies. Soil erosion and industrial pollution have reduced surface water quality. Watershed degradation and climate change also reduced surface and ground water quantities. Other major drivers of reduced water quality and quantity are encroachment on water catchments, increased water abstraction for domestic, industrial, infrastructure development and production, discharge of effluent into the environment and inadequate sanitation facilities especially among fishing communities (NEMA, 2012).

4.3.7 Soils

Most of Uganda forms part of the interior plateau of the African continent and its landforms are characterized by flat-topped hills in the central, western and eastern parts of the country. The rise of the plateau in the eastern and western part of the country is represented by spectacular mountain topography located along the borders as, for example, the Rwenzori Mountains and Mufumbira volcanoes in the west and Mt. Elgon, Mt. Moroto, Mt. Murungole and Mt. Timu and Mt. Kadam in the East (NEMA 2002)

Uganda soils are dominated by ferralitic soil which accounts for about two-thirds of the soils found in the country. The most productivity soils cover 8% of the area of Uganda Based Uganda's soils categorized according to: (a) very high to high productivity, (b) moderate productivity, (c) fair productivity, (e) low productivity (e) negligible productivity and (f) zero productivity. The high productivity soils cover only 8% . (NEMA 1996).

Soils in Uganda are also classified according to the FAO system whereby Ferrisols and eutrophic soils are the most productive and are found all over the country. Ferruginous soils are scattered throughout the country but are concentrated in Tororo and Gulu districts. Studies suggest that ferruginous soils are less productive and require careful usage to preserve their poorly developed top soils, whereas lighter soils unlike heavy soils are more susceptible to leaching. (EPRC, 2000)

The most dominant soil type in Uganda is ferralitic soil which accounts for about two thirds of the soils found in the country (NEMA, 1996).

Soil type and topography are key determinants of land use and soils are classified in seven groups (World Bank, 1993). These are:

- a) Buganda surfaces which cover much of the region south of Lake Kyoga including districts north and north west of Lake Victoria and embrace five types of deep sandy clay loams with medium to high productivity.

- b) Tanganyika surfaces cover much of the area north of Lake Kyoga, West Nile and parts of the southwest. They consist of sandy clay loam soils with low to medium productivity.
- c) Karamoja surfaces in the North east comprise sandy clay loams and black clays of low productivity.
- d) Rift valley soils in the west and north are sandy clay loams with alluvial parent rock of high productivity.
- e) Volcanic soils of high productivity are found on Mt. Elgon and in the extreme southwest. In northern Karamoja these soils have low productivity.
- f) Alluvial soils found in central and northern Uganda (Lango and Acholi as well as west of Lake Victoria) are sandy and of low productivity.
- g) Other soil types in the north are of low productivity.

More than two-thirds of Uganda lies at altitudes ranging from 1,000 m–2,500 m above sea level. The relatively high altitude has led to many areas in Uganda being badly eroded while others are at risk of having their soils permanently destroyed unless prompt and proper action is taken (NEPAD–CAADP,2004)

4.3.8 Climatic Conditions

Uganda experiences moderate temperatures throughout the year. However, the country's diverse topography results in wide-ranging temperature, from 0°C in the ice-capped Rwenzori Mountain Range and Mt Elgon, to 30°C in the north-eastern areas of Gulu, Kitgum and Moroto. The Rwenzori Mountain Range has permanent ice caps, however due to rising temperatures, the area typically covered by ice reduced by 49% between 1987 to 2003 and is projected to disappear by the 2040s (MWE, 2014)This has implications for the area's water resources, livelihood activities and is likely to change its epidemiological profile.

The World Bank Group's Climate Change analysis projects the annual mean temperature for Uganda by 2020 to be 22.8°C, with monthly temperatures ranging between 21.7°C (July) and 23.9°C (February). During this period, total annual average precipitation of 1,197 mm, and mean monthly precipitation of the country varies from 39.6 mm in January to 152.7 mm in April (WB,2021).

The effects of climate change and environmental degradation are increasingly felt in the country. The country experiences unpredictable weather phenomena in the form of irregular rainfall, resulting either in drought or in flooding accompanied by landslides. These risks are exacerbated by the reduction of wetlands and deforestation. Uganda has a high rate of forest cover loss – between 2001 and 2019, Uganda lost 11% of its tree cover. Contributing factors to degradation include agriculture activities, explorations of soil and other natural resources, the high demand for fuel wood where more than 80% of Uganda's rural households use firewood for cooking. The rise in temperatures and inadequate rainfall in the first quarter of 2022 have disrupted the agricultural planting season which has an impact on food security, poverty, inflation, and hence economic growth.

4.4 SOCIO-ECONOMIC BASELINE

4.4.1 Political and Civil Administration

The 1995 constitution of Uganda as amended the president is the head of state, government, and the armed forces assisted by a prime minister and cabinet. Legislative powers are vested in the unicameral Parliament where most members are elected to five-year terms. The constitution provides for a comprehensive representation of the

members of the public in the parliament which include one female representative from every district and representatives of specific groups, such as the army, youth, labour, and persons with disabilities. The constitution also recognizes the right of ethnic groups to pursue their own cultural practices.

Uganda is divided into 136 districts, gathered in the four regions of the north, west, east and center; the central region, which includes the capital Kampala and its suburbs, is the most populated, while the northern region is the one with the largest surface area.

The Local Governments Act provides for decentralized governance and delegation of central government functions, powers and services to local governments. Districts have powers to oversee implementation of development activities under supervision of their relevant departments. District and Local Council administration are critical in implementation of development projects by mobilizing political goodwill and sensitizing local communities. Districts are administered by an elected chairperson and a district council. The councils consist of elected members with the political and judicial power to manage community affairs. While Subdistrict administrative units are governed by a tiered structure of elected councils.

4.4.2 Population and Demographic Conditions

Uganda population is one of the highest growth rates ranging between 3.0-3.2% per annum. The projected Uganda's total population for mid-2022, was 43.7 million with a growth of 3.0 percent per annum in the last decade.

However, UN World Population Prospects 2022 projection showed that, Uganda's will reach 100 million by 2060. Around 69% of the population are below 25 years old, describing a rising youth growth, and 47% are of working age 15-64 while 47.9% of the population are aged 0-14 and lastly 2.9% are aged 65 years and above. The young population forms a broad base of the country's population structure. Having a predominantly young population creates a high population momentum which means that the country's population will continue increasing because of the large cohorts of young women entering their childbearing years, with 53.9% beginning childbearing by age 19.6 The dependency ratio remains unfavourably high at 103, indicating a heavy burden on the economically productive population as well as impacting government's efforts to provide adequate and quality social services.

The 2021 State of Uganda Population Report indicated that Uganda was showing signs of a demographic transition, in which birth and death rates shift from high to low levels in population. While Uganda's total fertility rate is showing signs of decline, further pro-poor social and economic development policies are important in order to improve education and health, increase labour force participation with skilled and healthy future labour force in order to reap the benefits of accelerated economic growth.

4.4.3 Land Tenure and Landuse

The Land Act of Uganda 1998 and (Article 246) of the Constitution recognizes four major systems of land tenure in Uganda namely: customary tenure, freehold, leasehold and mailo tenure.

Customary tenure is the most common tenure system in Uganda whereby access to land is "governed by the customs, rules, and regulations of the community." Holders of land under the customary system do not have a formal title to the land they use, but generally have secure tenure. (IFPRI, 2008)

Mailo tenure is a quasi-freehold tenure system established in 1900 by the British colonial government remains a relatively secure and well-defined system of tenure, particularly in the Central region. An important feature of mailo systems is that much of the land is used by tenants who are restricted in their security of tenure on the land they farm.

Freehold tenure is a system whereby owners of the land have a title to their land which allows them to hold the registered land indefinitely. The landowner is given complete rights to use, sell, lease, transfer, subdivide, mortgage and bequeath the land as they see fit, so long as it is done in a manner consistent with the laws of Uganda.

Leasehold tenure is a system where the owner of the land grants the tenant exclusive use of the land, usually for a specific period of time. Land may also be leased from the state to individuals for typical lease periods of five, 45, or 99 years. In return, the tenant usually pays an annual rent or service under specified terms and conditions. Leaseholders may or may not hold formal contracts with the owner. (IFPRI, 2008)

Uganda has a total area of 241,550,000 ha. Agricultural land occupied 60% of the total area and increased significantly since 1994 to 14,415,000 ha (72%) in 2013 growing at the annual rate of 0.3% (FAOSTAT, 2016). Agricultural land refers to the share of land area that is arable, under permanent crops, and under permanent pastures. Arable land includes land defined by the FAO as land under temporary crops, temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Arable land increased from 0.54% annual growth in 2000 to 2.36% in 2012, while permanent cropland area decreased from an annual growth rate of 1.69% to 0.72%. Notably in the last decade, agricultural land has steadily increased at a rate of 1% per annum, and if this rate continues agricultural land will account for 90% of Uganda's land by 2040 (UBOS, 2014) . Natural forest cover has declined drastically from 54% in the 1950s to 20% of the total area, while grassland has increased by 28.18% during 1996–2013 (NEMA, 2004). About 41% of the country's total area is experiencing degradation, of which 12% is in a severe state of degradation (Vågen T-G at al,2016). The most common form of land degradation is soil erosion, found on around 85% of degraded land (NEMA, 2004). Areas severely affected by soil erosion (85–90%) include the highlands of Kabale and Kisoro, while the badly affected ones (75–80%) include Mbale, Rakai and the cattle corridor districts. Forest cover loss of about 25 million tons of wood consumed annually translates into 50% degradation of all tropical high forests on private land and 15% in forest reserves (FAO, 2012).

4.4.4 Socio-Economic Conditions

Urbanization

Although Uganda is one of the least urbanized countries in the world in absolute terms, the urban population is growing. Urban population in Uganda increased from less than one million persons in 1980 to about three million in 2002, representing a nearly fourfold increase. However, between 2002 and 2014, the urban population rapidly increased to 7.4 million (UBOS 2017).

Employment

Unemployment Rate in Uganda increased to 4.20 percent in 2010 from 1.90 percent in 2007 (UBOS 2011) 12. Unemployment remained predominantly an urban problem as the unemployment rate in urban areas is more than three times that of their rural counterparts. The unemployment rate was highest in Kampala (11%) and lowest in Western and Eastern regions (2%) respectively 13 . About 83% of young people have no formal employment (MFPED 2012). Youth unemployment in Uganda is the highest in Sub Saharan Africa. Employment is expected to remain a challenge in the years ahead.

Generally, the high youth unemployment rate in Uganda is largely attributed to high population growth rate, slow growth in industrial development, and small formal labour markets, lack of sufficient experience and skills, rural-urban migration, and youth's limited access to resources like capital and land. In addition, the overall existing policies continue focusing on creating job seekers rather than job creators. However, growing sectors of agro processing, tourism and services offer opportunities for youth employment (NEMA, 2012).

4.4.5 Livelihood Conditions

Poverty

Over the past three decades, Uganda's national poverty rate has fallen by more than half, from 56 percent in FY 1992/1993 to 20.3 percent in FY 2019/2020, owing mostly to improved agricultural incomes among poor households. Yet Uganda remains one of the poorest countries in the world. The COVID-19 pandemic aggravated the poverty situations. As per the 2019/2020 Uganda National Household Survey, due to COVID-19 pandemic the number of poor people in the country increased from 8 million to 8.3 million. In June 2020, the United Nations in Uganda's Socioeconomic Impact Assessment of the COVID-19 pandemic projected that some 4.4 million people were likely to fall into extreme poverty. Similarly, the World Bank update for 2022 showed that poverty in Uganda increased from 27.5 to 32.7 percent after the first lockdown in 2020 due to reduced remittances, limited credit, and job losses. Likewise, in the first half of 2021, Uganda's Finance Ministry also reported that 28% of Ugandans were poor. That rate had increased from 18% before the pandemic. The Finance Ministry also noted that two-thirds of Ugandans had lost at least some income due (UNDP, 2022).

Poverty is significantly higher among large households of seven or more persons (46.6 percent), teenage-headed households (52.7 percent) and households headed by widows/widowers (51.1 percent). There are also notable regional and subregional disparities in multidimensional poverty in Uganda. Multidimensional poverty is highest in the Northern region (63 percent), followed by the Eastern region (45.7 percent). At the subregional level, Karamoja has the highest level of multidimensional poverty with 85 percent UNDP,2022

World Bank released a new report in October 2022 which showed that 42.1 percent of the Ugandan population is estimated to be in extreme income poverty. Forecasts shows that accelerated growth might marginally lower the poverty rate from 42.1 percent in 2022 to 41.9 percent in 2024, but this prediction is subject to a number of downside risks, including the trajectory of COVID-19, the course of the Ukrainian conflict, the rate of food inflation, and any environmental shocks that negatively affect households due to their limited capacity for adaptation. World bank ,2022

4.4.6 Agriculture

Investors consider Uganda's agricultural potential to be among the best in Africa, with low temperature variability, fertile soils, and two rainy seasons over much of the country - leading to multiple crop harvests per year. According to the UN's Food and Agriculture Organization, Uganda's fertile agricultural land has the potential to feed 200 million people. Eighty percent of Uganda's land is arable but only 35% is being cultivated. In FY 2022/23, agriculture accounted for about 24% of GDP, and 35% of export earnings. The UBOS estimates that about 68% of Uganda's working population is employed in agriculture. Uganda produces a wide range of agricultural products including coffee, tea, sugar, livestock, fish, edible oils, cotton, tobacco, plantains, corn, beans, cassava, sweet potatoes, millet, sorghum, and groundnuts. Commercialization of the sector is impeded

by farmers' limited use of fertilizer and quality seeds, and a lack of irrigation infrastructure – rendering production vulnerable to climatic extremes and pest infestations. Sector growth is also impaired by the lack of quality packaging capabilities, insufficient storage facilities, poor post-harvest handling practices, shortage of agricultural credit, high freight costs, the lack of all-weather feeder roads in rural areas, a complicated and inefficient land tenure system, and limited knowledge of modern production practices. (ITA, 2023).

The Agricultural Sector continues to be the most important sector in Uganda; it employs approximately 72% of the population and contributed about 32% to the GDP. However, Productivity is limited by reliance on natural weather conditions and the still widespread use of traditional methods and equipment.

Uganda is among the leading producers of coffee, bananas and oil seed crops (sesame, soybean, sunflower etc.). It is also a major producer of other crops like tea, cotton, organic cotton, tobacco, cereals, fresh foods and vegetables, nuts, essential oils, flowers, poultry and freshwater fish.

The Ugandan Government is pushing for greater commercialisation of agriculture by encouraging the use of irrigation and mechanised farming. Opportunities for investment exist in:

- Commercial farming in both crops and animal industries as well as aquaculture.
- Value addition (agro-industries, agro food industries);
- Manufacturing of inputs such as improved seeds, fertilizers and pesticides
- Cold storage facilities and logistics
- Farm machinery manufacturing and assembly
- Packaging
- Irrigation schemes.

Beef Production

In Uganda, the livestock sector accounts for about 20 percent of agricultural value added and 3.8 percent of GDP (UBOS, 2020). Fifty-eight percent of households depend on livestock for their livelihoods and most of them are subsistence oriented smallholders. Cattle is the most important livestock subsector in the country, with production valued at USD 8.7 million per year and with a population of about 14.6 million cattle (FAO, 2019; UBOS, 2020). The indigenous breeds continue to be dominant over the exotic ones; 9 in every 10 (13.6 million out of 14.6 million) cattle in Uganda are indigenous. Most cattle in Uganda are found in the 'Cattle Corridor', which extends diagonally across the country from the pastoralist Ankole area in the southwest to the Karamoja region in the northeast (Egeru et al., 2014). The pastoral areas of Karamoja have the highest concentration of cattle in the country (head/km²), where cattle is the main source of livelihood and backbone of the local economy (Gradé, Tabuti and van Damme, 2009).

Uganda produced around 2.4 million heads of cattle annually on average between 2005 and 2019 and the total number of cattle in the country has not changed much within this period, with an average growth rate of 1 percent (FAOSTAT, 2021). The growth rate is similar for beef production, reaching around 170 thousand tonnes in 2019. The low growth rate of cattle in Uganda could be explained by the fact that around 90 percent of cattle farmers are smallholders, engaged in pastoral, agro-pastoral or mixed crop-cattle production systems with limited access to animal health services. Water shortages and scarcity of feed during droughts (cattle largely feed on natural pastures including communal grazing areas and fallow land), are other factors. (FAO, 2018). High productive systems such as commercial ranching with substantial investments made in

animal health and breeding, accounts for less than 10 percent of the national herd (UIA, 2016). Cattle in Uganda is mainly raised for meat: over 80 percent of the national herd is devoted to beef production (FAO, 2019). Per capita annual consumption of beef is 6 kg and the trend is increasing. The growth in beef demand is explained by a population growth at 3.3 percent per annum, increasing urbanization, rising purchasing power and exports, and changes in consumption habits (Kingdom of the Netherlands, 2012).

4.4.7 Labour and Migration

Migration

There has been an increase in internal migration, particularly from rural to urban centres. The main motivation for migration to urban settings is to earn money in accordance with youth's actual or perceived responsibility to contribute to their households. A new research study commissioned by the International Organization for Migration (IOM) in Uganda shows that thousands of people are being forced to move due to climate change and environmental degradation. Uganda has progressive policies to support the integration of migrants, refugees and asylum seekers. The Refugees Act ensures the freedom of movement for refugees within Uganda and ensures access to social services including health care and education for both refugees and members of their families. Similarly, the implementation of migration-related East African Community Protocols is also leading an increase in the number of Ugandans living in Eastern African countries. With the diversification of East African economies, such as Kenya, South Sudan, and Rwanda, the demand for Ugandan workers has increased outside the country. In recent years, Ugandans are also emigrating to the Middle East in search of job opportunities as house maids and security guards.

Labour

Unemployment continues to be one of the biggest problems for Uganda, which was further worsened by COVID-19 pandemic. The national household survey 2019/2020 reported the pre-COVID-19 national unemployment rate was 9.2%, women were more affected than men. The same survey stated that the unemployment rate for youth aged 18 – 30 was 13% which was 4 percentage points higher than the national rate. Uganda is one of the countries in the world which has the youngest populations. According to World Bank data, Uganda's population stood at 45 million (World Bank, 2020) half of which are 15 years or younger. More than a million young people are entering the job market each year in the country, but these numbers cannot be absorbed in the formal sector, data shows that around 10% of those employed have formal jobs, while 90% work informally, without a formal contract or any type of social security, implying high levels of job insecurity (Challenge Fund for Youth Employment, 2022)

Generally, the high youth unemployment rate in Uganda is largely attributed to high population growth rate, slow growth in industrial development, and small formal labour markets, lack of sufficient experience and skills, rural-urban migration, and youth's limited access to resources like capital and land. In addition, the overall existing policies continue focusing on creating job seekers rather than job creators. However, growing sectors of agro processing, tourism and services offer opportunities for youth employment (NEMA, 2012).

4. VARIOUS MANAGEMENT PLANS

5.1 INTRODUCTION

The following chapter summarises some of the environmental and social management plans which the project has to implement. The plans are dealt with in detail as separate documents.

5.2 THE INTEGRATED PEST MANAGEMENT PLAN

5.2.1 Pest Control Practices

Pests are increasingly becoming a menace in the livestock sector. The farmers carry out routine management of pests on their animals and in their fields, mainly through the use of pesticides. The common pest control practices 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.

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.

5.2.2 Integrated Pest Management

The Integrated Pest Management (IPM) refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. Generally, it is the pest management technique of choice. It involves the following processes:

- 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 minimises 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:

- **Biological control:** the introduction of insects, mites, micro-organisms that prey on or parasitize harmful species.
- **Bio-pesticides:** these have a pathogenic micro-organism as the active ingredient, for example a bacterium, fungus or a virus.
- **Botanicals:** botanical pesticides contain plant extracts that have biocidal properties e.g., Neem (*Azadirachta indica*).
- **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 agro-ecosystem. 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 RELIV sites 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:

- **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.
- **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.
- **Chemical Control:**
This involves selecting a pesticide with the lowest toxicity to humans and non-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 over-stocking. 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 Act and the Environmental Management Act.

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.

5.3 THE LABOUR, COMMUNITY HEALTH, AND SAFETY MANAGEMENT PLAN.

This section summarises the Labour, Community Health, And Safety Management Plan of the RELIV programme. The relevant policies are outlined in Appendix 9.

5.3.1 LMP APPLICATION.

The LMP is applicable, as per ESS 5 to all the RELIV Project workers as per the following condition:

- People employed or engaged directly by RELIV to work specifically in relation to the Project,
- The Government public servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement or arrangement,
- People employed or engaged by consultants to perform work related to core function of the Project, regardless of location,
- People employed or engaged by RELIV's primary suppliers,

5.3.2 LABOUR REQUIREMENTS

i. Direct Workers:

Direct workers include, the RELIV PMU staff, MSMEs staff, Program-based Staff and Permanent Government Staff. The RELIV PMU will employ consultants and support staff who will be working on contractual bases as part of the RELIV PMU. Terms and conditions of these consultants will be guided by the Uganda Labour Laws. In addition, the civil servants at the local level will be involved in the program implementation on a full time or on part-time basis. The consultants will be engaged by the Project to undertake short period assignments as necessary. These are consultants guided by specific contractual agreements between them and RELIV PMU.

Direct workers are eligible to work for a fixed contract period of not more than 1 year. Contracts will be renewed annually based on satisfactory services. Consultants will be engaged under a short-term period of not more than six months and the labour requirement including the time schedule and deliverables are stipulated in their respective contracts.

The RELIV PMU will oversee the Project and engage throughout the Project life cycle the following personnel:

- Project Coordinator,
- Administrator,
- Procurement Specialist,
- Project Accountant,
- Internal Auditor,
- Monitoring and Evaluation Specialist,
- SECAP Specialist,
- Driver.

ii. Contracted Workers:

Based on the requirement in every component the RELIV PMU will employ contractors who will hire contracted workers based on their level of skills and program needs. If agreed with the PMU, sub-contracts of the work could be given. Sub-contractors recruited may supply labourers as per the agreed terms and conditions.

Contracted workers are eligible to work for a contract period fixed by the PMU, and then recruited by the Contractor. Their contracts will be renewed, if required, based on satisfactory services.

iii. Primary Supply Workers:

Based on the requirement in every component Y, primary supply workers will be recruited by the suppliers as required. It will be ensured (and monitored periodically by the PMU) that no children are recruited and supplied as worker. Furthermore, it will be monitored like above that these workers are not subject to 'forced labour' in any manner. The PMU will be responsible to make sure that these standards are followed

strictly. If any deviation is identified the PMU will take action as prescribed in the contract/agreement following the LMP.

Their tenure service will be based on supplies as procured.

5.3.3 MAIN LABOUR RISKS

The main labour risks associated with the Project are assessed to be related to the work environment and associated risks of accidents. **Based on current conditions in the sector it is assessed that the risk of child or forced labour is negligible**, and already managed through national legislation.

The RELIV has developed this LMP as part of the ESCMF which will illustrate the types of workers to be engaged and their management in line with ESS5 and national labour laws and regulations. Even though labour influx is not anticipated, social impacts such as GBV, sexual exploitation and communicable diseases for local communities cannot be ruled out. Thus, management and mitigation of GBV/SEA risks were integrated in both the stakeholder engagement and LMP.

5.3.4 LABOUR INFLUX

It is not expected that there will be any labour influx in any project community. The RELIV will mandate and localize the economic benefits and only allow for outside, including expatriate labour, where there is a requirement for special skills.

Specific requirements to manage risks associated with labour influx, related to interaction between project workers and local communities, such as communicable diseases and gender-based violence, are managed through contractual requirements, Code of Conduct and training set out in this document. These procedures are guided by the national legislation.

5.3.5 OCCUPATIONAL HEALTH AND SAFETY:

The Occupational health and Safety measures and action plan guided by the IFAD updated SECAP 21 will be developed and implemented to assess and manage risks and impacts to the community arising from Project activities and workers. The consultants to be engaged will ensure that their employees/staff will be trained on occupational health and safety and records of which are to be inspected monthly and audited bi-annually. The RELIV will consider the incremental risks of the public's health and safety and potential exposure to operational accidents.

5.3.6 GENDER-BASED VIOLENCE:

Gender based violence is widespread in Uganda and primarily affects girls and women, hence based on the GBV/SEA/SH Uganda country-level risk assessment ratings, the social risks of Sexual Exploitation/Harassment and GBV are rated as moderate, and the project will not directly or indirectly cause or contribute to any of the pre-existing social issues related to gender-based violence but will attempt to ultimately contribute to their mitigation through improving the livelihoods of the poor stakeholders.

Nonetheless, there is a possibility of contextual risks of GBV and there could be an increase in the risk and exposure of GBV/SEA against women because they have improved economic opportunity as a result of the project. There is thus a need to uphold safe environments at all sub-project areas and implement the GBV Action Plan in the project ESCMF.

5.3.7 CHILD AND FORCED LABOUR:

The risk of child labour will be very minimal and will be mitigated through Certification of labourers' age. This will be done by using the legally recognized documents such as the National Identification Card, and Birth Certificate. Further, awareness-raising sessions will be conducted regularly to the communities to sensitize on prohibition and negative impacts of child and forced Labour.

5.4 THE TARGETED ADAPTATION ANALYSIS.

This section summarises the Targeted Adaptation Analysis for the RELIV programme. The Adaptation decision matrix table is outlined in Appendix 10.

5.4.1 The Impacts Of Climate Change On Dairy Production.

The potential effects of climate stressors (Figure 5-1), include drought, rainfall variability, floods, temperature increases, on beef and dairy production. The climate impacts point to the connection between climate change and beef and dairy productivity. It shows that four climate stressors – temperature increase, rainfall variability, droughts, and floods – affect the beef and dairy sectors and ultimately reduce their productivity.

Mean temperatures in Uganda are projected to increase by up to 1.9°C by 2050, under an RCP8.5 scenario. The vulnerable sectors to the rise 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 5-1).

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.

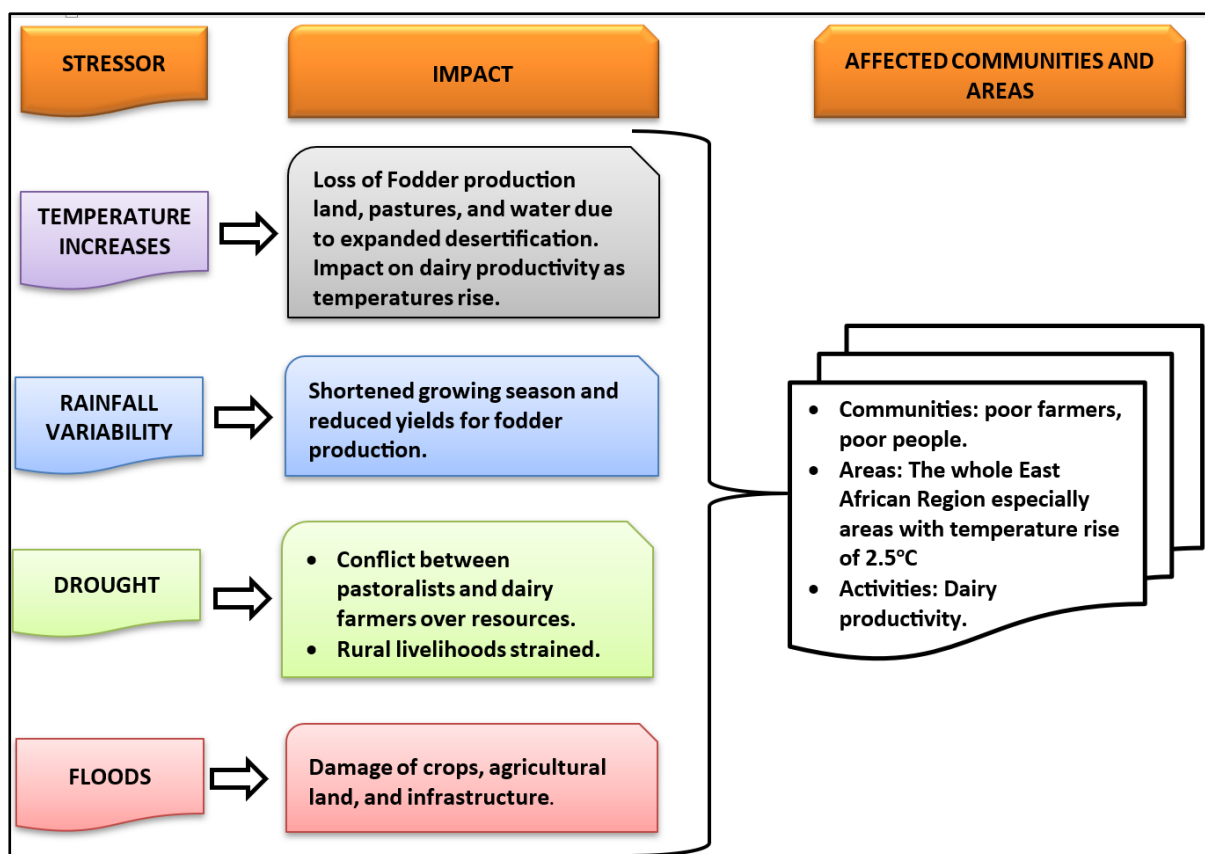


Figure 4-1 Climate stressors and their potential impacts on agriculture.

The climate change impacts will occur through different channels and will affect each of the four beef and dairy production dimensions of food security: access, availability, utilisation and stability⁴¹.

Changes in temperature, precipitation, water availability, extreme climate events, and atmospheric composition will have direct effects on beef and dairy production, which may then translate into impacts on prices, incomes and livelihoods in general.

Table 4-1 Climate-change impacts on different aspects of beef and dairy production security⁴²

BEEF & DAIRY PRODUCTION SECURITY DIMENSION	POTENTIAL IMPACTS
Availability	<ul style="list-style-type: none"> 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 fodder crop and livestock pests and diseases, Higher post-harvest losses as a result of climate change.

⁴¹ Food and Agriculture Organisation (FAO) (2016) The state of food and agriculture. Climate change, agriculture and food security. FAO, Rome, Italy.

⁴² 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.

Access	<ul style="list-style-type: none"> • Loss of agricultural income due to reduced yields and higher costs of production inputs 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	<ul style="list-style-type: none"> • Greater instability of supply due to increased frequency and severity of extreme events, including droughts, • Instability of incomes from agriculture.
Utilisation	<ul style="list-style-type: none"> • Impact on food safety due to increased temperatures, • Impacts on nutrition resulting from reduced water quality and quantity, • Climate induced morbidity.

5.4.2 ADAPTATION MEASURES

This section provides a snapshot of the most important national level adaptation and mitigation efforts. Adaptation to climate change for beef and dairy production may include shifting planting periods for fodder crops, growing of drought tolerant fodder crops, rearing more resilient breeds, and raising dairy cattle mainly in the cooler regions of country.

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 livestock systems. Identifying adaptation needs helps prioritize actions and allocate resources to address the most critical challenges. Based on the emerging findings of this study, the adaptation needs in the beef and dairy sector in Uganda are as shown in the following sub-sections:

i) Access to climate-smart technologies

Farmers need access to climate-smart technologies such as improved livestock breeds, drought-tolerant forage varieties, and energy-efficient beef processing and milk cooling and processing equipment. These technologies can enhance productivity, conserve resources, and mitigate climate change impacts. Improving the beef and dairy industry's production efficiency is an effective way towards reducing emissions per unit of milk or beef (Place & Mitloehner, 2010).

ii) Capacity building and knowledge transfer

Providing training programs, Farmer Field Schools, and extension services can enhance farmers' technical knowledge and skills in beef and dairy management. This includes training on sustainable feeding practices, breeding strategies, disease control measures, and effective use of water resources.

iii) 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).

iv) Strengthening infrastructure

Investing in rural infrastructure, such as improved road networks, electricity supply, and milk collection and processing facilities, slaughterhouses and meat processing plants, can reduce transportation costs, post-harvest losses, and improve overall market access for dairy farmers.

v) Climate information and early warning systems

Developing and disseminating climate information, early warning systems, and advisory services can assist livestock producers in making informed decisions related to feed management, breeding, and disease control. This helps pastoralists anticipate and adapt to climate-related risks. Market information systems form a key component of these early warning systems.

vi) Policy support and institutional strengthening

Developing supportive policies and regulations that address the specific needs of the beef and dairy sector, as well as strengthening the institutions involved in research, extension, and market development, are crucial for enabling a conducive environment for livestock farmers to thrive. Collaboration between government departments, research institutions, livestock cooperatives, financial institutions, and development partners is required to address the identified key barriers and adaptation needs.

5. STAKEHOLDER ENGAGEMENT, INFORMATION DISCLOSURE AND THE GRM

6.1 INTRODUCTION

ReLIV has been designed in close consultation with a wide group of stakeholders, the details of which can be found in appendix 4. Public consultations were conducted to confirm the relevance of the proposed interventions and solicit the views of the various stakeholders about the proposed interventions. The consultations also assist to determine the effectiveness and efficiency of the proposed approaches.

The ReLIV PMU has the responsibility to effectively engage stakeholders to achieve the project objectives. This Stakeholder Engagement Plan (SEP) is for use during public consultation in the screening processes for every ReLIV funded project and sub-projects. This chapter provides a summary of the Stakeholder Engagement Plan (SEP) which is covered in more detail in a separate document.

6.2 OBJECTIVES OF THE PLAN

The SEP provides a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the project is carried out effectively. To ensure the effective implementation of this plan, ReLIV shall be committed to the following principles:

- Promoting openness and communication,
- Ensuring effective stakeholder involvement,
- Evaluating the effectiveness of the engagement plan in accordance with the expected outcomes.

The key elements of the Stakeholder Engagement Plan are:

- Stakeholder identification and analysis
- Information disclosure
- Stakeholder consultation
- Grievance management
- Stakeholder involvement in project monitoring
- Reporting to stakeholders
- Management functions

6.3 KEY STAKEHOLDERS

Stakeholders of this project shall be defined as all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project:

The key stakeholders to be continuously engaged could include:

6.3.1 Uganda Government Departments:

- i. Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
- ii. DDA,
- iii. NAGRC & DB,
- iv. NARO - NaLIRRI
- v. National- Animal Disease Diagnostic Centre (NADDEC)
- vi. Makerere College of Veterinary Medicine
- vii. WARM MUK

- viii. Ministry of Local Government (MoLG).
- ix. Ministry of Finance, Planning and Economic Development (MFPED)
- x. National Environment Management Authority (NEMA)
- xi. District Local Government Authorities.

6.3.2 Other Stakeholders

- Development Partners currently operating in the livestock sector
- USAID,
- UKAID
- FAO
- AfDB
- SNV,
- EU,
- World bank
- Royal Netherlands Embassy
- ILRI
- Heifer International
- Equity Bank
- Uganda Development Bank (UDB)
- Uganda Veterinary Association.
- Uganda Meat Producers Cooperative Union (UMPCU).
- Uganda National Farmers Federation (UNFFE)
- Uganda Cooperative Alliance
- URUS Uganda
- Service Providers
- Farmers/farmers groups or associations,
- Women and Youth Councils /Associations

The list above is not exhaustive. As the Programme gets underway, the ReLIV PMU will continuously engage with more stakeholders, identifying their specific information needs and the appropriate modes of consultation as well as feedback mechanisms.

6.4 CURRENT CONSULTATIONS

6.4.1 Stakeholder Engagement

Stakeholders were engaged through a variety of techniques in order to build relationships, gather project related information, consult with them, and disseminate project information to them. These consultations were conducted as part of the ReLIV PDR development process and were aimed at briefing the communities and other stakeholders about the project activities, how the activities will be carried out and what sectors of the environment are likely to be impacted.

6.4.2 The Engagement Process

The engagement process for this project involved the following:

- Visits to potential project sites,
- Face to face interviews with Keys stakeholders,
- Focus group meetings,
- Virtual Meetings (Zoom, Microsoft Teams, Skype, etc),
- Direct observation and discussion in the field,
- General data Collection from all stakeholders.

The general consultation techniques that will be used for the continuous engagement of the stakeholders throughout the project implementation phases are as listed below:

Table 5-1 Stakeholder engagement techniques

No.	ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUE
1.	Correspondences (Phone, Emails)	<ul style="list-style-type: none"> • Distribute information to Government officials, NGOs, Local Government, and organisations/agencies in the project area. • Invite stakeholders to meetings and follow-up
2.	One-on-one meetings	<ul style="list-style-type: none"> • Seeking views and opinions • Enable stakeholder to speak freely about sensitive issues. • Build personal relationships. • Record meetings
3.	Formal meetings	<ul style="list-style-type: none"> • Present the Project 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
4.	Public meetings	<ul style="list-style-type: none"> • Present Project information to a large group 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. • Record discussions, comments, questions.
5.	Focus group meetings	<ul style="list-style-type: none"> • Present Project information to a group of stakeholders (8-15 people groups) • Allow stakeholders to provide their views on targeted baseline information. • Build relationships with communities. • Record responses
6.	Project website	<ul style="list-style-type: none"> • Present project information and progress updates • Present GRM and another relevant project documentation
7.	Project leaflet	<ul style="list-style-type: none"> • Brief project information to provide regular update. • Site specific project information.
8.	Surveys	<ul style="list-style-type: none"> • Gathering opinions and views from individual stakeholders • Gather baseline data. • Record data. • Develop a baseline database for monitoring impacts
9.	Workshops	<ul style="list-style-type: none"> • Present project 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

The engagement process will be a continuous issue throughout the life of the project and will be used as a means of checks and balances for the proper implementation of the project. The process will employ a technically and culturally appropriate approach, which involves identifying the concerned/affected stakeholders, soliciting their views, and continuously checking if their views are being taken care of as the project implementation progresses.

6.4.3 Public Consultations



Figure 5-1 Engagement with Oderai Soroti Women’s Cooperative.
(Soroti District.)

In the process of developing the current ESCMF the local stakeholders were consulted to solicit their views and concerns as regards the proposed beef and dairy value chain project. The list of the consulted stakeholders is included in appendix 4.

The Consultations involved gathering feedback on the information that had been given to the stakeholders about the project, as well as getting more information about local contexts that may not have been obvious, to raise issues and concerns, and to help shape the objectives and outcomes of the project. The objectives of consulting all these stakeholders were:

- To inform them of the proposed project and its likely impacts on their activities and general surroundings.
- To establish the Environmental, Economic, Social and Cultural aspects implications of the project on the different stakeholders.
- To gather the views of the stakeholders on the proposed project.
- To accommodate the stakeholders' suggestions and perceptions during the project implementation.

The stakeholders consulted during this survey were:

- Government ministries,
- District and village administration offices/ local leadership,
- Direct beneficiaries of the project (Members of Associations),
- potential beneficiary communities,

i. Consultations with the major organizations.

The consultations with the designated implementing or major organizations involved mainly meetings and one on one interviews. In general, the aims of the consultations included:

- i. introducing the project to the Stakeholders,
- ii. identifying together the potential environmental and social challenges the project may face,
- iii. identifying any other possible challenges and how they should be addressed or mitigated, and
- iv. bringing on board the major stakeholders to garner project ownership from inception.

ii. Consultations with the public.

The public consultations were done to raise awareness of the project by informing the public in the concerned areas through their local leaders and some public gatherings about the upcoming programme in their areas. The public was also interviewed to gather their opinions regarding the programme and the environmental and social consequences that may result from its implementation. The stakeholders who were consulted are listed in appendix 4.

6.5 INFORMATION DISCLOSURE

6.5.1 Disclosure of ESCMF Documents

The IFAD policy on the disclosure of documents, adopted the principle of “presumption of full disclosure” (IFAD 2021). The sharing of draft and final ESCMFs and other relevant documents with program and project stakeholders and interested parties is subject to the above-mentioned principle. As such, the documents will be disclosed, when available, in a timely manner prior to project appraisal at the quality assurance stage on IFAD’s Website and in an accessible place in the program or project-affected area, in a form and language understandable to project-affected parties and other stakeholders, for the purposes of keeping them informed and obtaining their meaningful feedback.

IFAD policies require that the Government of the Republic of Uganda, and IFAD disclose the ESCMF report as a separate and stand-alone document. The disclosure should be done by the Republic of Uganda and IFAD where it can be accessed by the public, including affected groups and NGOs, and at their respective websites.

The ReLIV PMU will make copies of the ESCMF available in selected public places possibly at relevant government offices for information and comments. The Proposed project activities will be announced through different forms of media. The announcement will include a brief description of the program, references to where and when the ESCMF can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the project client and possible project affected groups, beneficiaries and local NGOs, the ReLIV PMU shall provide relevant material in a timely manner prior to consultations and in a form and language that are understandable and accessible to the groups being consulted.

6.5.2 Public Disclosure Plan

Following the public consultation, all comments and briefs will be analysed. The report will be published and made available to the concerned community groups and to interested bodies upon request.

In line with this, the ESCMF will be available at the relevant institutions at all levels and be publicly disclosed both in country and at the IFAD's websites. The ReLIV PMU will make copies of the ESCMF available in selected public places in English and working language of the country in compliance with the IFAD's *Public Consultation and Disclosure Policy*. It is proposed that the locations of copies are announced through public relation sections of the relevant sector line Ministries, radio announcement in addition to press releases, as applicable.

Any ESCMPs and other SECAP instruments that will be prepared for the proposed project activities under the program will also needed to be disclosed to the public. Copies of the ESCMPs should be made available to communities and interested parties in accessible locations through local government authorities. Copies of the ESCMPs should also be provided to the implementing agencies. This will ensure record keeping of all activities implemented under the ESCMF and ensure that third party audits, if required, have adequate information when undertaking annual environmental and social audits.

6.5.3 Information Disclosure to Consulted Stakeholders

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 ReLIV activities may be affected by them. Thereafter various communication tools can be utilized for the engagement process, such as:

- Project 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.

Table 6-2 below gives a general overview of the types of information needs for various stakeholder groups.

Table 5-2 Summary Overview of a Public Consultation Plan for RELIV

No.	Stakeholders	Information to be disclosed	Consultation means
1.0	ReLIV project community, neighbouring communities, general public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or Local community offices, Churches, national media, social media, Agriculture website etc.
		Forum to express community / health fears and get feedback e.g., accidental release/escape, contamination. emergencies (fire)	Public consultations, focal group discussions, social media. Training specific members of the communities, awareness, education

2.0	Staff / workers at target Districts	How project work will affect their work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, email, website, meetings with management, staff sensitization & inhouse training programs.
3.0	Farmers Groups/Clusters Agricultural NGOs Farmer Union Agrochemical companies	Consultation on agricultural needs / food security issues. Strengthen management capacity of farm enterprises, Support farmer clusters and group development. Ensuring farmers groups/associations participate in the formulation of agricultural policies and legislation. Promoting dissemination of information (climate, prices, pests and diseases, and markets) access to farmer groups	Agricultural Extension services, Baseline surveys/subsequent surveys to monitor impacts, emails, bulletins
4.0	Intergovernmental Institutions; IFAD, FAO, etc	Setting sustainable development agenda for participating communities	Intergovernmental meetings and consultations
		Capacity building for participating communities.	Build partnerships through meetings, seminars, workshops
5.0	University Graduates	Internship opportunities	Website, public media, bulletin boards
6.0	Youths	Opportunities for employment during project implementation, other opportunities in agro-processing which involves value-addition initiatives in agro-processing, packaging, and promotion of value chains	Agricultural Offices, public consultations

6.6 GRIEVANCE REDRESS MECHANISM

A grievance redress mechanism is a process for receiving, evaluating and addressing project-related concerns of, and complaints by, project affected communities or persons. IFAD's Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process (Appendix 5).

IFAD's Grievance Redress Mechanism requires: (i) working proactively with the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions.

The Grievance Redress Mechanism is detailed in Appendix 5. The purpose of the grievance redress mechanism will be:

- 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 project's legitimacy among stakeholders.
- To promote transparency and accountability.
- To deter fraud and corruption and mitigate project risks.

The principles of a good grievance redress mechanism are:

- A mechanism scaled to risk and adverse impact on affected communities,
- Designed to take into account culturally appropriate ways of handling community concerns,
- A clear and understandable mechanism that is accessible to all segments of the affected communities at no cost,
- Transparency and accountability to all stakeholders,
- A mechanism that prevents retribution and does not impede access to other remedies.

The key steps for grievance management are:

- Publicizing grievance management procedures so that the mechanism is accessible to everyone,
- Receiving (i.e., collecting, recording and registering) and keeping track of grievances,
- Reviewing and investigating grievances to assess the nature of the grievance, its severity and legitimacy,
- Developing resolution options commensurate with the nature of grievances and preparing and communicating a clear response, and closing out cases when agreement with the complainants is reached,
- Monitoring grievances through tracking to ascertain effectiveness, adapting the mechanism to correct inefficiencies, using the results of monitoring for feedback and lessons learned.

The ReLIV PMU will establish a grievance redress mechanism in line with the above requirements, at project start. Beyond the project-level grievance mechanism, project stakeholders may use IFAD's Complaint Procedures that can be found at <https://www.ifad.org/en/accountability-and-complaints-procedures>.

6.7 FEEDBACK AND MONITORING

As part of the Stakeholder Engagement Plan (SEP) a mechanism for providing feedback to the stakeholders on their particular 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 in regard to engagement.

The SECAP specialists in the ReLIV PMU will be responsible to ensure that the SEP is implemented throughout the life of the Program. They will also be responsible for communicating and reporting on all stakeholder matters to ReLIV PMU Manager.

7. PROCEDURE FOR SCREENING ASSESSMENT AND MANAGEMENT

7.1 INTRODUCTION

Every subproject that will be funded under RELIV will require environmental and social screening. Environmental and Social screening is a process of determining the subprojects' significant environmental and social consequences, deciding on the level of EA work to be done and then implementing the developed mitigation measures. The screening will be done using the Environmental and Social Screening Form (see Appendix 1) together with information on typical subproject impacts and mitigation measures in the environmental, social and climate management plan (ESCMP) (Table 8-27).

The environmental and social risk category for the RELIV project has been rated "Substantial", thus most of its subprojects will fall within this category. There will not be a "High" Risk Category subproject funded by RELIV. However, it is recommended that RELIV should avoid sensitive areas and take steps to ensure that subprojects stay within "Substantial" Risk Category.

The following sections outline the stages of the screening process leading towards the review and environmental and social approval of any subproject that will be undertaken in the RELIV. This is depicted in Figure 7-1 below.

7.2 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. This helps to determine the environmental and social category, and climate risk classification for the project, together with the necessary actions to address the associated environmental, social and climate risks, and their expected impacts. The screening tool and checklist (see Appendix 1) should be used in conjunction with the exclusion list (Table 7-1).

7.3 EXCLUSION LIST

Table 7-1 below provides criteria based on which subprojects and activities which will not be eligible for financing under RELIV:

Table 7-1 Subproject and Activity Exclusion List

No.	Negative sub project list
	The proposed RELIV project will automatically exclude subprojects that:
1	Require acquisition of land and physical or economic displacement of people.
2	Block the access to or use of land, water points and other livelihood resources used by others.
3	Production or activities involving harmful or exploitative forms of forced labour.
4	Production or activities involving harmful or exploitative forms of child labour.
5	Activities prohibited national legislation or international conventions relating to the protection of biodiversity resources, cultural heritage or other legally protected areas.
6	Activities prohibited by national legislation or other legally binding agreements regarding genetically modified organisms (GMOs).
7	Production and distribution, or investment in media that are racist, antidemocratic or that advocate discrimination against an individual, group or part of the population.

In addition to the above, any subprojects that would be categorised as High-Risk Category subprojects will not be eligible for financing under RELIV.

7.4 STAGES OF ENVIRONMENTAL AND SOCIAL SCREENING

7.4.1 Desk Appraisal of the planned activities

The first stage of the environmental and social screening process. is a desk appraisal of the planned activities, including designs. The desk appraisal will be carried out at the District Offices level by a technical team comprising experts from the MAAIF, National Environment Management Authority (NEMA), and Ministry of Local Government, to ensure that all pertinent environmental and social issues are identified.

This initial screening will be carried out through the use of the Environmental and Social Screening Form (Appendix 1). This form will be completed by ReLIV PMU Environment Officers with assistance from the District Technical team.

Completion of this screening form will facilitate the identification of potential environmental and social impacts, determination of their significance, assignment of the appropriate environmental and social category, proposal of appropriate environmental and social mitigation measures, and carrying out any further environmental and social work, if necessary.

7.4.2 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 Form (Appendix 1). The same technical team of experts will be responsible for categorizing the sub-project activity either as High, Substantial, Moderate or Low.

The assignment of the appropriate environmental and social category will be based on the SECAP 21, provisions on Environmental Assessment. Most of the subprojects and activities of the current project are likely to be categorized as Substantial Risk, meaning that their potential adverse environmental and social impacts on human populations or environmentally important areas will be site-specific, few if any of the impacts are

irreversible, and they can be mitigated readily. Possible sub-projects may include Rehabilitation of water sources (small dams, boreholes etc), Water harvesting infrastructure development, Rehabilitation of Abattoirs, Rehabilitation of MCCs and MCPs, Beef and Dairy Value chain development related activities e.g., livestock, Fodder and feed production, pasture management, Meat and Milk processing and value addition, Marketing, Post-harvest technologies for fodder and Access to financial Services.

Some activities might be categorized as "Low" which will be reflected as a "No" entries in the screening form, the proposed activity will not require further environmental and social work, and the technical team of experts will recommend approval of this proposal and implementation can proceed immediately in line with category 1 of the Government of Uganda EIA guidelines.

RELIV will not support the environmental and social High-Risk category (significant, irreversible impacts) subprojects and activities. High Risk Category subprojects and activities will be eliminated at the first stage of screening, where the eligibility of the subprojects is determined.

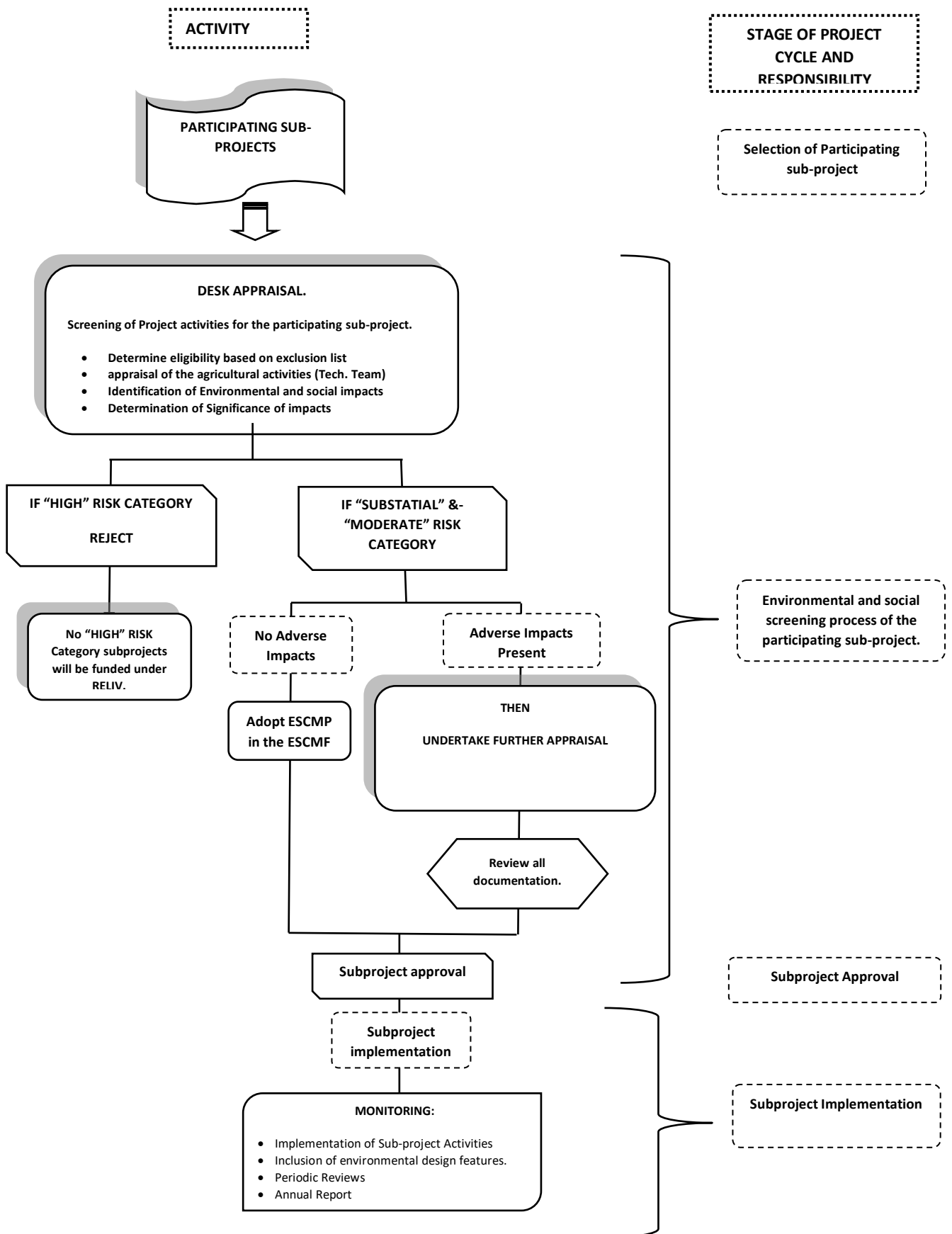


Figure 7-1 Subproject Screening Process

7.4.3 The Review Process

The completed screening form along with any additional planning reports, will be forwarded to the Review Committee, under the MAAIF, represented by the ReLIV PMU Head Office. The Review Committee 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 (Appendix 1) will suffice; or whether further Environmental and social work needs to be done.

The Sub-projects which did not require the preparation of additional EA work 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 SECAP 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 Review Committee may require the preparation of additional mitigation plans as the situation may require. The additional EA work may include site specific ESCMPs, IPMPs, site specific ESIAS etc. Once all documentation is in place these will then be submitted to the Environment Department for Synchronization with the main ESCMF and/or approval. Generally, most of the sub-projects that will be financed by RELIV will not need any further EA work beyond just the site specific ESCMPs to guide the implementation of the ESCMF.

7.4.4 Public Consultation and Disclosure for Sub-projects

Public consultations are critical in preparing an effective proposal for the agricultural activities. The first step is to hold public consultations with the communities surrounding the proposed sub-project sites and all other interested/affected parties during the screening process and in the course of any further environmental and social work. These consultations should identify key issues and determine how the concerns of all parties will be addressed.

The public consultation methods include press conferences, information notices, brochures/fliers, interviews, questionnaires and polls, open houses, community meetings, advisory committees, and public hearings. The guidelines for public consultation include, among others, a requirement that major elements of the consultation program should be timed to coincide with significant planning and decision-making activities in the project cycle. In terms of Uganda's EA process, public consultation should be undertaken during (i) the preparation of the EA terms of reference; (ii) the carrying out of an EA; (iii) government review of an EA report; and (iv) the preparation of environmental and social terms and conditions of approval.

7.4.5 Monitoring and Reviews

Environmental and social monitoring needs to be carried out during the implementation of the subprojects. Monitoring of the compliance of subproject implementation with the mitigation measures set out in the ESCMF and IPMP will be carried out jointly by the beneficiary farmers, extension teams and RELIV staff. RELIV field officers should supervise the monitoring activities and are required to report annually on subproject activities during the preceding year. An annual monitoring report must be submitted to IFAD by the RELIV project. Environmental and social monitoring and reviews for RELIV will cover the following issues:

- Environmental and social monitoring.

- Site Inspections.
- Compliance Auditing and
- Annual Reviews.

a) Environmental and social monitoring

Environmental and social monitoring 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.

The SECAP specialist from the ReLIV PMU will conduct the monitoring exercises of the implementation of the mitigation measures. In conducting the monitoring, the specialist will verify that the proper procedures are being followed in screening the Sub Project activities and in the implementation of the mitigation measures. The specialist will also make field observations to ensure that no negative environmental impacts are taking place at all project sites.

This impact monitoring involves measuring the biophysical and socio-economic impacts of the project. The purpose of this monitoring is to support compliance with SECAP policies, to identify the occurrence of any unforeseen SECAP issues, to determine lessons learnt during project implementation, to provide recommendations for improving future performance, and to provide an early warning about potential cumulative impacts.

To be able to conduct the performance monitoring, the following must be in place:

- The various SECAP instruments (ESCMP, ESIA, IPMP, GRM,) have been prepared to the required standard, within the required timelines.
- The safeguards instruments have been reviewed and approved by the responsible entities.
- Environmental and social mitigation measures have been/are being implemented and that mitigation measures are effective.
- The community is participating in all stages of the environmental and social management and monitoring processes.
- Relevant implementation level officers have been trained in accordance with the capacity building proposals.
- Reports are prepared and delivered as required.

b) Site Inspections

Compliance monitoring comprises on-site inspections of activities to verify that measures identified in the ESCMF and IPMP are being implemented. The RELIV SECAP Specialist will have the responsibility of conducting the environmental and social inspections. An annual inspection report must be submitted (together with the monitoring report) to IFAD.

These should be routine inspections to make observations about issues such as waste management, erosion control (supplemented by WQ analysis), area of disturbance, spoil management, etc. This would be done on a routine basis by trained RELIV field officers under the guidance of the RELIV SECAP Specialist.

c) Compliance Auditing

Compliance Auditing involves checking compliance with all legally required permit conditions and the requirements set out in the approved ESCMP. The audit involves evaluation to identify compliance of social and environmental aspects of the sub-projects (to applicable compliance requirements) and identify implementation gaps, along with related corrective actions.

The compliance auditing will be done once per year and will be facilitated by the RELIV PMU/IFAD/ and NEMA. The objective of the report is to provide feedback on the activities of and observations on the implemented RELIV sub-projects and their compliance with the SECAP requirement over the audit period.

The objectives of environmental and social auditing are twofold, firstly to assess the compliance of implementation to project SECAP instruments regarding the intermediate environment and social impacts of the wider RELIV interventions, i.e., assess project performance in complying with ESCMF procedures, gaps identified, lessons learnt, and improve future performance, and secondly to assess the occurrence of, and potential for, cumulative impacts due to project and other development activities. This enables the project to improve its decision making and ensure that it is environmentally sound, socially acceptable, and economically feasible.

The compliance assessment report, which will be produced by the independent reviewer, will be used as a monitoring and review tool to track ESCMP results. The annual review report should be delivered to project management and to IFAD as well.

d) Annual Reviews

Annual reviews may be carried out by an independent local consultant, NGO or other service provider that are not otherwise involved with RELIV. Annual reviews should evaluate the annual monitoring report from RELIV field officers and the annual inspection report from RELIV. The purpose of the reviews is three-fold:

1. To assess compliance with ESCMF procedures, learn lessons, and improve future ESCMFs,
2. To assess performance in terms of environmental and social risk management,
3. To assess the occurrence of, and potential for, cumulative impacts due to RELIV-funded and other development activities.

The annual reviews are intended to be used by project management to improve procedures and capacity for integrating natural resources and environmental/social management into project operations. It will also be used as a monitoring and review tool to track ESCMP results and will be a principal source of information to the RELIV Project for improving performance, and to IFAD supervision missions. Thus, they should be undertaken after the annual report on monitoring has been prepared and before IFAD supervision of the project.

8. ENVIRONMENTAL, CLIMATE AND SOCIAL IMPACTS ANALYSIS

8.1 INTRODUCTION

The ReLIV Project is envisaged to result in more positive than negative environmental and social impacts. With appropriate design, adequate management and monitoring, the negative impacts can be kept to a minimum. It is important to identify the potential risks early in the project cycle whose stages are:

- a) the project's overall design and planning,
- b) construction/setting up and
- c) operational stage.

Construction/setting up stage will be short/medium term, while the operation stage will be long term. Inadequate capacity for designing, planning, execution and monitoring of the project can lead to low environmental and social performance, exacerbating adverse impacts and limited enhancement of the positive impacts.

Potential environmental and social impacts were identified through a comprehensive site investigation and stakeholder consultation process, including a review of relevant literature and other preliminary studies for similar investments. Appendix 4 lists the consulted stakeholders. The impacts indicated in this section will be reduced and mitigated as described in the ESCMP in the current study.

8.2 ACTIVITIES AND SOURCES OF ENVIRONMENTAL AND SOCIAL IMPACTS.

The critical components of the negative impacts are derived from the RELIV activities that will require development, construction, and operation of infrastructure such as:

- a) rehabilitation and or construction of water supply infrastructure (small dams and wells).
- b) construction of agro-processing and storage facilities.
- c) Rehabilitation/construction of abattoirs, markets, etc.
- d) use of agrochemicals; fertilisers, herbicides, pesticides, etc
- e) preparation of land for pastures, fodder crops, etc.

The potential environmental, social and climatic risks emanating from these activities will include deforestation; land degradation; inappropriate use of agrochemicals leading to pollution; conflicts; gender-based violence; child labour and social unrests.

These activities may cause pollution of environmental media such as water, soil, etc, and pose occupational health hazard, water use conflicts, conversion and/or loss of physical cultural resources during construction of infrastructures etc. Most of the impacts will be localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures. The following is an outline of the possible beneficial and adverse impacts of the project.

8.3 SIGNIFICANCE RATING METHOD

The significance of adverse impacts from project activities will be rated on the basis of their magnitude, duration and probability as shown in **Table APP 2-1 in Appendix 2**. 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.

8.4 ENVIRONMENTAL IMPACT ANALYSIS

The potential environmental impacts that will be generated by the implementation of the RELIV activities have been grouped as follows:

8.4.1 Environmental Impact Analysis - Planning Phase

8.4.1.1 Potential Negative Environmental Impacts During Planning Phase.

a) Vegetation Clearing for cutlines.

Vegetation will be cleared during the topographical surveys of project site and pegging of pipeline routes 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 cutline will be affected.

Required Mitigation Measures

- Cutline clearance is to be minimized as far as possible to reduce the potential for any environmental impacts.

Table 8-1 Vegetation Clearing for Cutlines.

Impact of Vegetation Clearing for Cutlines.	
Project Phase	Planning Phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Site-specific
Intensity	Low
Consequence	low
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of vegetation clearing for cutlines (i.e. potential dust generation, soil erosion) on local environment will be reduced to one of **No** significance for the whole project area.

8.4.1.2 Potential Positive Environmental Impacts During Planning Phase.

a) None Identified.

8.4.2 Environmental Impact Analysis – Construction/Establishment Phase

8.4.2.1 Potential Negative Environmental Impacts During Construction Phase

a) Ambient air pollution

Air quality will be impacted by dust emissions mainly from the construction of infrastructure which includes the sheds 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-high.

Required Mitigation Measures

The mitigation measures will include:

- Animal waste must be handled properly to avoid smell.
- Contractors should use dust screens or nets in windows, doorways and ventilators of rooms where demolition or other dusty construction activities are occurring.
- 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.
- Water sprinklers to be used, especially on the road leading to the project side.

Table 8-2 Ambient air pollution

Impact of Ambient air pollution	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

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 **No** significance for all people.

b) Ambient Water pollution

Quality of water especially rivers and groundwater may be affected negatively by discharges of debris from civil works, oil spills, and other pollutants generated from construction/establishment 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/establishment. 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-high.

The disturbances from the Ambient Water pollution 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. The moderate detrimental and definite probability result in this impact being of **Low significance**.

Required Mitigation Measures

The mitigation measures include the following:

- 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 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.
- activities related to slaughtering of cattle should be carefully conducted.
- 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.

Table 8-3 Ambient Water pollution

Impact of Ambient Water pollution	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional

Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Ambient Water pollution could be reduced to one of **No** significance for all people once oil and grease separators have been installed.

c) Soil Erosion

Beef and dairy farming activities may result in soil erosion occurring, e.g. close to watering points or rivers where the cattle come for water. Although construction work will be limited to local areas, the project may involve works that 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 establishment/construction phase, all soil forms will be susceptible to erosion to some extent because the vegetation cover will be cleared before establishment of pastures or fodder fields.

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.

Required Mitigation Measures

The mitigation measures for soil erosion include the following:

- Revegetation, re-grassing of all bare surfaces.
- Minimisation of vegetation clearing to working areas only.
- Use existing roads to access the fields and farm sites and employ drainage control measures and culverts to control natural runoff and overland flow.
- Installing soil erosion control structures like, gabions, contour ridges, swells, and check dams.

Table 8-4 Soil Erosion

Impact of Soil Erosion	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high

Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of soil erosion on the local landscapes could be reduced to one of **little** significance.

d) **Vegetation Clearing.**

Vegetation clearing will occur at most sites which will include excavations for pipelines and foundations, clearing for pasture development, Construction of agro-processing and storage facilities, preparations of farmlands. All will involve localized land clearing, removal of trees and shrubs. This will result in habitat fragmentation and small wildlife disturbance (migration included) especially for pastures and fodder fields. 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. The vegetation clearing will lead to dust, noise and ultimately soil erosion.

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. 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 these impact will be medium-high.

The disturbances from the Vegetation clearance will be **negative and direct** 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 site it is considered to be of **Low significance**. The moderate detrimental and definite probability result of this impact being of **Low significance**.

Required Mitigation Measures

The mitigation measures include the following:

- Dust suppression.
 - Dust suppression measures are to be implemented, which shall include covering soil mounds, spraying water, etc.
 - 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 road leading to the project side.
- Sensitive habitats should be avoided. (Wetlands and stream banks).
- Clearing should be limited to working areas only, and these include areas for foundations for agricultural infrastructure etc.
- 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 re-grassing bare areas.
- Sustainable range management must be practiced including rotational grazing, etc.

Table 8-5 Vegetation Clearing.

Impact of Disturbance from Nuisance Factors	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

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 **No** significance for all people.

e) Temporary Visual Intrusion (Marred landscape).

Construction of micro dams and water supply systems, agricultural infrastructure, 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, and bricks will be moulded and burnt for warehouses and sheds construction. Pits will be dug, and trees will be cut for firewood. 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.

Required Mitigation Measures

The borrow pits and scarred landscapes should be rehabilitated by backfilling and revegetation.

Table 8-6 Temporary Visual Intrusion (Marred landscape).

Impact of Marred Landscapes	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct

Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

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 **No** significance.

f) Solid waste nuisance

Huge quantities of solid wastes are normally generated during project establishment. 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 using 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 during project establishment 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 medium-high.

The disturbances from the solid waste will be **negative and direct** in nature. This impact will definitely occur during the establishment/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 **Low significance**. The moderate detrimental and definite probability result in this impact being of **Low significance**.

Required Mitigation Measures

The mitigation measures include:

- Seek guidance of local environmental officers to identify acceptable disposal sites.
- Collection of all construction debris for proper disposal at designated landfills.
- Waste from agricultural activities can be further processed into other uses, e.g., organic manure.
- Reuse and recycling must be preferred over disposal of the waste.

Table 8-7 Solid waste nuisance

Impact of Solid waste nuisance	
Project Phase	Construction

	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	medium to long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of solid waste management could be reduced to one of **No** significance as the system gets underway.

g) Loss of natural and cultural heritage.

The construction/establishment works at the project site may affect some natural features, antics, and relics in the project area. The excavations for the works will potentially cause destruction of the natural features, antics, and relics. This is anticipated during trenching for the pipeline and digging of foundations for buildings.

Assessment of the impact

Any encountered antics or relics are in danger of being destroyed in the process of trenching and construction works.

Required Mitigation Measures

If any natural features, antics, and relics are encountered the trenching should stop immediately and the chance finds procedure be followed Appendix 7).

Table 8-8 Loss of natural and cultural heritage

Impact of Loss of natural and cultural heritage	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Loss of **natural and cultural heritage** could be reduced to one of **No** significance for all people.

h) Habitat loss and Biodiversity disturbances.

Noise and vibrations from the development activities may disturb the normal roaming patterns of the small game in the area, especially birds as most of them forage during the day and cause them to migrate away from the area and/or be in conflict with human beings.

Assessment of the impact

The Bio-diversity 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 will cause the migration of small game to neighbouring areas.

There will also be increased road traffic during the pre-construction and construction phases, and this will be **negative and indirect**, introducing noise and vibrations in the area. The impact will be experienced at the **site level**. The consequences of this impact can be described as slight detrimental as it will only be effective during the cycle of the project, and it can be mitigated.

Required Mitigation Measures

The mitigation measures include:

- 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.
- Traffic management measures are to be implemented and travel speed of contractors and suppliers' vehicles will be restricted.

Table 8-9 Bio-diversity disturbances

Impact of Bio-diversity disturbances	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Bio-diversity disturbances will be reduced to one of No significance for the whole project area and the small game and birds will be able to migrate back as the area will now be revegetated and rehabilitated.

8.4.2.2 Potential Positive Impacts During Construction Phase.

a) Rehabilitation of fragile ecosystems

Some steep slopes in some localities are badly degraded resulting in deeply incised gullies. Some wetlands have been converted into fields and they have lost their functions. These areas will need some rehabilitation and conservation works. The badly degraded lands and wetlands will then be rehabilitated by erecting gabions where necessary and revegetation.

Assessment of Impact

The **Rehabilitation of fragile ecosystems** of the project area 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 high beneficial – the community regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of **medium significance**.

Table 8-10 Rehabilitation of fragile ecosystems

Impact on Rehabilitation of fragile ecosystems	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

b) Revegetation

In the process of establishing pastures and fodder fields the vegetation will be restored and enhanced. There will be a deliberate exercise to revegetate the project area. This will protect and conserve the environment in the process.

Assessment of Impact

The revegetation of the project area 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 area 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 high beneficial – the community regard this as a major long-term

positive change as it will improve their livelihoods. The impacts are therefore of **medium significance**.

Table 8-11 Revegetation

Impact on revegetation	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

8.4.3 Environmental Impact Analysis – Operation Phase

8.4.3.1 Potential Negative Impacts During Operation Phase

a) Soil Erosion

During the operation phase, the potential for soil erosion will be much less. However loose soil at the livestock water points and rivers where they also go for water will 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 establishment of pastures and before construction takes place at infrastructure areas.

Required Mitigation Measures

The mitigation measures for soil erosion include the following:

- Revegetation, re-grassing of all bare surfaces
- Minimisation of vegetation clearing to working areas only
- Installing soil erosion control structures like, gabions, contour ridges, swells and check dams.
- Establishment of grassed drainage systems to prevent erosion.

Table 8-12 Soil Erosion

Impact of Soil Erosion	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term

Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of soil erosion on the local landscapes could be reduced to one of **little significance**.

b) Solid waste

Less quantities of solid wastes are normally generated during the operation phase. Such wastes include domestic wastes, plastics, animal carcasses, etc. However, during early implementation of the project (construction/pre-operation and operation phases), a Waste Management Plan will be prepared. The plan will address both solid and liquid waste including disposal of agricultural waste (agrochemicals, expired vaccines) and biological. The sub-project proponents will also 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 **regional** effect as they will not only be a problem to the footprint area but can affect the wider surrounding community if not managed properly. 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 impact will be experienced at the **regional level**. Some indirect impacts could be experienced because of the presence of higher volumes of people, including jobseekers in the area resulting in pressure on social services and infrastructure.

The consequence of the impact is anticipated to be moderate detrimental. For the people residing 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 **Low significance**.

Required Mitigation Measures

The mitigation measures will include:

- Collection of all solid waste in a systematic manner for disposal at designated landfills.
- Solid waste should never be burnt on site.
- Develop a solid waste management plan and implement it

Table 8-13 solid wastes

Impact of solid wastes	
Project Phase	Operation Phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct

Duration	medium – long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of solid waste pollution on local communities could be reduced to one of **No significance** for all people if solid waste management protocols are followed.

c) Agro-Chemical Pollution

Up-scaling of agricultural activities (Fodder production) may result in the use of more agro-chemicals to realise better yields and control pests and diseases. Raising beef and dairy livestock entails the use of vaccines and pest control chemicals. 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.

Pesticides reach the soil by deposition after being sprayed on foliage when the pesticide is washed off treated foliage by rainfall or overhead irrigation, by release from the surface of treated seeds or by direct application of granules or spray to soil. The inappropriate disposal of unwanted or out of date 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 **regional level**. For the people residing nearest to the project site the impact is considered to be of medium significance. The moderate detrimental and definite probability result in this impact being of medium significance.

Required Mitigation Measures

The mitigation measures include:

- 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.
- Split application of fertiliser to avoid excess being washed away.
- No application before major storms.

- Don't store fertilisers and agrochemicals and food in the same store room.
- All workers to use appropriate PPE every time.
- Use the least potent variants of pesticides to minimise poisoning.

Table 8-14 Agro-chemical pollution

Impact of Agro-chemical pollution	
Project Phase	Operation phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	medium

Residual Impact

Post-mitigation, it is expected that the impact of Agro-chemical pollution on local communities could be reduced to one of **No significance** for all people.

d) Effluent Discharges

Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent besides the solid waste. This includes effluents from MCCs, MCPs, Milk processing plants, Abattoirs, laboratories, veterinary service centres, etc. 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 moderate detrimental. For the people residing 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 **Low significance**.

Required Mitigation Measures

The mitigation measures include:

- Installation of appropriate effluent treatment facilities next to any processes that generate effluent.
- Monitoring the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards.

Table 8-15 effluent discharge

Impact of effluent discharge	
Project Phase	Operations Phase
	Pre-Mitigation Impact

Type of Impact	Negative, direct
Duration	long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of effluent discharge on local communities could be reduced to one of **No significance** for all people once proper effluent treatment plants are installed and are running properly.

e) Ambient Water pollution

Oil and grease leaks and spills are noted to be prevalent in most work areas like the farm sheds. If not well contained these leaks 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. There are still many people relying on river water as a source for drinking water.

Groundwater contamination occurs from percolation of oil and lubricants spills into the soil.

Assessment of the impact

The Ambient Water pollution disturbances will be **short to medium term** in nature and will occur for the duration of the operations phase. 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. It is expected that the intensity of these impact for most people will be medium-high.

The disturbances from the Ambient Water pollution will be **negative and direct** in nature. The impact will be experienced at the **regional level**. This impact will definitely occur during the operations phase 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 result in this impact being of **medium significance**.

Required Mitigation Measures

The mitigation measures include the following:

- 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.

Table 8-16 Ambient Water pollution

Impact of Ambient Water pollution	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional

Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	medium

Residual Impact

Post-mitigation, it is expected that the impact of Ambient Water pollution could be reduced to one of **No** significance for all people once oil and grease separators have been installed.

f) Animal Health and welfare

Animal and public health are a major concern in the beef and dairy value chains. The livestock tend to be prone to diseases some of which can easily be spread to humans. Thus, disease prevention and control have become a major program in the beef and dairy development programme. This has given rise to Biosecurity, which is "a strategic and integrated approach to analysing and managing relevant risks to human, animal and plant life and health and associated risks for the environment."

Further the way the animals are treated in the process of rearing them is fast becoming of great concern, especially those under zero grazing schemes. They are confined to very small spaces 24/7 and at times the pens will be very dirty.

Assessment of the impact

The Animal Health and welfare issues will be **short to medium term** in nature and will occur for the duration of the operations phase. These impacts have a **regional effect** as the diseases can very easily spread if not contained. It is expected that the intensity of these impact for most people will be medium-high.

The disturbances from the Animal Health and welfare will be **negative and direct** in nature. The impact will be experienced at the **regional level**. This impact will occur during the operations phase 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 result in this impact being of **medium significance**.

Required Mitigation Measures

The mitigation measures include the following:

- Contain all disease out-breaks in as short time as possible.
- Institute the one health approach to curb spread of diseases.
- Strengthen Biosecurity in the beef and dairy industry by instituting all disease preventive measures.
- Institute the five measures of biosecurity i) bio-exclusion, (ii) bio-compartmentalization, (iii) bio-containment, (iv) bio-prevention, and (v) bio-preservation,
- Construction of Proper Zero grazing structures with enough room space for resting to prevent animals stand for long periods.
- Affording the animals time to freely walk around or even taking them for a walk.

Table 8-17 Ambient Water pollution

Impact of Ambient Water pollution	
Project Phase	Operations
	Pre-Mitigation Impact

Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	medium

Residual Impact

Post-mitigation, it is expected that the impact of Animal Health and welfare could be reduced to one of **little** significance for all people once measures are taken.

8.4.3.2 Potential Positive Impacts During Operation Phase.

a) 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 high beneficial – the community regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of **medium** significance.

Table 8-18 revegetation

Impact on revegetation	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

8.4.4 Summary of the Magnitude of Potential Environmental Impacts

Tables 7-19 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 Appendix 2:

- The intensity criteria (low, medium, high) examines whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment.
- The consequence criteria (low, medium, high) Combination of duration, extent, and intensity of impact in relation to the type.
- The Probability criteria (low, medium, high) describes the likelihood of the impacts actually occurring.
- The significance criteria (low, medium, high) determine the Synthesis of the characteristics of the rest of the criteria.

The final significance of the impacts depends on the duration of the impact and period when it occurs in the project life cycle, e.g. air pollution is given a low significance despite having a medium-high intensity because it occurs over a short period during the construction phase of the project.

Table 8-19 Magnitude of Potential Environmental Impacts

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.4.1	PLANNING PHASE									
8.3.1.1	<i>Potential Negative Impacts During Planning Phase.</i>									
(i)	<i>Vegetation clearing for Site Surveying and Pegging</i>	<ul style="list-style-type: none"> • Clearing vegetation for visibility • Opening Cutlines for survey purposes 	<ul style="list-style-type: none"> • Removal of vegetation cover. • Exposure of topsoil and possibility for erosion. • Loss of biodiversity and habitat changes. • Disturbances of small wildlife • Compaction of soil. 	Negative	2	2	2	2	8 Low	6 Negligible

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.3.1.2	Potential Positive Impacts During Planning Phase.									
(a)	None Identified									
8.4.2	CONSTRUCTION PHASE									
8.4.2.1	Potential Negative Impacts During Construction Phase.									
(a)	Vegetation clearing for infrastructure development and pasture development.	<ul style="list-style-type: none"> Preparation of land for Agriculture (Pastures and fodder crops) excavations for pipelines and foundations, construction of water supply systems, Construction of agro-processing and storage facilities, Construction of access roads. 	<ul style="list-style-type: none"> Removal of vegetation cover. Exposure of topsoil and possibility for erosion. Loss of biodiversity and habitat changes. Disturbances of small wildlife Compaction of soil. Pollution of soil and water from oil leakage. Dust and noise generation. 	Negative	3	2	1	5	11 Moderate	9 Low
(b)	Temporary Visual Intrusions (Marred landscape)	<ul style="list-style-type: none"> Extraction of building materials like sand, gravel and brick moulding resulting in borrow pits and scurred landscapes. Construction of agricultural facilities like water reticulation 	<ul style="list-style-type: none"> change the characteristics of the area. leave a marred landscape. 	Negative	4	4	1	4	13 Moderate	8 Low

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		systems, Warehouses, abattoirs and other possible facilities.								
(c)	Soil Erosion.	<ul style="list-style-type: none"> All Construction Activities, Intensive farming techniques, Watering points for livestock. inappropriate drainage management, 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 brick Moulding. 	<ul style="list-style-type: none"> Soil and water pollution. Soil erosion Soil salinization Loss in soil fertility Loss of crop productivity Scarring of the landscape due to sand mining and borrow pits. 	Negative	4	4	1	4	13 Moderate	8 Low
(d)	Solid waste nuisance.	<ul style="list-style-type: none"> Agricultural processes generating waste, e.g., from Abattoirs. Spoils from access road and infrastructure construction wastes generated from construction activities, such as stones, wood, broken glasses, 	<ul style="list-style-type: none"> Pollution of soil and water resources Littering and indiscriminate dumping. Deterioration of the aesthetics of the areas. 	Negative	4	3	1	2	10 Moderate	9 Low

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		containers, rods of metal, pieces of iron sheets etc..								
(e)	Loss of natural and cultural heritage	<ul style="list-style-type: none"> Digging of trenches for pipelines Digging of foundations for agricultural infrastructures, sheds and pens. 	<ul style="list-style-type: none"> Natural features, antics and relics destroyed in the project area e.g., during excavations. 	Negative	5	4	4	3	16 High	10 Moderate
(f)	Habitat loss and biodiversity disturbances	<ul style="list-style-type: none"> Digging of trenches will be by heavy duty machinery. Excavations will temporarily disrupt the natural habitats. Conversion of open lands to arable lands/fields 	<ul style="list-style-type: none"> Noise and vibrations 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 	Negative	5	4	4	3	16 High	10 Moderate
(g)	Ambient Air Quality	<ul style="list-style-type: none"> Dust generated from construction activities. Pesticides used in pests and diseases control 	<ul style="list-style-type: none"> Pollution of air Increases in bronchial disorders. Impaired Visibility on the roads Disturbs normal developments of vegetation. Causes acid rain 	Negative	2	2	3	3	10 Moderate	8 Low
(h)	Ambient Water Quality (surface and	<ul style="list-style-type: none"> Waste generated from agricultural activities. Effluents from slaughterhouses, MCCs, MCPs, Milk 	<ul style="list-style-type: none"> Effluent pollutes soil and water resources. Littering and indiscriminate dumping of solid waste pollutes 	Negative	3 (ground water)	5	2 (groundwater)	4 (groundwater) 3	14	10

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	ground water)	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> land and water resources. Poisoning of aquatic and inland ecosystems. Ecosystem's imbalance and destruction of flora and fauna 		4 (Surface water)		4 (surface water)	(surface water)	high	Moderate
8.4.2.2	Potential Positive Impacts During Construction Phase.									
(a)	Revegetation	<ul style="list-style-type: none"> Proper degraded land management will encourage restoration and enhancement of the vegetation. Rehabilitation of degraded lands afforestation. Fencing off the project sites will induce environmental protection of the area. 	<ul style="list-style-type: none"> environment protected and conserved. revegetation by planting required species. In the process of establishing proper degraded land management the vegetation will be restored and enhanced 	Positive	4	3	4	4	15	19
(b)	Rehabilitation of Fragile	<ul style="list-style-type: none"> rehabilitation and conservation work. Levelling and closing up 	<ul style="list-style-type: none"> Rehabilitation of wetlands. Arrest the Erosion of 	Positive	4	4	4	4	16	18

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	Ecosystems	<ul style="list-style-type: none"> of gullies and dongas. Limited protection using Gabions. 	<ul style="list-style-type: none"> mountain sides and steep slopes. Prevent the Loss of natural ecosystems. Rehabilitate and protect the open lands. 						High	Moderate
8.4.3	OPERATION PHASE									
8.4.3.1	Potential Negative Impacts During Operation Phase.									
(a)	Soil Erosion	<ul style="list-style-type: none"> Animal watering points River drinking points Bare ground along the access roads. Any vegetation clearing during operations 	<ul style="list-style-type: none"> 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 	Negative	5	4	4	3	16	10
(b)	Solid waste pollution.	<ul style="list-style-type: none"> Less quantities of solid wastes generated include domestic wastes, plastics, carcasses, veterinary samples and animal dung. 	<ul style="list-style-type: none"> Pollution of the water ways. Littering the neighbourhood 	Negative	3	4	3	3	13	9
(c)	Effluent Discharges	<ul style="list-style-type: none"> Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent, e.g. MCCs, MCPs, Milk 	<ul style="list-style-type: none"> Pollution of water resources Destruction of habitats 	Negative	5	4	4	3	16	9

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		processing plants, Abattoirs, laboratories, etc.								
(d)	Agro-chemicals Pollution	<ul style="list-style-type: none"> ▪ Limited knowledge of the poisonous nature of the chemicals. ▪ Accidental spillages. ▪ Poor disposal methods being employed. ▪ Washing of equipment in rivers. ▪ Poor application methods being used. ▪ Poor handling of the chemicals. ▪ Accidental discharge of hazardous substances. 	<ul style="list-style-type: none"> ▪ 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. 	Negative	5	4	4	3	16	10
(e)	Ambient Water pollution	<ol style="list-style-type: none"> 1. Oil and grease leaks and spills prevalent in most work areas like the farm sheds. 2. Leaks can be washed into water ways and end up polluting the water resources. 3. Accidental discharge of hazardous substances. 	<ul style="list-style-type: none"> • Pollution of water resources • Destruction of habitats 	Negative	5	4	4	3	16	10
(f)	Animal Health and welfare	<ul style="list-style-type: none"> ▪ Disease outbreaks. ▪ Uncontrolled Spread of diseases. ▪ Spread of animal disease to humans 	<ul style="list-style-type: none"> ▪ Compromised animals. health which can easily spread to humans ▪ Failure to contain disease outbreaks. 	Negative	5	4	4	3	16	10

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		<ul style="list-style-type: none"> Improper structures for zero grazing systems. Confining the animals to small spaces 24/7 	<ul style="list-style-type: none"> Ill treatment of animals by confining them to insanitary conditions Animals suffering effects of continuously standing. Poor productivity due to poor conditions of animal raising. 						High	Moderate
		4.	•							
8.4.3.2	Potential Positive Impacts During Operation Phase.									
(a)	Revegetation	<ul style="list-style-type: none"> planting of grass and continuous rehabilitation of the degraded lands. 	<ul style="list-style-type: none"> Habitat restoration. Erosion stopped. 	Positive	4	4	4	4	16	18
									High	Moderate

8.5 SOCIAL AND HEALTH IMPACT ANALYSIS

The following is a social and health impacts analysis of the project. The chapter assesses the construction and operation phase impacts identified for the proposed RELIV Project, including both the positive and negative impacts.

The potential social impacts that will be generated by the implementation of the RELIV activities have been grouped as follows:

8.5.1 Social and Health Impact Analysis - Planning Phase

8.5.1.1 Potential Negative Impacts During Planning Phase

a) *Poor Project Inception, Anxiety and Anticipation*

The planning stage brings a lot of anxiety and anticipation as most stakeholders do not know exactly what will happen and when it will happen. Lack of proper plan of action with timelines and full disclosure creates anxiety among stakeholders. They then hold the whole process with suspicion and do not want the planning phase to drag for too long.

Assessment of Impact

Poor Project inception mostly results in the locals not fully cooperating with the project preparation team and not disclosing all the relevant information during consultations. The intensity of the Poor Project inception impact on households is rated as moderate.

Mitigation Measures

The project beneficiaries and persons directly or indirectly affected by the proposed project will be assessed in terms of extent of loss of livelihood opportunities and compensation if any is required.

The RELIV PMU will ensure the following:

- Production of proper plan of action with timelines.
- Presenting full disclosure of project decisions and actions to all concerned stakeholders.
- The planning phase should not drag for far too long as people tend to lose despair.
- Efforts must be made to stick to agreed timelines
- Transparency and full disclosure of key elements of the project

Table 8-20 Impact of Poor Project inception

Impact of Poor Project inception	
Project Phase	Pre-Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Long term
Extent	Footprint
Intensity	High
Consequence	Detrimental
Probability	Definite
Significance	Medium to High

Residual Impact

Implementation of the above mitigation measures is expected to reduce the impact of Poor Project inception to one of **low** significance post-mitigation, due to the over-riding positive expectations.

b) 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.

The beneficiary Communities expressed concern on any top-down approaches being imposed on them and then the projects are just handed over to them without their initial consent. Such poor stakeholder participation will result in the lack of ownership of the project by the locals, poor participation in project implementation and low chances of sustainability of the project.

Assessment of Impact

The Limited Stakeholder Participation may occur at project inception. The intensity of this impact on project stakeholders is rated as moderate, as the households will be affected by not being consulted properly.

Mitigation Measures

The relevant project beneficiaries will be identified and continuously conferred with.

The RELIV PMU will ensure the following:

- Consultation and information disclosure becomes a continuous process in the project.
- Stakeholders are continuously appraised of the project progress.
- If any people are affected, assistance will be provided to the project affected persons (PAP) to improve, or at least restore incomes and living standards to at least the equivalent level prior to project implementation, if not better.
- Affected persons should be consulted on decisions that affect their livelihoods and well-being and shall be fully informed of their options and the compensation rates.
- Grievance redress mechanisms are developed and accessible.

Table 8-21 Impact of Limited Stakeholder Participation

Impact of Limited Stakeholder Participation	
Project Phase	Pre-Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short term
Extent	Surrounding villages
Intensity	High
Consequence	Detrimental
Probability	Definite
Significance	Medium to High

Residual Impact

Implementation of the above mitigation measures is expected to reduce the impact of Limited Stakeholder Participation to one of **low** significance post-mitigation, due to the over-riding positive expectations.

8.5.1.2 Potential Positive Impacts During Planning Phase.

a) Project as uniting centre

The project is bringing people to work together as communities for the benefit of everyone. The stakeholders fully support this community-based approach, but there is a major concern based on their past experiences with the projects that were implemented before this one; people are concerned about the possibility of the project not delivering its promises and transparency when it comes to benefits that the project will bring to the communities.

Assessment of Impact

The project is bringing people to work together as communities for the benefit of everyone. The impact is rated as **High**, as the households are highly in favour of it.

Mitigation Measures

The enhancement measures will include:

- Continuous Consultation and information dissemination for the stakeholders to keep abreast with the project.
- Availing the grievance redress mechanisms for everyone to have a channel to air their views and grievances.

Table 8-22 Impact of Project as uniting centre

Impact of Project as uniting centre	
Project Phase	Pre-Construction
	Pre-Mitigation Impact
Type of Impact	Positive, direct
Duration	Long term
Extent	Footprint and surrounding villages
Intensity	High
Consequence	Detrimental
Probability	Definite
Significance	Medium to High

Residual Impact

Implementation of the above enhancement measures is expected to enhance the impact of Project as uniting centre to one of **High** significance post-mitigation, due to the over-riding positive expectations.

8.5.2 Social and Health Impact Analysis – Construction/Operations Phase.

8.5.2.1 Potential Negative Impacts During Constructions/Operations Phase.

a) Gender Based Violence (GBV)

There are high chances of sexual exploitation (in its various forms) of poor women and young girls by construction workers and project implementation personnel. If not well controlled, there could be rampant exploitation of women and youths in the project area. Assessment of exposure and appropriate preventive actions must be carried out to avoid gender-based violence at all costs.

Assessment of the impact

The risk of Gender Based Violence (GBV) will be **medium to long term** in nature and will occur for the duration of **Constructions/Operations phases**.

The risk of Gender Based Violence (GBV) will be **negative and direct** in nature. The impact will be experienced at the sub-project sites and at the households of project beneficiaries. Some indirect impacts could be experienced because of the presence of jobseekers in the area resulting in increased population of job seekers exposing the vulnerable ones. The consequence of the impact is anticipated to be moderate detrimental. The moderate detrimental and definite probability result in this impact being of **Medium significance**.

Required Mitigation Measures

The mitigation measures include:

- Zero tolerance to gender-based violence
- Ensure sexual harassment Policy at all levels involved in the project.

Table 8-23 Disturbance from Gender Based Violence (GBV)

Impact of Disturbance from Gender Based Violence (GBV)	
Project Phase	<i>Constructions/Operations phases.</i>
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	medium to long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Gender Based Violence (GBV) on local communities could be reduced to one of **No** significance for all people.

b) Displacements or shifts of livelihood activities

Nature of Impact

The RELIV 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. Crops are grown primarily for household consumption but in some instances are sold and bartered. Households without agricultural fields often undertake sharecropping or work as labourers for other households.

Thus, the resettlement of permanent homes is not anticipated according to the project design, and the resettlement of livelihood activities (cattle grazing and hunting grounds) and assets will also not occur as the infrastructure that will be

constructed and rehabilitated will be on state land already and will not cause any land acquisition from individual farmers and/or the community.

Assessment of Impact

Communities will be affected by the construction activities of micro-dams and other agricultural infrastructure, causing a shift in livelihoods for many who were depending on these lands for hunting, gathering and collection of medicinal plants. Therefore, the sensitivity of the receptors is rated as **low**.

Required Mitigation Measures

The mitigation measures include:

- Engage in good irrigation scheme designs.
- Relocate the footpaths and construct foot bridges where possible.
- Create alternative sources of livelihood e.g., by involving the affected parties in the scheme.

Table 8-24 Loss of agricultural fields

Impact of loss of agricultural fields	
Project Phase	Pre-Construction, Construction (extending into Operation)
	Pre-Mitigation Impact
Type of Impact	Direct
Duration	Long term
Extent	Footprint
Intensity	Low
Consequence	Negligible
Probability	Improbable
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of the shift in livelihoods of the local communities could be reduced to one of **No** significance for all people as they will neither be physically or economically displaced.

c) **Occupational Health and Safety Issues:**

Weak technical capacity and/or negligence on operation of vehicles and machinery resulting in temporary and permanent physical injuries, Bronchial diseases from dust, diseases, and/or loss of life.

The safety of the local population trying to access construction sites (Dam Sites etc) may be at risk during the construction period. The operation of various equipment and machinery and the actual construction activities will expose workers to work-related accidents and injuries.

Pollutants such as dust and noise could also have negative implications for the health of workers and near-by communities such as bronchial diseases from dust and hearing impairments due to prolonged working under noisy conditions. Personal Protective Clothing is required at all times during construction and operation of machinery, pesticides and other agro chemicals in accordance with relevant national guidelines.

Required Mitigation Measures

The mitigation measures include:

- A Health/Safety/Environment officer should be present during construction.
- All safety precautions must be enforced.
- Provide PPE to all workers.
- Institute dust and noise suppression measures.

d) Poor Public Health

The construction and development phase of the project is likely going to bring outside workers to stay for considerable lengths of time. Communicable diseases such as HIV/AIDS infection rate is likely to increase as the workers, drivers interact with the local population. Poverty is likely going to be the main driver as young women from poor households try to exploit the situation to earn a living. Negotiation power for safe sex may be limited. Contractors might be idolised as being wealthy by local people which gives them an upper hand in negotiating for sex and participation in illicit affairs. Awareness raising within local communities and workers through Information, Education and Communication (IEC) and distribution of free condoms and counselling and treatment will help alleviate the impacts.

Required Mitigation Measures

The mitigation measures include:

- Education on Public health issues.
- Awareness raising within local communities and workers through Information, Education and Communication (IEC) and distribution of free condoms and counselling and treatment will help alleviate the impacts.
- Provision of toilets that are constructed in such a way that they cannot leak into water resources.
- Provision of potable water supply that will include the use of groundwater resources that can be used as a reference to the performance of the project surface water supply.

8.5.2.2 Potential Positive Impacts During Constructions/Operations Phase.

a) Economic Opportunities Employment (job creation)

The project area offers very limited economic opportunities beyond subsistence-based agriculture. The introduction of various beef and dairy value chains raises high expectations for employment and business opportunities which will bring about improvements to the standard of living of the communities.

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 Uganda.

Assessment of Impact

The communities in the sub-project areas can be considered to have **Low** sensitivity in that the economic opportunities that will most likely be available are small scale initiatives since the majority of the population is unlikely to have the skills or capital to set-up big businesses. A few will be able to set-up small initiatives that will increase their ability to earn some income.

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 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.

Required Enhancement Measures

The enhancement measures include:

- Set up favourable working relationships between the project PCU and the communities.
- Meet all promises.
- Endeavour for a win-win situation.
- Scout for skilled workers in the project area before hiring outsiders.

Table 8-25 Economic Opportunities and Improved Livelihoods

Impact on Economic Opportunities and Improved Livelihoods	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

8.5.3 Summary of the Magnitude of Potential Social Impacts

Table 8-26 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 Appendix 2:

- The intensity criteria (low, medium, high) examines whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment.
- The consequence criteria (low, medium, high) Combination of duration, extent, and intensity of impact in relation to the type.
- The Probability criteria (low, medium, high) describes the likelihood of the impacts actually occurring.
- The significance criteria (low, medium, high) determine the Synthesis of the characteristics of the rest of the criteria.

The final significance of the impacts depends on the duration of the impact and period when it occurs in the project life cycle, e.g. air pollution is given a low significance despite having a medium-high intensity because it occurs over a short period during the construction phase of the project.

Table 8-26 Magnitude of Potential Social Impacts

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY OR SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.5.1	PLANNING PHASE									
8.5.1.1	Potential Negative Impacts During Planning Phase.									
(a)	Poor project Inception/Introduction	1. Lack of transparency from the implementing Partners. 2. Lack of proper timelines for the different phases of the project. 3. Dragging the planning phase too long.	4. Anxiety and anticipation. 5. Limited cooperation. 6. Suspicion and hence concealing of important information.	Negative	4	3	2	1	10	7 Moderate Low
(b)	Limited and inadequate Stakeholder	7. Predominance of the top-down approach and just handing a project to	11. Low chances of success and sustainability. 12. Failure to take up	Negative	4	3	3	2	12	8

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY OR SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	Involvement	<ul style="list-style-type: none"> 8. Inadequate dissemination/sharing of information. 9. Unclear roles and responsibilities 10. Negative perception 	ownership of the project by the partners.						Moderate	Low
8.5.1.2	Potential Positive Impacts During Planning Phase.									
	Project as uniting centre (Project acceptance)	<ul style="list-style-type: none"> • The Swazi have a CULTURE of working together as a community for the benefit of everyone and will easily form clusters for the project, stakeholders fully support this community-based project 	<ul style="list-style-type: none"> • Community prepared to work together • Readily accepting the project concept • Youths are expecting to stop migrating to SA for employment. • High chances of success and sustainability. • Ready to take up ownership of the project by the partners. • Available for employment and partnerships. 	Positive	4	4	3	5	16	17
8.5.3	CONSTRUCTION/OPERATIONS PHASE.									
8.5.3.1	Potential Negative Impacts During Constructions/Operations Phase.									
(a)	Gender Based Violence	<ul style="list-style-type: none"> • Poverty which leads to women being exploited by men during construction phase. 	<ul style="list-style-type: none"> 13. Physical body harm 14. Lack of productivity 15. Communicable disease incidences 	Negative	5	5	5	3	18	13
									High	Moderate
(b)	Displacements or shifts	16. Fencing off the grazing lands for improved degraded land management.	<ul style="list-style-type: none"> 20. Removal/alteration of usual source of livelihood. 21. long-term hardship, 	Negative	4	4	1	4	13	7

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY OR SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	of livelihood activities (cattle grazing and hunting grounds)	17. Expansion of irrigation farmlands and construction of micro dams. 18. Construction of various agricultural value chain facilities – abattoir. 19. Cutting off the usual resources areas and areas normally used by local people (grazing lands, hunting grounds, etc blocked)	impoverishment, and social unrest among the affected community. 22. Migration to alternative livelihoods.						Moderate	Low
(c)	Occupational Health and Safety Issues	23. Weak technical capacity and/or negligence on operation of vehicles and machinery 24. Lack or inadequate use of safety gear may also contribute to accidents that may result in trauma and other casualties. 25. Weak security measures in the project area.	26. Temporary and permanent physical injuries. 27. Bronchial diseases from dust. 28. Loss of life	Negative	4	5	4	3	16 (High)	9 Low
(d)	Poor Public Health	29. Presence of contract workers from outside the area and interaction with locals. 30. Influx of people to the areas in search of employment opportunities. 31. Development of agriculture systems	32. Spread of communicable diseases such as HIV/AIDS. 33. Increase in the prevalence of water-borne diseases (intestinal and urinary bilharzia and malaria)	Negative	3	3	3	5	14 High	10 Moderate
8.5.2.2	Potential Positive Impacts During Constructions/Operations Phase.									
(a)	Economic Opportunities	• Improved cattle rearing approaches.	• improvement on their income generation.	Positive	4	4	3	4	15	16

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY OR SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	Employment (job creation)	<ul style="list-style-type: none"> Improved Agricultural practices. Availability of many small-scale initiatives. setting-up of businesses in the agriculture value chains. 	<ul style="list-style-type: none"> Improvement of livelihoods. maintained land output gain. capacitation on entrepreneurial skills. 						High	High

8.6 THE ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN (ESCMP)

The ESCMP provides guidelines for the management of potential environmental and social aspects at the project. The ESCMP also identifies parties responsible for monitoring actions, and any training or capacity building needs.

The ESCMP identifies mitigation measures to reduce present and potential impacts associated with the proposed project activities. In addition, mitigation measures are identified as either social or physical measures. Social mitigation measures include the measures used to mitigate effects such as noise, land use, and other effects to the human environment. Physical mitigation measures include measures that address impacts to the physical environment, such as biological communities, vegetation, air quality, and others.

Table 8-27 Environmental and Social Management Plan (ESCMP).

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
8.4	ENVIRONMENTAL IMPACTS					
8.3.1	PLANNING PHASE					
8.4.1 .1	<i>Potential Negative Impacts During Planning Phase.</i>					
(a)	<ul style="list-style-type: none"> Vegetation Clearing for cutlines resulting in Dust generation and soil erosion. 	<ul style="list-style-type: none"> Contractors to minimise cutline clearance as far as possible to reduce the potential for dust generation and other impacts. Contractors to implement dust suppression measures, which shall include Water sprinklers and covering moulds with nets. 	Contractors monitored by: <ul style="list-style-type: none"> Local Environment Officers. ReLIV SECAP specialist. Local Leadership. Beneficiaries. 	Environmental awareness training to local communities	Soil Erosion Control	Area of Rangelands, and wetlands rehabilitated and protected.
8.4.1 .2	<i>Potential Positive Impacts During Planning Phase.</i>					
(a)	None Identified					
8.4.2	CONSTRUCTION PHASE					
8.4.2 .1	<i>Potential Negative Impacts During Construction Phase.</i>					
(a)	<i>Ambient air pollution</i>					
	<ul style="list-style-type: none"> Pollution of air. Increases in bronchial disorders. Impaired Visibility on the roads. Disturbs normal developments of 	<ul style="list-style-type: none"> Beneficiary farmers must handle animal waste properly to avoid smell. Contractors should use dust screens 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP 	None	WHO hourly Total Suspended Particulates	WHO hourly Total Suspended Particulates

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> vegetation. Causes acid rain. 	<ul style="list-style-type: none"> or nets in windows, doorways, and ventilators of rooms where demolition or other dusty construction activities are occurring. Contractors must institute dust suppression measures at all sites which shall include covering soil mounds and spraying bare areas with water. Contractors must minimise site clearance as far as possible to reduce the potential for dust and other impacts. The local Environment officer monitor dust levels to maintain the WHO hourly Total Suspended Particulates (TSP) limit of 500 µg/m³ measured at 25°C and 101.325 kPa (one atmosphere) for construction dust impact assessment. 	<ul style="list-style-type: none"> specialist. Contractors Local Leadership. Beneficiaries. District Agriculture Office. 		(TSP) limit of 500 µg/m ³ measured at 25°C and 101.325 kPa (one atmosphere).	(TSP) limit of 500 µg/m ³ maintained..
(b)	Ambient Water pollution					
	<ul style="list-style-type: none"> Water quality will be impacted by wastewater discharges from construction activities including onsite sewage and rainwater run-off. Soil and water pollution resulting from the accumulation of solid and liquid waste. Soil and water pollution from chemicals & fertilizers meant for production. Water quality may be impacted by waste streams from abattoir. Littering and indiscriminate dumping of solid waste pollutes 	<ul style="list-style-type: none"> Contractors to erect proper sanitary facilities. - Toilets at convenient locations throughout the project area. Contractors to contain all oil leaks at workshops and surfaces by collecting in oil separators. Pollution from lubricants and other wastes to be avoided. Local Environmental Officer to enforce controlled disposal of wastes and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, use of cleaner technologies, proper storage of 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV specialist. Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	None	Local water pollution and effluent Discharge Standards must be strictly adhered to. SECAP Standard 2: Resource	Water quality improving in the watering points.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<p>land and water resources.</p> <ul style="list-style-type: none"> Poisoning of aquatic and inland ecosystems. Ecosystem's imbalance and destruction of flora and fauna 	<p>materials, awareness campaigns.</p> <ul style="list-style-type: none"> Beneficiary farmers must recycle waste and reused it as much as possible to avoid dumping in waterways. Polluted water shall be treated prior disposal to watercourse. Slaughterhouses must manage and pretreat their effluents before discharging into water ways. Facility owners must install oil and grease separators to collect rain runoff around workshops and parking areas. 			<p>efficiency and pollution prevention</p> <p>Water Quality Standards.</p> <p>Waste Management Standards</p>	
(c)	Soil Erosion					
	<ul style="list-style-type: none"> soil erosion occurring, ego close to watering points or rivers. 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. 	<ul style="list-style-type: none"> Contractors to establish appropriate containment measures for all operational areas and proper disposal of used lubricants. At any site, the contractor must institute soil erosion control measures (e.g., re-vegetation, reseeding of grasses, land preparation, terracing, use of gabions, stabilization of banks etc.) Contractors must restore the environment at borrow pits, sand and quarry stone abstraction sites. Contractors must ensure that all bare surfaces are revegetated, 	<p>ReLIV SECAP specialist assisted by:</p> <ul style="list-style-type: none"> Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	<p>Environmental awareness training</p>	<p>Soil Erosion Control</p>	<p>Are of land revegetated/ref orested.</p> <p>Number of erosion control structures installed.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>and re-grassed.</p> <ul style="list-style-type: none"> Contractors must minimize vegetation clearing to working areas only. Contractors must install soil erosion control structures like, gabions, contour ridges, swells and catch dams at all badly degraded areas in the sub-project areas. Farmers must use existing roads to access the fields and farm sites and employ drainage control measures and culverts to control natural runoff and overland flow. 				
(d)	<ul style="list-style-type: none"> Vegetation Clearing 					
	<ul style="list-style-type: none"> Vegetation Clearing for cutlines resulting in Dust generation and soil erosion. Vegetation clearing may occur during the establishment of the RELIV project as new infrastructure and pastures will be established. <ul style="list-style-type: none"> Preparation of land for Agriculture (Fodder Fields and pastures) Construction of Sheds, Cattle Pens, Warehouses, Construction of Abattoirs. etc 	<ul style="list-style-type: none"> Contractors to minimise cutline clearance as far as possible to reduce the potential for dust generation and other impacts. Contractors to implement dust suppression measures, which shall include Water sprinklers and covering moulds with nets. Project proponents to avoid Sensitive habitats such as Wetlands, stream banks, and mountain slopes. Contractors should limit vegetation clearing to working areas only, which include areas for foundations for structures, etc. Communities must conduct revegetation and reforestation (e.g., Planting grass, and trees as appropriate) throughout the project 	<p>Contractors monitored by:</p> <ul style="list-style-type: none"> Local Environment Officers. ReLIV SECAP specialist. Local Leadership. Beneficiaries. 	<p>Environmental awareness training to local communities</p>	<p>Soil Erosion Control</p>	<p>Area of Rangelands, and wetlands rehabilitated and protected.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>area.</p> <ul style="list-style-type: none"> End beneficiaries must be assisted to restore Habitats where effects have been caused e.g. re-grassing bare areas. The Local communities must be assisted to develop Catchment Management plans and then implement Sustainable Catchment management. 				
(e)	Temporary Visual Intrusions (Marred landscape)					
	<ul style="list-style-type: none"> Changing of the characteristics of the area and leaving a marred landscape due to construction of micro dams and water supply systems, Establishment of pasture farms, agricultural infrastructure, and other possible facilities and other possible facilities will 	<ul style="list-style-type: none"> Contractors should ensure minimum footprint of construction activities and provide decent accommodation for workers. All altered landscapes (Sand pits, borrow pits, brick moulding sites etc) should be rehabilitated by the contractor, i.e., filled and re-grassed. 	<p>ReLIV SECAP specialist assisted by:</p> <ul style="list-style-type: none"> Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	none	SECAP Standard 2: Resource efficiency and pollution prevention.	Number of borrow pits rehabilitated,
(f)	Solid waste nuisance					
	<ul style="list-style-type: none"> Pollution of soil and water resources Littering and indiscriminate dumping. Deterioration of the aesthetics of the areas. 	<ul style="list-style-type: none"> Environmental Specialist and Local environmental officers at District level must identify acceptable disposal sites. Contractors must collect all construction debris for proper disposal at designated landfills. Farmers must process waste from agricultural activities into other uses, e.g., organic manure. Reuse 	<p>Local Environment Officers assisted by:</p> <ul style="list-style-type: none"> ReLIV SECAP specialist Local Leadership. Beneficiaries. Contractors. District Agriculture Office. 	None	SECAP Standard 2: Resource efficiency and pollution prevention. Local Waste	No indiscriminate Dumping of Waste in the catchment.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>and recycling must be preferred over disposal of the waste.</p> <ul style="list-style-type: none"> • Abattoirs must establish proper treatment facilities for effluents from their operations. • May generate biogas from the waste by erecting Bio-gas digesters. 			Management Standards.	
(g)	Loss of natural and cultural heritage					
	<ul style="list-style-type: none"> • Natural features, antics and relics destroyed in the project area e.g., during excavations. 	<ul style="list-style-type: none"> • The project must conduct feasibility studies, fence out important sites, and introduce proper antiquity education programmes. • The project must come up with a Physical cultural resources' management plan. • The project must establish procedure for chance finds. • If any natural features, antics, and relics are encountered the contractors should stop trenching and the chance finds procedure be followed. 	<p>Museums Department assisted by:.</p> <ul style="list-style-type: none"> • ReLIV specialist. • Local Leadership. • Beneficiaries. • Contractors. • Local Environment Officers 	<p>Requirement of the National Monuments Act.</p>	<p>Local Museums Department standards to be adhered to.</p> <p>SECAP Standard 3: Cultural heritage</p>	<p>Number of Discovered and preserved monuments.</p>
(h)	Habitat loss and biodiversity disturbances.					
	<ul style="list-style-type: none"> • Noise and vibrations cause small wild animals to migrate, • contamination of the rivers may cause fish kills and destruction of other aquatic life, 	<ul style="list-style-type: none"> • Local Environment Officers must enforce the parks and wildlife law and the environment law, • Contractors must avoid contamination of soil and water. • The project must always provide for/reserve environmental flows. • Contractors must conduct Noisy operations at certain times of the day. Noise management measures are to be implemented and shall include maintenance of vehicles and 	<p>Local Environment Officers assisted by:</p> <ul style="list-style-type: none"> • ReLIV specialist. • Local Leadership. • Beneficiaries. • Contractors. • Museums Department. • District Agric. Officer, 	<ul style="list-style-type: none"> • Requirement of the Parks and Wildlife Act. • Conservation of natural resources 	<p>Noise levels below 55 dBA in the daytime.</p> <p>National Parks requirement</p> <p>SECAP</p>	<p>Noise levels maintained below 55 dBA in the daytime.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>equipment to run quietly, and avoidance of leaving engines running unnecessarily.</p> <ul style="list-style-type: none"> • Contractors must implement traffic management measures and travel speed of contractors and suppliers' vehicles must be restricted. • Farmers to conserve all the varieties of food, timber plants, microbes and agricultural plants. • Farmers to preserve unique ecosystems. • Local Environment Officers to curb poaching and hunting of wild animals by enforcing the Wildlife Act. • Local Environment Officers to manage the developments in the reserves and protected areas and ascertain that deforestation is strictly prohibited. • Local Environment Officers to ensure the conservation of the useful and endangered species of plants and animals in their natural as well as artificial habitats. • ReLIV SECAP specialist to create public awareness regarding biodiversity conservation and its importance. 			Standard 1: Biodiversity conservation	
8.4.2 .2	Potential Positive Impacts During Construction Phase.					
(a)	Rehabilitation of Fragile and Degraded Ecosystems					
	<ul style="list-style-type: none"> • environment protected and conserved. 	<ul style="list-style-type: none"> • Local Environment Officers to carry out Environmental Conservation 	Local Environment	Natural	SECAP	Area of land

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> • revegetation by planting required species. • Arrest the Erosion of mountain sides and steep slopes. • Prevent the Loss of natural ecosystems. • Rehabilitate and protect the upper reaches of the project site. 	<p>Measures in degraded sites of the project areas,</p> <ul style="list-style-type: none"> • Farmers to revegetate by planting grass, install gabions as necessary. • ReLIV SECAP specialist to oversee the re-routing and channelising drainage of water from the steep gradients to reduce gully formations, • Farmers to establish Soil erosion control measures (e.g., terracing, use of gabions, stabilization of banks etc) • The project to construct the gabions along the riverbanks where the project will abstract water to prevent loss of property as well as siltation of the river. • The project will encourage the use of stone pitching along the slopes to prevent soil erosion. 	<p>Officers assisted by:</p> <ul style="list-style-type: none"> • ReLIV SECAP specialist. • Local Leadership. • Beneficiaries. • District Agriculture Office. 	<p>resources conservation.</p> <p>Soil conservation works</p>	<p>Standard 1: Biodiversity conservation</p>	<p>restored/reforested.</p>
(b)	Revegetation					
	<ul style="list-style-type: none"> • In the process of establishing well managed degraded lands and fields the vegetation will be restored and enhanced. 	<ul style="list-style-type: none"> • The project will study and identify the correct indigenous plants that can thrive in the area. • The project will conduct deliberate exercise to revegetate the project area by re-grasses. 	<p>District Agriculture Office assisted by:</p> <ul style="list-style-type: none"> • ReLIV SECAP specialist. • Local Leadership. • Beneficiaries. • Local Environment Officers 		<p>SECAP Standard 1: Biodiversity conservation</p>	<p>Area of land revegetated/reforested.</p>
8.4.3	OPERATION PHASE					
8.4.3	Potential Negative Impacts During					

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
.1	Operation Phase.					
(a)	Soil Erosion					
	<ul style="list-style-type: none"> • Much less potential for soil erosion. • loose soil at livestock watering points and at the sides of levelled irrigation pipelines as well as roads on steep slopes will still be susceptible to erosion. • reduction in soil quality and the reduced water-holding capacity. • disruption of riparian ecosystems and sedimentation leading to reduced water quality. 	<ul style="list-style-type: none"> • End-Beneficiaries to revegetate and re-grass all bare surfaces, • End-Beneficiaries to minimize vegetation clearing to working areas only – fields under preparation. • End-Beneficiaries to install soil erosion control structures like, gabions, contour ridges, swells and catch dams. • End-Beneficiaries to establishment of grassed drainage systems to prevent erosion. 	<ul style="list-style-type: none"> • ReLIV specialist assisted by: <ul style="list-style-type: none"> • Local Environment Officers • Contractors • Local Leadership. • Beneficiaries. • District Agriculture Office. 	Environmental awareness training	Soil Erosion Control	<p>Are of land revegetated/reforested.</p> <p>Number of erosion control structures installed.</p>
(b)	Solid waste					
	<ul style="list-style-type: none"> • Less quantities of solid wastes generated include domestic wastes, plastics, animal carcasses, veterinary samples, and animal dung. 	<ul style="list-style-type: none"> • End-Beneficiaries to collect all solid waste in a systematic manner for disposal at designated landfills. • End-Beneficiaries to place waste collection bins at strategic positions throughout the project area. • Solid waste should never be burnt on site. • End-Beneficiaries to have a solid waste management plan and implement it • End-Beneficiaries to institute proper manure management at zero grazing sites and cowsheds preferably composting it into manure for application in the fields. • End-Beneficiaries to institute proper 	<ul style="list-style-type: none"> • Local Environment Officers assisted by: <ul style="list-style-type: none"> • ReLIV specialist. • Local Leadership. • Beneficiaries. • Contractors. • District Agriculture Office. 	<ul style="list-style-type: none"> • Environmental awareness training • Environmental awareness training 	<p>SECAP Standard 2: Resource efficiency and pollution prevention.</p> <p>Local Waste Management Standards.</p>	<p>No indiscriminate Dumping of Waste in the catchment.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>urine management in properly constructed pits which avoids discharge into the environment.</p> <ul style="list-style-type: none"> • End-Beneficiaries to reuse and recycle waste rather than disposing it. • Environmental Specialist must monitor any waste accumulations in the project area. • End-Beneficiaries may generate biogas from the waste by erecting Bio-gas digesters.. 				
(c)	Agro chemicals					
	<ul style="list-style-type: none"> • 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. 	<ol style="list-style-type: none"> 5. District Agriculture Office to encourage organic farming and limit the use of Agro chemicals like inorganic fertilizers. 6. Farmers to use integrated Pest Management approaches to minimize pesticide use. 7. ReLIV SECAP specialist to conduct awareness training & workshops on safe handling of chemicals. 8. Farmers to erect separate storerooms for all agro chemicals so that they are always under lock and key away from food staffs. 9. Farmers to use split application of fertiliser to avoid excess being washed away. Also to avoid application before major storms. 10. Farmers to desist from storing fertilisers, agrochemicals and food in the same sore room. 11. End beneficiaries to ensure that all 	<p>District Agriculture Office.</p> <p>assisted by:</p> <ul style="list-style-type: none"> • Local Environment Officers • ReLIV SECAP specialist. • Local Leadership. • Beneficiaries. • Contractors. 		<p>SECAP Standard 2: Resource efficiency and pollution prevention</p>	<p>Number of farmers employing organic farming.</p> <p>Number of farmers trained and using IPM approaches.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>their workers to use appropriate PPE every time.</p> <p>12. Farmers to use the least potent variants of pesticides to minimise poisoning.</p>				
(d)	<i>Effluent Discharges</i>					
	<ul style="list-style-type: none"> Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent e.g. from MCCs, MCPs, Milk processing plants, Abattoirs, laboratories, veterinary service centres, etc. 	<ul style="list-style-type: none"> Project beneficiaries to Install appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc Processing plants and factories to collect and channel all effluent to a properly constructed effluent treatment plant, which could be oxidation ponds, septic tanks or biogas digesters. Local Environment Officers to monitor the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards. 	<p>Local Environment Officers assisted by:</p> <ul style="list-style-type: none"> ReLIV specialist. Local Leadership. Beneficiaries. Contractors. District Agriculture Office. 	Operations of effluent waste treatment plants.	Local Effluent discharge standards.	<p>Number of treatment plants erected.</p> <p>Quality of Effluent being discharged.</p>
(e)	<i>Ambient Water pollution</i>					
	<p>13. Oil and grease leaks and spills prevalent in most work areas like the farm sheds.</p> <p>14. Leaks can be washed into water ways and end up polluting the water resources.</p>	<p>15. Establishments to contain all oil leaks at workshops and surfaces.</p> <p>16. Beneficiaries to maintain all vehicles and equipment to avoid oil and grease leaks.</p> <p>17. Beneficiaries to Install oil and grease separators to collect rain runoff around workshops and parking areas.</p>	<p>Local Environment Officers assisted by:</p> <ul style="list-style-type: none"> ReLIV specialist. Local Leadership. Beneficiaries. District Agriculture Office. 	Operations of effluent waste treatment plants.	Local Effluent discharge standards.	<p>Number of treatment oil separators erected.</p> <p>Quality of Effluent being discharged.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
(f)	Animal Health and welfare.	•				
	<ul style="list-style-type: none"> • Disease outbreaks. • Uncontrolled Spread of diseases. • Spread of animal disease to humans • Improper structures for zero grazing systems. • Confining the animals to small spaces 24/7 	<ul style="list-style-type: none"> • Local Veterinarians to contain all disease out-breaks in as short time as possible. • MAAIF to spearhead the implementation of the one health approach to curb spread of diseases (in collaboration with Ministry of Health). • MAAIF to Strengthen Biosecurity in the beef and dairy industry by instituting all disease preventive measures. • MAAIF to institute the five measures of biosecurity i) bio-exclusion, (ii) bio-compartmentalization, (iii) biocontainment, (iv) bio-prevention, and (v) bio-preservation, • Beneficiaries to construction of Proper Zero grazing structures with enough room space for resting to prevent animals from standing for long periods. • Beneficiaries to afford the animals time to freely walk around or even taking them for a walk. 	District Agriculture Office assisted by: <ul style="list-style-type: none"> • ReLIV SECAP specialist. • Local Leadership. • Beneficiaries. • Local Environment Officers 	Disease control and surveillance	SECAP Standard 2: Resource efficiency and pollution prevention. Local Waste Management Standards. Animal welfare and management.	Rate at which disease outbreaks are contained. Success of preventing diseases
(g)	Waste Generation and Biosafety issues at Artificial Insemination (AI) centres and Veterinary Labs.	•				
	The AI activities will generate different kinds of waste requiring different kinds of handling. The generated effluent has potential to pollute the soil and	<ul style="list-style-type: none"> • AI Centres to handle all waste streams appropriately, and effluents should be channelled to waste stabilization/treatment ponds. 	ReLIV SECAP specialist with the assistance of <ul style="list-style-type: none"> • Local Leadership • Beneficiaries 	Training on Hazardous Waste Management.	SECAP Standard 2: Resource efficiency and	Access to Incinerator services by veterinarians.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<p>water resources, but also contaminate gene pools and affect human and animal health.</p> <ul style="list-style-type: none"> • These stations will handle blood samples, e.g., during diseases outbreaks and these have to be disposed of properly. 	<ul style="list-style-type: none"> • AI centres should segregate Waste at source: there is need for accurate and complete labelling and safe storage, transport, treatment and disposal of wastes. Wastes should be segregated, and mixing avoided where possible, as unexpected reactions may occur. • AI centres should minimize waste generation where possible. Waste chemicals and solvents will be stored in suitable areas whilst awaiting collection and must not be accumulated. Regular disposal from the laboratories must be part of the laboratory OHS program. • AI centres should designate a separate residue container for any one particular type of waste which will be generated in large amounts. The container must be leak-proof and there should be no spillage on the exterior of the container. • AI centres should provide Personal Protective Equipment (PPE) for normal laboratory operations and for handling any chemical waste. • All researchers, veterinarians at AI and VET labs should adhere to biosafety regulations. • AI and VET centres should have easily accessible incinerators preferably on site, • The Veterinarians should incinerate 	<ul style="list-style-type: none"> • Contractors • Local Environment Officers 		<p>pollution prevention.</p> <p>Local Waste Management Standards.</p>	

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		all blood and other samples especially from disease outbreak surveys.				
8.3.3 .2	Potential Positive Impacts During Operation Phase.					
(a)	Revegetation					
	18. planting of grass and continuous rehabilitation of the open lands.	19. The project is to identify the correct indigenous plants that can thrive in the area. 20. The project is to conduct deliberate exercise to revegetate the project area by re-grasses.	District Agriculture Office assisted by: <ul style="list-style-type: none">• ReLIV SECAP specialist.• Local Leadership.• Beneficiaries.• Local Environment Officers			Hectares revegetated
8.4	SOCIAL AND HEALTH IMPACTS					
8.4.1	PLANNING PHASE					
8.4.1 .1	Potential Negative Impacts During Planning Phase.					
(a)	Poor project Inception/Introduction					
	<ul style="list-style-type: none"> • Anxiety and anticipation Limited cooperation • Suspicion and hence concealing important of information. • Inadequate planning, implementation taking too long to start, unclear information resulting in anxiety and fear of possible losses • 	<ul style="list-style-type: none"> • Project to develop an appropriate Action Plan with realistic timelines using a Problem Driven Iterative Adaptation Approach • ReLIV to make sure that the planning phase should not drag for far too long as people tend to lose despair. • ReLIV SECAP specialist to review and update the Stakeholder Engagement Plan 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office. 	<ul style="list-style-type: none"> • Problem Driven Iterative Adaptation Approach • Team Building • SEP implementation • GRM implementation 	SECAP	<ul style="list-style-type: none"> • Reviewed Stakeholder Engagement Plan • Stakeholder Engagement reports • Participatory Action Plan developed. • GRM

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> • ReLIV SECAP specialist to engage stakeholders continuously as per Stakeholder Engagement Plan (SEP) • ReLIV SECAP specialist to communicate project strategy clearly and demonstrate how it is different and how it will produce different and positive outcome including roles and responsibilities and available opportunities to all concerned stakeholders including marginalised groups, herders, women and youths. • ReLIV SECAP specialist to avail free and accessible Grievance Redress Mechanism (GRM) for everyone to have a channel to air their views and grievances 		n		Schedule of issues reported and solved
(b)	Limited Stakeholder Involvement and Capacity to manage project Risks.					
	<ul style="list-style-type: none"> • Low chances of success and sustainability • Failure to take up ownership of the project. • Limited capacity within the PMU in handling SECAP requirements, including in relation to requirements on establishing and maintaining a functional grievance redress mechanism 	<ul style="list-style-type: none"> • ReLIV SECAP specialist to conduct annual training of all staff on SECAP requirements. • ReLIV PMU to conduct a comprehensive participatory stakeholder mapping exercise including roles and responsibilities. • ReLIV PMU to Timeously disseminate information and to target 'buy in' at decision making level. • ReLIV PMU to adequately consult affected persons on decisions that affect their livelihoods and well-being 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office. 	<ul style="list-style-type: none"> • Team building • Social, Environmental and Climate Assessment Procedures: • ESCMP implementation and monitoring, SEP, GRM and other social management plans 	SECAP	Social Safeguard Specialist recruited. Training workshops held annually.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>and to fully inform them of their options and the compensation rates.</p> <ul style="list-style-type: none"> • ReLIV SECAP specialist to develop Grievance redress mechanisms and make sure they are accessible. 				
(c)	Elite Capture and Power Relations					
	Too influential members of the community and political influence that may result in unequal access to resources and projects benefits	<ul style="list-style-type: none"> • ReLIV SECAP specialist to Conduct an inclusive and transparent stakeholder engagement process to identify and determine different players and their influence on the project, and in the community. • ReLIV SECAP specialist to Rein in the most influential members and assign them with some responsibility as a way of subduing them and removing the elitism mentality. • ReLIV Project to Capacitate district/local staff in appropriate community communication and facilitation skills in order to manage the community socio-political processes 	<p>ReLIV SECAP specialist assisted by:</p> <ul style="list-style-type: none"> • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office. 	Community level communication for effectiveness	None	<ul style="list-style-type: none"> • Reviewed Stakeholder Engagement Plan • GRM Schedule of issues reported and solved. • District and local staff capacitated in community engagement
8.4.1.2	Potential Positive Impacts During Planning Phase.					
(a)	Stakeholder Scepticism, Expectations, Anxiety, Fear of Exclusion and Loss (Project acceptance)					
	<ul style="list-style-type: none"> • Community prepared to work together. • Readily accepting the project 	34. ReLIV SECAP specialist to enhance Community Participation in the project.	ReLIV SECAP specialist assisted by:	<ul style="list-style-type: none"> • Problem Driven Iterative 	SECAP	<ul style="list-style-type: none"> • Reviewed Stakeholder Engagement

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<p>concept</p> <ul style="list-style-type: none"> Youths are expecting to stop migrating to SA for employment. High chances of success and sustainability. Ready to take up ownership of the project by the partners. Available for employment and partnerships. 	<ul style="list-style-type: none"> Beneficiaries to prefer participating stakeholders for employment in the project, ReLIV to use bottom-up approaches for project planning so as to involve the potential partners effectively. The Project to provide potential skills development for the local youths in the farming sector. ReLIV SECAP specialist to continuously consult and inform dissemination for the stakeholders to keep abreast with the project. ReLIV SECAP specialist to avail the Grievance redress mechanisms for everyone to have a channel to air their views and grievances. 	<ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	<p>Adaptation Approach</p> <ul style="list-style-type: none"> Team Building SEP implementation GRM implementation 		<p>Plan</p> <ul style="list-style-type: none"> Stakeholder Engagement reports Participatory Action Plan developed. GRM Schedule of issues reported and solved
8.4.2	CONSTRUCTION/OPERATIONS PHASE					
8.4.2.1	Potential Negative Impacts During Constructions/Operations Phase					
(a)	Gender Based Violence					
	<ul style="list-style-type: none"> Physical body harm. Lack of productivity. Communicable disease incidences. 	<ul style="list-style-type: none"> ReLIV to institute Zero tolerance to gender-based violence ReLIV to ensure sexual harassment Policy at all levels involved in the project. ReLIV to disseminate and educate on sexual harassment policy at all levels of the project and ensure Zero tolerance to Gender-Based Violence in accordance to national policy as well as IFAD/GEF ZERO tolerance 	<p>ReLIV SECAP specialist assisted by:</p> <ul style="list-style-type: none"> Local Leadership. Local Environment Officers 	<p>Gender Based Violence, Sexual Harassment and abuse.</p>	<p>National and SECAP</p>	<ul style="list-style-type: none"> Community and stakeholders educated on GBV management Reduction of GBV cases Women getting first

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>policy on sexual exploitation and abuse</p> <ul style="list-style-type: none"> • ReLIV to ensure women get employment in the project at the same level and with the same payment as men (consider a gender quota of at least one-third (1/3) female as per national policy) • ReLIV and its sub-projects to give priority in staff recruitment to households headed by women and that are particularly vulnerable. • ReLIV SECAP specialist to avail free and accessible Grievance Redress Mechanism (GRM) for everyone to have a channel to air their views and grievances. 				<p>priority in employment within the wetland.</p> <ul style="list-style-type: none"> • GRM schedule of GBV cases reported and solved
(b)	<i>Displacements or shifts of livelihood activities</i>					
	<p>35. Usual routes closed. 36. Long routes in use - women, the elderly and school children affected. 37. Removal/alteration of usual source of livelihood. (Cattle grazing and hunting grounds) 38. long-term hardship, impoverishment, and social unrest among the affected community. 39. Migration to alternative livelihoods.</p>	<ul style="list-style-type: none"> • Project proponents to relocate the footpaths and construct foot bridges where possible. • ReLIV to create alternative sources of livelihood e.g., by involving the affected parties in the scheme. • ReLIV to conduct a participatory Vulnerability and Risk Assessment involving the communities through their leadership. • ReLIV to explore alternative livelihood approaches in close consultation with the community. • ReLIV to provide capacity building to communities in accordance with the capacity gaps identified during the Vulnerability and Risk Assessment process. 	<p>ReLIV SECAP specialist assisted by:</p> <ul style="list-style-type: none"> • Local Leadership. • Local Environment Officers • District Agriculture Office. 	<ul style="list-style-type: none"> • Alternative livelihoods • New farming technologies • Entrepreneurial technical and financial management skills 	FPIC	<ul style="list-style-type: none"> • Alternative livelihoods created. • Vulnerability and Risk Assessment report • Affected communities compensated

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> ReLIV to provide capacity building for extension services staff who interact with community on day-to-day basis for continued assistance e.g., Veterinary services should be improved to assist farmers in alternative animal husbandry including vaccination. 				
(c)	<i>Conflicts between local people and external work force</i>					
	<ul style="list-style-type: none"> Conflict over employment opportunities Conflict over relationships. Conflict over available resources Local community especially the youth will have high hopes of being employed in various project activities ahead of external people. 	<ul style="list-style-type: none"> End beneficiaries to give first preference for employment to locals, including for technical work. End beneficiaries to encourage migrant workers to bring their spouses along. ReLIV to conduct a local skills audit and try to integrate both local and outside workers but giving first preference to locals. ReLIV to target skills development for locals especially willing youths as part of giving back to community, the project can. ReLIV to use the Labour assessment and management procedures (LA/MP) prepared for mitigation of labour related risks and impacts 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	None	National Labour laws and ILO requirements.	<ul style="list-style-type: none"> Skills audit conducted. Youth skills development report
(d)	Occupational Health and Safety Issues					

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	40. Temporary and permanent physical injuries. 41. Bronchial diseases from dust. 42. Loss of life	<ul style="list-style-type: none"> • A Health/Safety/Environment officer should be present during construction. • All safety precautions must be enforced. • End beneficiaries to provide PPE to all workers. • End beneficiaries to institute dust and noise suppression measures. • ReLIV SECAP specialist to create awareness on occupational health and safety as part of other capacity building initiatives which will be carried out during the project. 	Health Dept assisted by:, Social safeguards consultant <ul style="list-style-type: none"> • (RELIV PCU). • ReLIV SECAP specialist. • Local Leadership. • Local Environment Officers 	Application of various types of PPE and their proper use. Occupational Health and Safety.	National, ILO and SECAP	<ul style="list-style-type: none"> • Engagement reports on community-based resource management • Workshop reports on occupational health and safety • PPE provided for wetlands working personnel. • Monitoring reports
(e)	Poor Public Health					
	43. Spread of communicable diseases such as HIV/AIDS. 44. Increase in the prevalence of water-borne diseases (intestinal and urinary bilharzia and malaria)	<ul style="list-style-type: none"> • ReLIV SECAP specialist to provide education on Public health issues. • Local Environment Officers to provide awareness raising within local communities and workers through Information, Education and Communication (IEC) and distribution of free condoms and counselling and treatment will help alleviate the impacts. • Project proponents to provide toilets that are constructed in such a way that they cannot leak into water resources. • Project proponents to provide potable water supply that will include the use of groundwater resources that can be used as a reference to the performance of the project surface water supply 	Health Dept assisted by:, Social safeguards consultant <ul style="list-style-type: none"> • ReLIV SECAP specialist. • Local Leadership. • Local Environment Officers 	HIV/AIDS and related communicable diseases		Clinical reports in project areas.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
(f)	Women and Youth Participation					
	Limited Women and Youth Participation due to unequal power relations and mismanaged natural resources.	<ul style="list-style-type: none"> • ReLIV SECAP specialist to prepare a Gender Action Plan (GAP) for the project implementation phase, to address the gender issues identified. • Project Proponents will be encouraged to prioritise Youth engagement through creation of lucrative opportunities along the value chains. 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> • Local leadership, • Local community • Local Environment Officers • Local Agricultural Officers 	Gender Mainstreaming and youth Inclusion	National and SECAP	Gender and Youth Action Plan produced and implemented
(g)	Child Labour					
	Use of child labour in project activities	<ul style="list-style-type: none"> • ReLIV SECAP specialist to disclose Child protection laws through awareness creation and education to prevent the use of child labour in project activities. • ReLIV SECAP specialist to Monitor Child labour throughout the project through a participatory surveillance and control system. 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> • Local leadership, • Local community • Local Environment Officers • Local Agricultural Officers 	Monitoring Child labour	ILO	No of cases reported and addressed
(h)	Loss of Cultural and Geological Heritage					
	Loss of cultural heritage due to construction and development in the lake area	<ul style="list-style-type: none"> • Local Environment Officers to Create awareness on the importance of preserving the landscape and its associated cultural and geological heritage, its beauty and identity. • In the case of Chance Finds, the contractor has to immediately contact the office responsible for cultural heritage for guidance through the PMU local and national office. 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> • Local leadership, • Local community • Local Environment Officers • Local Agricultural Officers 	Preservation of cultural and geological heritage	National Standards	<ul style="list-style-type: none"> • Awareness raising sessions held with stakeholders. • Documentati on on special vegetation that need to be preserved

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
						for cultural preservation. • Chance Finds report
8.4.2.2	Potential Positive Impacts During Constructions/Operations Phase.					
(a)	Economic Opportunities Employment (job creation)					
	<ul style="list-style-type: none"> improvement on their income generation. Improvement of livelihoods. maintained land output gain. capacitation on entrepreneurial skills. 	<ul style="list-style-type: none"> ReLIV to set up favourable partnership agreements. ReLIV to meet all promises. ReLIV to endeavour for a win-win situation. 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Local Environment Officers District Agriculture Office. 	<ul style="list-style-type: none"> Entrepreneurial approaches. Good animal Husbandry Commercial farming approaches. 	<ul style="list-style-type: none"> ILO labour requirements 	<ul style="list-style-type: none"> Number of Jobs created by the project.
8.4.3	CLIMATE IMPACTS					
(a)	Vulnerability to climate change and variability					
	The wetland areas are highly vulnerable to climate change and variability, mainly through increased temperatures and alterations in rainfall patterns.	<ul style="list-style-type: none"> ReLIV PMU will adopt climate smart technologies such as sustainable land management, conservation, and restoration of forests ecosystems etc to reduce GHG emission and sequester carbon in the project area. Farmers/Communities will be encouraged to reduce livestock numbers and use improved breeds. ReLIV SECAP specialist will train communities in more efficient application of fertilizers, minimising the use of synthetic fertilisers and 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> Local leadership, Local community 	Effects of Climate Change and Variability	CSA GAP	<ul style="list-style-type: none"> No of Climate smart technologies implemented . No of farmers reducing their herd No of farmers practicing good

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>better manure management to reduce GHG emissions.</p> <ul style="list-style-type: none"> Communities and the PMU must Use cover crops over the winter to keep carbon in the soil. 				agricultural practices
(b)	Availability of Water.					
	Availability of Water affecting agriculture and aquatic habitats in the project areas	<ul style="list-style-type: none"> ReLIV PMU to plant/promote different vegetation types/fodder crops in different habitats according to the water level. ReLIV PMU to invest in water supplies through boreholes, shallow wells, small dams, and other water harvesting techniques. 	<p>ReLIV SECAP specialist with the assistance of:</p> <ul style="list-style-type: none"> Local leadership, Local community 	Effects of wetlands in water retention, flood control and subsequent slow water release.	Standard water harvesting techniques.	Landscape transformation

9. INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

9.1 INTRODUCTION

The Lead Implementing Agent for the ReLIV project will be MAAIF-DAR, with the assistance of ReLIV PMU and various other institutions which will be playing different roles. It is important that these institutions be capable of carrying out the ESCMF recommendations. Thus, the following is an outline of the institutional arrangements for implementing the project and the SECAP requirements in particular. The Chapter also outlines the capacity building and training needs that were identified for the implementing partners of the ReLIV project, to enhance their environmental and social management capacity. Table 9-1 outlines the responsibilities of different institutions for ReLIV implementation.

Table 9-1 Responsibilities for Implementation of Different ReLIV Activities

ESMF PROCEDURE	ACTIVITY	IMPLEMENTING AUTHORITY
Screening of sub-projects	<ul style="list-style-type: none"> Establishing eligibility of sub-project for categorisation Categorisation of sub-projects 	<ul style="list-style-type: none"> ReLIV PMU. NEMA
ESIAs	Preparation of Abbreviated ESIA, reports for Category 3 / Substantial Risk (IFAD's SECAP 21)	Independent Consultants
	Disclosure of ESIAs	<ul style="list-style-type: none"> IFAD ReLIV PMU
	Review and approval of ESIA, Site Specific ESCMP reports	<ul style="list-style-type: none"> ReLIV technical Review Panels NEMA IFAD
	Implementation of ESCMP	<ul style="list-style-type: none"> ReLIV PMU SECAP Specialist Beneficiary communities
	Project Compliance Monitoring on site	<ul style="list-style-type: none"> ReLIV PMU SECAP Specialist IFAD's ECC Officer
Environmental and Social Audits	Once every two years for Category 3 / Substantial Risk (IFAD's SECAP 21)	Independent Consultants
Reporting	Submission of environmental, social performance reports to IFAD	ReLIV PMU
Grievance Redress Mechanism	<ul style="list-style-type: none"> Grievance receipt, evaluation, resolution and communication with complainant. Referral of grievance to higher levels when the need arises. 	ReLIV Grievance Redress Committee

9.2 IMPLEMENTATION ARRANGEMENTS.

Agricultural programmes cut across several sectors, and thus requires multi-sectoral and integrated solutions to Implement them. They call for the participation of multiple stakeholders and strong coordination mechanisms. However, to keep the institutional arrangement simple a single Project Management Unit (PMU) at the Ministry of Agriculture (MAAIF) will spearhead the implementation of the entire Project. MAAIF will establish a Project Steering Committee (composed of representatives of other relevant ministries and private sector organisations that will provide overall strategic direction and ensure coordination among sectors.

MAAIF will establish a lean project management unit (PMU) with competitively recruited staff, to be responsible for coordination of the agencies involved in implementation of the project. The PMU will handle core functions of coordinating the overall implementation and implementing partners focusing on: Financial Management; Procurement; Monitoring, Evaluation and Learning.

Actual implementation will be undertaken by MAAIF’s Directorate of Animal Resources, DDA, NAGRC & DB, and NARO, under the coordination of the PMU. MoUs will be signed with each of these agencies, specifying responsibilities and roles to be played. The PMU will ensure that these agencies conduct joint planning and review sessions, to ensure harmonisation in implementing the different components.

The project, where relevant, will collaborate with some private sector entities, NGOs, farmers’ cooperatives and Local Governments to deliver project services to the targeted farmers. Thus, ReLIV will receive support from various national institutions who will offer their expertise in support of ReLIV activities from as early as the design stage, through to the implementation stage (Figure 9-1).

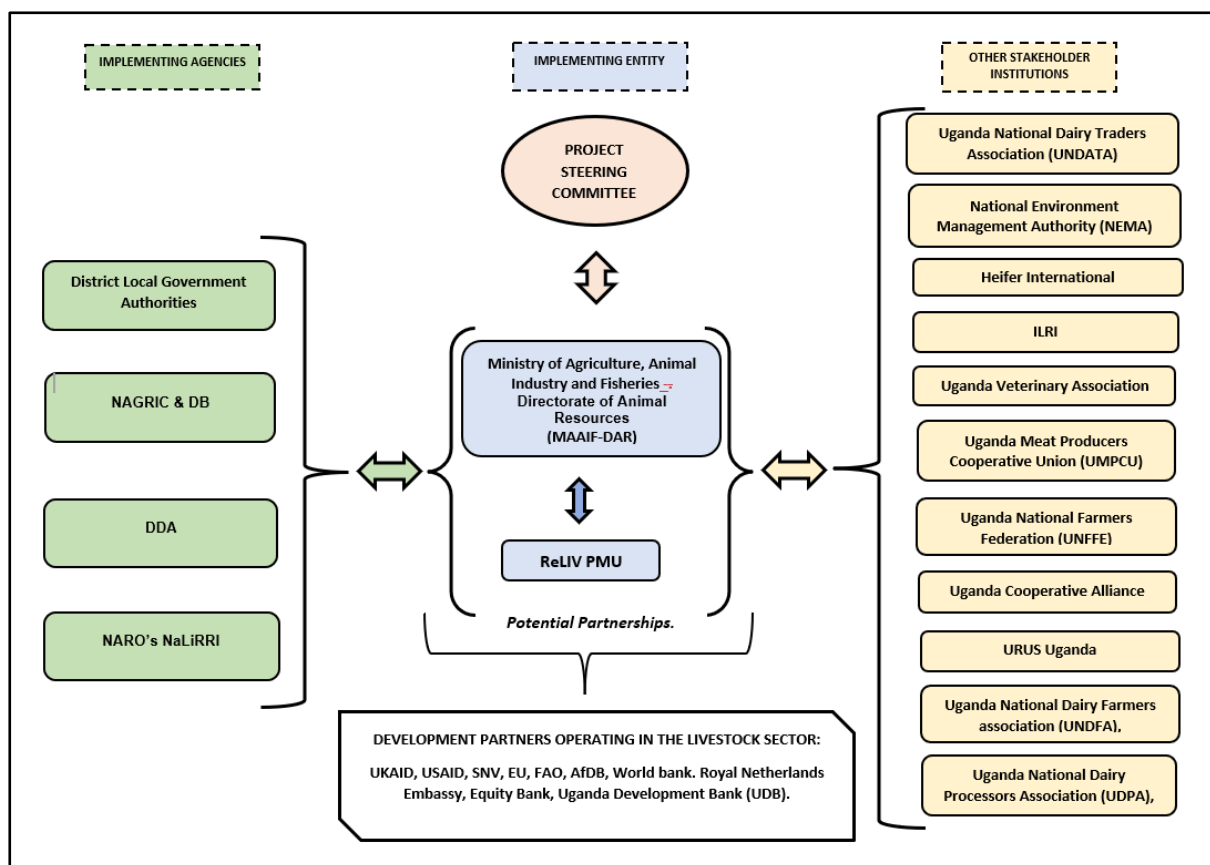


Figure 9-1 Implementation Arrangements.

The main support institutions include, DDA, NAGRC & DB, NARO – NaLIRRI, National-Animal Disease Diagnostic Centre (NADDEC), National Environment Management Authority (NEMA), District Local Government Authorities. The benefiting communities, with the assistance of the ReLIV PMU and MAAIF-DAR will oversee sustainable use of project infrastructure such as water and ensure enforcement of legal requirements, including compliance with the ESCMF. The National Environment Management Authority (NEMA) will also monitor compliance, during construction, the operational phase and post project period. IFAD will take responsibility for monitoring the environmental and social performance of ReLIV, both through the compliance reports that will be submitted by the ReLIV PMU as well as through its review missions that will evaluate actual progress on the ground.

9.3 CAPACITY BUILDING NEEDS

The implementing partners for the ReLIV project must be provided with appropriate training and awareness to enable them to successfully implement and monitor the Environmental, Social and Climate Management Framework (ESCMF) together with its environmental and social management plans (ESMPs).

Currently there is little capacity within MAAIF to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the proposed agricultural activities of ReLIV.

i. National Level

ReLIV District Technical Committees will be responsible for completing the Environmental and Social Screening Form (Appendix 1) to be able to identify and mitigate the potential environmental and social impacts of rolling out the various beef and dairy value chains. MAAIF-DAR /ReLIV PMU will review the recommendations from the districts and undertake the process of seeking the approval of the Site Specific ESCMPs through the EIA Department of National Environment Management Authority (NEMA). In addition, strategic decisions on the direction of rolling out the project chains 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:

- ReLIV PMU Staff
- MAAIF staff
- National Environment Management Authority (NEMA)
- District Local Government Staff
- NAGRIC & DB staff
- DDA Staff
- NARO Staff
- ReLIV Steering Committee
- Other collaborating institutions.

ii. District (Local) Level

At District and local level, the groups that will receive environmental and social training include the following:

- the Association members.
- individual farmers.
- Extension workers in project impact areas.
- District environmental officers.

- District agricultural extension officers.

9.4 TRAINING REQUIREMENTS

The proposed ReLIV project activities will be numerous and challenging and will require knowledgeable professionals for successful implementation. Thus, regular short and tailor-made training courses and seminars will be required to reinforce the capacity and skills of the stakeholders and farmers during the entire project period. Training activities and target groups are presented in Table 9-2 below.

9.4.1 Capacity building needs for RELIV Partners.

The key experts from the RELIV implementation partners 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 RELIV PMU so that they can offer their services from an informed position.

9.4.2 Capacity Building needs for RELIV PMU

The RELIV PMU will be responsible for the day-to-day environmental, social and climate interactions on the ground. It is therefore important that the capacity within the RELIV PMU 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 sub-projects.

9.4.3 Capacity Building needs for beneficiary communities

The training needs for the 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 District Development Committees as well as the management structures for each benefiting association, depending on the stage at which the sub-project activities are at.

9.4.4 Necessary training to support business farming:

RELIV PMU, in collaboration with the MAAIF and other strategic partners, will continue to sensitise beneficiary communities (Fodder and Feed producers, Fodder seed producers, Beef and Dairy associations and farmers) in using technological advancements to improve productivity and quality of produce.

9.4.5 Training on business management.

RELIV PMU will provide capacity building for beef, 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.

8.4.6 Training on the use and interpretation of early warning systems.

RELIV PMU, in collaboration with the Meteorological Services 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.

9.4.7 Training of all farmers on watershed management issues

Every Beef and Dairy farmer is key in ensuring compliance with the ESCMP 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 ReLIV 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.

9.4.8 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.

9.4.9 Social and psychosocial support for RELIV communities

RELIV PMU 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.
- Prepare communities for the culture shocks through sensitisation sessions and training.
- Establish structures for the control and resolution of conflicts related to the impacts of RELIV on family fabric.

9.4.10 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 such as COVID-19.

9.5 SUMMARY OF TRAINING REQUIREMENTS.

Table 9-2 provides a summary of the training needs for the ReLIV including the target groups and trainers for each training activity and its cost estimates:

Table 9-2 Environmental and Social Training

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
1.	<p>High Level Environmental, Social and Climate Risks and Impacts of ReLIV.</p> <ul style="list-style-type: none"> • ReLIV and linkage to SECAP policies. • Typical issues. • Mitigation requirements. • Management plans. • Monitoring requirements. • Management review. • Budgeting for E&S risk management. • early warning systems. • health, safety, and environmental quality. 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Participating Ministries, Departments and Directorates. • EIA Department (NEMA). • ReLIV coordinator and management. • Sub-project management. • Other collaborating institutions. <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) • <u>Private Consultant</u> 	<ul style="list-style-type: none"> • 30 high level decision makers, managers, coordinators trained 	<p>One session during the entire project period</p> <p>Length: 1 day</p> <p>Total cost: \$ 15,000.00</p>

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
2.	<p>Environmental and Social Impact Assessment of the Projects:</p> <ul style="list-style-type: none"> • Screening process. • Use of checklists. • Preparation of terms of reference. • Identification of Impacts. • ESIA report preparation and processing. • Policies and laws in Uganda. • IFAD safeguard policies • early warning systems • health, safety and environmental quality 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • District Agriculture Office Team • District Environment Units • Extension workers in project impact areas. <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) • Private Consultant 	<ul style="list-style-type: none"> • 10 members of District Agriculture Office Team are trained. • 10 District Environment Units members are trained. • 10 Extension workers in project impact areas trained. 	<p>Three sessions during the entire project period</p> <p>Length: 5 days per session</p> <p>Total cost: \$ 12,000.00</p>
		<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Cascading training to lower levels: <ul style="list-style-type: none"> ○ Associations/cooperatives/farmers. ○ The rest of the District Forestry staff ○ District Councils and Extension workers <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) 	<ul style="list-style-type: none"> • 30 members of the Associations/cooperatives/farmers. • 30 Extension Workers • 10 District Council/Extension workers 	<p>Four sessions during the entire project period</p> <p>Venue: In project areas</p> <p>Length: 5 days per session</p> <p>Total cost: \$14,000.00</p>
3	<p>Watershed and Rangelands Management</p> <ul style="list-style-type: none"> • Rehabilitation of mountain sides and gullies. • Reforestation/revegetation. • Control of Alien Invasive Species. • General Catchment management. • 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • District Agriculture Office Team • District Environment Units • Extension workers in project impact areas. <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) 	<ul style="list-style-type: none"> • 10 members of District Agriculture Office Team are trained. • 10 District Environment Units members are trained. • 10 Extension workers in project impact areas trained. 	<p>(Three sessions during the entire project period)</p> <p>Length: 5 days per session</p> <p>Total cost: \$ 15,000.00</p>

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
		<ul style="list-style-type: none"> • Private Consultant <p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Cascading training to lower levels: <ul style="list-style-type: none"> ○ Associations/cooperatives/farmers ○ The rest of the District Agriculture staff ○ District Councils and Extension workers <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) 	<ul style="list-style-type: none"> • 30 members of the Associations/cooperatives/farmers • 30 Extension Workers • 10 District Council/Extension workers 	<p>(Four sessions during the entire project period)</p> <p>Venue: In project areas</p> <p>Length: 5 days per session</p> <p>Total cost: \$14, 000.00</p>
4.	<p>Facilitate Gender, HIV/AIDS awareness</p> <ul style="list-style-type: none"> • Impacts of HIV/AIDS on social wellbeing, livelihood and projects • Mitigation measures • Sensitisation on GBV/SEA • Care of victims • Social and psychosocial support 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Extension workers in project impact areas • Associations/cooperatives/farmers. <p>TRAINER:</p> <ul style="list-style-type: none"> • National Aids Council (NAC) • Private Consultant 	<ul style="list-style-type: none"> • 10 Extension workers in project impact areas trained. • 30 Cluster members/Farmers trained 	<p>TO USE NAC RESOURCES</p> <p>Two sessions during entire project period</p> <p>Venue:</p> <p>Length: 5 days</p> <p>Total cost: \$9, 500.00</p>
5.	<p>Water Management</p> <ul style="list-style-type: none"> • Water resources management. • Water for livestock. • Water quality management. • Water rights 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Extension workers and Farmers <p>TRAINER:</p> <ul style="list-style-type: none"> • Private Consultant 	<ul style="list-style-type: none"> • 10 Extension Workers • 30 Farmers from various trial farms trained 	<p>Four sessions during the entire project period</p> <p>Venue: Farms</p> <p>Length: 5 days per session</p> <p>Total cost: \$ 9,000.00</p>

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
6.	<p>Crop Management</p> <ul style="list-style-type: none"> • Fodder management. • Cropping calendar. • How to apply fertilizer. • Use of organic manure / compost. • Weeding. <p>Crop harvesting & storage.</p>	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Extension workers and Farmers. <p>TRAINER:</p> <p>Private Consultant.</p>	<ul style="list-style-type: none"> • 10 Extension Workers • 30 Farmers from various trial farms trained 	<p>(Four sessions during the entire project period)</p> <p>Venue: Farms</p> <p>Length: 5 days per session</p> <p>Total cost: \$ 9,000.00</p>
7.	<p>For Agricultural activities - Pesticide Management</p> <ul style="list-style-type: none"> - Pesticide Types and Use. - Packaging, labelling and Handling. - Storage, Stacking and Release. - Pesticides Record Maintenance. <p>Pesticides Application and Disposal</p> <ul style="list-style-type: none"> • Types and Handling of Equipment. • Pesticides Toxicity. • Safety of Applicators (OSHA). <ul style="list-style-type: none"> ○ First Aid. ○ Care, Cleaning and Disposal of Pesticides and Equipment. <p>Agro-facility Management</p> <ul style="list-style-type: none"> • disposal of wastes, • biosafety, • security, • emergency response. 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Storekeepers. • Pesticide Transporters. • Pesticide Users. • Agro dealers. • All Farmers. • Trial Farm Management Committee. • Agro facilities, e.g., warehouses, etc. <p>TRAINER:</p> <ul style="list-style-type: none"> • MAAIF 	<ul style="list-style-type: none"> • 10 members of Scheme Procurement Committee Trained • 10 Extension Workers • 30 Cluster members/Farmers trained. 	<p>(Three sessions for the entire project period)</p> <p>Venue: Farms</p> <p>Length: 5 days per session</p> <p>Total cost: \$11,000.00</p>

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
8.	<p>Maintenance of the Agricultural Facilities</p> <ul style="list-style-type: none"> - Detecting the damaged structures - Materials needed to maintain the damaged structures. <p>Hygiene and Sanitation</p> <ul style="list-style-type: none"> - Water supply - Sanitation - Water and sanitation related diseases - Infrastructure needed on the scheme for sanitation enhancement 	<ul style="list-style-type: none"> • Extension workers and Farmers • Extension workers and Farmers <p>TRAINER: PRIVATE CONSULTANT OR <u>MAFS</u></p>	<ul style="list-style-type: none"> • 10 Extension Workers • 30 Farmers from various trial farms trained 	<p>(Two sessions during the entire project period)</p> <p>Venue: The farms</p> <p>Length: 5 days per session</p> <p>Total cost: \$6,800.00</p>
9.	<p>Laboratories and Research Facility Management</p> <ul style="list-style-type: none"> - Handling of chemicals/ reagents, disposal of wastes, - biosafety, - security, - emergency response. 	<ul style="list-style-type: none"> • Research Scientists • Research technicians. • Admin and general centre staff 	<ul style="list-style-type: none"> • 10 Research Scientists • 10 Research technicians • 5 admin staff 	<p>(Two sessions during the entire project period)</p> <p>Venue: research laboratories</p> <p>Length: 5 days per session</p> <p>Total cost: \$8,300.00</p>
TOTAL ESTIMATED BUDGET				123,600.00

9.6 PROPOSED APPROACH IN EXECUTING TRAINING ACTIVITIES

ReLIV 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 ReLIV coordinator and management staff and other high-level persons are sensitized in the potential environmental and social risks and impacts due to the proposed ReLIV project activities. This training may be conducted by a private consultant or by the EIA Department of the National Environmental Management Authority (NEMA).

9.7 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 9-2 above.

10. COSTS AND BUDGETARY CONSIDERATIONS

10.1 COSTS OF IMPLEMENTING THE ESCMF

The following is a breakdown of the cost estimates for the activities in the environmental social and Climate management plan. This detailed budget is meant for implementing and monitoring the recommended mitigation measures throughout the project life. **The budget is integrated into the overall programme costs to ensure that the proposed mitigation measures are actually implemented.**

10.2 SITE-SPECIFIC ESIA_s AND ESMP_s

This component will comprise Mitigation issues to do with Site-specific ESIA_s, ESMP_s (Appendix 3) and the Environmental License fees for registering these EA studies with the National Environmental Management Authority (NEMA) (Table 10-1).

Table 9-3 Site-specific ESIA_s and ESMP_s Budget

No.	ACTIVITY	ESTIMATED COST (US \$)
1.0	Site-specific ESIA - Lumpsum Provision.	45,000.00
2.0	Site-specific ESMPs and Environmental Checklists – Lumpsum Provision (Trained Field Officers to train beneficiaries) lump sum.	100,000.00
	Sub-Total	145,000.00

10.3 MITIGATION MEASURES

This provision is for implementing mitigation measures in each district. These resources will provide for:

- prevention of soil erosion, vegetation clearance and land degradation,
- Protection of critical natural habitats (mountain sides, wetlands, marginal lands, natural forests, nesting sites etc.),
- prevention of water-borne diseases,
- Climate change resilient activities,

- Gender and Youth mainstreaming.

Mitigation and enhancement measures were discussed in detail in table 9-2 and the following is a summary of some of the measures with cost implications (Table 10-2).

Table 9-4 Mitigation and enhancement measures Budget

No.	MITIGATION/ENHANCEMENT	ESTIMATED COST (US \$)
1.0	Stakeholder Participation <ul style="list-style-type: none"> • Conduct a comprehensive participatory stakeholder mapping exercise including roles and responsibilities at national, provincial, district and local area level • Conduct adequate situational assessment to determine different vulnerability dimensions. 	22,000.00
2.0	Catchment/Rangelands Management <ul style="list-style-type: none"> • Institute catchment conservation. • Habitat restoration must be done where effects have been caused. • All altered landscapes (Sand pits, borrow pits, brick moulding sites etc.) should be rehabilitated. • Institute measures to reduce and control soil erosion like contouring and terracing, stabilising slopes and banks, re-vegetation, reseedling of grasses, land preparation, use of gabions, etc.) 	35,000.00
	Sub-total	57,000.00

10.4 MONITORING AND EVALUATION

This provision is for training both the ReLIV staff and the beneficiaries in participatory environmental monitoring. This entails monitoring the implementation of mitigation measures at the sub-project level (e.g., each MCC, MCP, meat and milk processing plants, abattoirs, fodder production unit, Cow shed or zero grazing sheds, etc.). (Table 10-3). The component will comprise:

- i) the monitoring and evaluation issues of the whole programme
- ii) Monitoring and Evaluation of the progress of the implementation of the ESCMF. Assessing whether it is being effective or not.

Table 9-5 Monitoring and Evaluation Budget

No.	ACTIVITY	Estimated Cost (US \$)
1.0	Monitoring and evaluation exercises	50,000.00
	Sub-Total	50,000.00

10.5 ENVIRONMENTAL AND SOCIAL TRAINING

Environmental and Social Training were discussed in detail in table 9-2 and the following is a summary of the budgetary requirements for the proposed training activities (Table 10-4).

Table 9-6 Environmental and Social Training Budget

No.	TRAINING ACTIVITIES	Estimated Cost (US \$)
1	High level training in Environmental and Social Risks of RELIV	15,000.00
2	Training in Environmental and Social Impact Assessment	12,000.00
3	Cascading training on Environmental, Social and Climate Management Framework and its ESMP	14,000.00
4	Watershed and Rangelands Management Training	15,000.00
5	Cascading training on Watershed and Rangelands Management	14,000.00
6	Facilitate Gender, HIV/AIDS awareness	9,500.00
7	Water Management	9,000.00
8	Crop Management	9,000.00
9	Agricultural Chemicals Management	11,000.00
10	Maintenance of the Agricultural Facilities and Hygiene and Sanitation,	6,800.00
11	Laboratories and Research Facility Management	8,300.00
TOTAL		123,600.00

10.6 ANNUAL AUDITS

The project will be subjected to annual audits and an end of project audit. The following is the cost estimate for the Audits (Table 10-5).

Table 9-7 Monitoring and Evaluation Budget

No.	ACTIVITY	ESTIMATED COST (US \$)
1.0	Bi- Annual Audit	20,000.00
2.0	Annual Reviews	10,000.00
3.0	End of Project Audit	25,000.00
	Sub-Total	55,000.00

10.7 ESCMF IMPLEMENTATION BUDGET SUMMARY

The following (Table 10-6) is the ESCMF Implementation budget summary taking into consideration all the issues covered in sections 10.1 to 10.7:

Table 9-8 Estimated Budget for ESCMF Implementation (US\$)

No	YEAR	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	TOTAL
	ACTIVITY							
1.	Site-specific ESIA's, ESMPs and Environmental License fees	50,000.00	35,000.00	25,000.00	15,000.00	10,000.00	10,000.00	145,000.00
2.	Mitigation Measures	15,000.00	12,000.00	10,000.00	10,000.00	7,000.00	3,000.00	57,000.00
3.	Monitoring and evaluation purposes (R&D, M&E, Field Visits)		10,000.00	15,000.00	15,000.00	5,000	5,000	50,000.00
4.	Environmental and Social Training	38,000.00	29,000.00	19,000.00	19,000.00	9,000.00	9,400.00	130,000.00 123,600.00
5.	Bi-Annual Audit		4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	20,000.00
6.	Annual Reviews			5,000.00		5,000.00		10,000.00
7.	End of Project Audit						25,000.00	25,000.00
	Sub - Total							430,600.00
	10% Contingency							43,060.00
	Grand Total							473,660.00

10. MONITORING PLAN AND ARRANGEMENTS

11.1 INTRODUCTION

Environmental and social monitoring of the ReLIV project is an important part of managing the potential project impacts. The monitoring will be the responsibility of the ReLIV PMU SECAP Specialist who will be coordinating all SECAP issues. The PMU will be assisted by the rest of the implantation partners and other relevant authorities like NEMA.

The objective for monitoring is threefold (section 6.4.5 for details):

- **Environmental and Social 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. This must 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 WQ analysis), area of disturbance, spoil management, etc. This should be done on a routine basis by trained ReLIV 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 ReLIV PMU/IFAD/ and NEMA.

11.2 AREAS TO BE MONITORED

11.2.1 Environmental issues

a) Soils

Soil degradation may occur as the soils are exposed and or compacted during the construction of agriculture 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.

b) Vegetation

Unnecessary vegetation clearing during the development of pastures and fodder fields must be well planned and managed in such a way as to provide for buffer vegetation zones. Grass and veldt 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 Wildlife Act.

d) Marginal lands/fragile ecosystems

Marginal lands and fragile ecosystems must be protected against abuse.

e) Chemical pollution

A great likelihood of chemical pollution of the water 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.

11.2.2 Social Issues

a) Loss of natural and cultural heritage

The rehabilitation/construction of roads, 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 (Appendix 7).

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 parameters mentioned above be monitored during the implementation and operation stages and any impacts should be mitigated as soon as possible. The farmers and the ReLIV PMU should monitor on a periodic basis.

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.

11.3 ENVIRONMENTAL AND SOCIAL MONITORING PLAN

Screening will ensure that no activities in the exclusion list (Table 6-1) will be accommodated under ReLIV. 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 for the ReLIV programme:

11.3.1 The Monitoring Plan

The Monitoring Plan is summarized in Table 11-1 below.

Table 10-1 Monitoring Activities and Indicators

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Soil erosions	In the process of constructing roads, dams and other agriculture infrastructure, the contractors should make a daily inspection of earth works and ensure that slopes are suitably graded. Once earthworks are complete the Implementing Agent should monitor the restoration measures implemented by the Contractor, such as re-vegetation	<ul style="list-style-type: none"> • Soil erosion • Conservation activities • Rangelands management 	An absence of rills, gullies or other erosion features occurs	Daily and ongoing as project is implemented	ReLIV PMU SECAP Specialist assisted by: <ul style="list-style-type: none"> • MAAIF-DAR • DDA • NAGRIC & DB • NARO - NaLIRRI
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	<ul style="list-style-type: none"> • Soil Fertility 	Soil nutrient levels satisfactory.	Annually	<ul style="list-style-type: none"> • MAAIF-DAR
Vegetation	The clusters/farmers must clear areas to be used and site works only.	<ul style="list-style-type: none"> • Clearing of the project sites and disturbance of animals. • flora and fauna 	No unnecessary vegetation cleared	Weekly and ongoing as project is implemented	NEMA assisted by: <ul style="list-style-type: none"> • MAAIF-DAR • ReLIV PMU SECAP Specialist.
Birds	Interference with nesting sites	<ul style="list-style-type: none"> • Nesting sites • Migratory routes 	Reproductive patterns of birds undisturbed	Weekly and ongoing as project is implemented	Department of National Parks and Wildlife assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist.
Small mammals habitat loss	Ensure that no unnecessary habitat loss occurs, and that poaching is curtailed.	<ul style="list-style-type: none"> • Animal habitats • Poaching 	No Mammals are displaced from their habitats. Number of poaching incidences reduced or eliminated.	Weekly and ongoing as project is implemented	Department of National Parks and Wildlife assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist. • Police department.

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Crime	The RELIV-PMU Secretariat should Liaise with police department if crime/theft becomes a problem.	<ul style="list-style-type: none"> • Criminal activities in the area 	Crime theft kept to a minimum. Incidences of stock theft and house breaking minimized.	Weekly and ongoing as project is implemented	Department of National Parks and Wildlife assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist. • Police department. • District Administrators.
Noise	Noise monitoring should be carried out on an ad-hoc basis by the Environmental Monitor or the RELIV-PMU to establish noise levels in the work areas.	<ul style="list-style-type: none"> • Noise Levels 	Noise levels at the nearest sensitive receiver would be kept to a minimum.	Weekly and ongoing as project is implemented.	Ministry of Health assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist.
Health	RELIV-PMU must ensure that education and awareness campaigns are implemented and must mainstream HIV/AIDS issues into the project implementation programme.	<ul style="list-style-type: none"> • 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 Avian flu, AIDS/STD related diseases recorded at hospital and medical clinic	Monthly and ongoing as project is implemented	Ministry of Health assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist. • DDA. • MAAIF-DAR.
Archaeology	This should concentrate on chance finds. Provision should be made to allow archaeologists to be present on site during the excavation periods if they so wish. The RELIV-PMU should inspect all excavations, and where archaeological remains are found work must stop until the RELIV-PMU has been given all clear to proceed. The RELIV-PMU should contact the Uganda Museums Department in the event of a significant archaeological find.	<ul style="list-style-type: none"> • Archaeological Findings 	Archaeological remains not excavated, disturbed or destroyed.	<ul style="list-style-type: none"> • Daily and ongoing as project is implemented. • Room for chance finds 	Uganda Museums Department assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist.
Energy	The Clusters/Developers must inspect the provisions made by the Contractor to supply energy to the workforce, and ensure that fuel wood is not being collected. The NEMA should enforce legislation which prohibits cutting down of trees. The NEMA, RELIV and local leadership (cultural and political) should sensitize	<ul style="list-style-type: none"> • Types of energy sources used in the project 	Energy supplied by electric generator or other suitable source. Deforestation and resultant erosion controlled and reduced	Regularly	Department of Forestry assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist. • Local Leadership

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
	the workers against cutting down of trees.				
Air Pollution	<p>Observations should be made on the level of dust generated during the construction and Agricultural activities by the Environmental Monitor or RELIV PMU.</p> <p>Use dust buckets to monitor dust fall outs in the vicinity of the construction sites.</p> <p>Dampening should be carried out if levels are unacceptable.</p>	<ul style="list-style-type: none"> Levels of dust emissions Ambient air quality 	Deposition of dust on surfaces should decrease with increased dampening.	Daily	<p>Health ministry assisted by:</p> <ul style="list-style-type: none"> ReLIV PMU SECAP Specialist. MAAIF-DAR.
Water resources	<ul style="list-style-type: none"> Water resources should be managed well The Ministry of Health should test borehole water quality in the area to ascertain the suitability for human consumption. 	<ul style="list-style-type: none"> Watercourses and impoundments. Surface water quality Ground Water Quality Recommended distances from watercourses. Possible dam construction sites. 	<ul style="list-style-type: none"> Water made available for environmental concerns. Pollution of water resources monitored/detected early, and remedial measures taken on time 	Tests for water pollution to be done Monthly.	<p>Health ministry assisted by:</p> <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist. MAAIF-DAR. Department of Water Development, (DWD)
Landscape	The RELIV-PMU 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.	<ul style="list-style-type: none"> Visual intrusions Aesthetics 	Landscape alteration reduced to a minimum	Monthly	<p>Uganda Museums Department assisted by:</p> <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist.
Complaints	The RELIV-PMU should inspect the record of complaints made by local residents, to be kept by the coalitions/farmers, and should check that action is taken quickly and that the number of complaints do not rise significantly.	<ul style="list-style-type: none"> Complaints 	Number of complaints decreases.	Monthly	<p>ReLIV PMU SECAP Specialist assisted by:</p> <ul style="list-style-type: none"> NEMA. MAAIF-DAR. DDA NARO
Local governance	<p>MLGC to ensure the following.</p> <ul style="list-style-type: none"> compliance to designs. Employment opportunities and recruitment are transparent. Allocation of land is overboard. Cultural values are respected. 	<ul style="list-style-type: none"> Land management. Land allocations. Socio cultural issues Local governance Social Aspects, Land rights 	<ul style="list-style-type: none"> Disputes over land reduced. Cooperation of local leadership is secured. Locals employed in the 	Regularly	<p>Ministry of Local Government assisted by:</p> <ul style="list-style-type: none"> District Councils ReLIV PMU

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
			projects		
Agricultural Activities	<ul style="list-style-type: none"> • Ensure that Agricultural Activities follow designs and recommendations given for proper agricultural practices. • Ensure overall management of the Programme. Appropriate land use downstream is done and no pollution of crops from contaminated water from spillages occur. 	<ul style="list-style-type: none"> • Siting of works, plan 	Land degradation curbed. Program running smoothly\.	Regularly	ReLIV PMU Assisted by: <ul style="list-style-type: none"> • MAAIF-DAR. • DDA • NARO

11.3.2 Environmental and Social Monitoring Indicators

Several environmental and social monitoring indicators and parameters can be used to track the performance of the ESCMF of ReLIV. The goals of environmental and social monitoring indicators include

- (i) to verify the accuracy of the environmental and social impact predictions,
- (ii) 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 participated on the ESCMF, IPMP, and SEP training and awareness creation program.
- Inclusive, free and prior concert community participation and consultation.
- Documentation of community consultation in planning, implementation, and monitoring.
- Number and percentage of subprojects for which environmental and social issues are integrated into the project cycle.
- Number of Sub-projects which have completed the Environmental and social screening checklist or conducted site specific ESMPs.
- Implementation of the mitigation measures identified and planned in the ESCMP.
- Documentation of community consultation processes.

11. CONCLUSIONS AND RECOMMENDATIONS

The proposed ReLIV programme has potential to significantly enhance the beef and dairy value chain productivity and improve the livelihoods of the smallholder beef and dairy farmers, including the rest of the beef and dairy value chain players in the target districts. An improvement in the productivity of the Smallholder farmers will translate to improved livelihoods as they now 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, and portable and livestock water resources management and value addition infrastructures construction activities, Solid and liquid waste generation, tree cutting and 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.

During the operation phase of the expanded Livestock services, the potential environmental impacts will include Solid and liquid waste, Chemical and Biological wastes, which will be generated from the normal operations of the facilities and can be managed by incorporating the requisite waste and effluent handling units to the facilities. This impact would be exacerbated by inadequately trained livestock staff, however the ESCMP presented in the study will be used to mitigate the impacts during and after the rehabilitation of the Livestock infrastructure. 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 livestock, agricultural and value addition infrastructure must include the requisite waste disposal or handling systems.
- It is important that stakeholder organisations such as District Administrators, The National Environmental Management Authority (NEMA), 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.
- The land around any sub-project works should be left intact and pollution be minimised.
- 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 use of destructive machinery should be avoided as much as possible. Machinery will adversely affect soils and undergrowth.
- The recommended mitigation measures should be implemented to reduce significant environmental impacts.

The project overall will not have any apparent significant environmental impacts if the recommended mitigations are carried out.

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13. APPENDICES

APPENDIX 1: ENVIRONMENTAL AND SOCIAL SCREENING FORM

Government of the Republic of Uganda.

Environmental & Social Screening Form

(Guidelines: Site inspection of project site. The evaluation results to be a consensus of at least three officials)

Sub-Project Name:

.....

Sub-Project Type:

.....

Project Location:

.....

.....

.....

Name of Evaluator:

.....

Signature of Evaluator:

.....

Date of Field Evaluation:

.....

		Appraisal		Significance			Potential Measures	Mitigation
		Yes	No	Low	medium	high		
1.0	Type of activity – Will the sub-projects:							
1.1	Involvement of 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?							
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?							
<i>If the answer to any of questions 1.1 -1.10 is "Yes", please use the indicated Resource Sheets or sections(s) of the ESMF for guidance on how to avoid or minimize typical impacts and risks</i>								
2.0	Biodiversity Conservation and Sustainable Natural Resource Management - Will the project generate the following negative impacts.							
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						
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						

If the answer to any of questions 2.1 - 2.11 is "Yes", please use the indicated Resource Sheets or sections(s) of the ESMF for guidance on how to avoid or minimize typical impacts and risks

3.0	Community Health, Safety and Working Conditions - Will the project generate the following negative 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)						
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)						

If the answer to any of the questions 3.1 - 312 is "Yes", please consult the ESCMF and, if needed, prepare a Stakeholder Engagement Plan (SEP) and a Health and safety Plan (HSP)

4.0	Social, Gender and human rights- Will the project generate the following negative impacts						
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						
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.						
<i>If the answer to any of the questions 4.1 – 4.9 is "Yes", please consult the ESMF and, if needed, prepare a Stakeholder Engagement Plan (SEP)</i>							
5.0	Resettlement Screening - Will the project generate the following negative 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.						

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						
<i>If the answer to any of the questions 5.1 – 5.16 is "Yes", please consult the ESMF and, if needed, prepare an Resettlement Action Plan (RAP)</i>							
6.0	Climate Change Mitigation and Adaptation- Will the project generate the following negative social and economic 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 answer to any of the questions 6.1 – 6.5 is "Yes", please consult the ESMF and, if needed, prepare a Climate Risk Assessment (CRA)

7.0	Cultural Heritage- Will the project generate the following negative social and economic 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)?					
7.2	Project utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes.					

It the answer to any of the questions 7.1 – 7.2 is "Yes", please consult the ESMF and, if needed, prepare a Chance Finds Procedure (CFP)

Overall evaluation of Environmental and Social Screening Exercises.

The results of the screening process would be either the proposed sub - projects would be exempted or subjected to further environmental and resettlement assessment. The basis of these options is listed in the table below:

Review of Environmental Screening	Tick	Review of Social Screening	Tick
1. The project is cleared. No serious impacts. <i>(When all scores are "No" in form)</i>		1.The project is cleared. No serious social impact. <i>(Where scores are all "No", "few" in form)</i>	
2. There is need for further assessment. <i>(when some scores are "Yes, High" in form)</i>		2. There is need for resettlement/compensation. <i>(When some scores are "Yes, High" in form)</i>	
3. Need to prepare ESMP		3. Need to prepare RAP	

Endorsement by Environmental District Officer		Endorsement by Director of Agriculture	
Name		Name:	
Signature:	Date	Signature:	Date:

NOTES:

1. The RELIV PMU Environment Officer shall ensure that a completed form is filed within project file immediately after endorsement. He/she should keep a duplicate.
2. Project Management Committee will maintain a copy of completed form.

APPENDIX 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 shown below in Table APP 1. 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 Section 7.6 only considers the impacts that have been rated moderate and high significance as these present impacts that need attention.

Table APP 2-1 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	
	Type	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 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

No.	CRITERIA	DESCRIPTION	SCORING
	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	
	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 unfeasible 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	3

No.	CRITERIA	DESCRIPTION	SCORING
		towns	
	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
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	
	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	

No.	CRITERIA	DESCRIPTION	SCORING
8.0	Consequence	<p>The Consequence of issues will be determined using the following formula:</p> <p>Consequence = Type x (Duration + Extent + Intensity)</p>	
	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
	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	14 to 17

No.	CRITERIA	DESCRIPTION	SCORING
		and/or social) environment.	
	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

APPENDIX 3: GUIDELINES FOR THE DEVELOPMENT OF SUB-PROJECT ESMPs

APP 3.1 ESMP Development

When a sub-project includes distinct mitigation measures (physical works or management activities), an Environmental and Social Management Plan (ESMP) needs to be included with the sub-project application. An example ESMP is presented in Chapter 7 of this ESCMF.

ESMP Contents:

An ESMP usually includes the following components:

- Description of adverse effects: The anticipated effects are identified and summarized.
- Description of mitigation measures: Each measure is described with reference to the effect(s) it is intended to deal with. As needed, detailed plans, designs, equipment descriptions, and operating procedures are described.
- Description of monitoring program: Monitoring provides information on the occurrence of environmental effects. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation. How environmental effects are monitored is discussed below.
- Responsibilities: The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies.
- Implementation schedule: The timing, frequency and duration of mitigation measures and monitoring are specified in an implementation schedule and linked to the overall sub-project schedule.
- Cost estimates and sources of funds: These are specified for the initial sub-project investment and for the mitigation and monitoring activities as a sub-project is implemented. Funds to implement the EMP may come from the sub-project grant, from the community, or both. Government agencies and NGOs may be able to assist with monitoring.

Monitoring Methods:

Methods for monitoring the implementation of mitigation measures or environmental effects should be as simple as possible, consistent with collecting useful information (see example below) and that community members can apply themselves. For example, they could just be regular observations of sub-project activities or sites during construction and then use. Are fences and gates being maintained and properly used around a new water point? does a stream look muddier than it should and, if so, where is the mud coming from and why? are pesticides being properly stored and used? Most observations of inappropriate behaviour or adverse effects should lead to common sense solutions. In some cases (e.g., unexplainable increases in illness or declines in fish numbers), there may be a need to require investigation by a technically qualified person.

App 2.2 Typical Sub-Project ESMPS

The following groups of agricultural activities have been considered:

- Valley Dams and Weirs
- Fodder/Crop Production
- Milk Processing

1.0 Valley Dams and Weirs

- Establishing/maintaining Small Storage Reservoirs (tanks, small dams/weirs).
- Development of Small-scale Farmer Driven Rainwater Harvesting.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
1.	Soil erosion	<ul style="list-style-type: none"> • Proper design and layout of structures avoiding too steep a gradient. • Land levelling. • Design of terraces on hillside minimizing surface erosion hazard.
2.	Negative environmental effects of construction: <ul style="list-style-type: none"> • air and water pollution from construction and waste disposal • soil erosion • destruction of vegetation, sanitary and health problems from construction camps 	<ul style="list-style-type: none"> • Measures to minimize impacts: <ul style="list-style-type: none"> ○ air and water pollution control ○ careful location of camps, buildings, borrow pits, quarries, spoil and disposal sites. ○ precautions to minimize erosion. ○ land reclamation
3.	Dislocation of people living in inundation zone.	<ul style="list-style-type: none"> • Relocation of people to suitable area, provision of compensation in kind for resources lost, • provision of adequate health services, infrastructure, and employment opportunities.
4.	Loss of land (agricultural, forest, range, wetlands) by inundation to form reservoir.	Siting of dam to decrease losses; decrease size of dam and reservoir; protect equal areas in region to offset losses.
5.	Loss of historic, cultural, or aesthetic features by inundation.	Siting of dam or decrease of reservoir size to avoid loss, salvage or protection of cultural properties.
6.	Loss of wildlands and wildlife habitat.	Siting of dam or decrease of reservoir size to avoid/minimize loss; establishment of compensatory parks or reserved areas; animal rescue and relocation.
7.	Proliferation of aquatic weeds in reservoir and downstream impairing dam discharge, irrigation systems, navigation and fisheries and increasing water loss through transpiration.	Clearance of woody vegetation from inundation zone prior to flooding (nutrient removal); provide weed control measures; harvest of weeds for compost, fodder or biogas; regulation of water discharge and manipulation of water levels to discourage weed growth.
8.	Impediment to movement of livestock and humans.	Provision of passageways.
9.	Threat to historic, cultural or aesthetic features.	<ul style="list-style-type: none"> • Siting of project to prevent loss. • salvage or protection of cultural sites.
10.	Siting of project to less vulnerable area.	<ul style="list-style-type: none"> • Siting of project to less vulnerable area. • Limitation and regulation of water take-off to minimize problems to extent possible.
11.	Social misdemeanour by construction workers Impacts associated with the contractor's camp include:	<ul style="list-style-type: none"> • As a contractual obligation, contractors should be required to have an HIV/AIDS policy and a framework (responsible staff, action plan, etc) to implement it during project execution. • Contractor to curb thefts and misbehaviour

	<ul style="list-style-type: none">• disposal of liquid and solid wastes.• theft, alcoholism, and sexually transmitted diseases (especially HIV/AIDS).	<ul style="list-style-type: none">• through a code of conduct.• Contractor to manage any of its waste properly.
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2.0 Fodder/Crop Production

- Fodder production.
- Basic seed multiplication and sale.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
1.	Soil erosion (furrow, surface)	<ul style="list-style-type: none"> • Proper design and layout of furrows or fields avoiding too steep a gradient. • Land levelling. • Design of terraces on hillside minimizing surface erosion hazard.
2.	Pollution, environmental disruption and health hazards from Diseases and pest control measures	<ul style="list-style-type: none"> • Choice of chemical that is species-specific, short residence time (active period), and has low impact on other biologic resources. • Protective measures for field workers. • Spraying methods and timing to minimize potential of water pollution. • Selection of disease-resistant crop varieties.
3.	Reduction of genetic variability due to selective breeding	Conservation of genetic diversity in-site (protection of wild relatives in natural Habit, maintaining variability within populations by breeding) and ex-situ (e.g., preservation of genetic material in `banks`).
4.	Negative effects of uncontrolled burning for brush control on soil and vegetation (deterioration of soil fertility and soil structure, altered wildlife habitat, destruction of vegetation)	Implementation of well-planned and controlled burning programs.
5.	Conflicts over water supply and inequalities in water Distribution throughout service area.	Means to ensure equitable distribution among users and monitor to assure adherence.
6.	Siting of project to less vulnerable area (marginal areas).	<ul style="list-style-type: none"> • Siting of project to less vulnerable area. • Limitation and regulation of water take-off to minimize problems to extent possible.
7.	Encroachment on swamps and other ecologically sensitive Areas (fragile ecosystems).	Siting of projects to avoid or minimize encroachment on critical areas.
8.	Disease and health problems from use of wastewater in Irrigation.	<ul style="list-style-type: none"> • Wastewater treatment (e.g., settling ponds) prior to use. • Establishment and enforcement standards for wastewater use.
15.	Threat to historic, cultural or aesthetic features.	<ul style="list-style-type: none"> • Siting of project to prevent loss. • salvage or protection of cultural sites.
16.	<p>Occupational Health Safety risks</p> <ul style="list-style-type: none"> • The movement of trucks to and from the site, the operation of various equipment and machinery and the actual agricultural activities will expose the workers to work-related accidents and injuries. • Pollutants such as dust and noise could also have negative implications for the health of workers. 	<ul style="list-style-type: none"> • All safety precautions must be enforced. • Provide PPE to all workers. • institute dust and noise suppression measures.

17.	<p>Social misdemeanour by construction workers</p> <p>Impacts associated with the contractor's camp include:</p> <ul style="list-style-type: none"> • disposal of liquid and solid wastes. • theft, alcoholism, and sexually transmitted diseases (especially HIV/AIDS). 	<ul style="list-style-type: none"> • As a contractual obligation, contractors should be required to have an HIV/AIDS policy and a framework (responsible staff, action plan, etc) to implement it during project execution. • Contractor to curb thefts and misbehaviour through a code of conduct. • Contractor to manage any of its waste properly.
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3.0 Milk Processing

- Feed production.
- Milk Processing.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
1.	Soil erosion	<ul style="list-style-type: none"> • Proper design and layout of structures avoiding too steep a gradient. • Land levelling. • Design of terraces on hillside minimizing surface erosion hazard.
2.	<ul style="list-style-type: none"> • Increased soil erosion due to clearing of vegetation and trampling. • Increased siltation of surface waters. 	<ul style="list-style-type: none"> • Restriction of construction activities to good ground. • Soil erosion control measures (e.g., reforestation, terracing).
3.	Siting of plant or facility complex on/near sensitive habitats	<ul style="list-style-type: none"> • Location of plant in rural area away from estuaries, wetlands, or other sensitive or ecologically important habitats, or in industrial estate to minimize or concentrate the stress on local environment and Services. • Involvement of natural resource agencies in review of siting alternatives.
4.	Siting of agro-industry along water courses leading to their eventual degradation.	<ul style="list-style-type: none"> • Site selection examining alternatives which minimize environmental effects and not preclude beneficial use of the water body using the following siting guidelines: <ul style="list-style-type: none"> ○ on a watercourse having a maximum dilution and waste absorbing capacity ○ in an area where wastewater can be reused with minimal treatment for agricultural or industrial purposes ○ within a municipality which is able to accept the plant wastes in their sewage treatment system ○ Improved water management; improved agricultural practices and control of inputs. ○ Proper handling of waste. ○ Imposition of water quality criteria.
5.	Siting of agro-industry so that air pollution problems are aggravated.	Location of plant at a high elevation above local topography, in an area not subject to air inversions, and where prevailing winds are away from populated areas.
6.	Environmental deterioration (erosion, contamination of water and soil loss of soil fertility, disruption of wildlife habitat, etc.) from intensification of agricultural land use.	Control of agricultural inputs and cropping/grazing practices to minimize environmental problems.
7.	Aggravation of solid waste problems in	<ul style="list-style-type: none"> • For facilities producing large volumes of

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
	the area	waste, incorporation of the following guidelines in site selection: <ul style="list-style-type: none"> ○ plot size sufficient to provide a landfill or on-site disposal ○ proximity to a suitable disposal site ○ convenient for public/private contractors to collect and haul solid wastes for final disposal
8.	Water pollution from discharge of liquid effluents <ul style="list-style-type: none"> • Plant: TSS; temperature; pH • Materials storage piles runoff: TSS; pH • Most agricultural, livestock, agro-industries, packaging, and marketing operations produce solid waste. <ul style="list-style-type: none"> - Steam and hot water boilers produce ash - Fresh food and processed food markets, waste from canning. 	<ul style="list-style-type: none"> • Laboratory analysis of liquid effluent (including cooling water runoff from waste piles) in O/G, TDS, TSS, BOD, COD and in-situ temperature monitoring. • Seek guidance of local environmental officers to identify acceptable disposal sites. • Waste from agricultural activities can be further processed into other uses, e.g., organic manure. Reuse and recycling must be preferred over disposal of the waste.
9.	Particulate emissions to the atmosphere from all plant operations.	Control of particulates by fabric filter collectors or electrostatic precipitators.
10.	Gaseous and odour emissions to the atmosphere from processing operations.	Control by natural scrubbing action of alkaline materials; an analysis of raw materials during feasibility stage of project can determine levels of sulphur to properly design emission control equipment.
11.	Accidental release of potentially hazardous solvents, acidic and alkaline materials.	Maintenance of storage and disposal areas to prevent accidental release; provide spill mitigation equipment.
12.	Occupational health effects on workers due to fugitive dust, materials handling, noise, or other process operations. Accidents occur at higher-than-normal frequency because of level of knowledge and skill.	Development of a Safety and Health Program in the facility designed to identify, evaluate, and control safety and health hazards at a specific level of detail to address the hazards to worker health and safety and procedures for employee protection, including any or all of the following: <ul style="list-style-type: none"> • site characterization and analysis • site control • training • medical surveillance • engineering controls, work practices and personal protective equipment • monitoring • information programs • handling raw and process materials • decontamination procedures • emergency response • illumination • regular safety meetings • sanitation at permanent and temporary facilities
13.	Disease and health problems from use of wastewater to irrigate crops.	<ul style="list-style-type: none"> • Wastewater treatment (e.g., settling ponds) prior to use. • Establishment and enforcement standards for wastewater use in crop production.
14.	Threat to historic, cultural, or aesthetic features.	<ul style="list-style-type: none"> • Siting of project to prevent loss. • salvage or protection of cultural sites.
15.	Temporary Visual Intrusions <ul style="list-style-type: none"> • Rehabilitation and upgrading of agricultural facilities like small irrigation schemes, small dams 	<ul style="list-style-type: none"> • Contractor should ensure minimum footprint of construction activities and provide decent accommodation for workers. • All altered landscapes (Sand pits, borrow pits

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
	and other possible facilities will change the characteristics of the area and leave a marred landscape.	etc) should be rehabilitated by the contractor.
13.	<p>Noise</p> <ul style="list-style-type: none"> • Noise and vibration caused by machines, site vehicles, pneumatic drills etc • Noise from the chicken, pigs or whatever animals which are being raised. • Noise from the processing of agricultural produce. 	<ul style="list-style-type: none"> • Contractor to avoid old equipment. • Heavy duty equipment to be minimized. • Noisy operations to be limited to certain times. • Noise levels to be limited to within acceptable levels. • Animal raising to be in designated areas to avoid being a nuisance to the public. • Processing plants should be sited away from residential areas.
14.	<p>Social misdemeanour by construction workers</p> <ul style="list-style-type: none"> • Impacts associated with the contractor's camp include: • disposal of liquid and solid wastes. • theft, alcoholism, and sexually transmitted diseases (especially HIV/AIDS). 	<ul style="list-style-type: none"> • As a contractual obligation, contractors should be required to have an HIV/AIDS policy and a framework (responsible staff, action plan, etc) to implement it during project execution. • Contractor to curb thefts and misbehaviour through a code of conduct. • Contractor to manage any of its waste properly.

APPENDIX 4 PROOF OF PUBLIC CONSULTATION AND DISCLOSURE

APP 4.1 CONSULTED STAKEHOLDER

The following is the lists of the stakeholders who were consulted during the ESCMF study.

1.0 GENERAL TABLE

No.	DATE	NAME	DESINATION / ORGANISATION	CONTACT DETAILS
1	30/01/24	Denis Mugagga	Head – Climate Finance Unit Ministry of Finance, Planning and economic development.	Crested Towers – Short Tower 5 th Floor Plot 17 Hannington road Kampala +256 702 440 655 +256 782 805 422 Denis.mugagga@finance.go.ug mugagga@gmail.com
2	30/01/24	Patricia Roy Akullo	Social Safeguards and Gender Expert Climate Finance Unit Ministry of Finance, Planning and economic development.	Crested Towers – Short Tower 5 th Floor Plot 17 Hannington road Kampala +256 782 958 475 PatriciaRoy.Akullo@finance.go.ug PatriciaRoy@gmail.com
3	30/01/24	Caleb Kangye	Farmers Kangye Farm	Nakaseke District Chirinda Parish Wakyato Sub- County Kaina Village +256 772 632 232
4	30/01/24	Mr. Byaruhanga	Farmer Byaruhanga Farm	Kabale Village Kironde Parish Wakyato Sub-County Nakaseke District +256 751 726 122
5	30/01/24	Vincent and Grace Gahima	Farmer Gahima Farm	Butalongu village Butalongu Town Council Nakaseke District +256 772 433 004
6	01/02/24	Tumwine Nathan	Chairman Ntooma Dairy Farmers Cooperative Society.	+256 775 762 727
7	01/02/24	George Kato	Member Farmer	Katakunurwa Village

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
			Ntooma Dairy Farmers Cooperative Society.	Ntooma +256 774 448 992
8	01/02/24	Isingoma Didan	Animal Husbandry Officer MAAIF Masindi	+256 776 011 020 isingomadidan@gmail.com
9	01/02/24	Bbira Johnson	Veterinary Officer MAAIF	Kimengo Sub-County Kimengo Parish Karangwe Village +256 787 429 007
10	01/02/24	Luwede Solomon	Animal Husbandry Officer MAAIF	Kimengo Sub-County Kimengo Parish Karangwe Village +256 771 616 758
11	01/02/24	Kiiry Wilson Mwebe	Farmer Kiiry Farm	Karangwe Village Kimengo Parish Karangwe Village Masindi District +256 782 013 063
12	01/02/24	Kamuhondo fred	Chairman Karangwe Village	Karangwe Village Kimengo Parish Karangwe Village Masindi District +256 787 156 292
13	01/02/24	Amanyire Scovia	Beef farmer Amanyire Farm	Karangwe Village Kimengo Parish Kimengo Sub-County Karangwe Village Masindi District +256 787 598 698
14	02/02/24	Magambo Jumah	Senior Farm Manager Maruzi Farm	Akororo Sub-County Maruzi County APAC District +256 779 399 990 +256 752 399990
15	02/02/24	Kato Hussein Walusimbi	Research Officer Livestock, Nutrition and Production National Livestock Resources Research Institute (NaLIRRI)	National Livestock Resources Research Institute (NaLIRRI) +256 702 484 734 Kwalusimbih@gmail.com

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
16	02/02/24	Dr. James Ngu	District Veterinary Officer Apac District	+256 772 648 994
17	05/02/24	Jennifer Auma	Chairperson Oderai Soroti Women Corporative.	Oderai Soroti Women Corporative Soroti City Soroti District +256 771 425 699
18	05/02/24	Dr. Wafula Egesa	Regional Manager. DDA. Northeastern Region.	Soroti City Soroti District +256 759 841 258 egesa.david@gmail.com
19	05/02/24	Dr. David Achoroi	District Veterinary Officer. Soroti District Soroti	Soroti District Soroti +256 774 292 151 achoroi@gmail.com
20	05/02/24	Ezimu Deasis	Secretary Oderai Soroti Women Corporative.	Oderai Soroti Women Corporative Soroti City Soroti District +256 787 659 201 +256 757 900 770 corpdeno@gmail.com
21	05/02/24	Samuel Odonyu	Farmer Odonyu Farm	Soroti City Soroti District +256 788 002 565
22	05/02/24	Jacob Omwola	Farmer Omwola Farm	Amen B Village Soroti City Soroti District +256 782 479 326 jacobomwola@gmail.com
	05/02/24	Moreen Omwola	Farmer Omwola Farm	Amen B Village Soroti City Soroti District +256 750 053 418.
	05/02/24	Takan Nicholas	Revenue Collector Arakai Market Traders Association	Soroti City Abattoirs Soroti City. Soroti District +256 788 250 594
	05/02/24	David Oonyu	Senior Revenue Collector Arakai Market Traders Association	Soroti City Abattoirs Soroti City.

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
				Soroti District +256 772 309 811
	06/02/24	Roseline Luhoni Adongo	Chief administrative Officer Kumi District	+256 772 370 348
	06/02/24	Elungat Nelson Lakol	District chairman Kumi District	+256 772 916 171
	06/02/24	Washaki Ahamada	Resident District Commissioner (RDC) Kumi District	+256 772 424 109
	06/02/24	Dr. Amaido Edward	SVO Kumi District	+256782 716 578
	06/02/24			

2.0 MEETING WITH MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES (MAAIF)

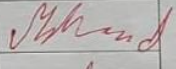
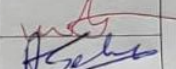
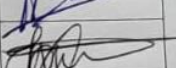
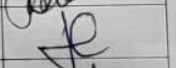
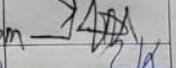

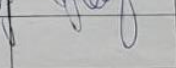
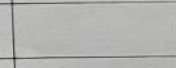
Date: 29/01/2024

Time: 10:00am – 12:00pm

In Attendance:

ATTENDANCE LIST

DRAFT SCHEDULE FOR THE RELIV DESIGN MISSION 29TH JANUARY TO 9TH FEBRUARY, 2024 AT AGRICULTURAL PLANNING BOARD ROOM AT 9.00 A.M

S/NO	NAME	DESIGNATION/ WORK STATION	TELEPHONE	E-MAIL ADDRESS	SIGNATURE
	Mohamed El Ghazaly	CD/IFAD			
	Anne NOTICT	IFAD ML			
	Alban BELLINGUER	IFAD Consultant		alban.bellinguer@gnail.com	
	Marjan Leneman	IFAD Consultant		jm.leneman@gmail.com	
	James Mutosi	IFAD Fin.		Jimmutosi@gmail.com	
	Sibekile Mtetwa	IFAD Env.		mikemtetwa@live.com	
	BARBARA JORDAN-LICENTE	IFAD Consultant		barbarajordan@gnail.com	
	Nomin	IFAD		n.bayazgatanbat@ifad.org	

ATTENDANCE LIST

DRAFT SCHEDULE FOR THE RELIV DESIGN MISSION 29TH JANUARY TO 9TH FEBRUARY, 2024 AT AGRICULTURAL PLANNING BOARD ROOM AT 9.00 A.M

S/NO	NAME	DESIGNATION/ WORK STATION	TELEPHONE	E-MAIL ADDRESS	SIG
	AKANKIZA Samson	Ag. ED DDA	0772692200	Samson.akankiza@dda.go.ug	
	Gen. Jon Ssenyonyo	Ag. T.M. Pinnac	0982504448	sseyonyo@yahoo.com	
	Dr. Katali K. Beneta	Program Officer	0782799753	katalibeneta@gmail.com	
	Agnes Audax Baguma	Ag. DTS	0772448776	agnesbaguma@dda.go.ug	
	Dr. Jimmy Semakula	SRO-NARO	0779606083	jynsemakula@yahoo.com	
	Richard Kabuleza	CPA - IRAD	0701670714	r.kabuleza@ifad.org	
	ERICA DORO	IRAD	/	e.doro@ifad.org	

3.0 RELIV PROJECT TECHNICAL CONSULTATIONS

Date: 30/01/2024

Time: 09:00 to 13:00

In Attendance:



ATTENDANCE SHEET

Activity: RELIV PROJECT TECHNICAL CONSULTATIONS
 Date: 30/01/2024
 Location: NOSP Board Room.

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
1	BABIGUMIRA BRIAN	✓		SRO	NARO	0779632672 babigumi@gmail.com	<i>[Signature]</i>
2	ROGERS AZABO	✓		SRO	NARO	0778316873 rogerkazabo@gmail.com	<i>[Signature]</i>
3	SEMAKULA JIMMY	✓		SRO	NARO	0779608083 jimsemakula@yahoo.com	<i>[Signature]</i>
4	ROBERT WAGANJO	✓		IFAD CONSULTANT	IFAD	r.waganjo@ifad.org	<i>[Signature]</i>
5	SIBEKILE MTEWA	✓		IFAD ENV CONSULTANT	IFAD	ibekilemtwa@gmail.com +26651925623	<i>[Signature]</i>
6	SIBEKILE MTEWA	✓		IFAD ENV. Consultant	IFAD	mikemtwa@live.com	<i>[Signature]</i>
7	BARBARA JORDAN- VICENTE		✓	IFAD consultant	IFAD	barbarajordanvicente@gmail.com	<i>[Signature]</i>



ATTENDANCE SHEET

Activity:

Date:

Location:

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	Marijan Leneema		X		Ifad	jm.leneema@cgarr.com	
	Namin Bayasgalanbat		X	IFAD	ifad	n.bayasgalanbat@ifad.org	
	BRICA Doro		X	u	u	e.doro@ifad.org	
	Colin Agabalinda	X		u Animal Fin Consultant		agabacolm@gmail.com	
	Alban Bellinguez	X		IFAD Consultant	IFAD	alban.bellinguez@gmail.com	
	Anne Mollet		X	IFAD Livestock Lead	IFAD	a.mollet@ifad.org	
	Dr. Agaba Joseph	X		Senior Dairy Dev't Officer	DDA	joseph.agaba@ddango.org	



ATTENDANCE SHEET

Activity:

Date:

Location:

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	SEBINA CHRISTOPHER	✓		Senior Dairy Devt officer	DDA	Christopher.sebina@dda.go.ug	
	Agnes Judex Baguma		✓	Ag. Director Technical Services (DTS)	DDA	agnas.baguma@dda-go.ug	
	STEPHENE ONYALI	✓		Gen. Planning Officer	DDA	stephene.onyali@dda-go.ug	
	Richard Kabuketa	✓		Country Programme Analyst	IFAD	r.kabuketa@ifad.org	
	Pantion Mukwezi	✓		Country Programme Coordinator	IFAD	p.mukwezi@ifad.org	
	Nakanyako Mavis		✓	Senior veterinary officer	MAAIF	mf/nakanyako@gmail.com	
	Katali K. Banda	✓		Program Officer	NAGRCAD	katali.banda@gmail.com	



ATTENDANCE SHEET

Activity:

Date:

Location:

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	Dr. Wonekha Namisame Sebajacano	✓		Senior Veterinary Officer	MAAIF	0772488686 drwonekha@gmail.com	<i>[Signature]</i>
	Dr. Kibuka Kato Hussein	✓		4VO - Dairy & Beef	MAAIF	077287315 rob.kibuka@yale.edu	<i>[Signature]</i>
	Nakanyiko Gladys		✓	Quality Assurance Officer - NABDAC	MAAIF	0702484734 kualusimbite@gmail.com	<i>[Signature]</i>
	Dr. Gordon Sengye	✓		GMP - NACREATOR	NACREATOR	ssengye@yaho.com	<i>[Signature]</i>
	Dr. Tashobora B. Opatato	✓		principal veterinary inspector	MAAIF	tashopato@gmail.com	<i>[Signature]</i>
	Dr. Benjamin Emmanuel	✓		SNO	MAAIF	isinfomae@gmail.com	<i>[Signature]</i>



ATTENDANCE SHEET

Activity:

Date:

Location:


No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	Dr. Lwamu Paul	✓		SVD	MAAIF	0772828689 paul.lwamu@gmxil.com	

2.0 MEETING WITH KUMI DISTRICT LOCAL GOVERNMENT.)

Date: 06/02/2024

Time: 10:00am - 12:000pm

In Attendance:



THE REPUBLIC OF UGANDA
KUMI DISTRICT LOCAL GOVERNMENT

ATTENDANCE SHEET.

Activity: RELIV PROJECT DEVELOPMENT MISSION.
Date: Feb 10th / 2024

S/NO.	NAME	SEX	TITLE	CONTACT	SIGNATURE
01	NELSON ELLINGAT LAKOL	M	Pol. Head	0772916171	[Signature]
02	ADONGO ROSEMARY	F	CHO	0772370348	[Signature]
03	AMANO WUYI	F	Planner	076252982	[Signature]
04	ASIANDU RICHARD	M	DISO	0772906840	[Signature]
05	WASHAKI AHAMBA	M	RDC	0772424109	[Signature]
06	CHRISTIA I. BOU	m	etc	0772199898	[Signature]
07	ALUPO CAROLINE	F	SFO	0770621308	[Signature]
08	Dr. Ogala Emmanuel	M	DTD	0775405935	[Signature]
09	OPIC MOSES	M	IA	0776033868	[Signature]
10	Dr. Omako Edward	M	SVO	0752716578	[Signature]
11	APEDD MOSES	m	S/O	0772554038	[Signature]
12	Ogogol Rafab	M	BPO	0782151884	[Signature]
13	ADONGO SARAH	F	DEO	0782810081	[Signature]
14	ERICA BORO	F	IFAD CLIMATE		[Signature]
15	BARBARA JORDAN - WENZE	F	IFAD consultant	barbarajordan@ifad.org	[Signature]
16	Nomim	F	IFAD	n.bayagabakaba@ifad.org	[Signature]
17	Dr. Mwanja Moses	M	MAA	d.mwanja@ifad.org	[Signature]
18	Dr. Wonekha N. Degraciano	M	MASTP	dwonekha@gmail.com	[Signature]
19	Pontiam Muhwezi	M	EPC	IFAD	[Signature]
20	Anne NOTRET	F	IFAD	"	[Signature]



THE REPUBLIC OF UGANDA
KUMI DISTRICT LOCAL GOVERNMENT

ATTENDANCE SHEET.

Activity... RELIV. PROJECT DEVELOPMENT MEETING.

Date... 06-02-24

S/NO.	NAME	SEX	TITLE	CONTACT	SIGNATURE
	Amiro Susan	F	SCO	0782257969	<i>[Signature]</i>
	Eng. Mawanga Peter P	M	DWO	0772696818	<i>[Signature]</i>
	ALEX OKIRIKI	M	DCCO	0782458280	<i>[Signature]</i>
	Opio Moses	M	DWO	07824362155	<i>[Signature]</i>
	OKELLO MARTIN	M	DATO	078791611	<i>[Signature]</i>
	Okachi Joseph	M	DPP	0775689802	<i>[Signature]</i>
	Oculi John Michael	M	PHO	0772881580	<i>[Signature]</i>
	Nandera Peter	M	CFO	0772445938	<i>[Signature]</i>
	Oculi Samuel	M	SO	0782427887	<i>[Signature]</i>
	Sibekile Mtetwa	M	Enviro.	+266519256 23	<i>[Signature]</i>
	Nakanwagi Hamet	F	PVO	0774561209	<i>[Signature]</i>
	Kato Hussein W.	M	R.O.	0702484734	<i>[Signature]</i>
	Dr. Rogers Ajabo	M	SRO	0778316873	<i>[Signature]</i>
	WILLIAM HONEY	M	P.P.O.	0772514747	<i>[Signature]</i>
	Candy Namata K	F	GLACF	0782 84 777	<i>[Signature]</i>

APPENDIX 5: GRIEVANCE REDRESS MECHANISM

1.0 GENERAL

A grievance redress mechanism (GRM) is a process for receiving, evaluating and addressing project related concerns of, and complaints by, project affected communities or persons.

IFAD's Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. IFAD's GRM requires i) working proactively with the affected parties to resolve complaints; ii) ensuring that the complaints procedure is responsive and operates effectively; and iii) maintaining records of all complaints and their resolutions.

The principles of a good GRM are⁴³:

- A mechanism scaled to risk and adverse impact on affected communities.
- Designed to take into account culturally appropriate ways of handling community concerns.
- A clear and understandable mechanism that is accessible to all segments of the affected communities at no cost.
- Transparency and accountability to all stakeholders.
- A mechanism that prevents retribution and does not impede access to other remedies.

The key steps for grievance management are⁴⁴:

- i. Publicising grievance management procedures so that the mechanism is accessible to everyone.
- ii. Receiving (i.e., collecting, recording, and registering) and keeping track of grievances.
- iii. Reviewing and investigating grievances to assess the nature of the grievance, its severity and legitimacy.
- iv. Developing resolution options commensurate with the nature of grievances and preparing and communicating a clear response and closing out cases when agreement with the complainants is reached.
- v. Monitoring grievances through tracking to ascertain effectiveness, adapting the mechanism to correct inefficiencies, using the results of monitoring for feedback and lessons learned.

2.0 OPERATION OF THE GRIEVANCE REDRESS MECHANISM

The grievance redress mechanism (GRM) is a system by which queries or clarifications about the project will be responded to, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively.

2.1 PURPOSE OF THE GRM

The GRM will serve the following purpose:

- 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.

⁴³ IFC (2009); Good Practice Note – Addressing Grievances from Project-Affected Communities, Guidance for Projects and Companies on Designing Grievance Mechanisms

⁴⁴ *ibid*

- to enhance the project's legitimacy among stakeholders.
- to promote transparency and accountability.
- to deter fraud and corruption and mitigate project risks.

2.2 STRUCTURE OF THE GRM

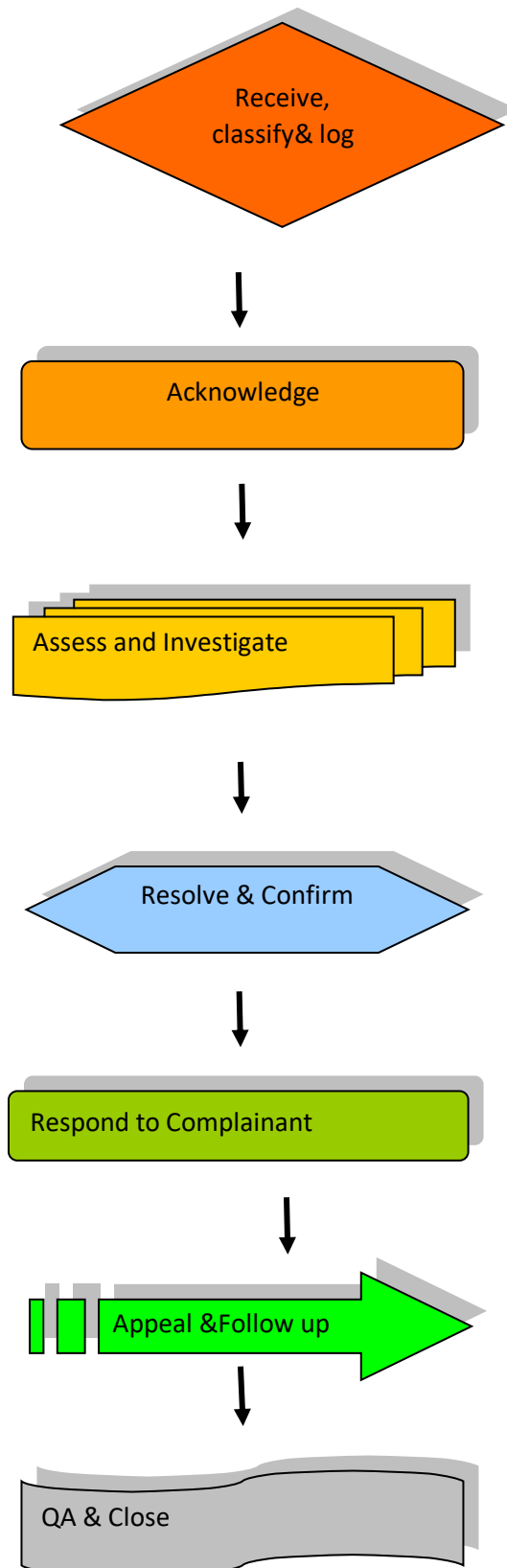
The GRM consists of a small number of components:

- The access point for impacted/concerned people
- Grievance log
- Acknowledgement stage
- Assessment stage
- Passing of resolution
- Response
- Room for appeal
- Case closure

The components are summarized in the process flow diagram below.

2.2.1 Process Overview

The following key steps must be followed for all complaints received by RRELIV staff:



The requirements for each of these steps is detailed below

2.2.2 The Process of the GRM

i) Receive, classify & log

All potential issues must be captured and classified for escalation, review and action as required.

a) 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 RELIV Offices so that it will be seen as credible and accessible. 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 RELIV 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.

b) 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 and all complaints must be prioritized as follows:

- **Priority 1 – urgent**, potential high health and high business impact. **This require 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 RELIV 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 RELIV 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.
- Discretion and flexibility should be exercised in prioritizing all complaints
 - The staff member logging the complaint should review the complaint and its priority with the Sub-project/ RELIV Project Manager before proceeding to the next step.

- The Sub-project/ RELIV Project Manager 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 RELIV Project Manager.**

ii) Acknowledge

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.

- All complaints, regardless of priority, should receive a pro forma acknowledgement sent out 1st class mail on the day of receipt.

iii) Assess & Investigate

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).
- All areas of interaction and communication should be established (who, what, where, when, why etc.) and documented where possible.

iv) Resolve & Confirm

Ensure that the final resolution is clear and fair. Also confirm the proposed action and resolution with another senior person (RELIV Management).

- Ensure that the proposed resolution meets corporate guidelines and does not prejudice RELIV in any unnecessary legal or financial manner.
- Document the proposed action and discuss and agree with the RELIV Project Manager.
- 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.
- This should then be reviewed as part of the bi-monthly quality assurance reviews.

v) Respond to Complainant

Provide the Complainant with the resolution within the timescales promised.

- 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.

vi) Appeal & Follow

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

- All Priority 1 complaints and 95% of priority 2 complaints must be followed up within a reasonable timescale.
- This will be carried out by RELIV Administration team / RELIV Project Manager'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 RELIV Project Managers for action and direct follow up with the complainant.
- The complainant is given room for appealing to the MAAIF or Courts of Law, if he is not satisfied.

vii) QA & Close

Ensure that the RELIV 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 RELIV.

APPENDIX 6: IFAD’S ENVIRONMENTAL AND SOCIAL STANDARDS.

Table APP 6-1 Summery IFAD’s Environmental and Social Standard.

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 1: Biodiversity conservation	<p>-Maintain and conserve biodiversity.</p> <p>-Ensure the fair and equitable sharing of benefits from the utilization of genetic resources.</p> <p>- Respect, 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</p> <p>-Adopt a precautionary approach to natural resource conservation and management to ensure opportunities for environmentally sustainable development.</p>	<p>This Standard and its associated requirements apply to all IFAD-supported projects that are:</p> <ul style="list-style-type: none"> -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. <p>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.</p>
Standard 2: Resource efficiency and pollution prevention	<p>Avoid, minimize, and manage the risks and impacts associated with hazardous substances and materials, including pesticides.</p> <p>Avoid or minimize project-related emissions of short- and long-lived climate pollutants.</p> <p>Promote more sustainable use of resources, including energy, land, and water. and</p> <p>Identify opportunities for improving resource efficiency.</p> <p>This Standard applies to any IFAD-supported projects that:</p> <ul style="list-style-type: none"> -Significantly consume or cause consumption of water, energy, or other resources. <p>-Aim to improve existing waste</p>	<p>This Standard applies to any IFAD-supported projects that:</p> <ul style="list-style-type: none"> -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.

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
	<p>management practices.</p> <ul style="list-style-type: none"> -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 	

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 3: Cultural heritage	<ul style="list-style-type: none"> -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. 	<p>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.</p> <p>Intangible cultural heritage can be defined as practices, representations, expressions, 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.</p> <p>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.</p> <p>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</p>

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
		<p>sites. IFAD will use the SECAP to ensure that any cultural heritage site involved in or potentially affected by an IFAD-supported project is identified and adequately protected.</p>

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 4: Indigenous peoples	<p>Support indigenous peoples to determine priorities and strategies for exercising their right to development.</p> <p>Ensure that each project is designed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC.</p> <p>Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project supported activities in a culturally appropriate and inclusive manner. and</p> <p>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.</p>	<p>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:</p> <p>Priority in time, with respect to occupation and use of a specific territory.</p> <p>The voluntary perpetuation of cultural distinctiveness, which may include aspects of language, social organization, religion and spiritual values, modes of production, laws, and institutions.</p> <p>Self-identification, as well as recognition by other groups, or by state authorities, as a distinct collective and</p> <p>An experience of subjugation, marginalization, dispossession, exclusion, or discrimination</p>
Standard 5: Labour working conditions	<p>Promote direct action to foster decent rural employment.</p> <p>Promote, respect, and realize fundamental principles and rights by:</p> <p>Preventing discrimination and promoting equal opportunities for workers.</p> <p>Supporting freedom of association and the right to collective bargaining. and</p> <p>Preventing the use of child labour and forced labour.</p> <p>Protect and promote the safety and health of workers.</p> <p>Ensure that projects comply with national employment and labour laws, and international commitments.</p> <p>Leave no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g., maternity protection), young</p>	<p>- 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.</p> <p>-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 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.</p> <p>-Government civil servants working in connection with IFAD-supported projects remain subject to the terms and conditions of their existing public sector employment arrangements</p>

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
	workers, migrant workers, workers in the informal economy and workers with disabilities.	
Standard 6: Community health and safety	<p>Ensure quality and safety in the design and construction of programming-related infrastructure, preventing and minimizing potential safety risks and accidents.</p> <p>Avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with project activities.</p> <p>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.</p> <p>Have in place effective measures to address emergency events, whether human-made or natural hazards.</p>	<p>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.</p>
Standard 7: Physical and economic resettlement	<p>Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring alternative project designs and sites.</p> <p>Avoid forced eviction.</p> <p>Ensure that resettlement activities are planned and implemented collaboratively with the meaningful participation</p> <p>Enhance and restore the livelihoods- of all displaced people. And provide explicit guidance to borrowers/recipients/partners on the</p>	<p>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 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.</p> <p>Application of this Standard must 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.</p>

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 8: Financial intermediaries and direct investments	<p>Promote sound environmental, social and climate practices, and sound human resource management with FIs and direct investees.</p> <p>Ensure that FIs and direct investees access and manage any environmental and social risks and impacts of subprojects. and</p> <p>Promote good environmental and social management practices by direct investees and in the subprojects financed by FIs.</p>	<p>This Standard applies to FIs and direct investees that receive financial support from IFAD, guided by its Rural Finance Policy and NSO Framework.</p> <p>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.</p> <p>If a direct investee implements other projects, subprojects, or sub-activities concurrently, the investee should ensure that this Standard is applied.</p>
Standard 9: Climate change	<p>Ensure alignment of IFAD supported projects with the</p> <p>Nationally Determined Contributions of countries and the goals of the Paris Agreement and other international frameworks.</p> <p>Ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts, including both impacts of projects and on them.</p> <p>Apply the mitigation hierarchy in project design.</p> <p>Strengthen the resilience of communities to address the risk of climate change impacts and climate-related disasters. and</p> <p>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.</p>	<p>The requirements of this Standard apply to all IFAD-supported projects that:</p> <p>Have development outcomes that may be threatened by climate change or related disaster risks.</p> <p>May contribute to increased exposure or vulnerability to climate change and related disaster risks. or may produce significant GHG emissions.</p>

APPENDIX 7: ARCHAEOLOGICAL CHANCE FINDS PROCEDURE.

1.0 INTRODUCTION

The purpose of the Archaeological Chance Finds Procedure is to address the possibility of archaeological deposits, finds and features becoming exposed during earthmoving and ground altering activities that will be associated with the **Resilient Livestock Value Chain Project (ReLIV)** and to provide procedures to follow in the event of a chance archaeological find.

The objectives of these procedures, are to identify and promote the preservation and recording of any archaeological material that may be discovered and notify the relevant District Authority, the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery, to resolve any archaeological issue that may arise.

2.0 ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

During the project induction meeting/training, all contractors/construction teams will be made aware of the need to be on the lookout for objects of archaeological interest as they carry out their earthmoving and excavation activities.

Generally, the following procedure is to be executed in the event that archaeological material is discovered:

- All construction activity in the vicinity of the find/feature/site will cease immediately.
- The discovered find/ feature/ site will be delineated immediately.
- Record the find location, and make sure all remains are left in place.
- Secure the area to prevent any damage or loss of removable objects.
- Contact, inform and notify the District Administrator (DA), District Environmental Officer (DEO), the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery,
- The Authorities so notified will avail an archaeologist.
- The archaeologist will assess, record and photograph the find/feature/ site.
- The archaeologist will undertake the inspection process in accordance with all project health and safety protocols under the direction of the District Health and Safety Officer.
- In consultation with the DA, DEO, the Environment Management Authority and the Institution responsible for Museums, the Archaeologist will determine the appropriate course of action to take.

Finds retrieval strategy:

- All investigation of archaeological soils will be undertaken by hand, all finds, osteological remains and samples will be kept and submitted to the National Museum as required. In the event that any artefacts need to be conserved, the relevant license (License to Alter) will be sought from the National Museum Department.
- An on-site office and finds storage area will be provided, allowing storage of any artefacts or other archaeological material recovered during the monitoring process.
- In the case of human remains, in addition to the above, the Local Leadership will be contacted and the guidelines for the treatment of human remains will be

adhered to. If skeletal remains are identified, an osteoarchaeologist will be available to examine the remains.

Conservation:

- A conservator should be made available to the project, if required.
- The on-site archaeologist will complete a report on the findings as part of the licensing agreement in place with the Department of Culture.
- Once authorization has been given by the responsible statutory authorities, the client will be informed when works can resume.

APPENDIX 8: THE INTEGRATED PEST MANAGEMENT PLAN (IPMP).

The following is an outline of the integrated pest management and monitoring plan for the RELIV. 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 I Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation /Practices	Monitoring Institution	Monitoring Frequency
1.	PHYSICAL AND BIOLOGICAL CONTROLS						
1.1	Fodder crops and livestock damage by pests	Low crop yields	Use healthy seed and resistant varieties. Train farmers on importance of using healthy seed	Farm management & farmers	IPM practices	MAAIF - DAR RELIV PMU	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	MAAIF - DAR RELIV PMU	quarterly
			Provide information to farmers on appropriate planting times	Extension workers.	Recommended agricultural practices, IPM practices	Min. of Agriculture RELIV PMU	Half yearly
			Crop rotation, diversity and inter-cropping	Extension workers	Recommended agricultural practices	MAAIF - DAR RELIV PMU	Half yearly
			Train farmers in enhancement of biological control of pests. Research in IPM methods	Extension workers Agricultural Research, NGO's	IPM practices	MAAIF - DAR RELIV PMU	Half yearly

Item No	Potential Issues I Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation /Practices	Monitoring Institution	Monitoring Frequency
			Make farm inputs and information on pests, pesticides and pest resistant seeds available to farmers	Micro-credit institutions, Extension workers, seed suppliers and NGO's	IPM	MAAIF - DAR RELIV PMU	Half yearly
2.	CHEMICAL CONTROLS (PESTICIDES)						
2.1	Issues / Concerns During Pesticide Transportation						
2.1.1	Adulteration	Lack of controls	Inspection, sampling and testing	Transporters	-Packaging and storage standards -Product specifications – Environment Act Agricultural Chemicals (Control) Act, No.1 of 2006.	RELIV PMU	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.	RELIV	-Road traffic regulations. -Vehicle maintenance requirements	- Environment Department	As need arises
2.1.3	Accidental Contamination	Using same vehicle for different purposes	Ensure vehicles are inspected and cleaned when changing use	Transporters	- (pesticide transport regulations).	- Environment Department MAAIF - DAR	As need arises
2.2	Issues/Concerns During Pesticide Storage						
2.2.1	Pesticide loss, degradation and contamination.	-Inappropriate building for storage of pesticides.	-Suitable warehouse	Transporters Agro dealers	- regulations	- Environment Department - RELIV PMU	Before approval of storage faculties for pesticides
		Wrong shelving or	-Routine inspection and	Agro-dealers	- regulations, - manufacturer's	-	Half yearly

Item No	Potential Issues I Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation /Practices	Monitoring Institution	Monitoring Frequency
		stacking	inventory checks		guidelines	- RELIV PMU	
		-Inadequate storage space. --Bad housekeeping - multi-purpose use of warehouse	-Provide adequate and separate storage space for pesticides	Agro dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly
		Theft and vandalism	Restrict entry to pesticide areas. Check pesticides records regularly	Farm management	Farm security policy	Farm management	quarterly
		Over-stocking	Buying the required quantities only	Agro dealers	Agricultural Chemicals (Control) Act, No.1 of 2006.	Farm management	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. Factories Act	Ministry Of Labour, RELIV PMU	Annually
2.2.3	Occupational Health	Exposure to pesticides	-Provide protective clothing and ensure it is used. -Train farmers in proper pesticides handling. -Routine medical examination	Agro dealers Ministry of Agriculture RELIV PMU	labour regulations, regulations	-Min. of labour. - RELIV PMU	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	Pesticide manufacturers regulations	-, RELIV PMU -DEO	Annually

Item No	Potential Issues I Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation /Practices	Monitoring Institution	Monitoring Frequency
				RELIV PMU			
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 Act	- -Min of labour - RELIV PMU	Annually
2.3.3	Accidental poisoning	lack of knowledge of pesticide potency and negligence	Training	Ministry of Agriculture RELIV PMU	Pesticides Act	- -DEO	Annually
		-Equipment malfunction -Wrong type of equipment. - Time and method of application (spraying)	-Regular maintenance of equipment. -Use recommended equipment. -Use approved methods of application. -Use recommended protective clothing. -Training seminars -Integrated Pesticide Management	-Ministry of Agriculture RELIV PMU	-Manufacturer's recommendations. -Equipment maintenance policy	- - RELIV PMU	Annually
		-Improper cleaning of equipment.	-Clean equipment and dispose equipment as recommended by	Ministry of Agriculture RELIV PMU	-Manufacturer's recommendations.	- RELIV PMU	Annually

Item No	Potential Issues I Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation /Practices	Monitoring Institution	Monitoring Frequency
		-Improper disposal of cleaning water and old equipment	<p>manufacturer.</p> <ul style="list-style-type: none"> -Use bio-beds and draining dams to dispose cleaning and drainage waters -Integrated Pesticide Management 		- regulations. Water resources regulations	- RELIV PMU	
		Multi-purpose use of equipment or pesticides	<p>Control use of equipment and pesticides.</p> <ul style="list-style-type: none"> -Thorough cleaning of equipment -Training -Integrated Pesticide Management 	Ministry of Agriculture	Pesticides Act	- - RELIV PMU	Annually
2.4.	Issues / Concerns during disposal of pesticides containers and equipment						
2.4.1	Water and Environmental pollution	<ul style="list-style-type: none"> -Cleaning of equipment, -Disposal of remains of pesticides -Disposal of containers and equipment 	<ul style="list-style-type: none"> -Use of bio-beds, draining channels and draining dams. -Use chemical remains to re-spray. -Clean equipment in one place. -Use plants such as water lilies to absorb waste pesticides. -Take stock of pesticide containers -Integrated Pesticide Management 	<ul style="list-style-type: none"> --- RELIV PMU -Department of Environmental -Water resources Board 	<ul style="list-style-type: none"> -Pesticides and equipment - manufacturer's recommendations. -Water pollution standards. 	Department of Environment.	Annually

Item No	Potential Issues I Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation /Practices	Monitoring Institution	Monitoring Frequency
2.4.2	Post Application Monitoring	Pesticides residues in the food chain	<ul style="list-style-type: none"> -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 	<ul style="list-style-type: none"> -- RELIV PMU - 	<ul style="list-style-type: none"> -Environmental standards -Wastewater standards 	<ul style="list-style-type: none"> -Department of Environment -Water Resources Board - RELIV PMU 	Annually

APPENDIX 9: THE LABOUR, COMMUNITY HEALTH, AND SAFETY MANAGEMENT PLAN.

1.0 RELEVANT POLICIES AND PROCEDURES

The engagement and treatment of program staff will be made on the basis of characteristics related to inherent job requirements. It will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.

Contractors will be responsible for mitigating all environmental and social impacts of subprojects resulting from activities directly under their control. The RELIV PMU SECAP Specialist will incorporate standardized environmental and social clauses in the tender and contract documents in order for potential bidders to be aware of environmental and social performance requirements that will be expected from them and are able to reflect that in their bids and required to implement the clauses for the duration of the contract.

The contractor will be required to ensure that all documentation related to environmental and social management, including the LMP, is available for inspection at any time by the respective Labour Ministries or their appointed agents in the different countries. The contractual arrangements with each project worker must be clearly defined in accordance with each local Legislation. All environmental and social requirements will be included in the bidding documents and contracts in addition to any additional clauses, which are contained, in the Projects environmental and social instruments.

The RELIV PMU, Contractors, suppliers or sub-contractors will never engage forced labour. Forced labour includes bonded labour (working against an impossible debt), excessive limitations of freedom of movement, excessive notice periods, retaining the worker's identity or other government-issued documents or personal belonging, imposition of recruitment or employment fees payable at the commencement of employment, loss or delay of wages that impede the workers' right to end employment within their legal rights, substantial or inappropriate fines, physical punishment, use of security or other personnel to force or extract work from project workers, or other restrictions that compel a project worker to work on a non-voluntary basis.

2 LABOUR INFLUX AND GENDER BASED VIOLENCE

Contractors will need to maintain labour relations with local communities through a code of conduct (CoC). The CoC commits all persons engaged by the contractor, including sub-contractors and suppliers, to acceptable standards of behaviour. The CoC must include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and sexual harassment (e.g., termination). The CoC should be written in plain language and signed by each worker to indicate that they have:

- Received a copy of the CoC as part of their contract.
- Had the CoC explained to them as part of induction process.
- Acknowledged that adherence to this CoC is a mandatory condition of employment.
- Understood that violations of the CoC can result in serious consequences, up to and including dismissal, or referral to legal authorities.

A copy of the CoC shall be displayed in a location easily accessible to the community and

project affected people. It shall be provided in English and the local language.

Contractors must address the risk of gender-based violence, through: Mandatory training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. Training may be repeated.

- Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted.
- Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
- Developing a system to capture gender-based violence, sexual exploitation and workplace sexual harassment related complaints/issues.

This process will be under the portfolio of the SECAP Specialist to be recruited under the PMU and shall identify and engage the relevant stakeholders on GBV and HIV and Aids related issues.

3 OCCUPATIONAL, HEALTH AND SAFETY

RELIV is committed to:

- Complying with the Uganda Governments' legislation and other applicable requirements which relate to the occupational health and safety hazards.
- Enabling active participation in OH&S risks elimination through promotion of appropriate skills, knowledge and attitudes towards hazards.
- Continually improving the OH&S management system and performance.
- Communicating this policy statement to all persons working under the control of RELIV with emphasis on individual OH&S responsibilities.
- Availing this policy statement to all interested parties at all participating educational facilities and institutions.

The RELIV SECAP Specialist will be responsible for overseeing the workplace Safety, Health and Environmental issues. He/she must:

- Identify potential hazards.
- In collaboration with the employer, investigate the cause of accidents at the workplace.
- Attend meetings of the safety and health committee to which that safety and health representative is a member.
- Make recommendations to the employer in respect of safety and health matters affecting employees.

Further to avoid work related accidents and injuries, the contractor will:

- Provide occupational health and safety training to all employees involved in RELIV works.
- Ensure availability of first aid box.
- Provide employees with access to toilets and potable drinking water.
- Provide safety and occupational safety measures to workers with Personal Protection Equipment (PPE) when installing solar systems to prevent accidents during replacement and installation and follow safety measures in installing them.
- Properly dispose of solid waste at designated permitted sites landfill allocated by the local authorities.

Further to enforcing the compliance of environmental management, contractors are responsible and liable of safety of site equipment, labours and daily workers attending to the site installations and safety of citizens for each sub-project site, as mandatory measures.

APPENDIX 10: THE TARGETED ADAPTATION DECISION MATRIX TABLE

Table APP 10.1 Adaptation decision matrix table

	NAME	RATIONALE										
1	Introduce new varieties of fodder, e.g., with greater drought or flood resistance.	New varieties of fodder 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 and enhance livestock feed security.										
2	Promote livestock 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 integrated systems involving dairy and beef livestock and/or aquaculture to improve resilience.	The farmers have to diversify their livelihoods so that if the income from dairy fails, the other income source will come in handy.										
4	Improve pest and disease control practices	The improvement of pest and disease control practices will ensure healthy animals which translates to higher dairy productivity.										
5	Make contingency plans to deal with loss of fodder crops due to drought or flood	contingency plans to deal with loss of fodder crops due to drought or flood will ensure that the animals have adequate feed even during difficult times.										
Select Sector	Adaptation options	Technical feasibility	Cost-benefit ratio	Address climate risks	Accessibility for smallholders	Flexibility (i.e avoids lock-in)	Mitigation co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability	Total Score	
DAIRY	Introduce new varieties of fodder, e.g., with greater drought or flood resistance	3	2	3	3	3	3	3	3	Suitable	23	
	Diversify livelihoods / create income sources from	2	2	2	2	2	3	2	2	Suitable	17	

	activities other than livestock.										
	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 / dams to cope with drought	2	2	2	2	1	2	1	1	Suitable	13
	Identify alternative sources of water supply during drought	2	2	2	2	3	1	2	2	Suitable	16
	Promote livestock 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 of agro-forestry systems	2	2	2	2	2	3	2	2	Suitable	17
	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	2	2	2	2	1	2	1	1	Suitable	13

	conservation (afforestation, check dams, contour bunds and vetiver)									ble	
	Promote flood control structures and river flood defences near vulnerable farming areas	2	2	1	1	1	2	2	2	Not Suitable	0
	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 flood plains where flood sediments increase productivity of pastures)	1	2	1	2	2	2	2	2	Not Suitable	0
	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 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	1	2	2	2	1	1	2	1	Not Suitable	0

	climate										
	Research new fodder crops, new breeds and opportunities/ risks of introduction.	1	2	1	2	2	2	2	2	Not Suitable	0
	Expand agricultural areas to regions with lower climate risk	1	1	1	1	1	2	1	2	Not Suitable	0
	Make contingency plans to deal with loss of fodder crops due to drought or flood	3	3	2	3	2	2	2	2	Not Suitable	19
	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	2	2	2	1	2	1	1	Suitable	13
	Make use of integrated systems involving dairy and beef livestock and/or aquaculture 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 fodder cropping strategies.	2	1	2	2	2	2	3	3	Not Suitable	0
	Assume a lower life expectancy and plan for more frequent infrastructure replacement activities.	1	1	1	1	1	1	1	1	Not Suitable	0
	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
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V.3. INTERGRATED PEST MANAGEMENT PLAN (IPMP)

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries
(MAAIF)
Kampala
Uganda**

1. INTRODUCTION

1.1 BACKGROUND

This Labour Management Procedures (LMP) was developed by to manage risks under the Resilient Livestock Value Chain Project (ReLIV), funded by IFAD. The aim of the ReLIV project is to support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

1.2 RELIV GOAL, OBJECTIVE AND OUTCOME

The proposed project goal is to **“Contribute to the improved livelihoods of smallholder livestock farmers”** (aligned to NDP III goal: “Increased Household Incomes and Improved Quality of Life of Ugandans”)

The proposed Project development Objective (PDO) is to **“Enhance income, nutrition and resilience of smallholder dairy and beef producers”**.

The PDO will be achieved through three outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

The project will target poor small-scale cattle farmers and (agro) pastoralists, in line with IFAD’s mandate, and should also support the development of market-oriented production and creation of off-farm jobs. The project will target 41 districts in the cattle corridor, directly benefiting around 200,000 households (about 1,000,000 people), out of which 40% women and 25% youth.

1.3 ACTIVITIES OF THE BENEFICIARIES

The Small-scale farmers will be involved in rearing beef and dairy Cattle, Growing Fodder for dairy Cattle, producing feed for beef and dairy cattle, collecting milk from the various smallholder farmers to central points, MCPs and MCCs for further delivery to milk processing plants, Processing milk into various products which include sour milk, cheese and yoghurt, establishment of slaughterhouses and slaughter slabs, processing meat and meat products. The intensification of these beef and dairy livelihood activities will entail the use of agro chemicals (pesticides, fertilisers etc). This outline of the Integrated Pest Management Plan (IPMP) has been developed as a decision-making process for the selection, implementation, and evaluation of pest management practices to be employed in the project.

2. RATIONALE AND OBJECTIVES OF THE PEST MANAGEMENT PLAN

2.1 PEST CONTROL PRACTICES

Pests are increasingly becoming a menace in the livestock sector. The farmers carry out routine management of pests on their animals and in their fields, mainly through the use of pesticides. The common pest control practices 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.

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.

2.2 PESTICIDES USE IN CROPS (FODDER PRODUCTION)

2.2.1 Growing a Healthy Fodder/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.

2.2.2 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.

2.2.3 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.

2.2.4 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.

In the Horticulture sector it was noted during the field trip that crop diversification and rotation was practiced to a limited extent. Some of the crops were difficult to sell due to lack of markets. The farmers mentioned lack of markets as one of the reasons why they preferred to stick to the crops that had ready markets. Crop rotation is also difficult due to limitations on availability of land.

2.2.5 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.

2.2.6 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.

2.2.7 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.

2.2.8 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.

2.2.9 Proposed Management of major pests of pastures grasses and legumes

The tropical pastures 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 Uganda not reported.

Therefore, the major thrust in pest management in fodder production, pasture legumes and grasses under RELIV will be to identify the pest species present in Uganda, 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 meat and milk and their high agro-chemical price as compared to animal product income. Therefore, the RELIV thrust will be to establish pest spectrum and biodata in Ugandan pastures and forages where the target species will be grown.

2.3 PESTICIDES USE IN LIVESTOCK

2.3.1 Current Pesticides use in livestock

The pesticides used in livestock are mainly acaricides against tick control. The livestock in Uganda, especially in the Northern Districts, 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. ECF).

In order to minimize the tick attack and disease transmission, the cattle keepers spray the acaricides on their cattle at their kraal at homesteads. In the past and during colonial period, Government used to build dips for communal use. However, the tick control was left to cattle keepers themselves.

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.

3. DESCRIPTION OF PEST MANAGEMENT PRACTICE

3.1 INTEGRATED PEST MANAGEMENT

The Integrated Pest Management (IPM) refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. Generally, it is the pest management technique of choice. It involves the following processes:

- d) managing pests (keeping them below economically damaging levels) rather than seeking to eradicate them,
- e) relying, to the extent possible, on non-chemical measures to keep pest populations low; and
- f) selecting and applying pesticides, when they have to be used, in a way that minimises 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 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:

- **Biological control:** the introduction of insects, mites, micro-organisms that prey on or parasitize harmful species.
- **Bio-pesticides:** these have a pathogenic micro-organism as the active ingredient, for example a bacterium, fungus or a virus.
- **Botanicals:** botanical pesticides contain plant extracts that have biocidal properties e.g., Neem (*Azadirachta indica*).
- **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 agro-ecosystem. 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 RELIV sites 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:

- **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.
- **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.
- **Chemical Control:**
This involves selecting a pesticide with the lowest toxicity to humans and non-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:

- f) All pesticides must be purchased from registered pesticides dealers.
- g) Pesticides must be purchased strictly according to the requirements to avoid over-stocking. A follow up system for the procurement, transportation, receipt and custody of pesticides must be established.
- h) 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.
- i) 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.
- j) 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 Act and the Environmental Management Act.

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. INSTITUTIONAL, LEGISLATIVE AND REGULATORY FRAMEWORK

4.1 LEGAL FRAMEWORK AND ENFORCEMENT

Uganda imports substantial amounts of pesticides to control pests and diseases. In order to sustainably manage the pesticides, the government of Uganda has put in place the legal framework to control pesticides. The following laws and policies have been put in place to manage pesticides in Uganda.

4.1.1 Constitution of Republic of Uganda (1995)

Article 39 of the 1995 Constitution of Republic of Uganda (As Amended in 2005) provides that, every person has a right to a clean and health environment, in particular, the State is required to take all possible measures to prevent or minimize damage and destruction to land, air, and water resources due to pollution and other causes. The Constitution imposes the duty of the State to important natural resources including land, water, minerals, oil, fauna and flora on behalf of people of Uganda.

4.1.2 Agricultural Chemicals (Control) Act, No.1 of 2006

The other important law that provides for the management of pesticides is the Agricultural Chemicals (Control) Act, No.1 of 2006. This Act is enacted to control and regulate the manufacture, storage, distribution, trade, use, importation and exportation of agricultural chemicals and other related matters. Agricultural chemicals are defined to include plant protection chemicals, fungicides, insecticides, nematicides, herbicides, miticides, bactericides, rodenticides, molluscicides, avicides, fertilizers, growth regulators, wood preservatives, bio-pesticides, and bio-fertilizers or any other chemical used for promoting and protecting the health of plants, plant products and by products.

4.1.3 Occupational Safety and Health Act, No 9 of 2006

The Occupational Safety and Health Act, No. 9 of 2006 provides for the safety of persons at work such as factories, plantations and other workplaces where hazardous work may be found. The Act spells out the duties and obligations of both employers and employees in ensuring safety at work places. According to article 34(4) of the Act, children are entitled to be protected from social or economic exploitation and shall not be employed in or required to perform work that is likely to be hazardous or interfere with their education or to be harmful to their health or physical, mental, spiritual, or moral development. The Uganda National Bureau of Standards Act, Cap 327 Section 21 (1) prohibits any person to import, distribute any commodity for which a compulsory standard specification has been declared unless such commodity conform to the compulsory standard or unless the commodity bears a distinctive mark.

4.1.4 Biosafety and biotechnology bill 2012

Biosafety and biotechnology bill 2012 covers issues around biotechnology, especially genetic modification. This is relevant to beef and Dairy production because some of the most widely used modifications confer pest resistance, and in Uganda a number of such traits have been engineered and tested. Enactment of the Bill would provide the necessary regulatory framework for the commercialization and release of these materials, which would have substantial implication for the way in which pest problems are managed.

4.1.5 National Environment Act, Cap 153

The National Environment Act, Cap 153 prohibits pollution contrary to established standards, prohibits the illegal trafficking of hazardous waste and gives any person

generating hazardous wastes the duty of management of the waste, including management of pesticides.

5. MITIGATION AND EMERGENCY PREPAREDNESS ACTIONS/PLAN

5.1 INTEGRATED PEST MANAGEMENT AND MONITORING PLAN (IPMP)

The following is an outline of the integrated pest management and monitoring plan for the RELIV. 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/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
1. PHYSICAL AND BIOLOGICAL CONTROLS							
1.1	Fodder crops and livestock damage by pests	Low crop yields	Use healthy seed and resistant varieties. Train farmers on importance of using healthy seed	Farm management & farmers	IPM practices	MAAIF - DAR RELIV PMU	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	MAAIF - DAR RELIV PMU	quarterly
			Provide information to farmers on appropriate planting times	Extension workers.	Recommended agricultural practices, IPM practices	Min. of Agriculture RELIV PMU	Half yearly
			Crop rotation, diversity and inter-cropping	Extension workers	Recommended agricultural practices	MAAIF - DAR RELIV PMU	Half yearly
			Train farmers in enhancement of biological control of pests. Research in IPM methods	Extension workers Agricultural Research, NGO's	IPM practices	MAAIF - DAR RELIV PMU	Half yearly
			Make farm inputs and information on pests, pesticides and	Micro-credit institutions, Extension workers, seed suppliers and	IPM	MAAIF - DAR RELIV PMU	Half yearly

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
			pest resistant seeds available to farmers	NGO's			
2. CHEMICAL CONTROLS (PESTICIDES)							
2.1 Issues / Concerns During Pesticide Transportation							
2.1.1	Adulteration	Lack of controls	Inspection, sampling and testing	Transporters	-Packaging and storage standards -Product specifications – Environment Act Agricultural Chemicals (Control) Act, No.1 of 2006.	RELIV PMU	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.	RELIV	-Road traffic regulations. -Vehicle maintenance requirements	- Environment Department	As need arises
2.1.3	Accidental Contamination	Using same vehicle for different purposes	Ensure vehicles are inspected and cleaned when changing use	Transporters	- (pesticide transport regulations).	- Environment Department MAAIF - DAR	As need arises
2.2 Issues/Concerns During Pesticide Storage							
2.2.1	Pesticide loss, degradation and contamination.	- Inappropriate building for storage of pesticides	-Suitable warehouse	Transporters Agro dealers	- regulations	- Environment Department - RELIV PMU	Before approval of storage facilities for pesticides
		Wrong shelving or stacking	-Routine inspection and inventory checks	Agro-dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly
		- Inadequate storage space. -- Bad housekeeping - multi-purpose use of warehouse	-Provide adequate and separate storage space for pesticides	Agro dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
		Theft and vandalism	Restrict entry to pesticide areas. Check pesticides records regularly	Farm management	Farm security policy	Farm management	quarterly
		Overstocking	Buying the required quantities only	Agro dealers	Agricultural Chemicals (Control) Act, No.1 of 2006.	Farm management	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. Factories Act	Ministry Of Labour, RELIV PMU	Annually
2.2.3	Occupational Health	Exposure to pesticides	-Provide protective clothing and ensure it is used. -Train farmers in proper pesticides handling. -Routine medical examination	Agro dealers Ministry of Agriculture RELIV PMU	labour regulations, regulations	-Min. of labour. - RELIV PMU	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 RELIV PMU	Pesticide manufacturers regulations	-, RELIV PMU -DEO	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 Act	- -Min of labour - RELIV PMU	Annually
2.3.3	Accidental poisoning	lack of knowledge of pesticide potency and negligence	Training	Ministry of Agriculture RELIV PMU	Pesticides Act	- -DEO	Annually

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
		- Equipment malfunction - Wrong type of equipment. - Time and method of application (spraying)	- Regular maintenance of equipment. - Use recommended equipment. - Use approved methods of application. - Use recommended protective clothing. - Training seminars - Integrated Pesticide Management	- Ministry of Agriculture RELIV PMU	- Manufacturer's recommendations. - Equipment maintenance policy	- RELIV PMU	Annually
		- Improper cleaning of equipment.	- Clean equipment and dispose equipment as recommended by manufacturer.	Ministry of Agriculture RELIV PMU	- Manufacturer's recommendations.	- RELIV PMU	Annually
		- Improper disposal of cleaning water and old equipment	- Use bio-beds and draining dams to dispose cleaning and drainage waters - Integrated Pesticide Management		- regulations. Water resources regulations	- RELIV PMU	
		Multi-purpose use of equipment or pesticides	Control use of equipment and pesticides. - Thorough cleaning of equipment - Training - Integrated Pesticide Management	Ministry of Agriculture	Pesticides Act	- RELIV PMU	Annually
2.4	Issues / Concerns during disposal of pesticides containers and equipment						
2.4.1	Water and Environmental pollution	- Cleaning of equipment, - Disposal of remains of pesticides - Disposal of	- Use of bio-beds, draining channels and draining dams. - Use chemical remains to re-spray. - Clean equipment in one place.	--- RELIV PMU - Department of Environmental - Water resources Board	- Pesticides and equipment - manufacturer's recommendations. - Water pollution standards.	Department of Environment.	Annually

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
		containers and equipment	<ul style="list-style-type: none"> -Use plants such as water lilies to absorb waste pesticides. -Take stock of pesticide containers -Integrated Pesticide Management 				
2.4.2	Post Application Monitoring	Pesticides residues in the food chain	<ul style="list-style-type: none"> -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 	-- RELIV PMU -	-Environmental standards -Wastewater standards	<ul style="list-style-type: none"> - Department of Environment -Water Resources Board - RELIV PMU 	Annually

V.4. TARGETTED ADDAPTATION ANALYSIS (TAA)

THE IMPACTS OF CLIMATE CHANGE ON DAIRY PRODUCTION

The potential effects of climate stressors (Figure 1), include drought, rainfall variability, floods, temperature increases, on beef and dairy production. The climate impacts point to the connection between climate change and beef and dairy productivity. It shows that four climate stressors – temperature increase, rainfall variability, droughts, and floods – affect the beef and dairy sectors and ultimately reduce their productivity.

Mean temperatures in Uganda are projected to increase by up to 1.9°C by 2050, under an RCP8.5 scenario. The vulnerable sectors to the rise 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 1).

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.

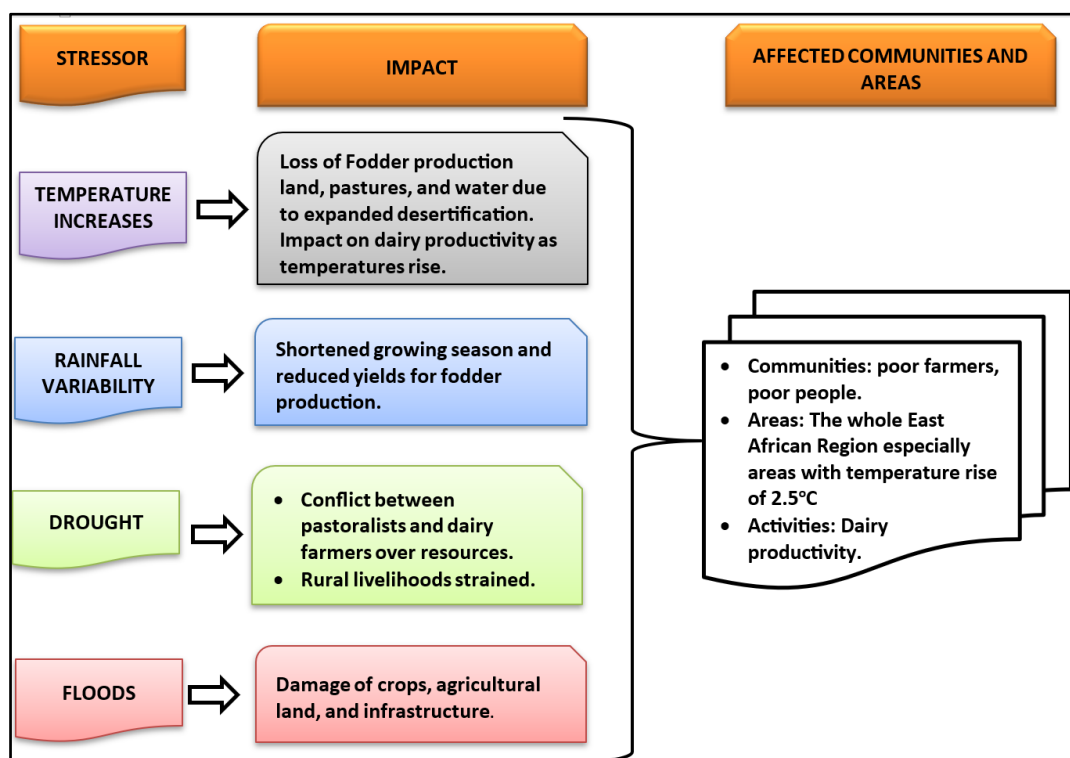


Figure 1. Climate stressors and their potential impacts on agriculture.

The climate change impacts will occur through different channels and will affect each of the four beef and dairy production dimensions of food security: access, availability, utilisation and stability⁴⁵.

Changes in temperature, precipitation, water availability, extreme climate events, and atmospheric composition will have direct effects on beef and dairy production, which may then translate into impacts on prices, incomes and livelihoods in general.

Table 1. Climate-change impacts on different aspects of beef and dairy production security⁴⁶

BEEF & DAIRY PRODUCTION SECURITY DIMENSION	POTENTIAL IMPACTS
Availability	<ul style="list-style-type: none"> • 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 fodder crop and livestock pests and diseases, • Higher post-harvest losses as a result of climate change.
Access	<ul style="list-style-type: none"> • Loss of agricultural income due to reduced yields and higher costs of production inputs 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	<ul style="list-style-type: none"> • Greater instability of supply due to increased frequency and severity of extreme events, including droughts, • Instability of incomes from agriculture.
Utilisation	<ul style="list-style-type: none"> • Impact on food safety due to increased temperatures, • Impacts on nutrition resulting from reduced water quality and quantity, • Climate induced morbidity.

⁴⁵ Food and Agriculture Organisation (FAO) (2016) The state of food and agriculture. Climate change, agriculture and food security. FAO, Rome, Italy.

⁴⁶ 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.

1. ADAPTATION MEASURES

This section provides a snapshot of the most important national level adaptation and mitigation efforts. Adaptation to climate change for beef and dairy production may include shifting planting periods for fodder crops, growing of drought tolerant fodder crops, rearing more resilient breeds, and raising dairy cattle mainly in the cooler regions of country.

2.1 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 livestock systems. Identifying adaptation needs helps prioritize actions and allocate resources to address the most critical challenges. Based on the emerging findings of this study, the adaptation needs in the beef and dairy sector in Uganda are as shown in the following sub-sections:

2.1.1 Access to climate-smart technologies

Farmers need access to climate-smart technologies such as improved livestock breeds, drought-tolerant forage varieties, and energy-efficient beef processing and milk cooling and processing equipment. These technologies can enhance productivity, conserve resources, and mitigate climate change impacts. Improving the beef and dairy industry's production efficiency is an effective way towards reducing emissions per unit of milk or beef (Place & Mitloehner, 2010).

2.1.2 Capacity building and knowledge transfer

Providing training programs, Farmer Field Schools, and extension services can enhance farmers' technical knowledge and skills in beef and dairy management. This includes training on sustainable feeding practices, breeding strategies, disease control measures, and effective use of water resources.

2.1.3 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).

2.1.4 Strengthening infrastructure

Investing in rural infrastructure, such as improved road networks, electricity supply, and milk collection and processing facilities, slaughterhouses and meat processing plants, can reduce transportation costs, post-harvest losses, and improve overall market access for dairy farmers.

2.1.5 Climate information and early warning systems

Developing and disseminating climate information, early warning systems, and advisory services can assist livestock producers in making informed decisions related to feed management, breeding, and disease control. This helps pastoralists anticipate and adapt to climate-related risks. Market information systems form a key component of these early warning systems.

2.1.6 Policy support and institutional strengthening

Developing supportive policies and regulations that address the specific needs of the beef and dairy sector, as well as strengthening the institutions involved in research, extension, and market development, are crucial for enabling a conducive environment for livestock farmers to thrive. Collaboration between government departments, research institutions, livestock cooperatives, financial institutions, and development partners is required to address the identified key barriers and adaptation needs.

3. TARGETED ADAPTATION ASSESSMENT

3.1 FEASIBLE 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 LONGLIST OF ADAPTATION OPTIONS

A longlist of adaptation options based on climatic hazards, sensitivity, exposure, adaptive capacity and agroecological zone are presented in Table 2 below. The longlist 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 2 Climate change adaptation options.

ID	Climate risks	Potential impacts on value chains	Suggested adaptation option	
1	Increased temperatures and droughts	Low water availability and reduced fodder crop yields	Introduce new varieties of fodder, e.g., with greater drought or flood resistance	
			Diversify livelihoods / create income sources from activities other than livestock.	
			Promote community and small-scale irrigation structures and better water management practices	
			Build new storage facilities / dams to cope with drought	
				Identify alternative sources of water supply during drought
		High temperatures reduce dairy productivity and dairy products shelf life	Promote livestock 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 and loss of substantial investment for farmers	Promote design of attractive and affordable crop and livestock insurance products 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 lead to pest and disease outbreaks	Improve pest and disease control practices			
	Enhance capacity in pest and disease surveillance			
2	Increased precipitation intensities and flood occurrence	Increased precipitation lead to landslide, occurrence of floods, loss of fodder crops, livestock and damage investment infrastructures	Promote micro catchment conservation (afforestation, check dams, contour bunds and vetiver)	
			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 of fodder.
			Research traditional farming practices to identify approaches that may be suited to a different climate
			Research new fodder crops, new breeds, and opportunities/ risks of introduction.
			Expand agricultural areas to regions with lower climate risk
			Make contingency plans to deal with loss of fodder 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 dairy and beef livestock and/or aquaculture to improve resilience.
5	Increased occurrence of strong winds and cyclones	Strong winds and cyclones led to loss of fodder crops, livestock and investment assets	Build expertise in the use of climate forecast information for improvement of fodder cropping strategies.
			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

3.3 PRIORITIZATION OF ADAPTATION OPTIONS

Having developed a longlist of adaptation options, the criteria for prioritisation is presented as in Table 3 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-scale farmers, flexibility (i.e., avoids lock-in), mitigation co-benefits, transformative potential. The approach is adapted from IFAD ([Thematic Brief Irrigated Crops \(ifad.org\)](http://www.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 are scored the highest are most suitable for a project.

Table 3. 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 addresses Climate Risk	Adaptation option is not relevant or may not be effective for the risks identified	Adaptation option effectively addresses at least one of the identified risks	Adaptation option is relevant for all of the major climate risks identified
4	Accessibility for SHF	Adaptation option is inaccessible for the main project beneficiaries (e.g. unaffordable, requiring regular complex maintenance), or exacerbates existing inequalities.	Adaptation option is accessible for the majority of the project's target beneficiaries.	Adaptation option is accessible to project beneficiaries and specifically benefits women or other marginalised groups.
5	Flexibility (avoids lock-in)	The adaptation option has a long 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	Transformative potential	Adaptation option is limited to small increases in the resilience of target group but does not involve changes in wider systems.	Adaptation option operates at scale or enables wider implementation of the 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	Complementarity to IFAD themes	No complementarity	Complements at least one other cross-cutting theme that is directly relevant to adaptation outcomes	Complements more than one other cross-cutting theme to support systemic resilience.

3.4 ADAPTATION DECISION MATRIX TABLE

Table 3-1 Adaptation decision matrix table

PRIORITY ADAPTATION OPTIONS	NAME	RATIONALE									
1	Introduce new varieties of fodder, e.g., with greater drought or flood resistance.	New varieties of fodder 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 and enhance livestock feed security.									
2	Promote livestock 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 integrated systems involving dairy and beef livestock and/or aquaculture to improve resilience.	The farmers have to diversify their livelihoods so that if the income from dairy fails, the other income source will come in handy.									
4	Improve pest and disease control practices	The improvement of pest and disease control practices will ensure healthy animals which translates to higher dairy productivity.									
5	Make contingency plans to deal with loss of fodder crops due to drought or flood	contingency plans to deal with loss of fodder crops due to drought or flood will ensure that the animals have adequate feed even during difficult times.									
Select Sector	Adaptation options	Technical feasibility	Cost-benefit ratio	Addresses climate risks	Accessibility for small holders	Flexibility (i.e avoid lock-in)	Mitigation co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability	Total Score
DAIRY	Introduce new varieties of fodder, 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 livestock.	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 / dams to cope with drought	2	2	2	2	1	2	1	1	Suitable	13

	Identify alternative sources of water supply during drought	2	2	2	2	3	1	2	2	Suitable	16
	Promote livestock 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 of agro-forestry systems	2	2	2	2	2	3	2	2	Suitable	17
	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, check dams, contour bunds and vetiver)	2	2	2	2	1	2	1	1	Suitable	13
	Promote flood control structures and river flood defences near vulnerable farming areas	2	2	1	1	1	2	2	2	Not Suitable	0
	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 flood plains where flood sediments increase productivity of pastures)	1	2	1	2	2	2	2	2	Not Suitable	0
	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 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 fodder crops, new breeds and opportunities/ risks of introduction.	1	2	1	2	2	2	2	2	Not Suitable	0
	Expand agricultural areas to regions with lower climate	1	1	1	1	1	2	1	2	Not	0

	risk									Suitable	
	Make contingency plans to deal with loss of fodder crops due to drought or flood	3	3	2	3	2	2	2	2	Not Suitable	19
	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	2	2	2	1	2	1	1	Suitable	13
	Make use of integrated systems involving dairy and beef livestock and/or aquaculture 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 fodder cropping strategies.	2	1	2	2	2	2	3	3	Not Suitable	0
	Assume a lower life expectancy and plan for more frequent infrastructure replacement activities.	1	1	1	1	1	1	1	1	Not Suitable	0
	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

3.5 IMPLEMENTATION AND MONITORING

The oversight for the TAA implementation will be undertaken by the Climate Change Adaptation Specialists, recruited under the country PMUs. The country PMUs will customise, update and include TAA 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 TAA 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.

4. CONCLUSIONS AND KEY RECOMMENDATIONS

This chapter analysed the most common observed hazards, factors that compound beef 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 fodder, e.g., with greater drought or flood resistance.
- b) Promote livestock production in cooler areas of the region and capacity building in cold chain handling and management.
- c) Make use of integrated systems involving dairy and beef livestock and/or aquaculture to improve resilience.
- d) Improve pest and disease control practices and
- e) Make contingency plans to deal with loss of fodder crops due to drought or floods.

V.5. GHG emissions and soil carbon sequestration accounting for DaIMA and ReLIV

1. GHG accounting extract from the DaIMA project

For the DaIMA project, the analysis shows a GHG emission reduction for Uganda of 7.19% (488,039 tCO₂ eq) compared to the situation without the project (WOP) over the 20-year project capitalisation period.

Table 1: GHG emission reduction results in DaIMA

Country	WOP (tCO ₂ eq.)	With DaIMA (tCO ₂ eq.)	GHG emissions reduction	GHG emissions reduction
Rwanda	583,765	525,736	-9.94%	58,029
Uganda	6,788,977	6,300,938	-7.19%	488,039
Tanzania	1,361,973	1,284,789	-5.67%	77,183
Kenya	2,932,208	2,864,394	-2.31%	67,814
DaIMA	11,666,922	10,975,857	-5.92%	691,066

The total area of pasture and rangeland to be rehabilitated in Uganda is estimated at 117,121 ha. Over the 20-year capitalisation period of the project, the increase in carbon sequestration in rehabilitated rangeland soils is expected to be 145,814 tC or 534,652 tCO₂ eq. compared to the situation without the project.

Table 2: Soil C sequestration results in DaIMA

Country	Area for rehabilitation (ha)	Soil C sequestration increase in 20 years	
		in tC	in tCO ₂ eq.
Rwanda	51,773	64,457	236,341
Uganda	117,121	145,814	534,652
Tanzania	46,758	58,213	213,448
Kenya	52,388	65,222	239,149
DaIMA	268,040	333,706	1,223,590

The total tCO₂ eq avoided or sequestered for Uganda over a 20-year period is therefore equal to the sum of 488,039 t CO₂ eq and 534,652 t CO₂ eq in the two tables above, giving 1,022,691 t CO₂ eq.

2. GHG accounting for the ReLIV project

Cattle population comparison:

- DaIMA: 32% of cattle population in 30 districts
- ReLIV: 49% of cattle population in 41 districts

Ratio calculation: ReLIV cattle population / DaIMA cattle population = 49.14% / 31.6% ≈ 1.555 or 155.5%

Therefore:

- Avoided or sequestered emissions for ReLIV over 20 years: Avoided or sequestered emissions for DaIMA × 155.5% = 1,022,691 t CO₂ eq * 155.5% = 1,590,285 t CO₂ eq
- Total number of hectares of land: 117,121 ha / 30 districts in DaIMA = 3,904 ha * 41 in ReLIV = 160,065 ha
- Avoided or sequestered emissions per hectare: 1,590,285 t CO₂ eq / 160,065 ha = 9.9 t CO₂ eq / ha
- Avoided or sequestered emissions per hectare per year: t CO₂ eq / ha / year
1,590,285 t CO₂ eq / 160,065 ha / 20 years = 0.5 t CO₂ eq / ha / year

Hence, Indicator 3.2.1 for ReLIV would look as follows:

Indicator 3.2.1: Number of tons of greenhouse gas emissions (CO₂e) avoided and/or sequestered	
Hectares of Land	160,065
tCO₂e/20 years	1,590,285
tCO₂e/ha	9.9
tCO₂e/ha/year	0.5

3. Methodology for GHG emissions assessment

The Global Livestock Environmental Assessment Model-interactive (GLEAM-i) developed by FAO was used to estimate the impact of the DaIMA project on GHG emissions. GLEAM-i is a publicly available and free tool specifically designed to estimate GHG emissions from different livestock species and production systems from all countries in the world. The livestock species covered by GLEAM-i are four ruminant species (cattle, buffalo, sheep and goats) and two monogastric species (chickens and pigs). The production systems included in the tool are grass-based and mixed for ruminants; backyard, broiler, and layer for chicken; and backyard, intermediate, and industrial for pigs (FAO, 2017; MacLeod et al., 2017). The emission sources covered by the tool are listed in 19, and details of the background calculations in GLEAM-i can be found in the GLEAM manual (FAO, 2017). The implementation phase of DaIMA is assumed to be 5 years after actual implementation, and the capitalisation phase is assumed to be 20 years.

GLEAM-i has an embedded herd dynamic model that estimates animal numbers based on demographic parameters such as age at first parturition, fertility and mortality rates and replacement rates. In addition, GLEAM-i estimates feed requirements for each animal species, system and cohort based on their weight, activity, reproduction status and level of production. Direct emissions resulting from the consumption of these feed resources (enteric methane and manure emissions) are based on their digestibility and nitrogen content. Indirect emissions coming from the production of these feed resources depend on their origin and nature (e.g. pastures, crop residues, grains, and their by-products, domestically produced or imported) (see Table 3).

Table 3: Sources of emissions covered in GLEAM-i⁴⁷

Sources of emissions	Description	
Feed CO ₂ ¹	Field operations	CO ₂ emissions arising from the use of fossil fuels during field operations
	Fertilizer production	CO ₂ emissions from the manufacture and transport of synthetic nitrogenous, phosphate and potash

⁴⁷ <https://gleami.apps.fao.org/>

		fertilizers
	Pesticide production	CO ₂ emissions from the manufacture, transport and application of pesticides
	Processing and transport	CO ₂ generated during the processing of crops for feed and the transport by land and/or sea
	Blending and pelleting	CO ₂ arising from the blending of concentrate feed
Feed LUC ² CO ₂	Soybean cultivation	CO ₂ emission due to LUC associated with the expansion of soybean
	Palm kernel cake	CO ₂ emission due to LUC associated with the expansion of palm oil plantations
	Pasture expansion	CO ₂ emission due to LUC associated with the expansion of pastures
Feed N ₂ O ³	Applied and deposited manure	Direct and indirect N ₂ O emissions from manure deposited on the fields and used as organic fertilizer
	Fertilizer and crop residues	Direct and indirect N ₂ O emissions from applied synthetic nitrogenous fertilizer and crop residues decomposition
Feed CH ₄ ⁴	Rice production	CH ₄ emissions arising from the cultivation of rice used as feed
	Enteric fermentation CH ₄	CH ₄ emissions caused by enteric fermentation
	Manure management CH ₄	CH ₄ emissions caused by manure management
	Manure management N ₂ O	N ₂ O emissions arising from manure storage and management
	Direct energy use CO ₂	CO ₂ emissions arising from energy use on-farm for ventilation, heating, etc.
	Embedded energy use CO ₂	CO ₂ emissions arising from energy use during the construction of farm buildings and equipment

¹ Carbon dioxide

² Land use change

³ Nitrous oxide

⁴ Methane

4. Data Sources

The data sources used for the analysis were primary data collected with the project preparation team in each country, aide memoire from field missions, feasibility studies and literature reviews.

5. DaIMA's GHG accounting for Uganda

The analysis considered five production systems:

- Small-scale intensive system with crossbred cattle
- Small intensive system with crossbreeds and exotic animals
- Semi-intensive system with local breeds
- Agropastoral systems with local breeds
- Pastoral systems with local breed

Grassland and mixed production systems are targeted at milk production. The project will support access to better animal health services, vaccination campaigns, better access to veterinary services and medicines. The project will also support access to and improved results from artificial insemination. Herd growth in the WP scenario was assumed to be slightly lower than in the WOP scenario due to the productivity improvements from the DaIMA interventions.

The project will also support access to better feed, as access to concentrates for small intensive systems and better access to pasture will increase the proportion of fresh grass and legume mixtures and grass and legume hay or silage in the diet for the other

systems. The assumptions for the herd and feed parameters for the WP scenario compared to the WOP are presented in Table 4, Table 5 and Table 6.

Table 4: Herd parameters used in GLEAM-i for small scale intensive systems in Uganda

Parameter	Unit	SMALL SCALE INTENSIVE SYSTEMS					
		Cross breed			Cross & exotic breed		
		Baseline	WOP	WP	Baseline	WOP	WP
Age at the first parturition	months	45	45	39	45	45	39
Death rate of adult animals	%	6%	6%	5%	6%	6%	5%
Death rate of young females	%	9%	9%	7%	9%	9%	7%
Death rate of young males	%	9%	9%	7%	9%	9%	7%
Fertility rate (adult female)	%	68%	68%	74%	68%	68%	74%
Live weight (Adult Females)	kg	400	400	441	435	435	480
Live weight (Adult Males)	kg	400	400	441	435	435	480
Live weight of animal at slaughter (Meat Females)	kg	277	277	306	299	299	330
Live weight of animal at slaughter (Meat Males)	kg	277	277	306	299	299	330
Milk fat content	%	4	4	4	4	4	4
Milk protein content	%	3.5	3.5	3.5	3.5	3.5	3.5
Milk Yield	kg	1870	1870	2787.26	2475	2475	3804.18
Number of animals (Adult Females)	#	556	839	676	303	432	372
Number of animals (Adult Males)	#	132	199	160	45	64	55
Replacement rate of adult females	%	12%	12%	12%	12%	12%	12%
Weight at birth	kg	28	28	28	32.5	32.5	32.5

Table 5: Herd parameters used in GLEAM-i for semi-intensive, agropastoral, and pastoral systems in Uganda

Parameter	Unit	Semi-intensive local breed			Agropastoral systems			Pastoral systems		
		Baseline	WOP	WP	Baseline	WOP	WP	Baseline	WOP	WP
Age at the first parturition	months	57	57	45	54	54	45	57	57	49
Death rate of adult animals	%	6%	6%	5%	7%	7%	4%	6%	6%	5%
Death rate of young females	%	9%	9%	7%	10%	10%	6%	9%	9%	7%

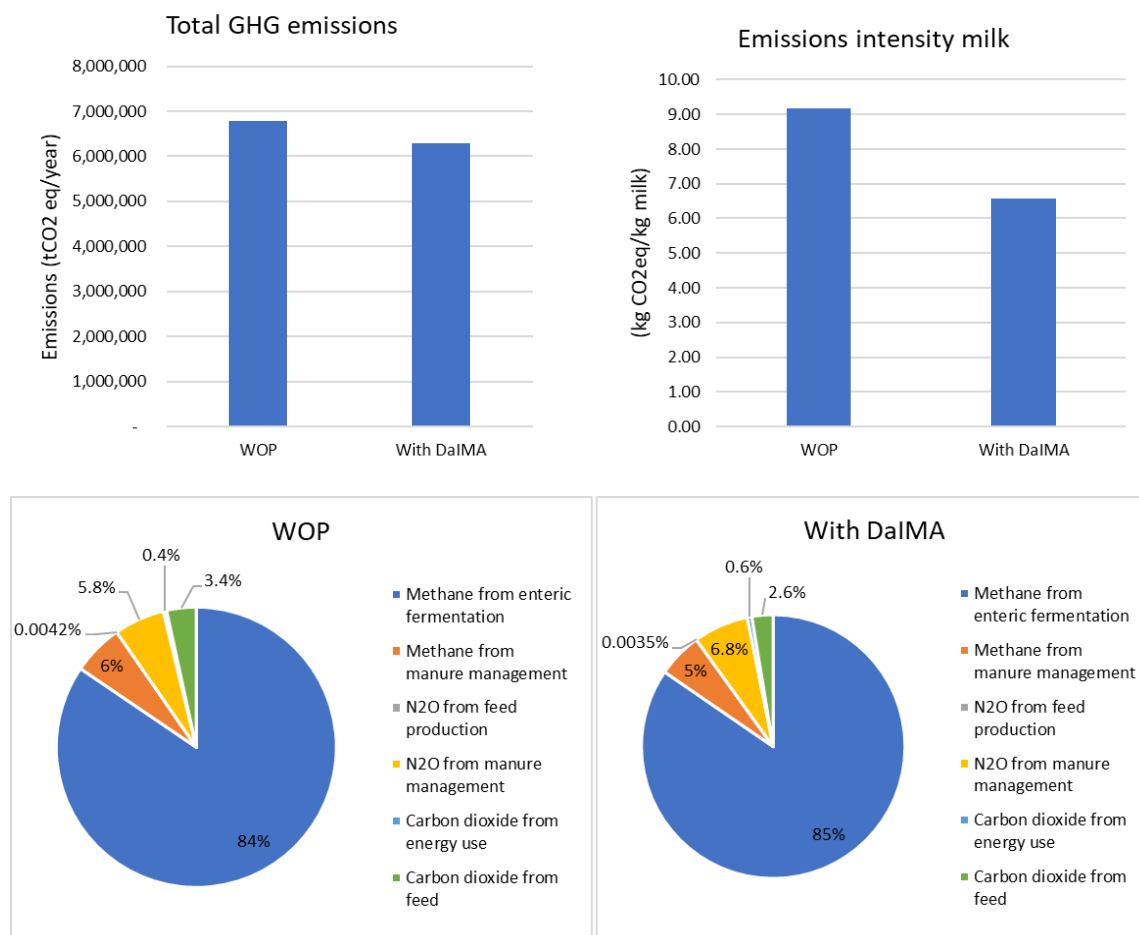
Death rate of young males	%	9%	9%	7%	10%	10%	6%	9%	9%	7%
Fertility rate (adult female)	%	60%	60%	64%	60%	60%	64%	59%	59%	64%
Live weight (Adult Females)	kg	350	350	348.275	322	322	355.005	322	322	355.005
Live weight (Adult Males)	kg	350	350	348.275	322	322	355.005	322	322	355.005
Live weight of animal at slaughter (Meat Females)	kg	204	204	221	204	204	225	204	204	225
Live weight of animal at slaughter (Meat Males)	kg	204	204	221	204	204	225	204	204	225
Milk fat content	%	4	4	4	4	4	4	4	4	4
Milk protein content	%	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Milk Yield	kg	720	720	1019.24	400	400	546	270	270	356
Number of animals (Adult Females)	#	82408	127379	100077	1233770	1558353	1509608	65675	80803	79456
Number of animals (Adult Males)	#	13862	21426	16834	77123	97413	94366	2952	3632	3571
Replace ment rate of adult females	%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Weight at birth	kg	21.5	21.5	25.8	21.5	21.5	25.8	21.5	21.5	25.8

Table 6: Feed parameters used in GLEAM-i for Uganda

Systems	Assumptions for feed parameters
<p align="center">Small scale intensive system - cross breed</p>	<p>Better feed by increasing the proportion of concentrate in the diet for adult females reducing the proportion of crop residues, and incorporating legumes to improve the feed basket:</p> <ul style="list-style-type: none"> - Increase of the proportion of dry by-product from grain industries (brans of maize, wheat, and rice) from 2% in WOP to 10% in WP; - Increase of the proportion of fresh mixture of grass + legumes from 9 to 19% and the hay or silage from grass and legumes from 5 to 15% in WOP to WP; - Decrease of the proportion of crop residues from maize, millet, rice, sorghum, sugarcane, wheat, and other grains from 36% in WOP to 16% in WP.
<p align="center">Small scale intensive system - cross & exotic breed</p>	<p>Better feed by increasing the proportion of concentrate in the diet for adult females reducing the proportion of crop residues, and incorporating legumes to improve the feed basket:</p> <ul style="list-style-type: none"> - Increase of the proportion of dry by-product from grain industries (brans of maize, wheat, and rice) from 2% in WOP to 10% in WP; - Increase of the proportion of fresh mixture of grass + legumes from 9 to 19% and the hay or silage from grass and legumes from 5 to 15% in WOP and WP; - Decrease of the proportion of crop residues from maize, millet, rice, sorghum, sugarcane, wheat, and other grains from 36% in WOP to 16% in WP.
<p align="center">Semi-intensive system - Local breed</p>	<p>Better access to pasture improving the feed basket by incorporating more legumes from pasture in the diet, reducing the proportion of crop residues and fresh grass:</p> <ul style="list-style-type: none"> - Increase of the proportion of fresh mixture of grass + legumes from 9 to 19% and the hay or silage from grass and legumes from 5 to 15% in WOP and WP situations, reducing the proportion of crop residues of 15% and fresh grass of 5%.
<p align="center">Agro-pastoral systems - Local breed</p>	<p>Better access to pasture improving the feed basket of adult females and meat animals (non-feedlot) by incorporating more legumes in the diet, reducing the proportion of crop residues, fresh grass, and hay from adjacent area:</p> <ul style="list-style-type: none"> - Increase of the proportion of fresh mixture of grass + legumes from 5 to 25% - Decrease of the proportion of crop residues from 26% to 14%, fresh grass from 60 to 55%, and hay from adjacent area from 5% to 2%
<p align="center">Pastoral mix systems - Local breed</p>	<p>Better access to pasture improving the feed basket of adult females and meat animals (non-feedlot) by incorporating more legumes in the diet, reducing the proportion of fresh grass, and hay from adjacent area:</p> <ul style="list-style-type: none"> - Increase of the proportion of fresh mixture of grass + legumes from 2 to 27% - Decrease of the proportion of fresh grass from 90 to 70%, and hay from adjacent area from 4% to 1%

6. Results

In Uganda, total GHG emissions were reduced by 7.19% (-488,039 tCO₂-eq) over the 20 years, with an annual reduction of 24,401 tCO₂-eq. Project interventions to improve herd and feed parameters resulted in a 30% increase in milk production and a 28% reduction in milk emission intensity. Total feed intake is expected to decrease by 5.76% in the with-project situation.



The estimation of the area of rangeland to be rehabilitated was based on the annual amount of biomass (fresh mix and hay or silage of grass and legumes) required to meet the animal feed intake for improved nutrition in the project situation. The calculation took into account the biomass yields of natural rangelands and improved pastures in the East African context. Tessema and Emojong (2004) and Mwangi et al. (2015) estimated the average biomass yield of natural rangelands to be 2,147 tDM/ha. Depending on the type of rehabilitation and improved practices implemented, the biomass yield can reach 5 to 10 tDM/ha. Improved practices include reseeding and integration of legumes with grasses in natural rangelands, such as glycine (*Neonotonia wightii*), siratro (*Macroptilium atropurpureum*), dolichos (*Lablab purpureus* cv. Rongai), velvet bean (*Mucuna pruriens*) and bush stylo (*Stylosanthes scabra* cv. *seca*), irrigation, fertilisation and grazing management to improve the quality and quantity (seasonal availability) of natural rangelands (Macharia et al, 2010; Koech et al., 2016). The total area to be rehabilitated under the DaIMA project is estimated at 268,040 ha, of which 117,121 ha is in Uganda alone (see Table 7).

The feasibility study on pasture and rangeland rehabilitation carried out for the preparation of the funding proposal assessed the carbon sequestration potential of pasture and rangeland soils for each country if improved practices were implemented and degraded rangelands were properly restored. In this study, the expected soil carbon sequestration under the project situation was estimated based on the increase in biomass yield in improved pastures and restored rangelands, the estimated biomass returned to the soil mainly from below-ground biomass, the variations in root-shoot ratios according to natural rangeland conditions (Snyman, 2005), and the IPCC biomass carbon conversion coefficient. In the project situation, average soil carbon sequestration was estimated at 0.1 tC/ha/year, which represents 18 to 20% of the potential for soil carbon sequestration in pasture and rangeland soils, compared to about 0.04 tC/ha/year in the without-project situation.

Over the 20-year capitalisation period of the project, the carbon sequestered in the rehabilitated rangeland soils is expected to be 333,706 tC or 1,223,590 tCO₂ eq compared to the situation without the project (average annual increase of 16,685 tC or 61,180 tCO₂ eq). In Uganda, the figures are 145,814 tC and 534,652 tCO₂ eq compared to the no project scenario (see Table 7).

Table 7: Proposed area of rehabilitation and soil organic carbon sequestration

Country	Area for rehabilitation (ha)	WOP		With DaIMA		Difference DaIMA - WOP	
		Soil carbon sequestered in tC (20 years)	Soil carbon sequestered in tCO ₂ eq. (20 years)	Soil carbon sequestered in tC (20 years)	Soil carbon sequestered in tCO ₂ eq. (20 years)	Soil carbon sequestered in tC (20 years)	Soil carbon sequestered in tCO ₂ eq. (20 years)
Rwanda	51,773	42,268	154,984	106,725	391,325	64,457	236,341
Uganda	117,121	95,619	350,605	241,434	885,257	145,814	534,652
Tanzania	46,758	38,174	139,971	96,387	353,419	58,213	213,448
Kenya	52,388	42,770	156,825	107,993	395,974	65,222	239,149
DaIMA	268,040	218,832	802,384	552,539	2,025,975	333,706	1,223,590

Based on the above, the results for Uganda for DaIMA and ReLIV can be summarised as follows:

Project	tCO ₂ eq
Uganda DaIMA	1,022,691
Uganda ReLIV	1,590,285

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V.6. LABOUR, COMMUNITY HEALTH AND SAFETY MANAGEMENT PLAN (LCHSMP)

**Prepared
for:**

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1. INTRODUCTION

1.1 BACKGROUND

This Labour Management Procedures (LMP) was developed by to manage risks under the Resilient Livestock Value Chain Project (ReLIV), funded by IFAD. The aim of the ReLIV project is to support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

1.2 RELIV GOAL, OBJECTIVE AND OUTCOME

The proposed project goal is to **“Contribute to the improved livelihoods of smallholder livestock farmers”** (aligned to NDP III goal: “Increased Household Incomes and Improved Quality of Life of Ugandans”)

The proposed Project development Objective (PDO) is to **“Enhance income, nutrition and resilience of smallholder dairy and beef producers”**.

The PDO will be achieved through three outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

The project will target poor small-scale cattle farmers and (agro) pastoralists, in line with IFAD’s mandate, and should also support the development of market-oriented production and creation of off-farm jobs. The project will target 41 districts in the cattle corridor, directly benefiting around 200,000 households (about 1,000,000 people), out of which 40% women and 25% youth.

2. OVERVIEW

2.1 LMP APPLICATION

The LMP is applicable, as per ESS 5 to all the RELIV Project workers as per the following condition:

- People employed or engaged directly by RELIV to work specifically in relation to the Project,
- The Government public servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement or arrangement,
- People employed or engaged by consultants to perform work related to core function of the Project, regardless of location,
- People employed or engaged by RELIV’s primary suppliers,

2.2 LABOUR REQUIREMENTS

2.2.1 Direct Workers:

Direct workers include, the RELIV PMU staff, MSMEs staff, Program-based Staff and Permanent Government Staff. The RELIV PMU will employ consultants and support staff who will be working on contractual bases as part of the RELIV PMU. Terms and conditions of these consultants will be guided by the Uganda Labour Laws. In addition, the civil servants at the local level will be involved in the program implementation on a full time or on part-time basis. The consultants will be engaged by the Project to undertake short period assignments as necessary. These are consultants guided by specific contractual agreements between them and RELIV PMU.

Direct workers are eligible to work for a fixed contract period of not more than 1 year. Contracts will be renewed annually based on satisfactory services. Consultants will be engaged under a short-term period of not more than six months and the labour requirement including the time schedule and deliverables are stipulated in their respective contracts.

The RELIV PMU will oversee the Project and engage throughout the Project life cycle the following personnel:

- Project Coordinator,
- Administrator,
- Procurement Specialist,
- Project Accountant,
- Internal Auditor,
- Monitoring and Evaluation Specialist,
- SECAP Specialist,
- Driver.

2.2.2 Contracted Workers:

Based on the requirement in every component the RELIV PMU will employ contractors who will hire contracted workers based on their level of skills and program needs. If agreed with the PMU, sub-contracts of the work could be given. Sub-contractors recruited may supply labourers as per the agreed terms and conditions.

Contracted workers are eligible to work for a contract period fixed by the PMU, and then recruited by the Contractor. Their contracts will be renewed, if required, based on satisfactory services.

2.2.3 Primary Supply Workers:

Based on the requirement in every component, primary supply workers will be recruited by the suppliers as required. It will be ensured (and monitored periodically by the PMU) that no children are recruited and supplied as worker. Furthermore, it will be monitored like above that these workers are not subject to 'forced labour' in any manner. The PMU will be responsible to make sure that these standards are followed strictly. If any deviation is identified the PMU will take action as prescribed in the contract/agreement following the LMP.

Their tenure service will be based on supplies as procured.

3. ASSESSMENT OF POTENTIAL LABOUR RISKS

3.1 MAIN LABOUR RISKS

The main labour risks associated with the Project are assessed to be related to the work environment and associated risks of accidents. **Based on current conditions in the sector it is assessed that the risk of child or forced labour is negligible**, and already managed through national legislation.

The RELIV has developed this LMP as part of the ESCMF which will illustrate the types of workers to be engaged and their management in line with ESS5 and national labour laws and regulations. Even though labour influx is not anticipated, social impacts such as GBV, sexual exploitation and communicable diseases for local communities cannot be ruled out. Thus, management and mitigation of GBV/SEA risks were integrated in both the stakeholder engagement and LMP.

3.2 LABOUR INFLUX

It is not expected that there will be any labour influx in any project community. The RELIV will mandate and localize the economic benefits and only allow for outside, including expatriate labour, where there is a requirement for special skills.

Specific requirements to manage risks associated with labour influx, related to interaction between project workers and local communities, such as communicable diseases and gender-based violence, are managed through contractual requirements, Code of Conduct and training set out in this document. These procedures are guided by the national legislation.

3.3 OCCUPATIONAL HEALTH AND SAFETY

The Occupational health and Safety measures and action plan guided by the IFAD updated SECAP 21 will be developed and implemented to assess and manage risks and impacts to the community arising from Project activities and workers. The consultants to be engaged will ensure that their employees/staff will be trained on occupational health and safety and records of which are to be inspected monthly and audited bi-annually. The RELIV will consider the incremental risks of the public's health and safety and potential exposure to operational accidents.

3.4 GENDER-BASED VIOLENCE

Gender based violence is widespread in Uganda and primarily affects girls and women, hence based on the GBV/SEA/SH Uganda country-level risk assessment ratings, the social risks of Sexual Exploitation/Harassment and GBV are rated as moderate, and the project will not directly or indirectly cause or contribute to any of the pre-existing social issues related to gender-based violence but will attempt to ultimately contribute to their mitigation through improving the livelihoods of the poor stakeholders.

Nonetheless, there is a possibility of contextual risks of GBV and there could be an increase in the risk and exposure of GBV/SEA against women because they have improved economic opportunity as a result of the project. There is thus a need to uphold safe environments at all sub-project areas and implement the GBV Action Plan in the project ESCMF.

3.5 CHILD AND FORCED LABOUR

The risk of child labour will be very minimal and will be mitigated through Certification of labourers' age. This will be done by using the legally recognized documents such as the National Identification Card, and Birth Certificate. Further, awareness-raising sessions will be conducted regularly to the communities to sensitize on prohibition and negative impacts of child and forced Labour.

4. REGULATORY FRAMEWORK

4.1 APPLICABLE LAWS

All activities under the proposed project must be consistent with all applicable laws, regulations, and notifications that are relevant in the context of the proposed project interventions. Therefore, it is the responsibility of the RELIV PMU to ensure that the proposed activities are consistent with the national regulatory/legal framework.

4.2 LEGAL FRAMEWORK

RELIV project activities must be compliant with the provisions of the legal framework of the relevant host countries as referenced in IFAD's E&S Policies.

Project stakeholders in committing to adhere to IFAD's E&S Policy thereby commit to achieving and demonstrating compliance with national, environmental, social, occupational health and safety and labour laws, and construction and operation permits, etc.

In cases where the national requirement provides for the more stringent safeguarding standard, RELIV's stakeholders shall conform to the national requirements provided it does not create any inconsistencies with the Framework. In cases where there is inconsistency between national requirements and the RELIV's ESCMF, this Framework will prevail to the extent of the inconsistency.

4.3 NATIONAL LEGAL FRAMEWORKS

The RELIV LMP is also guided by the national laws, regulations, and policies of Uganda. The key national E&S legislation and policies of Uganda are outlined in the ESMF.

5. RESPONSIBLE STAFF AND PROCEDURES

5.1 LMP PROCEDURES

The RELIV PMU has the overall responsibility to oversee all aspects of the implementations of the LMP, in particular to ensure contractor compliance. RELIV PMU will address all LMP aspects as part of procurement for works as well as during contractor induction. The contractors will subsequently be responsible for management of labour issues in accordance with contract specific labour Management Plans, implementation of which will be supervised by RELIV PMU on a monthly basis or at shorter intervals as defined by specific Plans. The detailed approach is described in the following sections.

5.2 OCCUPATIONAL HEALTH AND SAFETY

The RELIV PMU Environmental Specialist must ensure that the implementation of RELIV will be conducted in compliance to occupational health and safety requirements. The

RELIV SECAP Specialist will make sure that each participating Ministry and institution receives the template OHS programs, establish safety representatives for day-to-day monitoring of safety requirements, record and report all incidents accordingly to the RELIV.

5.3 LABOUR AND WORKING CONDITIONS

Government civil servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement and their contract will include Environmental and Health and Safety Guidelines and industry standard code of conduct that address OHS risks and measures to prevent GBV etc. In addition to these the COVID – 19 regulations 2020 will also apply. A Labour Management Procedure (LMP), which illustrates types of workers to be engaged and their management in line with ESS 6 and national labour laws and regulations, has been developed. although labour influx is not anticipated, social risks such as GBV, sexual exploitation and abuse within the project workforce are envisaged as possibility.

5.4 CONTRACTORS OCCUPATIONAL HEALTH AND SAFETY

Contractors must engage a minimum of one safety representative. Smaller contracts may permit for the safety representative to carry out other assignments as well. The safety representative will ensure the day-to-day compliance with specified safety measures and records of any incidents are done. Minor incidents are reported to RELIV PMU on a monthly basis; serious incidents are reported immediately. Minor incidents are reflected in the quarterly reports to the IFAD.

5.5 CONTRACTOR LABOUR AND WORKING CONDITIONS

Contractors will keep records in accordance with specifications set out in this LMP. RELIV PMU may at any time require records to ensure that labour conditions are met. The PMU will review records against actuals at a minimum on a monthly basis and can require immediate remedial actions if warranted. A summary of issues and remedial actions will be included in quarterly reports to the IFAD.

5.6 WORKER GRIEVANCES

The RELIV PMU's procedures currently developed will remain in place for Project staff. Contractors will be required to present a worker grievance redress mechanism which responds to the minimum requirements in this LMP. The PMU's Social Officer will review records on a monthly basis. Where worker concerns are not resolved, the national system will be used as set out in the section, but the PMU will keep abreast of resolutions and reflect them in quarterly reports to IFAD.

5.7 ADDITIONAL TRAINING

Contractors are required to, at all times, have a qualified safety officer on board. If training is required, this will be the contractor's responsibility. The safety officer will provide instructions to contractor staff. RELIV PMU will provide training to address risks associated with labour influx and will provide a schedule for trainings required. The contractor will be obligated to make staff available for this training, as well as any additional mandatory trainings required by RELIV PMU, as specified by the contract.

6. POLICIES AND PROCEDURES

6.0 RELEVANT POLICIES AND PROCEDURES

The engagement and treatment of program staff will be made on the basis of characteristics related to inherent job requirements. It will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.

Contractors will be responsible for mitigating all environmental and social impacts of subprojects resulting from activities directly under their control. The RELIV PMU SECAP Specialist will incorporate standardized environmental and social clauses in the tender and contract documents in order for potential bidders to be aware of environmental and social performance requirements that will be expected from them and are able to reflect that in their bids and required to implement the clauses for the duration of the contract.

The contractor will be required to ensure that all documentation related to environmental and social management, including the LMP, is available for inspection at any time by the respective Labour Ministries or their appointed agents in the different countries. The contractual arrangements with each project worker must be clearly defined in accordance with each local Legislation. All environmental and social requirements will be included in the bidding documents and contracts in addition to any additional clauses, which are contained, in the Projects environmental and social instruments.

The RELIV PMU, Contractors, suppliers or sub-contractors will never engage forced labour. Forced labour includes bonded labour (working against an impossible debt), excessive limitations of freedom of movement, excessive notice periods, retaining the worker's identity or other government-issued documents or personal belonging, imposition of recruitment or employment fees payable at the commencement of employment, loss or delay of wages that impede the workers' right to end employment within their legal rights, substantial or inappropriate fines, physical punishment, use of security or other personnel to force or extract work from project workers, or other restrictions that compel a project worker to work on a non-voluntary basis.

6.1 LABOUR INFLUX AND GENDER BASED VIOLENCE

Contractors will need to maintain labour relations with local communities through a code of conduct (CoC). The CoC commits all persons engaged by the contractor, including sub-contractors and suppliers, to acceptable standards of behaviour. The CoC must include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and sexual harassment (e.g., termination). The CoC should be written in plain language and signed by each worker to indicate that they have:

- Received a copy of the CoC as part of their contract.
- Had the CoC explained to them as part of induction process.
- Acknowledged that adherence to this CoC is a mandatory condition of employment.
- Understood that violations of the CoC can result in serious consequences, up to and including dismissal, or referral to legal authorities.

A copy of the CoC shall be displayed in a location easily accessible to the community and project affected people. It shall be provided in English and the local language.

Contractors must address the risk of gender-based violence, through: Mandatory training and

awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. Training may be repeated.

- Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted.
- Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
- Developing a system to capture gender-based violence, sexual exploitation and workplace sexual harassment related complaints/issues.

This process will be under the portfolio of the SECAP Specialist to be recruited under the PMU and shall identify and engage the relevant stakeholders on GBV and HIV and Aids related issues.

6.2 OCCUPATIONAL, HEALTH AND SAFETY

RELIV is committed to:

- Complying with the Uganda Governments' legislation and other applicable requirements which relate to the occupational health and safety hazards.
- Enabling active participation in OH&S risks elimination through promotion of appropriate skills, knowledge and attitudes towards hazards.
- Continually improving the OH&S management system and performance.
- Communicating this policy statement to all persons working under the control of RELIV with emphasis on individual OH&S responsibilities.
- Availing this policy statement to all interested parties at all participating educational facilities and institutions.

The RELIV SECAP Specialist will be responsible for overseeing the workplace Safety, Health and Environmental issues. He/she must:

- Identify potential hazards.
- In collaboration with the employer, investigate the cause of accidents at the workplace.
- Attend meetings of the safety and health committee to which that safety and health representative is a member.
- Make recommendations to the employer in respect of safety and health matters affecting employees.

Further to avoid work related accidents and injuries, the contractor will:

- Provide occupational health and safety training to all employees involved in RELIV works.
- Ensure availability of first aid box.
- Provide employees with access to toilets and potable drinking water.
- Provide safety and occupational safety measures to workers with Personal Protection Equipment (PPE) when installing solar systems to prevent accidents during replacement and installation and follow safety measures in installing them.
- Properly dispose of solid waste at designated permitted sites landfill allocated by the local authorities.

Further to enforcing the compliance of environmental management, contractors are responsible and liable of safety of site equipment, labours and daily workers attending to the site installations and safety of citizens for each sub-project site, as mandatory measures.

7. AGE OF EMPLOYMENT

The participating countries have approved both the ILO Minimum Age Convention (C138) and the ILO Worst Forms of Child Labour Convention (C182) in 2002. Section 97 of the Employment Act applies minimum age protections to children working in industrial undertakings, but it does not cover children working in domestic and agricultural work. Similarly, Section 246 of the Children's Protections and Welfare Act 6, 2012 prohibits hazardous work for children under the age of 18 in industrial undertakings.

The African Charter on the Rights and welfare of the Children (also known as ACRWC or Children's Charter) was adopted by the Organisation of African Union (OAU) in 1990 and was entered into force in 1999. Most of the participating countries have also ratified both the ILO Minimum of Age Convention (C138) and the ILO Worst Forms of Child Labour Convention (C182). The ACRWC, C138, C182 prohibit employment of children under the age of 18.

The minimum age of employment for this project shall be 18 years and to ensure compliance, all employees will be required to produce National Identification Cards as proof of their identity and age which is the national identification required for employment.

If any consultant employs a person under the age of 18 years, that consultant will not only be terminated but also reported to the authorities.

8. TERMS AND CONDITIONS

As stated in the LMP sections, the terms and conditions of employment in the project will be governed by the provisions of the local Employment Act. and it is generally mandatory for employers to give its employees a copy of the written particulars of employment, signed by both parties within six weeks of employment.

Contractors will also be required to comply with the most current Regulations of Wages Orders for their particular sector, e.g., the Building and Construction Industry which is issued by the Government and reviewed on a regular basis. The Wages Orders normally specify the minimum wages, hours of work, overtime pay, leave entitlements, travelling and subsistence allowances, and the issue of protective clothing.

Also, it is generally accepted that, before a contractor is awarded a public contract, that contractor is required to certify in writing that the wages, hour and conditions of work or persons to be employed by him on the contract are not less favourable than those contained in the most current wages regulation issued in Uganda. Where a contractor fails to comply with this requirement, the contract with the contractor may be withdrawn as an approved contractor.

8.1 WORKER'S ORGANIZATION

Uganda has ratified the numerous ILO Conventions aimed at ensuring that member states protect the notion of collective bargaining. These Conventions include ILO Convention 87 on Freedom of Association and Protection of the Right to Organize and ILO Convention 98 on the Right to Organize and Collective Bargaining.

Uganda's Constitutions also guarantees all workers, their rights to freely form, join or not join a trade union for the promotion and protection of the economic interest of that worker and collective bargaining and representation.

9. DISCIPLINARY PROCEDURES AND GRIEVANCE MECHANISM

9.1 DISPUTE MANAGEMENT SYSTEM

In any working environment it is essential for both employers and employees to be fully conversant with all aspects of disciplinary processes, the grievance handling procedures and the legal requirements and rights involved. In implementing an effective dispute management system consideration must be given to the disputes resulting from the following:

- Disciplinary Action
- Grievance Redress Mechanism (GRM)
- Individual grievances
- Gender-based violence, sexual exploitation and workplace sexual harassment

9.2 DISCIPLINARY PROCEDURE

The starting point for all disciplinary action is rules. These rules may be implied or explicit and of course will vary from workplace to workplace. Some rules are implied in the contract of employment (e.g., ruling against use of alcohol and drugs at workplace), however it is advisable that even implied rules be included in the disciplinary code or schedule of offences. Therefore, the workplace rules must be:

- Valid and reasonable
- Clear and unambiguous
- The employee must understand the procedure to be applied if he/she contravenes any of the rules.

A comprehensive Grievance Redress Mechanism has been developed for the project, however the following dispute resolution procedures at workplace will be as follows:

- Conducting of a comprehensive investigation to determine whether there are grounds for a hearing to be held.
- If a hearing is to be held, the employer is to notify the employee of the allegations using a language that the employee can understand.
- The employee is to be given reasonable time to prepare for the hearing and to be represented by a fellow employee or lawyer.
- The employee must be given an opportunity to respond to the allegations, question the witnesses of the employer and to lead witnesses.
- If an employee fails to attend the hearing the employer may proceed with the hearing in the absence of the employee.
- The hearing must be held and concluded within a reasonable time and is to be chaired by an impartial representative.
- If an employee is dismissed, it must be given the reasons for dismissal and the right to refer the dispute concerning the fairness of the dismissal to the labour Court.

Therefore, it is incumbent upon the Consultants/Contractor to ensure that they have a disciplinary procedure and Code and Standards which the employees are aware of. Each Consultant/Contractor will be required to produce this procedure to ensure that employees are not treated unfairly.

9.3 INDIVIDUAL GRIEVANCE PROCEDURE

Termination of Employment requires every employer, including contractors, to have a Formal Grievance Procedure which should be known and explained to the employee. Such procedure should at least:

- a) Specify to whom the employee should lodge the grievance.
- b) Refer to time frames to allow the grievance to be dealt with expeditiously.

- c) Allow the person to refer the grievance to a more senior level within the organization, if it is not resolved at the lowest level.
- d) If a grievance is not resolved the employee has the right to lodge a dispute with the employer.

All the contractors who will be engaged for the project will be required to produce their grievance procedure as a requirement for tender which at a minimum comply with these requirements. In addition, good international practice recommends that the procedures be transparent, is confidential, adheres to non-retribution practices and includes the right to representation. After they are engaged, they will be required to produce proof that each employee has been inducted and signed that they have been inducted on the procedure.

9.4 COLLECTIVE GRIEVANCES AND DISPUTES RESULTING FROM THE NEGOTIATIONS OF COLLECTIVE AGREEMENTS

Where a trade union is recognized, it is entitled to negotiate on a regular basis with the employer over terms and conditions existing at the workplace and the employer is obliged to negotiate with it. The procedures followed in such instances is usually contained in the Recognition Agreement, which states how the issues are raised, the procedure for negotiations, the composition of the parties involved in the negotiation and the procedure to deal with issues that are not resolved through consensus.

9.4 GENDER-BASED VIOLENCE, SEXUAL EXPLOITATION AND WORKPLACE SEXUAL HARASSMENT

Violence and harassment in the work world deprives people of their dignity, is incompatible with decent work, and a threat to equal opportunities and to safe, healthy, and productive working environments. It remains a widespread phenomenon, present in all participating countries and disregarding sectors, occupations and workplace arrangements. Convention No. 190 and Recommendation No. 206 recognizes the right of everyone to a world of work free from violence and harassment, including gender-based violence and harassment.

10. CONTRACTOR MANAGEMENT

10.1 LABOUR TERMS AND CONDITIONS

The RELIV PMU will require that contractors monitor, keep records and report on terms and conditions related to labour management. The contractor must provide workers with evidence of all payments made, including social security benefits, pension contributions or other entitlements regardless of the worker being engaged on a fixed term contract, full-time, part-time or temporarily. The application of this requirement will be proportionate to the activities and to the size of the contract, in a manner acceptable to the RELIV and the IFAD:

- **Labour conditions:** records of workers engaged under the Project, including contracts, registry of induction of workers including CoC, hours worked, remuneration and deductions (including overtime), collective bargaining agreements.
- **Safety:** recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth).
- **Workers:** number of workers, indication of origin (expatriate, local, nonlocal nationals), gender, age with evidence that no child labour is involved, and skill level (unskilled, skilled, supervisory, professional, management).
- **Training/induction:** dates, number of trainees, and topics.
- **Details of any security risks:** details of risks the contractor may be exposed to while

performing its work—the threats may come from third parties external to the project.

- **Worker grievances:** details including occurrence date, grievance, and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken grievances listed should include those received since the preceding report and those that were unresolved at the time of that report.

Every Safety File is 'site-specific'. It will be compiled following the client's and the site's safety specifications. The overall information requirements remain the same, and the site-specific documents will be added. When Health and Safety File is set up, it will consist of the following Documents:

- Contractor appointment letter.
- Notification of Construction Work
- Copy of the OHS regulations
- Occupational Health and Safety Management Plan
- Company Occupational Health and Safety Policy
- Letter of Good Standing
- Material Safety Data Sheets for hazardous materials used (if required)
- Tax Clearance Certificate
- Risk Assessments
- Safe work procedures (Site Specific)
- Fall Protection Plan (if required)
- Legal appointment with proof of training (Ex. Chief Executive Officer, Risk Assessor, First Aider, etc.)
- Incident Reporting Procedures
- Incident Reports
- Incident Registers
- Reports of Accidents
- Emergency Preparedness Documents
- First Aid Documents
- Induction Records
- Medical Surveillance Records
- Safety Communication (e.g., Toolbox talks)
- Minutes of Safety Meetings
- Inspection Registers

11.COMMUNITY WORKERS

The project will not engage community workers, Community workers are not currently used by the Participating Governments' Ministries of Agriculture in any projects due to the specialized labour needs required.

12.PRIMARY SUPPLY WORKERS

This section addresses labour management risk associated with people employed or engaged by RELIV's primary suppliers. Primary suppliers are suppliers who, on an ongoing basis, provide goods or materials directly to the Project.

The project will require procurement of a substantial number of materials, including protection and control equipment, power-poles, steel products, Solar products, computer products etc.

All primary suppliers are formal businesses who are required to procure and produce materials subject to high standards.

V.7. ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

Prepared for: **Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).
Kampala.
Uganda.**

1. INTRODUCTION

The purpose of the Archaeological Chance Finds Procedure is to address the possibility of archaeological deposits, finds and features becoming exposed during earthmoving and ground altering activities that will be associated with the **Resilient Livestock Value Chain Project (ReLIV)** and to provide procedures to follow in the event of a chance archaeological find.

The objectives of these procedures, are to identify and promote the preservation and recording of any archaeological material that may be discovered and notify the relevant District Authority, the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery, to resolve any archaeological issue that may arise.

2.0 ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

During the project induction meeting/training, all contractors/construction teams will be made aware of the need to be on the lookout for objects of archaeological interest as they carry out their earthmoving and excavation activities.

Generally, the following procedure is to be executed in the event that archaeological material is discovered:

- All construction activity in the vicinity of the find/feature/site will cease immediately.
- The discovered find/ feature/ site will be delineated immediately.
- Record the find location, and make sure all remains are left in place.
- Secure the area to prevent any damage or loss of removable objects.
- Contact, inform and notify the District Administrator (DA), District Environmental Officer (DEO), the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery,
- The Authorities so notified will avail an archaeologist.
- The archaeologist will assess, record and photograph the find/feature/ site.
- The archaeologist will undertake the inspection process in accordance with all project health and safety protocols under the direction of the District Health and Safety Officer.
- In consultation with the DA, DEO, the Environment Management Authority and the Institution responsible for Museums, the Archaeologist will determine the appropriate course of action to take.

Finds retrieval strategy:

- All investigation of archaeological soils will be undertaken by hand, all finds, osteological remains and samples will be kept and submitted to the National Museum as required. In the event that any artefacts need to be conserved, the relevant license (License to Alter) will be sought from the National Museum Department.
- An on-site office and finds storage area will be provided, allowing storage of any artefacts or other archaeological material recovered during the monitoring process.
- In the case of human remains, in addition to the above, the Local Leadership will be contacted and the guidelines for the treatment of human remains will be adhered to. If skeletal remains are identified, an osteoarchaeologist will be available to examine the remains.

Conservation:

- A conservator should be made available to the project, if required.
- The on-site archaeologist will complete a report on the findings as part of the licensing agreement in place with the Department of Culture.
- Once authorization has been given by the responsible statutory authorities, the client will be informed when works can resume.



V.8. STAKEHOLDER ENGAGEMENT PLAN (SEP)

Prepared for: | Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
| Kampala
| Uganda

The Uganda Resilient Livestock Value Chain Project (RELIV) Stakeholder Engagement Plan (SEP) is intended to provide complete documentation for the requirements of a holistic Stakeholder Engagement system for the project. This SEP contains the findings of a study conducted for the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation and the instrument has been developed based on the local conditions and findings.

INTRODUCTION

1.1 BACKGROUND

This Stakeholder Engagement Plan (SEP) forms part of the set of Environmental and Social Management Instruments for the Uganda Resilient Livestock Value Chain (ReLIV). The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the Implementing Agency of the Project, has the responsibility to effectively engage stakeholders in achieving the project objectives. The SEP document is an ongoing process that needs to be updated throughout the life cycle of the project while engaging in public consultations.

The overall purpose of this SEP is to improve and facilitate decision making and create an atmosphere of understanding where project-affected people are actively involved and their views, concerns and opinions are incorporated in the project planning.

1.2 OBJECTIVES AND TIMING OF STAKEHOLDER ENGAGEMENT PROGRAM

The main goal of the Stakeholder engagement plan is primarily to garner all support of the Agriculture and Social Development sectors. This support will allow for ease of implementation as it is assumed that mobilization of these stakeholders will provide an enabling environment for implementation of the various economic and livelihood activities. The ongoing sharing of information will be aligned with continuing information dissemination meetings that already exist within the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Documentation of these meetings will form part of project documentation. In addition to these scheduled meetings, it is worth mentioning that there will be progress updates on implementation of project activities at different levels. The updates will be provided by the different implementers of project activities.

The Key objectives of the SEP are to:

- Identify key stakeholders that are affected, and/or able to influence the Project and its activities, to ensure that these stakeholders are well informed about the proposed project and relevant Information is disclosed as early and as comprehensively as possible.
- Identify the most effective methods, timing, and structures through which to share project information, and to ensure regular, accessible, transparent, and appropriate consultation,
- Provide guidance for stakeholder engagement in compliance with the International standards of Best Practice,
- Develop a stakeholders' engagement process that provides sufficient opportunity for stakeholders to present their opinions and concerns to influence the project,
- serve as a mechanism to enhance understanding and managing expectations, by disseminating accurate information.
- Establish formal grievance redress mechanisms,
- Define roles and responsibilities for the project implementers in conducting stakeholder consultations,
- Define reporting and monitoring measures to ensure the effectiveness of the SEP and periodical reviews of the SEP based on findings.

The SEP provides a framework for effective involvement of stakeholder, thus It promotes effective execution of the project. Effective stakeholder engagement develops a “social licence” to operate and depends on mutual trust, respect and transparent communication between RELIV and stakeholders. The key elements of the SEP are:

- Stakeholder identification and analysis
- Information disclosure
- Stakeholder consultation
- Grievance management
- Stakeholder involvement in project monitoring
- Reporting to stakeholders
- Management functions

REGULATORY REQUIREMENTS

2.1 RELEVANT NATIONAL LEGISLATION

The RELIV SEP takes into account the existing institutional and regulatory framework within the context of Uganda and international laws. These applicable laws and international good practices are discussed below. Table 3-1 outlines the relevant national legislation for the implementation of RELIV project.

Table 12-1 Constitution of The Republic of Uganda.

No.	LEGISLATION	INTERPRETATION
	The Constitution of The Republic of Uganda, 1995	This is the supreme law in the country and it, among other things, calls upon the Government of Uganda to promote sustainable development and public awareness of the need to manage, promote and protect the rational use of natural resources, in a balanced and sustainable manner for present and future generations. The right to a clean and healthy environment is enshrined in Article 39 of the Constitution of Uganda, 1995.

2.2 RELEVANT POLICIES AND STRATEGIC PROVISIONS.

Table 3-1 below discusses the relevant Uganda policies and strategic provisions, their interpretation and relevance to the RELIV Project. Upon implementation, RELIV must recognize the requirements of these acts.

Table 12-2 Relevant Policies and Strategic Provisions in Uganda

No.	RELEVANT POLICIES	INTERPRETATION
1.	The Uganda Vision 2040	Uganda Vision 2040 provides development paths and strategies to operationalize Uganda’s Vision statement which is “A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years”. Agricultural contribution to the GDP has been declining but remains very important to provide a basis for growth in other sectors. Dairy production is an important facet of the agriculture sector.
2.	The National Development Plan III 2019/2020-2023/24	The National Development Plan (NDP) covers the fiscal period 2019/20 to 2023/24. It stipulates the Country’s medium term strategic direction, development priorities and implementation strategies. According to the NDP the sharp decline in the share of agriculture in GDP represents significant structural transformation in the economy hence NDP in place.

No.	RELEVANT POLICIES	INTERPRETATION
3.	The national environment management policy 1994-NEMP	The Policy provides for sustainable economic and social development, through a number of strategies. The key policy objectives include the enhancement of the health and quality of life of Ugandans and promotion of long-term, sustainable socio-economic development through sound environmental and natural resource management and use; and optimizing resource use and achieving a sustainable level of resource consumption.
4.	National Agricultural Policy (NAP) 2013	The vision of the NAP is "A Competitive, Profitable and Sustainable Agricultural Sector", and the mission is "To transform subsistence farming to sustainable commercial agriculture and the 5 objectives being: a. Ensure household and national food and nutrition security for all Ugandans; b. Increase incomes of farming households from crops, livestock, fisheries and all other agriculture related activities; c. Promote specialization in strategic, profitable and viable enterprises and value addition through agro-zoning; d. Promote domestic, regional and international trade in agricultural products; and e. Ensure sustainable use and management of agricultural resources. These have much in common with the agriculture component of NDPII, which built on the NAP. The policy also describes the roles of key stakeholders, and notes that as a result of the creation of a number of agencies, several divisions and departments have been re-organized, including those with responsibility for disease and pest control.
5.	Uganda Food and Nutrition Policy, 2003	The Uganda Food and Nutrition Policy has been formulated within the context of the overall national development policy objective of eradicating poverty. The overall objective of the policy is to promote the nutritional status of all the people of Uganda through multi-sectoral and co-coordinated interventions that focus on food security, improved nutrition and increased incomes. The goal of Government in the area of food supply and availability is to ensure an adequate supply of, and access to, good quality food at all times for human consumption, income generation, agro-based industries, and local, regional and international markets.
6.	The National Land Policy, 2013	The goal of the policy is to ensure efficient, equitable and sustainable utilization and management of Uganda's land and land-based resources for poverty reduction, wealth creation and overall socio-economic development.
7.	The National Land Use Policy, 2011	The aim of the policy is to: "achieve sustainable and equitable socio-economic development through optimal land management and utilization"
8.	The National Water Policy, 1999	This policy aims to manage and develop the water resources of Uganda in an integrated and sustainable manner. The water policy requires an integration of the water and hydrological cycle concerns in all development programs
9.	The National Employment Policy (2011)	It is aimed at increasing productivity, competitiveness and employability of the labour force, especially the youth and other most vulnerable members of the labour force. It also aims at promoting and protecting the rights and interests of workers in accordance with existing labour laws and fundamental labour standards.

No.	RELEVANT POLICIES	INTERPRETATION
10.	The Climate Change Policy 2013	The Climate Change Policy 2013 promotes harmonized and coordinated approach towards a climate resilient and low carbon development for sustainable development. It promotes conservation of water, forests, wildlife and fisheries in climate change adaptation and mitigation measures
11.	National Strategy for Youth Employment In Agriculture 2014	The strategy has been designed to enable the youth to join the agriculture sector and in so doing enable them to find decent employment which will in the long run solve the major challenges facing agriculture in Uganda, such as low production and productivity, high post-harvest losses and low value addition.
12.	The National Gender policy 1997	The goal of the Policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development. The policy ensures that all Government policies and programmes, in all areas and at all levels, are consistent with the long-term goal of eliminating gender inequalities.
13.	National Child Labour Policy, 2006	This policy is aimed at prohibiting employment of children. The overall objective of the policy is to guide and promote sustainable action aimed at the progressive elimination of child labour starting with worst forms. The specific objectives include: Integrating child labour concerns into national, district and community programmes and plans Establishing a legislative and institutional framework to initiate, coordinate and evaluate child labour programmes and stimulating collective concerted efforts, at all levels, to eliminate child labour.
14.	The National HIV/AIDS Policy, 2007	Provides a framework for prevention of further spread of HIV and mitigation of the socio-economic impact of the epidemic within the world of work in Uganda. It provides the principles and a framework for a multi-sectoral response to HIV/AIDS in Uganda's workplaces.

INSTITUTIONAL ANALYSIS

The following is an outline of the institutions that will be involved in the implementation of the RELIV.

Table 12-3 Institutional Analysis.

INSTITUTION	DESCRIPTION
Ministry of Agriculture, Animal Industry and Fisheries. (MAAIF)	<p>Ministry of Agriculture, Animal Industry and Fisheries is a Government Ministry charged with creating an enabling environment in the Agricultural Sector. It is commonly known as Ministry of Agriculture and carries out its role by enhancing crop production, improving food and nutrition security, widening export base and improved incomes of the farmers.</p> <p>The Ministry is the overseer of the Agricultural sector where it formulates, reviews and implement national policies, plans, strategies, regulations and standards and enforce laws, regulations and standards along the value chain of crops, livestock and fisheries.</p> <p>The Ministry of Agriculture has Directorates which include:</p>

	<p>Animal Resources, Crop Resources, Fisheries Resources; and Agricultural Extension Services</p> <p>Ministry of Agriculture, Animal Industry and Fisheries is mandated to:</p> <p>Formulate, review and implement national policies, plans, strategies, regulations and standards and enforce laws, regulations and standards along the value chain of crops, livestock and fisheries,</p> <p>Control and manage epidemics and disasters, and support the control of sporadic and endemic diseases, pests and vectors,</p> <p>Regulate the use of agricultural chemicals, veterinary drugs, biological, planting and stocking materials as well as other inputs,</p> <p>Support the development of infrastructure and use of water for agricultural production along livestock, crop and fisheries value chains,</p> <p>Establish sustainable systems to collect, process, maintain and disseminate agricultural statistics and information,</p> <p>Support provision of planting and stocking materials and other inputs to increase production and commercialization of agriculture for food security and household income,</p> <p>Develop public infrastructure to support production, quality / safety assurance and value-addition along the livestock, crop and fisheries commodity chains,</p> <p>Monitor, inspect, evaluate and harmonize activities in the agricultural sector including local governments,</p> <p>Strengthen human and institutional capacity and mobilize financial and technical resources for delivery of agricultural services; and</p> <p>Develop and promote collaborative mechanisms nationally, regionally and internationally on issues pertaining to the sector</p>
<p>Ministry of Water and Environment</p>	<p>The Ministry of Water and Environment (MWE) has the overall responsibility of the development, managing, and regulating water and Environment resources in Uganda.</p> <p>The overall Strategic objectives for Water and Environment Sector among others include:</p> <ul style="list-style-type: none"> a. To increase provision of water for production through development of multi-purpose bulk water storage and supply systems with the involvement of all stakeholders as appropriate. b. To increase water supply coverage in rural areas while ensuring equity through providing at least each village with one safe and clean water source c. To promote improved sanitation services in rural and urban areas including the promotion of hand-washing with soap. e. To improve water resources management to ensure adequate quantity and quality for the various. f. To increase the sustainable use of the environment and natural resources through restoration and to maintain the hitherto degraded ecosystems and undertake massive nationwide tree planting. g. To promote the wise use of wetlands through implementation of approved management plans developed in a participatory manner.

	<p>h. To increase the functionality and usage of meteorological information to support sector specific early warning to combat the effects of climate change and disaster risks.</p> <p>i. To develop sector capacity throughout all the institutions and support other stakeholders in the sector.</p> <p>j. To review, develop and reform institutional frameworks, laws, policies and regulations to ensure fast and effective delivery of Services.</p> <p>k. To promote gender and equity considerations.</p>
<p>NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)</p>	<p>The National Environment Management Authority (NEMA) is a principal agency of the government responsible for coordinating, monitoring, regulating, and supervising all activities relating to the environment. NEMA reviews Environment and Social Impact Studies before granting approval or rejecting projects that may have an impact on the environment.</p>
<p>CLIMATE CHANGE UNIT in the Ministry of Finance, Planning and Economic Development (MFPED)</p>	<p>The main objective for the establishment of this unit is to strengthen Uganda's implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP).</p> <p>Key Functions of the Climate Change Department include</p> <p>Co-ordination of national climate change actions (Mitigation and Adaptation) in different sectors, including the creation of awareness among various stakeholders to enable them internalize their roles and responsibilities</p> <p>Monitoring the implementation of mitigation and adaptation activities and progressively update Government, the Uganda population and the COP to the UNFCCC and its Kyoto Protocol.</p> <p>Providing technical support to the Permanent Secretary, Ministry of Water and Environment to ease coordination of climate change issues more effectively.</p> <p>To initiate the development and review of appropriate policies, laws and programmes necessary to ensure effective implementation of adaptation and mitigation activities in Uganda.</p> <p>To implement and guide implementation of adopted policies as well as decisions made by the relevant bodies of government including the Climate Change Policy Committee.</p> <p>Provision of technical advice and secretarial services to the Climate Change Policy Committee (CCPC).</p> <p>To establish and maintain the relationship with national, regional and international organizations, institutions and agencies as may be appropriate for facilitating the implementation of the relevant policies, programmes, projects and decisions.</p> <p>To guide on precautionary measures to anticipate, prevent or minimize the causes of climate change and its adverse effects.</p> <p>To promote and cooperate in the development, application and diffusion, including transfer of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of green house gases in all the relevant sectors including energy, transport, industry, agriculture, forestry and waste management.</p>

	<p>To prepare for adaptation to the adverse effects of climate change by guiding the development of elaborate, appropriate and integrated plans for key sectors as well as the rehabilitation of areas affected by drought, desertification and floods.</p> <p>To guide public participation in addressing climate change and its effects and developing adequate responses.</p> <p>Assisting in the identification and mobilization of sources of funds for climate change action.</p>
Ministry of Gender, Labour and Social Development	<p>The Mandate of the Ministry is to mobilize and empower communities to harness their potential while, protecting the rights of vulnerable population groups. It promotes issues of labour productivity and employment, social protection, gender equality & equity, human rights, culture and empowerment. Overall, the Ministry aims to achieve a better standard of living, equity and social cohesion;</p> <p>The Ministry is responsible for the protection and promotion of the rights of the vulnerable population, addressing gender inequalities, ensuring cultural growth, labour and employment as well as community mobilization and empowerment.</p> <p>Therefore, the Ministry plays a fundamental role in creating demand for social services and laying a foundation for other sectors to improve their outcomes.</p> <p>The National Gender Policy for Uganda - RELIV will be a gender inclusive program that will leave no one behind. Therefore, gender issues are mainstreamed from the formulation, planning and implementation of the project consequently complying with the National Gender Policy for Uganda. The goal of the Policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development. The policy ensures that all Government policies and programmes, in all areas and at all levels, are consistent with the long-term goal of eliminating gender inequalities.</p>
Youth	<p>The youth, who represent about 74 percent of Uganda's population have limited involvement in livestock production and have negative perception about dairy and beef production due to delayed returns on investment compared to other economic activities.</p> <p>The National Employment Policy (2011) aimed at increasing productivity, competitiveness and employability of the labour force, especially the youth and other most vulnerable members of the labour force. It also aims at promoting and protecting the rights and interests of workers in accordance with existing labour laws and fundamental labour standards. In line with this policy, RELIV will provide youth with opportunities for skills development and training, introduce women and youth friendly businesses and innovations, such as mechanized production, milking and transportation, and facilitate access to finance.</p>
Communities	<p>The communities in targets Districts who will receive project funding to establish village sub-projects will be obliged to act in accordance with all national laws and regulations related to the type of project they are implementing. In addition, village-level leadership committees and elected village officials will be responsible for supporting implementation of the environmental and social management framework.</p>

STAKEHOLDERS IDENTIFICATION AND ANALYSIS

4.1 IDENTIFYING STAKEHOLDERS

Stakeholder identification and analysis is a critical part of effective and meaningful stakeholder engagement plan. It is particularly important to identify those individuals and groups who may find it more difficult to participate due to economic constraints and those who may be differentially or disproportionately affected by the project because of their marginalised or vulnerability status. The process includes determining who the stakeholders are by understanding their needs, and expectations, their priorities and objectives about the Project. This information is then used to tailor engagement for each category of stakeholders.

Stakeholders of this project shall be defined as all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project:

The key stakeholders to be continuously engaged could include:

4.3.1 Uganda Government Departments:

- Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
- DDA,
- NAGRC & DB,
- NARO - NaLIRRI
- National- Animal Disease Diagnostic Centre (NADDEC)
- Makerere College of Veterinary Medicine
- WARM MUK
- Ministry of Local Government (MoLG).
- Ministry of Finance, Planning and Economic Development (MFPED)
- National Environment Management Authority (NEMA)
- District Local Government Authorities.

4.3.2 Other Stakeholders

- Development Partners currently operating in the livestock sector
- USAID
- UKAID
- FAO
- AfDB
- SNV
- EU
- World bank
- Royal Netherlands Embassy
- ILRI
- Heifer International
- Equity Bank
- Uganda Development Bank (UDB)
- Uganda Veterinary Association
- Uganda Meat Producers Cooperative Union (UMPCU)
- Uganda National Farmers Federation (UNFFE)
- Uganda Cooperative Alliance
- URUS Uganda
- Service Providers
- Farmers/farmers groups or associations,
- Women and Youth Councils /Associations

The list above is not exhaustive. As the Programme gets underway, the ReLIV PMU will continuously engage with more stakeholders, identifying their specific information needs and the appropriate modes of consultation as well as feedback mechanisms.

The need to include vulnerable groups during public consultations can never be overemphasised. These are groups of persons who may be disproportionately affected by the project and may require special engagement efforts to ensure proportional representation during consultations and participation in the program. Women and youths fall in in this category at varying levels of impact, consequently, considerations to subcategorise this group is also critical.

The level of engagements and methods will be proportional to the extent to which the project affect the stakeholder and or the intense to which the stakeholder can influence the project. It is important to note that the increased level of impact of the project to stakeholder or the influence of the latter to the project will be met with similar level of engagement in terms of frequency and depth.

4.2 STAKEHOLDERS ANALYSIS

Stakeholder identification and analysis is an essential component of effective and meaningful stakeholder engagement activities. The objective of this step is to provide a general overview of all stakeholders. These are categorised as project-affected parties, interested parties, and those who have the potential to influence project outcomes. The next step will be to assess the level of stakeholder interest and support for the project. The assessment shall be geared toward identifying:

- stakeholders' interests,
- areas of potential risks and misunderstandings,
- mechanisms to positively influence other stakeholders,
- key people to be informed about the project during the preparation and implementation phases and, negatively affected stakeholders as well as their adverse impacts on the project.
- RELIV through its implementation partners shall continue classifying stakeholders based on:
 - their power to influence and their interest on the project,
 - the legitimacy of each stakeholder's relationship with the project, and
 - the urgency of the stakeholder's claim on the project activities, potential risks, and impacts.

Based on this analysis, the communication strategy, and the coordination mechanism that will be developed by RELIV 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: These stakeholders have a great deal of interest in the project and have a lot of influence to help determine its success. The plan should fully engage this group and apply all effort to ensure that they are satisfied and fully informed about the project. This can be done by focusing efforts during the project cycle, giving them the importance of their involvement in the project governance, decision making bodies, engaging them and consulting with them regularly as well as providing timeous feedback. The engagement plan targeting these stakeholders shall be incorporated into the project annual work plan.

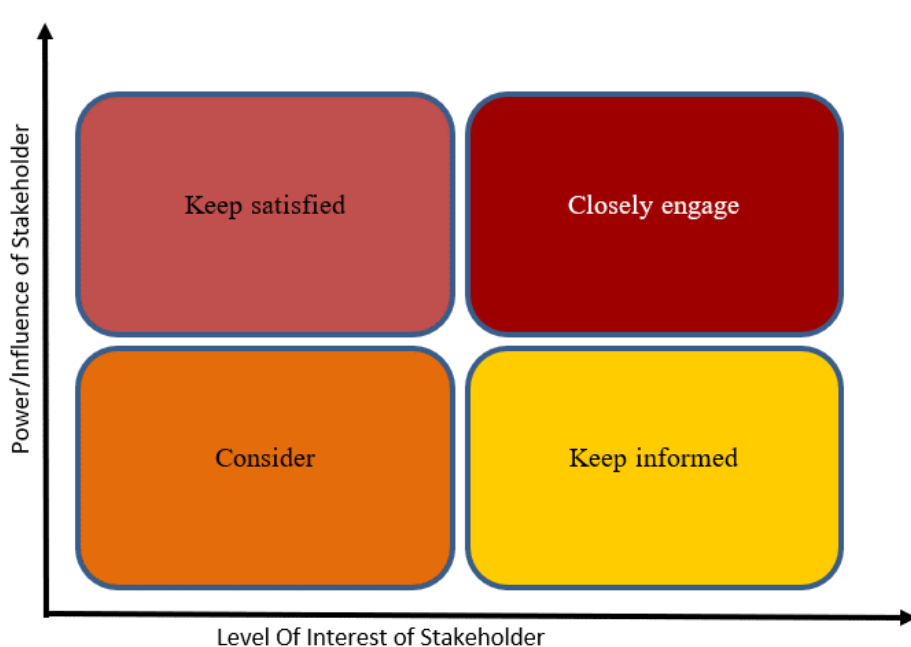


Figure 12-1 Basic Stakeholder Influence/Interest Chart.

(Adapted from: <https://www.boreal-is.com/data/uploads/2020/07/A-step-by-step-guide-to-building-a-stakeholder-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 project. The project will maintain this group’s interest in the project, 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 RELIV is to provide information in a timely manner that enables meaningful consultations with stakeholders in a culturally appropriate format, with local language that is understandable to stakeholders with the purpose of:

- gathering initial views about the project proposal in order to inform project design, at early stages of the planning process,
- Encouraging stakeholder feedback, particularly as a way of informing project design and engagement by stakeholders in the identification and mitigation of environmental and social risks and impacts,
- Providing education and guidance about the project ensuring that stakeholders understand how the project is likely to affect them.
- Initiating engagements on an ongoing basis as risks and impacts arise and manage stakeholders’ expectations,
- disclose and disseminate information that is relevant, transparent, objective, meaningful to stakeholders.
- Supporting active and inclusive engagement with project-affected parties, ensuring that consultation(s) is/are free of external manipulation, interference, coercion, discrimination, and intimidation.
- Ensuring consultation (s) is/are documented and disclosed by the project.

STAKEHOLDER ENGAGEMENT CONSIDERATIONS

5.1 INTRODUCTION

The purpose of the current Stakeholder Engagement Plan is to make sure that there is consistent, well-coordinated approach while engaging with stakeholders and comprehensive disclosure of the Project. It includes disseminating of the correct information about the project and elaborates comprehensively how a continuous Stakeholders engagement will be maintained throughout the course of the project. It will further define engagement methods that will be used in the process as well as outlining the responsibilities of RELIV. The project is committed to full compliance with the IFAD SECAP requirements, as applied together with the Uganda EIA Regulations as the project is not expected to cause any serious or substantial environmental and/or social risks.

In the current engagements, the MAAIF/ RELIV PMU was engaged in dialogue with all possible stakeholders as part of the initial preparatory consultations for preparation of the RELIV project. The stakeholder engagement was conducted with the primary beneficiaries of the project which include farmers, cooperatives, the disadvantaged women, and youths in the target districts. Stakeholders were engaged through a variety of techniques in order to build relationships, gather project related information, consult with them, and disseminate project information to them. These consultations were conducted as part of the ReLIV PDR development process and were aimed at briefing the communities and other stakeholders about the project activities, how the activities will be carried out and what sectors of the environment are likely to be impacted. The Project will continue with comprehensive in-person consultations with stakeholder throughout its implementation.

5.2 ENGAGEMENT CONSIDERATIONS

The following considerations should be made when planning for stakeholder engagement:

5.2.1 Resourcing Stakeholder Engagement

Success in stakeholder engagement is built upon relationship., A supportive open dialogue will help to establish and maintain a successful relationship with stakeholders. This requires resources not limited to financial and human. It takes time to develop and build trust-based relationships with stakeholders because relationships do develop, grow, and need to be sustained. Demands to educate and guide stakeholders about the concept of engagement and other related complex issues which may require specialised skills and expertise are eminent. The process is continuous as additional stakeholders might be identified and will need to be inducted, consequently, increasing the cost of consultations required to meet external expectations.

5.2.2 Managing expectations

Stakeholders can have over expectations of benefits that may accrue to them from a project and as such RELIV needs to ensure that the project does not create, or allow, unrealistic expectations to develop amongst stakeholders about potential project benefits. The stakeholder engagement process will serve as a vehicle to disseminate accurate information about what the project will actually do, establishing a clear understanding of their roles and responsibilities. The engagement processes will manage both community and stakeholders expectations while maintaining relationships with stakeholders and potential project partners.

5.2.3 Securing stakeholder participation

Engaging stakeholders involves taking into account their varying interests and values they have and being able to address them in the process. It is critical to have strategies in a plan to match these challenges. Many times cultural norms and values stand tall and act against some stakeholders to fully participate in the meetings. Oftentimes correct representation by people of common interests is the key for successful consultations/meetings and cannot be underestimated. However, conflicting demands within a community, can be challenging for the project to identify stakeholders who are true representatives of the common interests.

Collaborating with local officers and experts who are sensitive to local power dynamics can be one of the many remedies against hostile conflicting interests, cultural norms and values.

5.2.4 Consultation fatigue

Stakeholders can easily tire of consultation processes, lose interest, trust, or motivation to engage with the project team, resulting in reduced feedback, support, or collaboration. Stakeholder fatigue often occurs when promises are not fulfilled, opinions and concerns are not considered and their lives are getting no better. This often leads to where consultation meetings become ineffective and rather become a place to voice complaints and grievances about the flaws in the project. Consultation fatigue repercussions includes negative project outcomes such as delays, conflicts, waste of time and missed opportunities. RELIV Implementing Partners should always provide stakeholders accurate information and manage expectations; effective engagements with relevant categories of stakeholders devoid of empty and unrealistic promises. Moreover opinions of stakeholders should be treated as feedback to the project and other project partners and specialists.

5.3 PLANNING FOR STAKEHOLDER ENGAGEMENT

RELIV will establish an operational plan in line with proposed project activities to ensure the participation and engagement of the stakeholders. It will ensure that each group gets involved as defined and received the agreed information. The plan must ensure a balanced representation of all affected groups with particular attention to gender and disadvantaged groups. The plan should ensure that project's objectives are met in terms of enhancing income, nutrition and resilience of smallholder dairy and beef producers. Regular meetings will be scheduled with the representatives of the group involved in the project, for the revision of the plan, activity progress and necessary adjustments according to probable changes in the initial context during the execution of the project.

5.3.1 Preliminary Preparations

Prior to the commencement of stakeholder's engagement activities, meetings shall be scheduled with relevant Traditional Authorities, Community Representatives, political leaders in the project area, Government 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 cognisant of all social sensitivities.

Table 12-4 Stakeholder Engagement Activities

STAGE	OBJECTIVES	KEY ACTIVITIES	TARGET STAKEHOLDERS
Preliminary Engagements	To gain a preliminary understanding of the scope of the RELIV and relevant stakeholders;	Field Visits	Government Ministries and Departments
		Stakeholder identification process	Communities Coalitions Local Authorities Local Leadership
Engagements	To meet key stakeholders and introduce them to the project and Grievance Redress Mechanism (GRM) Process, To disclose the GRM as	Meetings with key stakeholders to facilitate the broader stakeholder's engagement process,	Government Ministries and Departments, Communities, Coalitions
		Dissemination of engagement materials (background information	Local authorities,

<p>well as other project documents in the public domain to all interested and affected stakeholders,</p> <p>To gather issues of concern and through this identify a list of potential negative and positive impacts</p> <p>Disclosure of the Grievance Redress Mechanism (GRM) and other project specific Reports.</p>	<p>documents, posters, media notices etc.),</p> <p>Consultations through training workshops with GRM focal points, and all other stakeholders</p> <p>Feedback from stakeholders.</p> <p>To expose the stakeholders to the developed GRM and other project specific Reports.</p>	<p>Disseminate the GRM and other project specific Reports to all stakeholders,</p> <p>Expound the contents of the GRM and other project specific Reports to all stakeholders</p>	<p>Local Leadership</p> <p>RELIV Consultants,</p> <p>Public Extension Officers</p> <p>NGOs</p> <p>Farmer organizations/ cooperatives</p> <p>Public institutions</p> <p>Private sector</p> <p>Vulnerable Persons</p> <p>Government Ministries and Departments</p> <p>Communities</p> <p>Coalitions</p> <p>Local Authorities</p> <p>Local Leadership</p> <p>General Public</p> <p>Media</p>
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5.3.1 Stakeholder Consultation Techniques/Methods

There are a variety of engagement techniques used to build relationships with stakeholders, gather information from stakeholders, consult with them, and disseminate project information. A range of techniques will be applied which are specifically tailored to the identified stakeholder groups. The format of every engagement activity should meet general accessibility requirements which include:

- Venues: meetings should be held in places that are easily reachable and do not require long commute, entrance fee or preliminary access authorization.
- Cultural appropriateness : with due respect to the local customs and norms.
- Inclusivity: engaging all segments of the project affected parties including the vulnerable individuals.

Where 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 project. Particular attention will be given to the vulnerable groups to ensure that they are not denied project benefits.

In general, public consultations will take place through physical workshops, seminars, meetings, radio programs, request for written proposals/comments, questionnaire administration, public reading and explanation of project ideas and requirements. There is need to do a cost-benefit analysis such that where necessary make use of virtually based communication channels to complement physical interaction. The techniques mostly used in SEP are outlined in the table below:

Table 12-5 Some Engagement Techniques

ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUES
RELIV - Internal	<p>Emails</p> <p>Progress Meetings</p> <p>Bulletin board Grievance procedure Code of conduct</p>
Official correspondences (Phone, Emails)	<p>Distribute information to Co-Implementing partners (at central, regional and local level), other Government departments, NGOs, Local Government, private sector, and organisations/agencies.</p> <p>Invite stakeholders to meetings and follow-up</p>
Social Media (WhatsApp, SMS, Facebook, Twitter, Zoom, Microsoft Meetings, Google classes etc.)	<p>Share information with beneficiaries.</p> <p>Distribute information to Co-Implementing partners.</p> <p>Invite stakeholders to meetings and follow-up.</p> <p>Online Meetings with stakeholders</p> <p>Online Workshops with stakeholders</p>
Project website	<p>Present project information and progress updates</p> <p>Disclose SEP, GRM and other relevant project documentation</p>
One-on-one physical meetings	<p>Seeking views and opinions</p> <p>Enable stakeholder to speak freely about sensitive issues.</p> <p>Build personal relationships.</p> <p>Record meetings</p>
Formal physical meetings	<p>Present the Project information to a group of stakeholders.</p> <p>Allow group to comment – opinions and views.</p> <p>Build impersonal relation with high level stakeholders.</p> <p>Disseminate technical information.</p> <p>Record discussions</p>
Public consultation meetings	<p>Present Project information to a large group of stakeholders, especially communities</p> <p>Allow the group to provide their views and opinions.</p> <p>Build relationship with the communities, especially those impacted.</p> <p>Distribute non-technical information.</p> <p>Facilitate meetings with presentations, PowerPoint, posters etc.</p> <p>Record discussions, comments, questions.</p>
Focus group meetings	<p>Present Project information to a group of stakeholders (8-15 people groups)</p> <p>Allow stakeholders to provide their views on targeted baseline information.</p> <p>Build relationships with communities.</p> <p>Record responses</p>

Project leaflet	Brief project information to provide regular update. Site specific project information.
Surveys	Gathering opinions and views from individual stakeholders Gather baseline data. Record data Develop a baseline database for monitoring impacts
Multi-stakeholder meetings and/or Workshops	Present project 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

5.4 STRATEGY FOR CONSULTATION

The Agriculture Sector has identified a range of stakeholder groups. These include members of the community level governance structures, District Administration Structures, Ministry Officials and the general public. The Ministry of Agriculture and Animal Industry and Information Office will be responsible for coordination of all events and maintain a schedule of all implementation outreach activities and report on progress.

These groups will be engaged by use of different platforms including:

- Interviews
- Surveys, polls, and questionnaires for beneficiary feedback
- Public meetings, workshops, and/or focus groups on specific topic.
- Participatory methods
- Other traditional/common mechanisms for consultation and decision making.

Table 12-6 Stakeholder engagement techniques

ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUE
Correspondences (Phone, Emails)	Distribute information to Government officials, NGOs, Local Government, and organisations/agencies. Invite stakeholders to meetings and follow-up
One-on-one meetings	Seeking views and opinions Enable stakeholder to speak freely about sensitive issues. Build personal relationships. Record meetings
Formal meetings	Present the Project 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 meetings (following COVID-19 guidelines)	<p>Present Project information to a large group of stakeholders, especially communities</p> <p>Allow the group to provide their views and opinions.</p> <p>Build relationship with the communities, especially those impacted.</p> <p>Distribute non-technical information.</p> <p>Facilitate meetings with presentations, PowerPoint, posters etc.</p> <p>Record discussions, comments, questions.</p>
Focus group meetings	<p>Present Project information to a group of stakeholders (8- 15 people groups)</p> <p>Allow stakeholders to provide their views on targeted baseline information.</p> <p>Build relationships with communities.</p> <p>Record responses</p>
Project website	<p>Present project information and progress updates</p> <p>Disclose SEP, GRM and other relevant project documentation</p>
Project leaflet	<p>Brief project information to provide regular update.</p> <p>Site specific project information.</p>
Surveys	<p>Gathering opinions and views from individual stakeholders</p> <p>Gather baseline data.</p> <p>Record data</p> <p>Develop a baseline database for monitoring impacts</p>
Workshops	<p>Present project information to a group of stakeholders</p> <p>Allow a group of stakeholders to provide their views and opinions.</p> <p>Use participatory exercises to facilitate group discussions, brainstorm issues, analyse information, and develop recommendations and strategies.</p> <p>Record responses</p>

5.5 COMMUNICATION PLAN

Table 12-7 Stakeholders Engagement Communication Plan

DATE	STAKEHOLDERS	COMMUNICATION	METHOD OF ENGAGEMENT
	MAAIF	Grievance Redress Mechanism	Formal Meeting

RELIV Stakeholders Engagement Plan		
		Preliminary Meeting
District Officers	Agricultural	Present information on GRM and other project specific reports
Chief Executive Officers		Induction and training on use of GRM tools
Village Committees	Development	Distribute non-technical information.
Community Leadership		Facilitate meetings with presentations, PowerPoint, posters etc.
		Present information on GRM
		Induction and training on use of GRM tools
Project (PFO)	Field Officers	Distribute non-technical information.
Public Extension Officers		Facilitate meetings with presentations, PowerPoint, posters etc.
Implementing Agencies		Allow to provide their views and opinion.
		Request guidance on how to handle RELIV issues related to their views and opinions
		Present GRM and other project specific reports to project communities
Communities		Allow the communities to provide their views and opinions.
Coalitions		Build relationships with the communities.
Project Beneficiaries		Facilitate meeting with presentation and posters.
Vulnerable Persons		
Media		Distribute non-technical information.
		Press Statements

5.6 STRATEGY TO INCORPORATE THE VIEW OF VULNERABLE GROUPS

Vulnerable groups in the project refer to those individuals or groups of people who may likely be adversely affected by project impacts and or be limited than others in their ability to take advantages of projects benefits. Such individuals or groups are more likely to be excluded or unable to participate fully in the mainstream consultation process and such may require specific measures of assistance. During the consultation process, the views and inclusion of vulnerable or disadvantaged groups will be sought through a process of free, prior, and informed consultation. their views will be captured and documented in order

incorporate them in the project design and development of safeguards instruments the end results will be getting a broader community support This process is best done as part of the social assessment although consultations are likely to continue after its completion. Where projects do not have impacts or direct interventions with the vulnerable or disadvantaged communities, the local communities are informed about such projects, seek their views about the project, and assured that they will not be affected during project implementation.

For projects affecting vulnerable or disadvantaged communities, whether positively or adversely, a more elaborate consultation process is required. This may include, as appropriate:

- Informing the affected vulnerable or disadvantaged communities about project objectives and activities,
- Discussing and assessing possible adverse impacts and ways to avoid or mitigate them,
- Discussing and assessing potential project benefits and how these can be enhanced,
- Discussing and assessing land and natural resource use and how management of these resources may be enhanced,
- Identifying customary rights to land and natural resource use and possible ways to enhance them,
- Identifying and discussing potential conflicts with other communities and how these might be avoided,
- Discussing and assessing food security and how it might be enhanced through project interventions,
- Discussing and eliciting customary norms of the vulnerable or disadvantaged groups and incorporating them into the project design.
- Eliciting and incorporating indigenous knowledge into project design,
- Facilitating and ascertaining the affected communities' broad support to the project,
- Developing a strategy for vulnerable or disadvantaged groups' participation and consultation during project implementation, including monitoring and evaluation.

All project information provided to vulnerable or disadvantaged groups should be in a form appropriate to local needs. Local languages should usually be used and efforts should be made to include all community members, including women and members of different generations and social groups (e.g. clans and socioeconomic background).

If the vulnerable or disadvantaged groups are organized in community associations or umbrella organizations, these should usually be consulted. In some cases, it may be appropriate or even necessary to include or use in the process independent entities that have the affected communities' trust. The experience of (other) locally active NGOs and experts may also be useful.

CURRENT ENGAGEMENT PROCESS

6.1 THE ENGAGEMENT PROCESS

The engagement process for this project involved the following:

- Visits to potential project sites,
- Face to face interviews with Keys stakeholders,
- Focus group meetings,
- Virtual Meetings (Zoom, Microsoft Teams, Skype, etc),

- Direct observation and discussion in the field,
- General data Collection from all stakeholders.

The general consultation techniques that were used and will continue to be used for the continuous engagement of the stakeholders throughout the project implementation phases are as listed in table 5-3 above:

The engagement process will be a continuous issue throughout the life of the project and will be used as a means of checks and balances for the proper implementation of the project. The process will employ a technically and culturally appropriate approach, which involves identifying the concerned/affected stakeholders, soliciting their views, and continuously checking if their views are being taken care of as the project implementation progresses.

6.2 CURRENT PUBLIC CONSULTATIONS

In the process of developing the current ESCMF the local stakeholders were consulted to solicit their views and concerns as regards the proposed beef and dairy value chain project. The list of the consulted stakeholders is included in appendix 4.

The Consultations involved gathering feedback on the information that had been given to the stakeholders about the project, as well as getting more information about local contexts that may not have been obvious, to raise issues and concerns, and to help shape the objectives and outcomes of the project. The objectives of consulting all these stakeholders were:

- To inform them of the proposed project and its likely impacts on their activities and general surroundings.
- To establish the Environmental, Economic, Social and Cultural aspects implications of the project on the different stakeholders.
- To gather the views of the stakeholders on the proposed project.
- To accommodate the stakeholders' suggestions and perceptions during the project implementation.
- The stakeholders consulted during this survey were:
- Government ministries,
- District and village administration offices/ local leadership,
- Direct beneficiaries of the project (Members of Associations),
- potential beneficiary communities.



Figure 12-2 Engagement with Oderai Soroti Women's Cooperative (Soroti District.)

6.2.1 Consultations with the major organizations

The consultations with the designated implementing or major organizations involved mainly meetings and one on one interviews. In general, the aims of the consultations included:

- introducing the project to the Stakeholders,
- identifying together the potential environmental and social challenges the project may face,
- identifying any other possible challenges and how they should be addressed or mitigated, and
- bringing on board the major stakeholders to garner project ownership from inception.

6.2.2 Consultations with the public

The public consultations were done to raise awareness of the project by informing the public in the concerned areas through their local leaders and some public gatherings about the upcoming programme in their areas. The public was also interviewed to gather their opinions regarding the programme and the environmental and social consequences that may result from its implementation. The stakeholders who were consulted are listed in appendix 4.

THE STAKEHOLDER ENGAGEMENT PLAN (SEP)

7.1 ENGAGEMENT PLAN (SEP)

Table 7-1 below gives a general overview of the stakeholder engagement approaches for the various types of stakeholder groups.

Table 12-8 Summary Overview of the Stakeholder Engagement Plan (SEP)

STAKEHOLDERS	INFORMATION TO BE DISCLOSED	CONSULTATION MEANS
RELIV subprojects, neighbouring communities, public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or district offices, Churches, national and private media, social media, MAAIF website etc.
	Forum to express environmental impact fears and get feedback e.g., accidental release/escape; contamination; emergencies, etc.	Public consultations, focal group discussions, social media Training specific members of the communities, awareness, education
Staff / workers at project sites and infrastructure.	How erection of structures and infrastructure at project sites will affect work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, signs in labs; email, website, meetings with management, staff sensitization & training program in lab safety
Farmer Groups, Agricultural NGOs Farmers' Unions	Consultation on information needs / food safety	District Extension services, Baseline surveys / subsequent surveys to monitor impacts, emails, bulletins
Private and public veterinarians, Private AI technicians, Private breeders	Available information on new technologies, improved breeds of beef and dairy animals etc.	Seminars; District Extension services, sales agents
Intergovernmental Institutions	Sharing Implementation findings and experience.	Intergovernmental meetings and consultations
		Build partnerships through meetings, seminars, workshops
University Graduates	Internship opportunities	Website, public media, bulletin boards
Youths	Opportunities for going into farming and for employment during construction, sponsorships for education	District Agricultural Offices, public consultations

INFORMATION DISCLOSURE

8.1 INTRODUCTION

Information and data that will be shared with stakeholders will be provided from the early stages of the project lifecycle. This will enable reasonable time for the stakeholders to acquaint themselves with the proposed project so that they can be consulted from an informed position. The information will include among other issues: project description, the theory of change and the summarized presentation of each of the project components and subcomponents, duration, potential risks and mitigation measures, stakeholder engagement mechanism and how stakeholders can participate and have their views considered in the process.

The type of information to be disclosed to the various stakeholders depends on their interests and how they will be affected by the Programme and or how they may affect RELIV activities. Thereafter various communication tools can be utilized for the engagement process, such as:

- Project notices published in local newspapers,
- Radio advertisements,
- Direct mailings to communities,
- Presentations with or without focus group sessions),
- Targeted e-mails,
- Virtual meetings, presentations, seminars, workshops, with stakeholders,
- One-on-one meetings, presentations, seminars, workshops, e-mails, and phone conversations with stakeholders,
- Site tours, and
- The use of social media.

8.2 DISCLOSURE OF ESCMF DOCUMENTS

The IFAD policy on the disclosure of documents, adopted the principle of “presumption of full disclosure” (IFAD 2021). The sharing of draft and final ESCMFs and other relevant documents with program and project stakeholders and interested parties is subject to the above-mentioned principle. As such, the documents will be disclosed, when available, in a timely manner prior to project appraisal at the quality assurance stage on IFAD’s Website and in an accessible place in the program or project-affected area, in a form and language understandable to project-affected parties and other stakeholders, for the purposes of keeping them informed and obtaining their meaningful feedback.

IFAD policies require that the Government of the Republic of Uganda, and IFAD disclose the ESCMF report as a separate and stand-alone document. The disclosure should be done by the Republic of Uganda and IFAD where it can be accessed by the public, including affected groups and NGOs, and at their respective websites.

The ReLIV PMU will make copies of the ESCMF available in selected public places possibly at relevant government offices for information and comments. The Proposed project activities will be announced through different forms of media. The announcement will include a brief description of the program, references to where and when the ESCMF can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the project client and possible project affected groups, beneficiaries and local NGOs, the ReLIV PMU shall provide relevant material in a timely manner prior to consultations and in a form and language that are understandable and accessible to the groups being consulted.

8.3 INFORMATION SHARING AND CHANNELS

The information will be formally packaged and shared with relevant government ministries for publishing and made accessible project affected persons and general public. There will also be presentations and discussions over scheduled various media channels where project implementing agencies will conduct interactive stakeholders and general public presentations about the project and progress updates. The following will be some of the platforms useful to reach stakeholders:

- Newspapers, posters, radio, television,
- Information centres and exhibitions or other visual displays,
- Brochures, leaflets, posters, nontechnical summary documents and reports,
- Official correspondence, meetings,
- Website, social media.

The strategy will further include improvised means for consultations with stakeholders on instances where the project intent to make significant changes which could pose additional risks and impacts. The most critical aspect of the strategy is leveraging on the village level leadership engagement and collaboration with the District Administrator's Offices.

8.4 PUBLIC DISCLOSURE PLAN

Following the public consultation, all comments and briefs will be analysed. The report will be published and made available to the concerned community groups and to interested bodies upon request.

In line with this, the ESCMF will be available at the relevant institutions at all levels and be publicly disclosed both in country and at the IFAD's websites. The ReLIV PMU will make copies of the ESCMF available in selected public places in English and working language of the country in compliance with the IFAD's Public Consultation and Disclosure Policy. It is proposed that the locations of copies are announced through public relation sections of the relevant sector line Ministries, radio announcement in addition to press releases, as applicable.

Any ESCMPs and other SECAP instruments that will be prepared for the proposed project activities under the program will also needed to be disclosed to the public. Copies of the ESCMPs should be made available to communities and interested parties in accessible locations through local government authorities. Copies of the ESCMPs should also be provided to the implementing agencies. This will ensure record keeping of all activities implemented under the ESCMF and ensure that third party audits, if required, have adequate information when undertaking annual environmental and social audits.

8.4.1 Information Disclosure to Consulted Stakeholders

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 ReLIV activities may be affected by them. Thereafter various communication tools can be utilized for the engagement process, such as:

- Project 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.

Table 8-1 below gives a general overview of the types of information needs for various stakeholder groups.

Table 12-9 Summary Overview of a Public Consultation Plan for ReLIV

No.	Stakeholders	Information to be disclosed	Consultation means
1.0	ReLIV project community, neighbouring communities, general public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or Local community offices, Churches, national media, social media, Agriculture website etc.
		Forum to express community / health fears and get feedback e.g., accidental release/escape, contamination. emergencies (fire)	Public consultations, focal group discussions, social media. Training specific members of the communities, awareness, education
2.0	Staff / workers at target Districts	How project work will affect their work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, email, website, meetings with management, staff sensitization & inhouse training programs.
3.0	Farmers Groups/Clusters Agricultural NGOs Farmer Union Agrochemical companies	Consultation on agricultural needs / food security issues. Strengthen management capacity of farm enterprises, Support farmer clusters and group development. Ensuring farmers groups/associations participate in the formulation of agricultural policies and legislation. Promoting dissemination of information (climate, prices, pests and diseases, and markets) access to farmer groups	Agricultural Extension services, Baseline surveys/subsequent surveys to monitor impacts, emails, bulletins
4.0	Intergovernmental Institutions; IFAD, FAO, etc	Setting sustainable development agenda for participating communities	Intergovernmental meetings and consultations
		Capacity building for participating communities.	Build partnerships through meetings, seminars, workshops
5.0	University Graduates	Internship opportunities	Website, public media, bulletin boards
6.0	Youths	Opportunities for employment during project implementation, other opportunities in agro-processing which	Agricultural Offices, public consultations

		involves value-addition initiatives in agro-processing, packaging, and promotion of value chains	
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RESOURCES AND RESPONSIBILITIES FOR IMPLEMENTATION

9.1 RESOURCES

The stakeholder engagement activities have been estimated to cost about US \$ 25,000.00 throughout the project life and will be allocated from the overall project allotment. However, the design and implementation of a detailed and accurate SEP will be the overall responsibility of RELIV. Other resources to be committed will be organized as such:

The RELIV Information Office will be in charge of the SEP in liaison with the project development team led by MAAIF.

The RELIV/PMU are committed to the implementation of the project as well as the implementation of the SEP in keeping with requirements and good governance pillars therefore make a commitment to commit some of the project funds towards the implementation of the SEP activities.

Additional information on SEP related activities will be available from the Information office with support from the MAAIF.

9.1.1 Budget

The Project Coordinator will ensure that RELIV has an adequate standing budget allocated towards the Stakeholder Management Programme.

9.1.2 Training

All the RELIV team and partners will attend a workshop that will bring awareness on the project, SEP, GRM as well as other project specific documents.

8.2 RESPONSIBILITIES

The management, coordination and implementation of the SEP and its integral tasks will be the responsibility of dedicated team members within RELIV, partner ministries and its Contractors, Sub-contractors, and Consultants. The roles and responsibilities of the organizations are presented below. RELIV will be responsible for the preparation and physical implementation of the RELIV Project.

The Project Coordinator will work closely with the Environmental and Social Specialist (ESS) to ensure that the SEP is implemented in a successful manner.

Environmental and Social Specialist (ESS) is responsible for the management of project related social and environmental issues. The ESS will oversee all stakeholders' engagement activities regarding the implementation of the GRM as well as other project specific documents. Responsibilities of the ESS include the following:

- Develop, implement and monitor stakeholders' engagement plan for the project, GRM and other project specific documents;
- Liaise with the Project Coordinator to ensure that stakeholders engagement requirements are understood,
- Maintain the stakeholder database; and

- Proactively identify stakeholders, project risks and opportunities and inform Project Coordinator to ensure that the necessary planning can be done to either mitigate risk or exploit opportunities



V.9. GRIEVANCE REDRESS MECHANISM (GRM)

**Prepared
for:**

**Ministry of Agriculture, Animal Industry and Fisheries
(MAAIF)**

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INTRODUCTION

1.1 GENERAL

A grievance redress mechanism (GRM) is an instrument through which dispute resolution is sought and provided. It is a process for receiving, evaluating and addressing project related concerns of, and complaints by, project affected communities or persons.

IFAD's Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. IFAD's GRM requires i) working proactively with the affected parties to resolve complaints; ii) ensuring that the complaints procedure is responsive and operates effectively; and iii) maintaining records of all complaints and their resolutions. Thus, the GRM will assist the ReLIV project to ensure that deliberate processes and procedures are put in place to capture, assess, and respond to concerns from the community. This will ensure smooth implementation of the project and timely and effective addressing of the problems that may otherwise derail the project.

1.2 PRINCIPLES OF A GOOD GRM

The principles of a good GRM are⁴⁸:

- A mechanism scaled to risk and adverse impact on affected communities.
- Designed to take into account culturally appropriate ways of handling community concerns.
- A clear and understandable mechanism that is accessible to all segments of the affected communities at no cost.
- Transparency and accountability to all stakeholders.
 - A mechanism that prevents retribution and does not impede access to other remedies.

1.3 KEY STEPS FOR GRIEVANCE MANAGEMENT

The key steps for grievance management are⁴⁹:

- vi. Publicising grievance management procedures so that the mechanism is accessible to everyone.
- vii. Receiving (i.e., collecting, recording, and registering) and keeping track of grievances.
- viii. Reviewing and investigating grievances to assess the nature of the grievance, its severity and legitimacy.
- ix. Developing resolution options commensurate with the nature of grievances and preparing and communicating a clear response and closing out cases when agreement with the complainants is reached.
- x. Monitoring grievances through tracking to ascertain effectiveness, adapting the mechanism to correct inefficiencies, using the results of monitoring for feedback and lessons learned.

⁴⁸ IFC (2009); Good Practice Note – Addressing Grievances from Project-Affected Communities, Guidance for Projects and Companies on Designing Grievance Mechanisms

⁴⁹ *ibid*

OPERATION OF THE GRIEVANCE REDRESS MECHANISM

2.1 SCOPE OF THE GRM

The grievance redress mechanism (GRM) is a system by which queries or clarifications about the project will be responded to, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively. It provides a channel for dispute resolution during execution of Services. However, the GRM serves to complement but not replace the existing channels such as rewards and sanctions committee.

The GRM will improve outcomes by creating public awareness about the project and its objectives, deterring fraud and corruption, mitigating socio-economic and environmental risks and providing the ReLIV PMU with practical suggestions and feedback during project implementation.

2.2 PURPOSE OF THE GRM

The GRM will serve the following purpose:

- to be responsive to the needs of beneficiaries and to address and resolve their grievances.
- Resolve any emerging environmental and social grievances in project areas.
- To promote relations between the community and the district
- 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 project's legitimacy among stakeholders.
- to promote transparency and accountability.
- to deter fraud and corruption and mitigate project risks.

2.3 RELIV GRM APPROACHIES.

The RELIV GRM System will consist of three parallel approaches from which an aggrieved person can choose. These include the following:

- The Community-based grievance redress mechanism.
- The ReLIV Formal GRM.
- The IFAD Complaints procedure.

The following is an outline of the three approaches.

2.4 COMMUNITY BASED GRIEVANCE REDRESS MECHANISM.

This will be a stand-alone Grievance Redress Mechanism where the communication mechanism involves only community members and will tend to 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 (including the courts of law, where necessary).

It is known that communities rely substantially on their own internal social regulatory systems including mechanisms to deal with grievances that work in parallel with the formal systems. Under RELIV it is recommended that these be used to the extent

possible at community level. Recourse where necessary will be facilitated by the project, but in general RELIV will ensure culturally appropriate easy access to program information through culturally appropriate measures and language of communication.

Many of the RELIV subprojects implementation will be community based, negotiation and agreement by both parties will provide the first avenue to iron out and resolve any grievances expressed by project affected individuals. In this context, appropriate community-based channels of grievance redress mechanisms will be put in place, and the programme affected people sensitised to make use of them.

Normally, the channels have to be in line with norms of the local communities as well as laws of the country. Thus, the process will involve informal courts handled by traditional leaders (Village headmen, Community councils etc.), and will follow the following route (Figure 2-1):

2.4.1 Community Level/ Village/Ward Council

The first port of entry is the village committees. The village head(chief) organises a village committee to presides over the matter. The village committee will have a set time maybe 15 days) from receipt of the grievance to act upon it.

2.4.2 Parish Council

When one party is not satisfied with the decision at Community Level, the complaint can be taken up to the Parish Level. The Parish Grievance Redress Committee (PGRC) then investigates and give their ruling on the matter. In most cases such complaints get sorted out at this level.

2.4.3 Sub-County Level

However, those who are not satisfied will be allowed to appeal to the Sub-County Council (SCC). At this level, the Sub-County Grievance Redress Committee (SCGRC) will preside over the case.

2.4.4 County Level

If one party is still not satisfied with the decision at Sub-County Council Level, the complaint can be taken up to the County Level. At this level, the County Grievance Redress Committee (CGRC) will preside over the case.

2.4.5 District Commissioner

However, those who are not satisfied will be allowed to appeal to the district commissioner (DC). At this level, the District Commissioner will preside over the case. However, if the aggrieved party is still not satisfied then they can ultimately take the formal route.

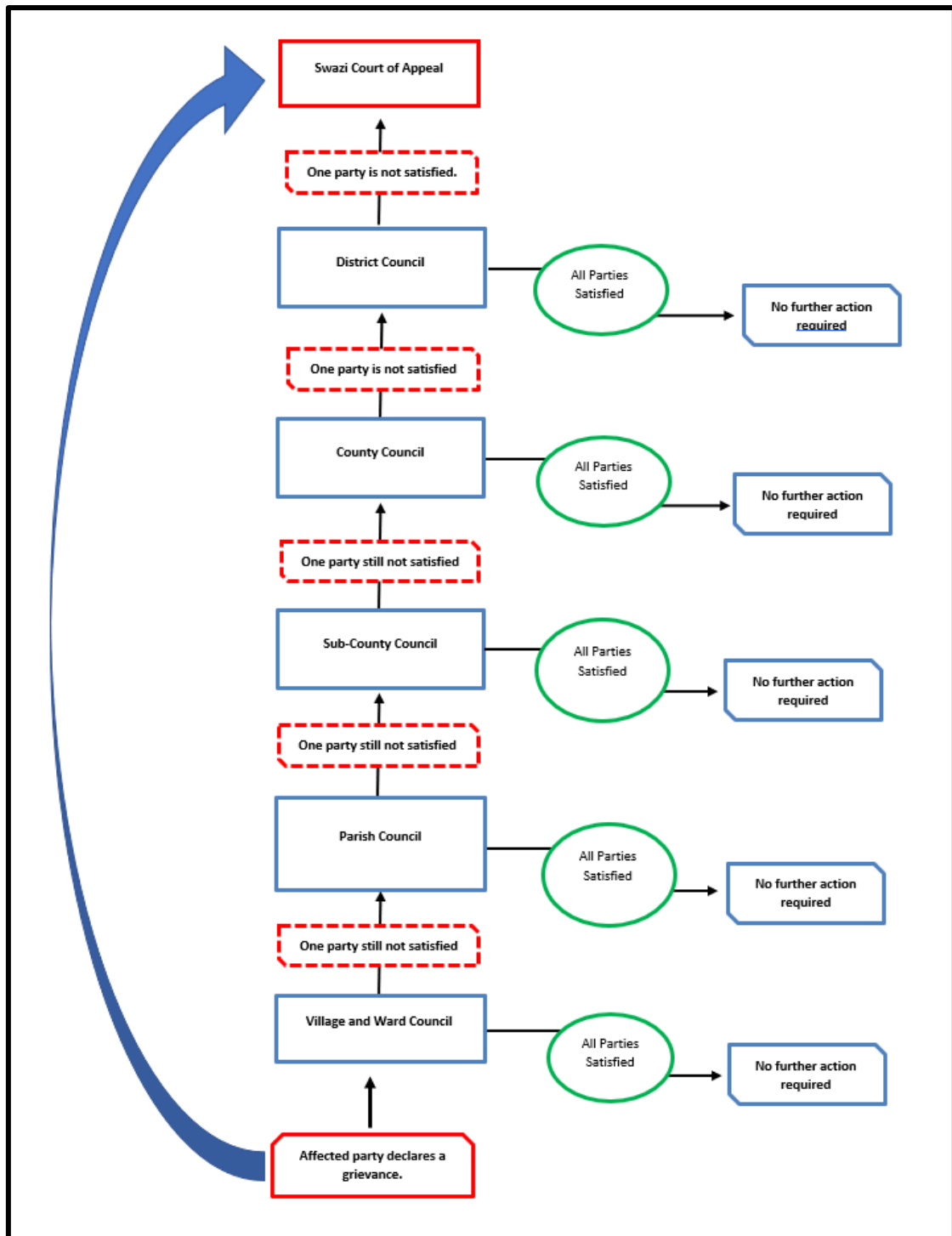


Figure 0-1 The Community-based grievance mechanism.

2.4.6 Community Based Approach-Complaints Handling.

At every community level in figure 2-1, three community leaders shall be appointed and trained to handle complaints. All project beneficiaries shall be informed of the appointed recipients of complaints. These community level leaders 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 standard form as shown in Appendix 1. If the complainant is not satisfied with the recommendation at any one level, they shall be advised to report to the higher level of redress. These community leaders shall be

obligated to submit a quarterly report using the standard format as in Appendix 5. of registered complaints to the District Implementation Committee for onward transmission to ReLIV PMU.

The community members shall be advised to register their complaints at the Complaints focal person. The complaints can be made in writing, verbally, over the phone, by fax or emails. The officer receiving the complaints should try to obtain relevant basic information regarding the grievance and then allocates the case to one officer (complaints focal person). After registering the complaint the Grievance Handling Team under the guidance of the complaints focal person will set a date to investigate the matter, after which they shall provide a recommendations. 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.

2.4.6 Community Based Approach-Complaints Handling Process

The following shall constitute the complaints handling process for the Community Based approach.

- a) Complainant fills in Complaint Form.
- b) Complaint is assessed for compliance with Mandate.
- c) If within mandate, complainant focal person commences inquiries and complainant is issued with copy of communication.
- d) If a response is not received from the respondent after 14 working days, complainant focal person sends a first reminder giving the respondent 7 days to comply.
- e) If no response is received after this, a final reminder of 7 days is sent.
- f) Conduct investigations.
- g) Demand and obtain information or documents.
- h) Conduct an inquiry.
- i) Undertake mediation, negotiation and conciliation.

2.5 FORMAL GRM

The formal Grievance Redress Mechanism consists of the following components: -

- 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 RELIV PMU offices. RELIV PMU staff will be responsible for receiving the grievances, classifying, and logging them.
- 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 RELIV PMU/Ministry of Agriculture senior members of staff.
- A response is then communicated to the complainant within the timescale promised.
- The complainant is given room to appeal to the Ministry of Agriculture and Food security or the Courts of Law if they are not satisfied with the response.
- Once done the case is brought to a closure and all the staff members of RELIV PMU are made aware of the complaint, any underlying issues and plans to prevent any future recurrence of the issue.

2.5.1 Structure of The Formal GRM

The GRM consists of a small number of components:

- The access point for impacted/concerned people.
- Grievance log.
- Acknowledgement stage.

- Assessment stage.
- Passing of resolution.
- Response.
- Room for appeal.
- Case closure.

The following key steps must be followed for all complaints received by RELIV PMU staff:

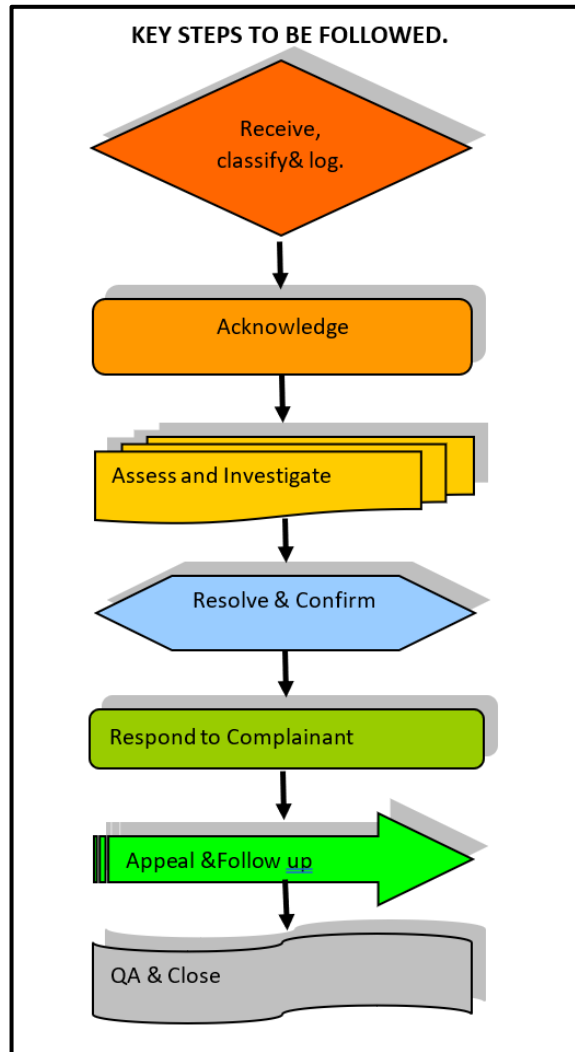
i) Receive, classify & log

All potential issues must be captured and classified for escalation, review and action as required.

a) Receiving the Grievance:

The access points will be as close to the users as possible. Thus, for the programme, an easily accessible and well publicized focal point or user-facing 'help desk' will be the first step. This will be established at each sub-project, and ReLIV Offices so that it will be seen as credible and accessible. 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 RELIV PMU staff but should also be logged 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.

b) 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 (Grievance Log).

All these complaints must be formally logged using the standard forms and all complaints must be prioritized as follows:

- **Priority 1 – urgent,**
These pose potentially high health and high business impact. **These require 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 RELIV 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 RELIV reputation.
- **Priority 2, - non-urgent,**
These pose lower health environmental and social impact. **These require 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.

Discretion and flexibility should be exercised in prioritizing all complaints.

The staff member logging the complaint should review the complaint and its priority with the Sub-project/ RELIV Project Manager before proceeding to the next step.

The Sub-project/ RELIV Project Manager 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 RELIV Project Manager.

ii) Acknowledge

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. All complaints, regardless of priority, should receive a pro forma acknowledgement sent out 1st class mail on the day of receipt.

iii) Assess & Investigate

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).
- All areas of interaction and communication should be established (who, what, where, when why etc.) and documented where possible.

iv) Resolve & Confirm

Ensure that the final resolution is clear and fair. Also confirm the proposed action and resolution with another senior person (RELIV Management).

- Ensure that the proposed resolution meets corporate guidelines and does not prejudice RELIV in any unnecessary legal or financial manner.
- Document the proposed action and discuss and agree with the RELIV Project Manager.
- 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.
- This should then be reviewed as part of the bi-monthly quality assurance reviews.

v) Respond to Complainant

Provide the Complainant with the resolution within the timescales promised.

- 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.

vi) Appeal & Follow

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

- All Priority 1 complaints and 95% of priority 2 complaints must be followed up within a reasonable timescale.
- This will be carried out by RELIV Administration team / RELIV Project Manager'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 RELIV Project Managers 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/she is not satisfied.

vii) QA & Close

Ensure that the RELIV 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 RELIV.

2.6 ADDITIONAL GRM APPROACHES

Besides the proposed GRM approaches, aggrieved persons can also employ additional channels to air their complaints. These include the IFAD Complaints procedure. 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. Parties adversely or potentially adversely affected by IFAD-funded projects and programmes may bring issues to the Fund's attention using SECAPcomplaints@ifad.org. *IFAD has zero tolerance to* for Sexual Exploitation and Abuse. *Any Sexual Exploitation and Abuse (SEA) complaints received shall be directed to IFAD's Ethics Office.*

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.

OPERATION MODALITIES OF GRM IN RELIV

3.1 SUBMISSION OF COMPLAINTS.

Communities and individuals who believe that they are adversely affected by RELIV can submit complains through the grievance redress mechanism of the programme. The mechanism ensures that complaints are promptly reviewed in order to address concerns related to RELIV.

3.2 ESTABLISHMENT OF GRIEVANCE REDRESS COMMITTEES.

RELIV Project will put in place the strategies to monitor and resolve complaints that may arise during and after the Project implementation by the affected people. For better performance and sustainability of the RELIV project, the committees on GRM have to be established at the different levels of operations. The Grievance Redress Mechanism (GRM) ensures that complaints are received, reviewed and addressed by the elected Grievance redress committees.

3.3 Project Grievance Log

The Grievance Redress Mechanism Committee will ensure that each complaint has an individual reference number and is appropriately recorded and tracked. The project grievance log form will contain record of the person responsible for an individual complaint received, and records dates for the following events:

1. Date of the received complaint.
2. Name of the PAP complaining
3. Status of the complaint
4. PAP Confidentiality/Identity
5. Signatures of the PAP complaining
6. Signature of committee representative
7. How and who addressed the complaint
8. Dates when the complaint was addressed.

3.4 Grievance prevention/Alternative Dispute Resolution

There are ways to proactively solve issues before they even become grievances. Project implementers should be aware and accept that grievances are likely to occur. Dealing with them is part of the work and they should be considered in a work plan. Project implementers can prevent complaints by the following:

- Providing sufficient and timely information to communities
- Conducting meaningful community consultations involving all stakeholders
- Building capacity for project staff, particularly in community facilitations and other field-related issues
- Negotiation, Meditation and reconciliation

COMMUNICATION PLAN FOR THE GRIEVANCE REDRESS MECHANISM

4.1 THE COMMUNICATION PLAN.

This Communication plan describes the approach to be taken by the ReLIV PMU in communicating and collaborating with its relevant stakeholders on the Grievance Redress Mechanism. This plan will facilitate effective and coordinated beneficiaries and the public on standard procedures of the GRM before and during programme implementation.

4.2 COMMUNICATION PLAN OBJECTIVES

The primary objective of the GRM communication plan is to: Outline the strategy and methodologies to be used for GRM communications, GRM information distribution, feedback and stakeholder engagement, and how these will be managed during ReLIV project implementation.

Other objectives

- Share information on GRM procedures to the relevant stakeholders before and during programme implementation.
- Develop a detailed communication methodology of disseminating GRM information to the target audience.

4.3 TARGET AUDIENCES

The targeted audiences for this plan are namely:

- Government officials.
- Project staff.
- Project end beneficiaries.
- Project affected people.
- General public.

4.4 GRM COMMUNICATION CHANNELS.

In order to communicate all information regarding the GRM to the targeted audience, the ReLIV PMU will need to have platforms and utilize already existing avenues to reach their stakeholders at the different levels. It is noteworthy that the communication channels will vary for each target audience due to group dynamics and accessibility of such platforms especially to the project beneficiaries and local communities.

ReLIV PMU will use the communication channels listed below, depending on its target audience:

- Print media, e.g. posters, flyers, booklets, notices
- Social media: Facebook, Twitter, Whatsapp.
- Use of ICT.
- Radio stations.
- Formal letters

In addition, the following communication activities and methods will be conducted to promote a two-way communication between the PMU and all its relevant stakeholders, that is,

- Setting up Programme's Intranet.
- Information sessions and workshops on GRM.
- Bulletins.
- GRM awareness literature.
- Public forums.
- Training on GRM procedures and structure at the community level

APPENDICES

APPENDIX 1: Grievance Log

Date Grievance Filed: _____

Grievance entered by (Staff person): _____

Reported to Facility Administrator/Farm Manager? Yes No

Facility Administrator/Farm Manager's Signature: _____

Name of Grievant: _____

Description of Grievance:

Actions/Steps Taken:

Date: _____ Actions/Steps completed by (Staff person): _____

Date: _____ Actions/Steps completed by (Staff person): _____

Date: _____ Actions/Steps completed by (Staff person): _____

Resolution:

Was the grievant provided a verbal explanation of the above resolution?

Yes No Date: _____

Was the Grievance escalated?

If so to whom: _____

*Please attach any documentation regarding the escalation of the grievance.

Was Acknowledgement Letter Provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Date: _____

APPENDIX 2: Acknowledgement Receipt

Complaint no:

Date of issuing complaint: (dd/mm/yyyy)

Place of issuing complaint:

Village/Town/City/Area:

County:

Details of the Complainant:

Name:

Age:

Address:

Gender:

Email address:

Phone no.:

Supporting documents submitted:

- i.
- ii.
- iii.
- iv.
- v.

Summary of complaint:

.....
.....
.....

Name of Officer receiving Complaint: _____

Signature of Officer receiving Complaint: _____

APPENDIX 3: Meeting Record Structure (Grievance Redress Committee & Other Meetings)

Date of Meeting: Complaint no.:Venue of Meeting:

List of participants:

Complainant Side	Grievance Redress Committee Members
1) 2)	1) 2) 3)

Summary of Grievance:

.....

Key discussions:

- 1)
- 2)
- 3)
- 4)
- 5)

Decisions Made/Recommendations by the Grievance Redress Committee:

- 1)
- 2)
- 3)

Status of Grievance (tick where applicable):

Solved		Unsolved	
--------	--	----------	--

Chair person's name: _____

Chair person's signature: _____

Date (dd/mm/yyyy): _____

APPENDIX 4: Disclosure Form

Village/Town/City/Area

County

Result of Grievance Redress

1. Complaint no.

2. Name of Complainant:

3. Date of Complaint:

4. Summary of the Complaint:

.....
.....
.....

5. Summary of Resolution:

.....
.....
.....

6. Level of Redress (please tick where applicable)

First/Community	<input type="checkbox"/>	Second/County	<input type="checkbox"/>	Third/National	<input type="checkbox"/>
------------------------	--------------------------	----------------------	--------------------------	-----------------------	--------------------------

7. Date of grievance redress (dd/mm/yyyy): _____

Name of complainant: _____

Signature of the Complainant, indicating acceptance of the solution to his/her grievance:

Name of Grievance Handling Officer: _____

Signature of Grievance Handling Officer: _____

Date (dd/mm/yyyy): _____

Location Date (dd/mm/yyyy) Period (Quarter ending).....

i. Details of Complaints Received:

Place of issuing complaint	Name & Address of complainant	Location of complaint/concern	Date of Receipt	Complaint no.

ii. Details of Grievance Redress Meetings:

Date of meeting	Venue of meeting	Names of participants	Decisions/Recommendations made

iii. Details of Grievances addressed:

Date of issuing complaint	Category of complaint	Category of grievance	Brief description of grievance	Date of complete resolution

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 9: Integrated Project Risk Matrix (IPRM)

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Substantial	Substantial
<i>Fragility and Security</i>	<i>High</i>	<i>High</i>
<i>Macroeconomic</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Governance</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Political Commitment</i>	<i>Substantial</i>	<i>Substantial</i>
Sector Strategies and Policies	Substantial	Substantial
<i>Policy Development and Implementation</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Policy alignment</i>	<i>Moderate</i>	<i>Moderate</i>
Environment and Climate Context	Substantial	Substantial
<i>Project vulnerability to climate change impacts</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project vulnerability to environmental conditions</i>	<i>Substantial</i>	<i>Substantial</i>
Project Scope	Moderate	Moderate
<i>Technical Soundness</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project Relevance</i>	<i>Moderate</i>	<i>Moderate</i>
Institutional Capacity for Implementation and Sustainability	Substantial	Substantial
<i>Monitoring and Evaluation Arrangements</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Implementation Arrangements</i>	<i>Substantial</i>	<i>Substantial</i>
Project Financial Management	Substantial	Substantial
<i>Project External Audit</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Accounting and Financial Reporting</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Internal Controls</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Funds Flow/Disbursement Arrangements</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Budgeting</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Organization and Staffing</i>	<i>Moderate</i>	<i>Moderate</i>
Project Procurement	Moderate	Moderate
<i>A.1 Legal, Regulatory and Policy Framework</i>	<i>Moderate</i>	<i>Moderate</i>
<i>A.2 Institutional Framework and Management Capacity</i>	<i>Moderate</i>	<i>Moderate</i>
<i>A.3 Accountability, Integrity and Transparency of the Public Procurement System</i>	<i>Moderate</i>	<i>Moderate</i>
<i>A.4 Public Procurement Operations and Market Practices.</i>	<i>Moderate</i>	<i>Moderate</i>
<i>B.1 Assessment of Project Complexity</i>	<i>Moderate</i>	<i>Moderate</i>
<i>B.2 Assesment of Implementing Agency Capacity</i>	<i>Not applicable</i>	<i>No risk envisaged - not applicable</i>
<i>Project Procurement Overall</i>	<i>Moderate</i>	<i>Moderate</i>
Environment, Social and Climate Impact	Substantial	Substantial
<i>Vulnerability of target populations and ecosystems to climate variability and hazards</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Greenhouse Gas Emissions</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Physical and Economic Resettlement</i>	<i>Low</i>	<i>Low</i>
<i>Community health, safety and security</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Labour and Working Conditions</i>	<i>Substantial</i>	<i>Substantial</i>

Risk Category / Subcategory	Inherent risk	Residual risk
<i>Indigenous People</i>	<i>Low</i>	<i>Low</i>
<i>Cultural Heritage</i>	<i>Low</i>	<i>Low</i>
<i>Resource Efficiency and Pollution Prevention</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Biodiversity Conservation</i>	<i>Substantial</i>	<i>Substantial</i>
Stakeholders	Moderate	Moderate
<i>Stakeholder Grievances</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Stakeholder Engagement/Coordination</i>	<i>Low</i>	<i>Low</i>
Overall	Substantial	Substantial

Country Context	Substantial	Substantial
<i>Fragility and Security</i>	<i>High</i>	<i>High</i>
<p>Risk:</p> <p>Since the end of the conflict with the Lord Resistance Army in Northern Uganda around 20 years ago, Uganda has been a generally peaceful country, despite recurrent political turmoil at the occasion of general elections, despite two major remaining hotspots:</p> <ul style="list-style-type: none"> - Ugandan troops are involved military action against the Allied Democratic Forces (ADF) in North Kivu and Ituri provinces of eastern DRC, near to parts of the Ugandan border, on 30 November 2021. Ugandan troops are present on both sides of the border as part of the joint operations. - The Karamoja region remains subject to cross border raids of armed cattle rustlers that lead to intercommunal violence and some military interventions. Project investments in this area could lead to an increase of conflict between the tribes. 	High	High
<p>Mitigations:</p> <p>RELIV will help mitigate the risk of increased conflict and promote a more harmonious environment for the communities, tribes, and surrounding countries involved in the cattle corridor area and in particular in Karamoja by</p> <ol style="list-style-type: none"> 1. Work with local authorities and law enforcement agencies to enhance security in the area, especially in regions susceptible to cattle raiding. This may include increasing patrols, setting up community watch groups, and improving communication networks. 2. Implement better livestock management practices, including livestock identification and traceability systems, using tamper proof identification devices, to deter theft and promote responsible animal ownership 3. Build the capacity of local institutions and organizations to effectively manage conflicts and address the challenges that may arise from the increased number of animals in the region. 4. Monitoring and Evaluation: Implement a robust monitoring and evaluation system to assess the impact of the project on conflict dynamics and take corrective actions if necessary. 		
<i>Macroeconomic</i>	<i>Moderate</i>	<i>Moderate</i>

<p>Risk:</p> <p>The WB/IMF assessment of Uganda's debt sustainability analysis indicates a moderate risk of external and overall public debt distress, with limited space to absorb shocks. The current debt-carrying capacity is classified as "medium". The economy is recovering from external shocks induced by the war in Russia's invasion of Ukraine and higher inflation, and the outlook has improved. Given the implementation of fiscal consolidation, Uganda's public debt continues to be sustainable in the medium term. Key risks include slower growth environmental shocks, further tightening of global financial conditions, delayed reform implementation, further delays in oil exports, and possible spillovers to trade stemming from the conflict in Sudan. The Ukraine war and post-Covid-19 effects will further limit agricultural input supply and deter foreign investors. With 70% of Uganda's workforce in agriculture, the sector is vital for the economy. Due to the Russian-Ukraine war, alternative sources of quality fertilizers are necessary. The conflict may limit access to fertilizers, leading to poor yields and increased food insecurity.</p> <p>However, Uganda's GDP growth was 5.3% during the first quarter of the year, supported by a robust growth of the agriculture sector, despite volatile weather conditions. The GDP is expected to further increase this year (6%) thanks to an increase of private investments combined with employment growth and a higher domestic demand, and potentially reach 6.6% in 2026, mainly driven by investments in the oil sector.</p> <p>Macroeconomic shock may affect the project beneficiaries directly by reducing market demand, increasing costs of inputs, and credit.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>Ahead of a possible transition into an oil producer in 2025, the Ugandan economy needs to structurally transform and shift labor into more productive employment to reinvigorate economic activity and reduce poverty.</p> <p>The private sector must drive this transformation and diversification, which depend on macroeconomic stability, more efficient and effective public spending, increased government support for the most vulnerable, and the uptake of digital and other innovative technologies.</p> <p>RELIV will contribute to this change and sustain these efforts oriented to the transformation of subsistence livestock farmers towards more market-oriented systems, by supporting their resilience to shocks, improving their participation in the economy and decision making through organization in groups and cooperatives, hereby enhancing participation of women and youth. The project will also support private investment in the sector especially for SMEs and smallholder producers and can capitalize on the positive contributions of the recently-closed PROFIRA in terms of access facilitation to finance. Digitalization will improve the sector overall efficiency. ReLIV will support the GoU to prioritize import replacement in 2023 by domestically producing fertilizers and other essential raw materials previously imported from Ukraine or Russia.</p>		
Governance	Substantial	Substantial

<p>Risk:</p> <p>In 2022, the Transparency International's Country Corruption Perception Index assessed Uganda at a substantial risk level of risk in terms of corruption (26 points in 2022, showing a decrease of 1 point compared to 2021), which places the country in 142nd position out of 180 countries. The World Bank 2021 Country Policy and Institutional Assessment (CPIA) rates Uganda as moderately unsatisfactory policy reformer with a score of 3.6 (no change compared to previous year). The country shows weaknesses in the Public Sector Management and Institutions (Quality of Public Administration (scored 3) and Transparency (scored 2.5)).</p> <p>The policy and regulatory framework for the livestock sector presents the following gaps and risks:</p> <ul style="list-style-type: none"> • Lack of policy frameworks on dairy and beef sector (Livestock policy currently in draft; Animal Health Act is being reviewed; Dairy strategy still under development). These policy gaps may affect project implementation because of lack of policy directions and related investment efforts or policy incentives from Government. • The country shows lack of or weak enforcement of sector policies, rules and legislation. The low enforcement of regulations on raw milk for instance leads to the persistence of the informal market for raw milk (60% of volumes), and meat, which creates an unfair competition for the formal sector including the cooperatives, that the project will support in priority. • The regional geopolitical volatility, due to fluctuating bilateral relations with other countries in the region; may impact regional trade for milk, feed, inputs, as illustrated by recent closure of Kenyan market for milk. This may also impact project beneficiaries as illustrated by the situation of brookside dairies that recently had to stop exporting products to Kenya, and thus also reduced milk collection from farmers. 	Substantial	Substantial
<p>Mitigations:</p> <p>In an attempt to combat against corruption, the GoU created new institutions at both the local and national level. The 2019 Zero Tolerance to Corruption Policy tries to curb corruption in its various facets. To effectively deliver the outcomes of Zero Tolerance to Corruption Policy, a comprehensive five-year plan of action, the National Anti-Corruption Strategy (NACS) has been developed. This Sixth cycle of the NACS covering the period provides programme direction and guide to anti-corruption agencies, Ministries, Departments, Agencies and Local Governments (MDALGs), Private Sector and other stakeholders to effectively respond to incidences of corruption within their sectors.</p> <p>To support the livestock sector policies and strategies, RELIV will provide support in revising, enhancing, and completing national policies, strategies, and legislations related to the dairy sector.</p> <p>Additionally, to address the issue of competition from unformal sector, RELIV will actively involve raw milk traders in the stakeholder platform's activities, in order to support their integration in the formal sector and enhance their collaboration with cooperatives.</p>		
Political Commitment	Substantial	Substantial

<p>Risk:</p> <p>Since the end of the conflict in Northern Uganda in the 2,000s, the country as a whole has enjoyed political stability that has supported the successful implementation of development programmes. At the same time the improvements in overall policy environment, with a stronger private sector emphasis, have enhanced economic development opportunities in the dairy and beef sectors and areas leading to increased chances of improved future equality and social stability. However, currently the risk that election related violence (next elections will be in 2026) could result in bouts of opposition-led protests, halt implementation and/or cause reversal to the gains made in the projects, remains substantial.</p> <p>Also, The United Nations' human rights office has been forced to close its country office at the beginning of August, following the government decision not to renew the host agreement considering government's own "commitment to the protection and promotion of human rights" and the existence of "strong national human rights institutions and a vibrant civil society". Nevertheless, there are raising concerns for an increasing hostile environment for civil society actors, journalists, human rights defenders that may spark protests across the country and may lead to an unconducive climate to free and fair elections in 2026.</p> <p>Political violence could affect project implementation if they last long. However, they may be restricted to urban centers and could spare project intervention areas.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>IFAD's proactive approach involves actively engaging with a wide range of stakeholders, spanning various ministries and institutions. This engagement encompasses individuals at all levels, from high-ranking officers to technical specialists. This will ensure no disruption during project implementation.</p> <p>As we get closer to the elections, ICO will closely follow up with the developments on the ground, until elections are complete. RELIV demonstrates a strong alignment with the National Development Plan (NDP), ensuring that even in the event of a government change as a result of the 2026 elections, the project will maintain its relevance, firmly positioned atop the NDP priorities.</p>		
<p>Sector Strategies and Policies</p>	Substantial	Substantial
<p>Policy Development and Implementation</p>	Substantial	Substantial
<p>Risk:</p> <p>The livestock sector is equipped with a wide arsenal of policies, strategies for the livestock sector but there are some gaps in terms of sector specific policy and strategic frameworks (e.g. no dairy strategy or plan), and several sector policies/strategies are outdated & need revision. These gaps could affect project implementation as they may not provide an optimal policy environment for achievement of project outcomes.</p> <p>Technical teams in charge of policy development in MAAIF have expressed the need for support for policy formulation, including in terms of expertise and facilitation of consultation with stakeholders. The risk of non adoption of policy frameworks developed with the support of the project cannot be ignored, as illustrated by the number of draft policies supported by development partners and not adopted; this situation is often caused by an excessively exogenous policy process and lack of ownership of authorities that have the mandate for policy development.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The risk of low ownership and no adoption of draft policies formulated with the support of the project can be mitigated by giving the authorities in charge of policy making (Ministry, but also parliament) a central role in the process</p> <p>Government has initiated a process of establishing a National Agriculture Regulatory Authority. This will address some of the current gaps in the policy and regulatory framework during project implementation.</p> <p>ReLIV includes a specific outcome on policy which will include multi-stakeholders platforms including Government as well as key stakeholders as well as private sector actors and development partners such as SNV, EU, Heifer International and others to ensure that there platforms can have a wider impact on the policy developments at Country level.</p>		

Policy alignment	Moderate	Moderate
<p>Risk:</p> <p>Overall, Uganda's country's strategies and policies governing the rural and agricultural sector are aligned with IFAD priorities, focusing on transforming subsistence smallholder farmers to commercial agriculture. The project is fully aligned and will contribute the National Development Plan III, mostly through the Agro-Industrialisation Programme (AGI), one of the 18 NDP III programmes, whose goal is to increase commercialization and competitiveness of agricultural production and agro-processing. Dairy and beef are among the key sector priorities in the Agro-Industrialisation programme but also in the Agricultural Value Chain Development Strategy. Livestock has been considered as a priority sector in Uganda, including at the highest level of state, and has received a lot of political attention, but also benefitted from public investments and policy incentives such as tax exemptions that have boosted private investments. The risk of policy divergence on sector priorities can thus be considered as minimal.</p> <p>Government policies in the agriculture sector can be considered as pro-poor, gender and youth sensitive and aligned with the IFAD priorities. There is however a slight risk of divergence in terms of targeting priorities since some regions production systems (ranches) that are considered as priorities by GoU for livestock development are those with larger farm holdings that do not correspond to IFAD target group and COSOP priorities. However, targeted regions where poor livestock farmers are predominant (East, North which are targeted in the COSOP) are also within Government priorities for Livestock Development. Finally, another policy risk is the the lack of political will of GoU to support pastoral communities and systems, because of implications related to conflicts for natural resources and spread of diseases; in pastoral areas, the project will thus have to focus on activities that contribute to mitigate these problems (community-based management systems, disease surveillance and control).</p>	Moderate	Moderate
<p>Mitigations:</p> <p>IFAD participates in Agriculture Donor Group and discussion for a with the Government, which will allow the ICO to identify possible changes in the Government support to the Livestock sector, although this is very unlikely under the current Government. In order to avoid elite capture due to inclusion of Districts/regions with predominant large-holder systems, the project will stick on COSOP geographical targeting.</p>		
Environment and Climate Context	Substantial	Substantial
Project vulnerability to climate change impacts	Substantial	Substantial
<p>Risk:</p> <p>Uganda's cattle corridor is highly vulnerable to climate variability and climate change as well as extreme weather events. These include prolonged dry spells and droughts, and unpredictable rainfall patterns. The resultant impacts on smallholder livestock systems include water scarcity, limited fodder and pasture for animals, and heat stress, leading to low productivity. This has a negative impact on food and nutrition security. The livestock sector is also a key contributor to greenhouse gas emissions (GHGs) due to poor feeding, quality of fodder/pasture, manure management, poor breeds and inappropriate herd management practices.</p>	Substantial	Substantial

<p>Mitigations:</p> <p>Climate adaptation and resilience building among livestock smallholders will be enhanced through the establishment of drought tolerant fodder and pasture varieties, fodder conservation (silage and hay making), water harvesting, and improved and resilient livestock breeds. Ongoing initiatives on provision of climate and weather information and insurance to farmers will be explored and synergies built with respective agencies where relevant. The project will invest in manure management, improved quality of feed, and renewable energy alternatives as means to reduce greenhouse gas emissions. RELIV will leverage on additional resources from the Green Climate Fund through PADNET, ARCAFIM, Uganda Development Bank's Climate Facility and the Global Environment Facility (GEF 8) to enhance its climate adaptation and mitigation ambition as well as access to climate finance for farmers and value chain actors. The project will undertake a carbon analysis using the FAO GLEAM tool.</p>		
<p>Project vulnerability to environmental conditions</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>Land degradation is a serious challenge along the cattle corridor of Uganda and manifests in the form of rampant deforestation to expand land under agriculture and charcoal burning. Population growth is a key driver of land degradation. Other forms of environmental degradation include unsustainable farming practices that lead to water pollution and soil erosion. Natural resource use conflicts are witnessed in the North-Eastern part of the cattle corridor due to diminishing water sources and low quality/quantity of pasture, as well as the land tenure systems in place. Pests and disease outbreaks resulting from climate change contribute to reduced livestock productivity. The share of exotic breeds keeps increasing, but their resilience to climate change and climate-related diseases is low. Biosafety as a result of poor hygiene, use of personal protective equipment and waste management poses environmental risks, e.g., in abattoirs and labs. Animal welfare and animal rights issues are poorly addressed.</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Mitigations:</p> <p>The project will promote integrated natural resource management interventions such as fodder agroforestry trees, grasses to control soil erosion, rain water harvesting, sustainable fodder and pasture management, manure management, circular waste management approaches, improved and well adapted breeds, and one health approach to disease management as well as improved disease surveillance and response mechanisms, promotion of biosafety measures such as PPEs and sustainable waste disposal and management . The project will also support value chain actors such as private sector players to develop/strengthen their environmental and social management systems (ESMS). IFAD's SECAP procedures will be applied to enhance animal welfare and rights along the value chain.</p>		
<p>Project Scope</p>	<p>Moderate</p>	<p>Moderate</p>
<p>Technical Soundness</p>	<p>Moderate</p>	<p>Moderate</p>
<p>Risk:</p> <p>The project is not more complex than other livestock projects under implementation or design in the region, while on the other hand technical and management capacities of Government agencies that will be in charge of implementation are in general good in Uganda. There are also a good number of lessons and pilots from other development agencies (in particular SNV for dairy and from the EU beef project for beef), on which the project can build on and that can be upscaled with minimal risks (low hanging fruits). These include for instance the quality-based payment system for milk, the smallholder aggregation model for beef, and the livestock traceability and identification system. The livestock sector, especially dairy, is also already very well established in the Country, with successful business models (such as existing productive alliances established with or without project support) that can easily be upscaled and replicated from one region to another.</p>	<p>Moderate</p>	<p>Moderate</p>

<p>Mitigations:</p> <p>The project should rely on Government agencies with proven implementation capacities (DDA, NAGRC, NARO) for its implementation. Involving implementing partners with good experience in the Uganda Livestock sector (such as SNV), will also ensure availability of adequate expertise and mitigate this risk.</p>		
<p>Project Relevance</p>	<p>Moderate</p>	<p>Moderate</p>
<p>Risk:</p> <p>The objectives and interventions of the project are well aligned with national priorities, defined in NDP III and AGI, in terms of sector priorities, and with the issues of the target groups to be addressed.</p> <p>The main risk in terms of divergence between national priorities and project proposed support will be the nature of activities and the balance between infrastructure and equipment on the one hand (“hard”), and capacity building and institutional support (“soft”) on the other hand. GoU would like to use IFAD funds mostly for investments because they are in the form of loans. However, it is obvious that capacity building both for farmers and for other value chain actors is also needed, if only for ensuring proper management and sustainability of infrastructure and equipment. The project will thus need to find some solutions to keep a balance between “hard” and “soft” investment, which is acceptable to the GoU, and not detrimental to the achievement of project outcomes.</p> <p>Land tenure: the dairy and beef sectors are highly dependent on secure land tenure and/or access to land. In Uganda tenure security varies deeply depending on the type of land and on the type of tenure (Freehold, Leasehold, Mailo or Customary). Many small-scale farmers, especially women and youth, work on land that they do not own, exacerbating their poverty, lack of political power and equal recognition of basic rights</p>	<p>Moderate</p>	<p>Moderate</p>
<p>Mitigations:</p> <p>The main mitigation measure will consist in leveraging other sources of financing such as the GCF PADNET, but also possibly other development partners including bilateral donors, to co-finance the needed capacity building activities. This prospection of potential partners and cofinanciers will take place between the PCN and design mission.</p> <p>Tenure considerations will be embedded in RELIV to help identify tenure implications for the dairy and livestock production systems to be targeted. RELIV will ensure the identification of fit for purpose, flexible land tenure related interventions that can help mitigate risks for climate smart investments in the dairy and livestock sectors and increase sustainability of results.</p>		
<p>Risk:</p> <p>The risk that the project might not benefit vulnerable groups or there are discrimination against any of those vulnerable groups.</p>	<p>Moderate</p>	<p>Moderate</p>
<p>Mitigations:</p> <p>ReLIV will be inclusive and build on the principles on leaving no one behind, following the SECAP 2021 guidelines for non-discrimination and using the Grievance and Redress Mechanism as means of reporting cases of discrimination against Lany vulnerable groups. The mitigation measure will include monitoring any complaints received under the grievance and redress mechanisms within the project which will then be reported to the ICO for assessment and possible action.</p>		
<p>Institutional Capacity for Implementation and Sustainability</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Monitoring and Evaluation Arrangements</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>The current M&E system in use by the PRELNOR project under implementation shows weaknesses in terms of data gathering, update, completeness and analysis. The same risk may be faced by RELIV.</p>	<p>Substantial</p>	<p>Substantial</p>

<p>Mitigations:</p> <p>To mitigate the risk</p> <ul style="list-style-type: none"> • Dedicated M&E staff will be in charge of developing a robust and easy to update/track M&E system to be aligned with the IFAD's Operational Results Management System (ORMS). S/he will also ensure the data base including the project results management framework is constantly updated and is clean. • Seasonal outcome surveys will be planned, and final outcome survey report should be finalized and produced. • The M&E system for RELIV will include both IFAD's core outcome indicators for the different levels of the milk value chain, as well as project specific output indicators; <p>Baseline studies on nutrition and to capture gender disaggregated data on project indicators will be conducted at design stage, to ensure continuous capture of disaggregated data in project implementation.</p> <p>To build the capacities of the M&E team, staff development plans will be prepared during the first year of implementation to ensure that all staff are capacitated to perform their job in the most effective and efficient manner</p>		
<p>Implementation Arrangements</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>There is a potential risk of overlap between the different public institutions involved in implementation of RELIV (NARO, NAGRC&DB, DDA) , and concrete risk of lack of inadequate staffing and resources, which may result in activities delays (see Annex 3 – Table 2). There is also a risk of overlap and uncoordinated interventions among the different Development Partners currently operating in the livestock sector (USAID, SNV, EU, Heifer,). However, this risk will be minimal when RELIV starts as the main DPs currently involved in the sector are either winding up (EU) or considered to become implementing partner of the project (SNV).</p> <p>There is also a risk related to the upcoming reform of public agencies in the Agriculture sector, which could result in the merging of agencies, including some considered as key implementers of this project (DDA)</p> <p>There is also a risk related to the unsustainable management models of some public infrastructures and equipment that GoU wants the project to strengthen, for instance Government farms and stations. These infrastructures sometimes provide services of private nature (e.g. feed) but do not have cost recovery mechanisms in place to ensure the sustainability of the systems that entirely rely on donor and public support.</p> <p>Finally, there is also a risk of limited Capacity of Rural Financial Institutions: those with stronger capabilities, such as commercial banks, microfinance institutions, and fintechs, have inadequate coverage in the project areas. Instead, the predominant lower-tier FIs operating in rural areas are savings and cooperative societies (SACCOs) and village savings and loan associations (VSLAs). However, many lower-tier FIs suffer from weak governance structures and financial and operational weaknesses. Consequently, the proposed technical assistance (TA) for product development could take longer to create an impact due to the capacity gaps of the FIs. Additionally, their limited capacity may hinder access to climate finance wholesale funds available through windows such as ARCAFIM, thereby reducing the project's effectiveness in improving access to finance for smallholder livestock farmers and agribusinesses.</p>	<p>Substantial</p>	<p>Substantial</p>

<p>Mitigations:</p> <p>The Project Management Unit will coordinate activities implemented by all the implementing partners (including NARO, NAGRC&DB, and DDA) and ensure that they are in line with the mandates of the respective institutions and complementary. The MoU to be signed with each of the implementing agencies will specify the different roles of each agency, under this project.</p> <p>In case public agencies playing a key role in project implementation are merged with others (being implementing partners or not), the MoU will be amended and will ensure that the project focal points in the agency have the required experience and responsibilities to ensure coordination of project activities by their agency.</p> <p>As far as sustainability of public investments is concerned, the project will only invest in infrastructure and equipment for which a sustainable business model is envisaged (e.g. PPP) or for which there is a formal commitment of GoU to provide operational budget after project closure.</p> <p>To mitigate the risk related to capacities of PFIs, RELIV will ensure adherence to strict selection criteria for beneficiary PFIs that demonstrate adequate financial, operational and governance capacity to meaningfully utilise the product development support and meet wholesale lenders' eligibility criteria. Additionally, the TA providers shall guide and support selected partner institutions in navigating the application and compliance processes to align PFIs with climate finance eligibility criteria.</p> <p>Efforts had been made by the GoU through the development of the Uganda Vision 2040, a 30 year Vision committed to improve, between other things, the country institutions, with a strong focus on the agriculture and livestock sectors. RELIV will build on that Vision and support the achievement of its goals, by early defining institutional arrangements with the main partners, taking into account lessons learned from past projects in the Country.</p>		
<p>Project Financial Management</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Project External Audit</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>There is a risks of inadequate audit coverage of the project audit considering there are various implementing agencies 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.</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Mitigations:</p> <p>The auditor will prepare a work plan to ensure adequate coverage of the various institutions that receive project funds and cover all the major risk areas and adequate coverage as per coverage plan.</p> <p>IFAD finance Office 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.</p>		
<p>Project Accounting and Financial Reporting</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>There is a risk of delays in consolidation of project financial reports at PMU 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, and components. 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.</p>	<p>Substantial</p>	<p>Substantial</p>

<p>Mitigations:</p> <p>To mitigate on risks on financial reporting IFMIS will be 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.</p>		
<p>Project Internal Controls</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>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.</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Mitigations:</p> <p>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.</p>		
<p>Project Funds Flow/Disbursement Arrangements</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>There is a risk of commingling of funds at the entity which will be provided with advances for implementation of project activities. These includes Ministry of Finance which will receive advances from IFAD, MAAIF and implementing agencies (semi-autonomous entities and participating districts). Also, in addition to external development partners financing, there are Counterpart finances expected to be received from the Government and in-kind contributions from the beneficiaries.</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Mitigations:</p> <p>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 Uganda for which there will be monthly bank accounts reconciliation and financial reports. All partnering institutions that will receive project funds will have sub-project accounts for segregating the funds received. There will be monthly financial reports to PMU for monitoring operations of sub-accounts and consolidation. All partnering institutions will sign MoUs clearly highlighting the requirements for a separate bank account and financial reporting requirements.</p>		
<p>Project Budgeting</p>	<p>Substantial</p>	<p>Substantial</p>
<p>Risk:</p> <p>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.</p> <p>There may also be a risk that annual work plans and budgets are not prepared or revised on a timely basis, 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 in Uganda, 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.</p>	<p>Substantial</p>	<p>Substantial</p>

<p>Mitigations:</p> <p>The Cost-tables and PIM have adequate details on key activities to be implemented and sources of finances for these costs. Subsequently, the AWPB will be prepared with adequate details on financing for key activities to ensure adequate guidance to the accounting team in recording and summarizing transactions. The IFAD AWPB budget template is sufficiently detailed budget by category, component, and financiers.</p> <p>The PMU 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 PMU and project steering committee for remedial actions. Approved budget will be codified in the IFMIS system for ease of monitoring and control of expenditures during the year.</p>		
<p>Project Organization and Staffing</p>	Moderate	Moderate
<p>Risk:</p> <p>There are various administrative levels of implementation of the project namely the PMU, semi-autonomous government implementing agencies and participating districts which will have fiduciary responsibilities. Previous IFAD funded projects implemented through similar structures have had issues with timeliness and quality of financial reports from semi-autonomous implementing agencies and participating districts.</p> <p>Another risk is that RELIV also is a complex project due to multiple financiers. While PMU 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.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>There will be MoUs between MAAIF and participating implementing agencies which will stipulate requirement on financial reporting. Any non-compliance implementing agencies may have their disbursements by PMU suspended as a penalty for non-compliance.</p> <p>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.</p>		
<p>Project Procurement</p>	Moderate	Moderate
<p>A.1 Legal, Regulatory and Policy Framework</p>	Moderate	Moderate
<p>Risk:</p> <p>The assessment has identified several inconsistencies and gaps between the national procurement legal and policy frameworks and the IFAD procurement guidelines, such as the use of merit point evaluation for goods and works, the provision for disqualification of bidders who did not buy the bidding document, the lack of a policy for sustainable public procurement, and the absence of a centralised procurement function. These issues pose a moderate risk of non-compliance with the project objectives and IFAD procurement principles.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>The assessment suggests several mitigation measures to address the identified risks, such as the financing agreement to define the treatment of project procurement financed by counterpart funding, using IFAD procurement method thresholds and technical compliance, allowing minimum 45 days for ICB, adopting a project procurement strategy, using IFAD SBDs for works, holding periodic supplier conferences and capacity building sessions, involving beneficiary communities in contract monitoring, and using IFAD online end-to-end procurement system OPEN.</p>		

A.2 Institutional Framework and Management Capacity	Moderate	Moderate
<p>Risk:</p> <ul style="list-style-type: none"> • In practice, project procurement payments are delayed due to elaborate IFMIS procedures with payments for invoices between 45 to 120 days. • There lacks a country level centralised procurement function in charge of consolidated procurement, framework agreements or specialised procurement. • There lacks an integrated information system (centralised online portal) that provides up-to-date information on public procurement. • There lacks a system whereby analysis of information from PDEs is routinely carried out, published, and fed back into the public procurement system. • No evidence of consistent application of a performance measurement system that focuses on both quantitative and qualitative aspects that can be used to support strategic decision making in procurement. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> • Facilitate registration of new suppliers in the IFMIS immediately upon contract award and for ease of processing payments against deliveries. • Make use of organization level framework agreements for common user items on condition they reflect current market prices. • Timely publication of all contract awards including closed approaches and RFQ. • Use of IFAD online end-to-end procurement system OPEN for project procurement will support data analysis and system improvement. 		
A.3 Accountability, Integrity and Transparency of the Public Procurement System	Moderate	Moderate
<p>Risk:</p> <ul style="list-style-type: none"> • From the existing IFAD operations NOPP and NOSP, there have been instances where needs analysis and market research has not guided a proactive identification of optimal procurement strategies, especially in packaging consulting assignments. • In practice, there are contract clauses that provide incentives for exceeding defined performance levels • In practice, project procurement payments are delayed due to elaborate IFMIS procedures with payments for invoices between 45 to 120 days. • Procurement statistics are not available and there is no system in place to measure and improve procurement practices. • Lack of government programmes to help build capacity among private companies, including for small businesses and training to help new entries into the public procurement marketplace. • There is no specific sector strategy for public procurement in Agriculture. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> • Adopt a Project Procurement Strategy (PPS) that will be updated annually and inform procurement approaches for key project procurement activities. • Use IFAD SBDs for Works that contain provisions for value engineering to provide performance incentives. • Hold periodic supplier conferences and capacity building sessions for SMEs registered as suppliers. • Adherence to contractual payment schedules and regular updating of IFAD CMT financial progress for closer monitoring. 		
A.4 Public Procurement Operations and Market Practices.	Moderate	Moderate

<p>Risk:</p> <ul style="list-style-type: none"> • Lack of programmes to build the capacity of relevant research holders to understand, monitor and improve public procurement. • The legal/regulatory and policy framework do not have citizen participation in planning, award and contract management. • The decisions of administrative review are published on the centralised government online portal but are not current and missing decisions in the last 2 financial years. • Lack of a cooling-off period for former public officials before they can participate in procurement activities. • Lack of a mechanism for systematically identifying corruption risks and for mitigating these risks in the public procurement cycle. No special measures for the detection and prevention of corruption associated with procurement. • No special integrity training programmes regularly offered to procurement workforce. • 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. • Standard bidding documents do not contain any reporting mechanisms for prohibited practices. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> • Involve beneficiary communities in monitoring and acceptance of contract deliverables where applicable. • Timely publishing of administrative review decisions. • Use of IFAD guidance when interpreting conflict of interests during processing procurement activities and decision making. • 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. • 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 		
<p>B.1 Assessment of Project Complexity</p>	Moderate	Moderate
<p>Risk:</p> <ul style="list-style-type: none"> • Project does not introduce new methodologies. However, there are many consulting service assignments that could pose a challenge to staff who are new to IFAD project procurement. • There are a number of beneficiary organizations 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. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> • Use of procurement methods and procedures prescribed in the IFAD guidelines and handbook. • Procurement for beneficiary organization will be limited to non-complex items and approaches such as Micro procurement, subject to IFAD LTA. International approaches done by the PMU. 		
<p>B.2 Assessment of Implementing Agency Capacity</p>	Not applicable	No risk envisaged - not applicable
<p>Project Procurement Overall</p>	Moderate	Moderate

<p>Risk:</p> <ul style="list-style-type: none"> • There has not been a deliberate procurement strategy and evidence of limited market research to back planning. • There have been instance of delayed procurement processes due to incomplete ESIA. • MAAIF 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 due to IFMIS processes. • Procurement records are maintained in separate files and kept chronologically. However, there are key procurement and contract information missing from files based on past IFAD project procurement reviews. • There are procurement specialists for existing IFAD operation but lacking seconded Officers to support. • There is need for sustained procurement training. Procurement officers not certified. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> • Need for emphasis in needs analysis, defining requirements and packaging procurements to ensure optimal packaging and costing. • Update the project procurement strategy regularly to reflect the procurement environment and guide the planning and market approaches. • Major Construction contractors to hire among its key staff an Environmental and Social Safeguards Specialist. • 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. • Include approval thresholds for contract amendments as part of the PIM. • Ensure timely release of budget allocations on time so as to enable procuring entity meet contractual obligations. • Retain consolidated procurement files with contract management records. • Onboarding of a Senior procurement specialist to the PMU and supported by a seconded procurement officer. • IFAD BUILDPROC training and other procurement related trainings. 		
<p>Environment, Social and Climate Impact</p>	Substantial	Substantial
<p>Vulnerability of target populations and ecosystems to climate variability and hazards</p>	Substantial	Substantial
<p>Risk:</p> <p>Prolonged dry spells, droughts, and unreliable rainfall patterns are the main climate risks likely to affect project beneficiaries, with negative impacts such as water scarcity leading to poor fodder/pasture availability, low livestock productivity, poor yields, increased incidences of pests and diseases, low quality and quantities of milk produced, as well as diminished livelihoods and exacerbated poverty.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>RELIV will promote measures such as rainwater harvesting, renewable energy, fodder trees/shrubs establishment, manure management and composting, improved and resilient breeds, fodder conservation, livestock insurance, access to climate finance, and improved pest and disease surveillance and management.</p>		
<p>Greenhouse Gas Emissions</p>	Substantial	Substantial
<p>Risk:</p> <p>Poor quality of fodder/pasture, breeds, manure and herd management practices contribute to increased GHG emissions. Investments in the dairy sector are likely to result in increased absolute GHG emissions due to increased herd sizes. GHG gases may also result from agrochemicals use and the use of diesel or petroleum-based energy sources e.g. in processing, pumping water, cooling etc.</p>	Substantial	Substantial

<p>Mitigations:</p> <p>Renewable energy use e.g. solar and biogas, composting and manure management, herd management, integrated pest management (IPM), efficient fodder and feed management, and improved and resilient breeds.</p>		
<p>Physical and Economic Resettlement</p>	Low	Low
<p>Risk:</p> <p>RELIV is not anticipated to lead to resettlement of farmers or project stakeholders. The infrastructure that will be constructed and rehabilitated will be on state land and will not cause any land acquisition from individual farmers and/or the community, Physical resettlement of permanent homes or resettlement of livelihood activities (cattle grazing and hunting grounds).</p>	Low	Low
<p>Mitigations:</p> <p>In the unlikely event of land acquisition from individual farmers and/or the community, FPIC will be carried out, consent documented, and appropriate compensation provided in accordance with national laws. In case of physical or economic resettlement, SECAP standards on resettlement will be applied.</p>		
<p>Community health, safety and security</p>	Substantial	Substantial
<p>Risk:</p> <p>Occupational risks exist for majority of the livestock farmers in Uganda is largely a result of their regular contact with animal waste, urine and blood. The farmers who participate in treatment of their animals are also exposed to needlestick injuries. The risks for female and young agropastoral are distinct from those of men.</p> <p>The large raw milk market and self-consumption of raw milk at home possesses a risk of unsafe and contaminated raw milk that can cause food borne diseases such as dysentery or zoonotic diseases like Tuberculosis and Brucellosis. A national livestock and livestock products traceability system is missing.</p> <p>The use and disposal of chemicals including acaricides and their containers may contaminate the environment while empty containers may be used for domestic purposes.</p> <p>There is also a risk of not attaining the anticipated nutrition outcomes if the targeted households do not consume the required liters of milk and if the income earned from sell of dairy products is not used to buy nutritional food items at households.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The project capacity building programs will promote the use of PPE and sensitize the community on zoonotic diseases related risks, communicable diseases related risks, best practices for keeping animals in a safe manner to avoid cross species contamination and disposal of containers of veterinary medicines.</p> <p>The risks related to consumption of raw milk will be addressed through nutrition education at community and household level and accompanied by efforts for adding value to the raw milk value chain.</p> <p>The project will also promote improved food safety screening in both the dairy and beef value chains to promote food security. Support will also be provided towards establishing a national livestock and livestock products traceability system which will guarantee the quality, transparency, value chain sustainability and penetration into external markets that prioritize quality</p>		
<p>Labour and Working Conditions</p>	Substantial	Substantial

<p>Risk:</p> <p>Promotion of zero grazing will further increase the workloads especially for the women and children who are primarily responsible for domestic care tasks in Uganda. The added workload may be realized from planting and collecting fodder, collection of water, feeding, cleaning and security of the animals among others. There is also a risk of poor working conditions especially for the youths and women involved in the milk collection and value addition services.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The project will promote small-scale mechanization that will reduce the workload for dairy and beef farmers, women in particular. Implementation of the GALS will minimize inequity in labor distribution. The youths will be mobilized into farmer groups and cooperatives which will facilitate their access to value chain development services.</p>		
<p>Indigenous People</p>	Low	Low
<p>Risk:</p> <p>As per the SECAP screening tool, ReLIV will not include interventions where indigenous peoples are present and thus it will not be located on lands and territories claimed by indigenous peoples or have any impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them. Thus, the risk is deemed very low.</p>	Low	Low
<p>Mitigations:</p> <p>RELIV targeting approach will ensure that vulnerable and marginalized groups are included. In the event during the implementation that indigenous communities are identified in the project area, the project will follow the steps to seek their free, prior and informed consent (FPIC) outlined in the SECAP Review Note. Moreover, through the multi-stakeholders platforms, policy issues related to indigenous could be discussed to ensure any necessary policies related to their rights are brought to the attention of decision makers.</p>		
<p>Cultural Heritage</p>	Low	Low
<p>Risk:</p> <p>Uganda is one of the richest countries in the world in relation to natural and cultural heritage. Government of Uganda in the NDP III identifies cultural heritage as a resource and seeks to create a sustainable approach to rural development promoting culture. RELIV has a very low risk of degrading the cultural heritage. The planned investments will largely be at the household level and the approaches including support through farmer groups and cooperatives are culturally acceptable. The construction of infrastructure will be done using certified materials, procedures and by qualified companies competitively selected and will strictly avoid the destruction of any cultural site.</p>	Low	Low
<p>Mitigations:</p> <p>RELIV will ensure that cultural considerations are made while rolling out project activities.</p>		
<p>Resource Efficiency and Pollution Prevention</p>	Substantial	Substantial

<p>Risk:</p> <p>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 and overstocking may result to increased GHGs emissions. Inappropriate use of livestock related agrochemicals (e.g. acaricide) will potentially lead to pollution of soil and water bodies. Poor management of animal waste as well as waste produced in facilities such as abattoirs and laboratories 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 and shortages. Poor or lack of use of PPEs could result to exposure to agrochemicals and zoonotic diseases.</p>	Substantial	Substantial
<p>Mitigations:</p> <p>Resource efficiency and pollution prevention will be enhanced through promotion of renewable energy use, water and energy efficient technologies, sustainable manure and feed management, water harvesting, circular approaches to solid waste management, treatment of effluent discharge from slaughter houses, integrated pest and disease management, improved and adapted livestock breeds, fodder conservation, animal health and husbandry, and promotion of biosafety measures along the value chain etc.</p>		
Biodiversity Conservation	Substantial	Substantial
<p>Risk:</p> <p>Deforestation along the cattle corridor is rampant as most households rely on fuel wood and charcoal for cooking and heating. Loss of habitats to agricultural activities such as pasture and fodder production as well as human settlement are major contributing factors to biodiversity loss. Poor farming practices especially on steep slopes also lead to loss of vegetative cover. Sedimentation of water bodies and degradation of wetlands are likely to result in loss of biodiversity</p>	Substantial	Substantial
<p>Mitigations:</p> <p>The key biodiversity conservation measures that will be promoted by the project shall include pasture management, overgrazing and soil erosion control measures, planting of fodder trees, fodder conservation, composting, and circular economy approaches e.g. biogas and bioslurry use.</p>		
Stakeholders	Moderate	Moderate
Stakeholder Grievances	Moderate	Moderate
<p>Risk:</p> <p>Potential conflicts may arise among community groups, cooperatives, outside workers, and smallholder producers regarding infrastructure locations and beneficiary selection for asset building. Grievance procedures are vital to enable Project Affected Persons (PAPs) to raise concerns at no cost and ensure timely resolutions.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>Grievance Redress Mechanisms (GRMs) will be put in place at the level of producers' organizations (cooperatives, MCCs and MCPs). The entry point for GRM will be the livestock extension at PCU level and the Gender and Social Inclusion Specialist will be appointed to follow up the GRM process. A Free Prior and Informed Consent (FPIC) process will be conducted with groups ahead of any project investment that may affect the target beneficiaries. Selection of beneficiaries will be conducted in close collaboration with local and traditional authorities, on the basis of clear and well disclosed criteria, and in transparent manner.</p>		
Stakeholder Engagement/Coordination	Low	Low

<p>Risk:</p> <p>Both the dairy and the beef sectors are well organized with strong Government agencies coordinating sectoral development efforts, and stakeholders' organizations (farmers, traders, processors) well organized at local, regional and national levels. It is therefore easy for the PDT to identify potential partners and stakeholders and involve them in the design, which has already been the case during the PCN mission with the organization of a stakeholder consultation workshop, which was attended by all the main sector actors, public and private. This engagement will continue during the project design to ensure proper ownership and acceptance by sector stakeholders.</p>	<p>Low</p>	<p>Low</p>
<p>Mitigations:</p> <p>The inclusive dialogue with Government agencies and stakeholder organizations initiated during the PCN mission will have to be pursued during the design and later during implementation. The existence of national multi stakeholder platforms for both the dairy and the beef sector, that have been initiated by other development partners (SNV for dairy, EU for beef), will be an opportunity to ensure this consultation and coordination. The project will further support these platforms which are still new, and support their decentralization at local level which will facilitate participation of smallholder farmers in the consultations.</p>		

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 10: Exit Strategy

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department

ANNEX 10: EXIT AND SUSTAINABILITY STRATEGY

The design of ReLIV, has incorporated exit and sustainability aspects in all key interventions. The project will strengthen the capacities of key Government institutions responsible for promotion of the dairy and beef value chains (NaLiRRI, NAGRIC&DB, DDA and Local Governments) in animal breeding and identification, animal health, extension, and delivery of technical support to farmers. Involving key national public and private partners, and private service providers specialising in innovative and environmentally friendly solutions, is crucial from the outset. These agencies will continue providing services beyond the project period.

Animal health Animal health, the project will support national coordination for disease intelligence, contingency planning and disease outbreak response. This will include harmonization of policies and synchronization of One Health activities. Sustenance beyond the project will especially rely on priorities and inputs from the One Health community and action plans, particularly on influencing policies, as policy has a central stage position in changing antimicrobial and antiparasitic use.

Majority of interventions at local levels will be owned by and involve farmers, farmers' organizations (cooperatives, associations, and groups) that will be trained to professionally run their farming businesses. Community based extension methods (FFS model or similar) improve individual capacities of farmers, animal husbandry practices, but also community organization and value chain participation of smallholder farmers. Success in this area will be key for sustainability of project results after project completion.

The value chain approach of ReLIV, with a strong emphasis on private sector involvement is critical in sustaining project interventions. It will train a cadre of private sector agents such as Artificial Insemination technicians and promote linkages/ partnerships between farmers and the private sector actors, who are sources of inputs, services, credit, and markets. Aggregation mechanisms in cooperatives or around a nucleus farmer are good and sustainable mechanisms for engagement of smallholders in the value chains. Dissemination of improved seed for feed and fodder by private producers, and private extension mechanisms at the cooperative level, as well as e-extension will also be piloted. These will ensure continued access to markets for both services, inputs and produce. Moreover, there's evidence that for a long time, livestock farmers in Uganda have been consistently paying for services rendered by both Government and the private sector.

Sustainability of MCPs, milk collection centres, milk collection points and dairy hubs will be based on the cooperative model, on which their management will be based. Support to producers' organizations and cooperatives, is thus of foremost importance, as it will focus on strengthening their capacities for proper technical and business management of these facilities. Each cooperative will benefit from two waves of training (initial and refresher, to cope with turnover in management) and continuous and regular coaching during all the project duration.

The access to finance sub-component is strategically designed for long-term sustainability and impact. By integrating financial literacy training into existing

training programs under the L-FFS curriculum, the initiative ensures that financial education becomes an integral part of local agricultural practices beyond the project's duration. Through a Training of Trainers (TOT) approach, Master Trainers are equipped to perpetuate financial knowledge within their communities, fostering economic autonomy among farmers. Additionally, the promotion of financial linkages between local financial institutions and other private sector financial actors and government entities shall fortify institutional capacity, enabling continued access to financial resources for climate-resilient livestock practices post-project. This proactive approach empowers farmers and establishes resilient financial frameworks that endure beyond the project's lifespan, fostering sustainable economic growth within the livestock sector.

The focus on youth is also a great opportunity for continuity of project interventions. Implementing youth agribusiness internships and mentoring programs in livestock value chain can greatly support youth engagement and their involvement in agriculture. Further developing and supporting a youth-inclusive agricultural advisory service model and equipping young people with knowledge, skills and information on good animal husbandry, good agricultural practices and good manufacturing practices, will ensure continuity beyond the current old generation.

On water harvesting systems, the project will also build the capacity of the community water users associations to better manage all the water harvesting and storage infrastructures it would have financed. The project will further scale up the adoption of soil and water conservation practices in the project area, which will reduce vulnerability to climate change.

Finally, the link between improving sector productivity and achieving positive outcomes in terms of climate change adaptation and mitigation will be emphasised, so that the target beneficiaries have an incentive to continue on this sustainable development path even after the project has ended.

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex 11: Mainstreaming themes – Eligibility criteria checklist

Mission Dates: 28 January- 28 March 2024

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East and Southern Africa Division
Programme Management Department

Mainstreaming themes – Eligibility criteria checklist						
	<input type="checkbox"/> Be gender transformative	<input checked="" type="checkbox"/> Be youth sensitive	<input checked="" type="checkbox"/> Be nutrition sensitive	<input type="checkbox"/> Prioritize persons with disabilities	<input type="checkbox"/> Prioritize indigenous peoples	<input checked="" type="checkbox"/> Include climate finance <input checked="" type="checkbox"/> Build adaptive capacity
Situation analysis	<input type="checkbox"/> National gender policies, strategies and actors <input type="checkbox"/> Gender roles and exclusion/discrimination <input type="checkbox"/> Key livelihood problems and opportunities, by gender	<input type="checkbox"/> National youth policies, strategies and actors <input type="checkbox"/> Main youth groups <input type="checkbox"/> Challenges and opportunities by youth group	<input type="checkbox"/> National nutrition policies, strategies and actors <input type="checkbox"/> Key nutrition problems and underlying causes, by group <input type="checkbox"/> Nutritionally vulnerable beneficiaries, by group	<input type="checkbox"/> National policies, strategies and actors <input type="checkbox"/> Main groupings among PwDs <input type="checkbox"/> Context-based barriers and opportunities for PwDs	<input type="checkbox"/> International standards, national policies, strategies and key IPs' organizations <input type="checkbox"/> Main IPs communities, demographic, social, cultural and political characteristics <input type="checkbox"/> Important livelihoods constraints and opportunities for IPs and their cultural heritage	
Theory of change	<input type="checkbox"/> Gender policy objectives (empowerment, voice, workload) <input type="checkbox"/> Gender transformative pathways <input type="checkbox"/> Policy engagement on GEWE	<input type="checkbox"/> Pathways to youth socioeconomic empowerment <input type="checkbox"/> Youth employment included in project objectives/activities	<input type="checkbox"/> Nutrition pathways <input type="checkbox"/> Causal linkage between problems, outcomes and impacts	<input type="checkbox"/> Pathways to PwDs' socioeconomic empowerment using a twin-track approach	<input type="checkbox"/> Pathways to IPs' socioeconomic empowerment	
Logframe indicators	<input type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input type="checkbox"/> Women are > 40% of outreach beneficiaries <input type="checkbox"/> IFAD empowerment index (IE.2.1)	<input type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input type="checkbox"/> Persons with new jobs/employment opportunities (CI 2.2.1)	<input type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input type="checkbox"/> Targeted support to improve nutrition (CI 1.1.8) Outcome level CIs <input type="checkbox"/> CI 1.2.8 MDDW <input type="checkbox"/> CI 1.2.9 KAP	<input type="checkbox"/> Outreach disaggregated by sex, youth, disability and IPs (if appropriate)	<input type="checkbox"/> Outreach indicator disaggregated by sex, youth and IPs <input type="checkbox"/> IPs are > 30% of target beneficiaries	
Human and financial resources	<input type="checkbox"/> Staff with gender TORs <input type="checkbox"/> Funds for gender activities <input type="checkbox"/> Funds for IFAD empowerment index in M&E budget	<input type="checkbox"/> Staff with youth TORs <input type="checkbox"/> Funds for youth activities	<input type="checkbox"/> Staff or partner with nutrition TORs <input type="checkbox"/> Funds for nutrition activities	<input type="checkbox"/> Staff with disability inclusion-specific TORs <input type="checkbox"/> Funds for disability inclusion-related activities (including accessibility)	<input type="checkbox"/> Staff with IPs-specific TORs <input type="checkbox"/> Funds for IPs related activities, including FPIC	IFAD Adaptation Finance \$24,380,000 IFAD Mitigation Finance \$26,283,000 Total IFAD Climate-focused Finance \$50,663,000

ECG Remarks	Gender Nutrition Youth Persons with Disabilities Indigenous Peoples <input type="checkbox"/> No social inclusion themes
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Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex: SECAP studies - TAA

Mission Dates: 28 January- 28 March 2024

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Report No. 6815-UG

East and Southern Africa Division
Programme Management Department



REPUBLIC OF UGANDA.

**UGANDA RESILIENT LIVESTOCK VALUE CHAIN PROJECT
(RELIV).**

TARGETTED ADDAPTATION ANALYSIS- (TAA)

1. THE IMPACTS OF CLIMATE CHANGE ON DAIRY PRODUCTION.

The potential effects of climate stressors (Figure 1), include drought, rainfall variability, floods, temperature increases, on beef and dairy production. The climate impacts point to the connection between climate change and beef and dairy productivity. It shows that four climate stressors – temperature increase, rainfall variability, droughts, and floods – affect the beef and dairy sectors and ultimately reduce their productivity.

Mean temperatures in Uganda are projected to increase by up to 1.9°C by 2050, under an RCP8.5 scenario. The vulnerable sectors to the rise 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 1).

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.

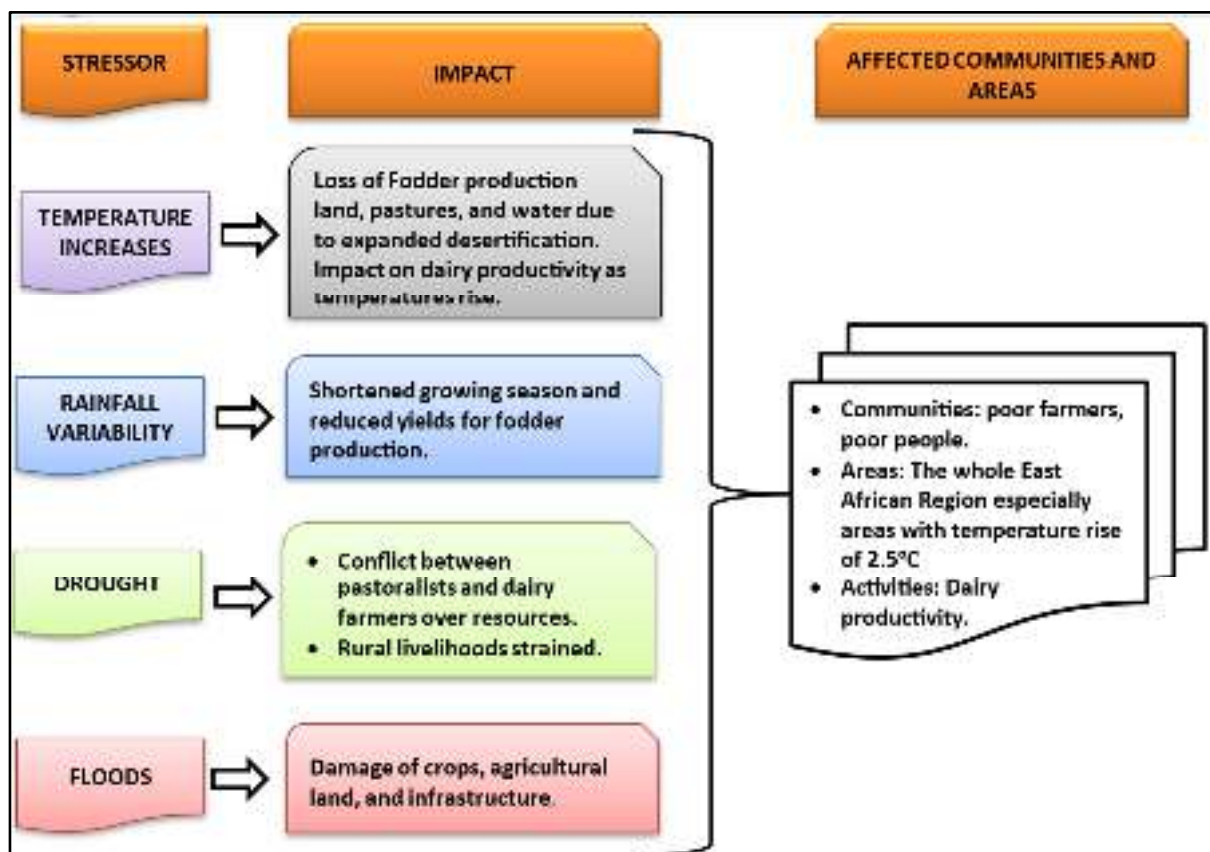


Figure 1. Climate stressors and their potential impacts on agriculture.

The climate change impacts will occur through different channels and will affect each of the four beef and dairy production dimensions of food security: access, availability, utilisation and stability¹.

Changes in temperature, precipitation, water availability, extreme climate events, and atmospheric composition will have direct effects on beef and dairy production, which may then translate into impacts on prices, incomes and livelihoods in general.

Table 1. Climate-change impacts on different aspects of beef and dairy production security²

BEEF & DAIRY PRODUCTION SECURITY DIMENSION	POTENTIAL IMPACTS
Availability	<ul style="list-style-type: none"> • 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 fodder crop and livestock pests and diseases, • Higher post-harvest losses as a result of climate change.
Access	<ul style="list-style-type: none"> • Loss of agricultural income due to reduced yields and higher costs of production inputs 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	<ul style="list-style-type: none"> • Greater instability of supply due to increased frequency and severity of extreme events, including droughts, • Instability of incomes from agriculture.
Utilisation	<ul style="list-style-type: none"> • Impact on food safety due to increased temperatures, • Impacts on nutrition resulting from reduced water quality and quantity, • Climate induced morbidity.

¹ Food and Agriculture Organisation (FAO) (2016) The state of food and agriculture. Climate change, agriculture and food security. FAO, Rome, Italy.

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.

2. ADAPTATION MEASURES.

This section provides a snapshot of the most important national level adaptation and mitigation efforts. Adaptation to climate change for beef and dairy production may include shifting planting periods for fodder crops, growing of drought tolerant fodder crops, rearing more resilient breeds, and raising dairy cattle mainly in the cooler regions of country.

2.1 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 livestock systems. Identifying adaptation needs helps prioritize actions and allocate resources to address the most critical challenges. Based on the emerging findings of this study, the adaptation needs in the beef and dairy sector in Uganda are as shown in the following sub-sections:

2.1.1 Access to climate-smart technologies.

Farmers need access to climate-smart technologies such as improved livestock breeds, drought-tolerant forage varieties, and energy-efficient beef processing and milk cooling and processing equipment. These technologies can enhance productivity, conserve resources, and mitigate climate change impacts. Improving the beef and dairy industry's production efficiency is an effective way towards reducing emissions per unit of milk or beef (Place & Mitloehner, 2010).

2.1.2 Capacity building and knowledge transfer.

Providing training programs, Farmer Field Schools, and extension services can enhance farmers' technical knowledge and skills in beef and dairy management. This includes training on sustainable feeding practices, breeding strategies, disease control measures, and effective use of water resources.

2.1.3 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).

2.1.4 Strengthening infrastructure.

Investing in rural infrastructure, such as improved road networks, electricity supply, and milk collection and processing facilities, slaughterhouses and meat processing plants, can reduce transportation costs, post-harvest losses, and improve overall market access for dairy farmers.

2.1.5 Climate information and early warning systems.

Developing and disseminating climate information, early warning systems, and advisory services can assist livestock producers in making informed decisions related to feed management, breeding, and disease control. This helps pastoralists anticipate and adapt to climate-related risks. Market information systems form a key component of these early warning systems.

2.1.6 Policy support and institutional strengthening

Developing supportive policies and regulations that address the specific needs of the beef and dairy sector, as well as strengthening the institutions involved in research, extension, and market development, are crucial for enabling a conducive environment for livestock farmers to thrive. Collaboration between government departments, research institutions, livestock cooperatives, financial institutions, and development partners is required to address the identified key barriers and adaptation needs.

3. TARGETED ADAPTATION ASSESSMENT

3.1 FEASIBLE 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 LONGLIST OF ADAPTATION OPTIONS

A longlist of adaptation options based on climatic hazards, sensitivity, exposure, adaptive capacity and agroecological zone are presented in Table 2 below. The longlist 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 2 Climate change adaptation options.

ID	Climate risks	Potential impacts on value chains	Suggested adaptation option
1	Increased temperatures and droughts	Low water availability and reduced fodder crop yields	Introduce new varieties of fodder, e.g., with greater drought or flood resistance
			Diversify livelihoods / create income sources from activities other than livestock.
			Promote community and small-scale irrigation structures and better water management practices
			Build new storage facilities / dams to cope with drought
			Identify alternative sources of water supply during drought
		High temperatures reduce dairy productivity and dairy products shelf life	Promote livestock 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 and loss of substantial investment for farmers	Promote design of attractive and affordable crop and livestock insurance products 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 lead to pest and disease outbreaks	Improve pest and disease control practices		
	Enhance capacity in pest and disease surveillance		
2	Increased precipitation intensities and flood occurrence	Increased precipitation lead to landslide, occurrence of floods, loss of fodder crops, livestock and damage investment infrastructures	Promote micro catchment conservation (afforestation, check dams, contour bunds and vetiver)
			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 of fodder. Research traditional farming practices to identify approaches that may be suited to a different climate Research new fodder crops, new breeds, and opportunities/risks of introduction. Expand agricultural areas to regions with lower climate risk Make contingency plans to deal with loss of fodder 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 dairy and beef livestock and/or aquaculture to improve resilience.
5	Increased occurrence of strong winds and cyclones	Strong winds and cyclones led to loss of fodder crops, livestock and investment assets	Build expertise in the use of climate forecast information for improvement of fodder cropping strategies. 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

3.3 PRIORITIZATION OF ADAPTATION OPTIONS

Having developed a longlist of adaptation options, the criteria for prioritisation is presented as in Table 3 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-scale farmers, flexibility (i.e., avoids lock-in), mitigation co-benefits, transformative potential. The approach is adapted from IFAD ([Thematic Brief Irrigated Crops \(ifad.org\)](https://www.ifad.org/publications/thematic-brief-irrigated-crops)) 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 are scored the highest are most suitable for a project.

Table 3. 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	Adaptation option effectively addresses at least one of the identified risks	Adaptation option is relevant for all of the major climate risks identified
4	Accessibility for SHF	Adaptation option is inaccessible for the main project beneficiaries (e.g. unaffordable, requiring regular complex maintenance), or exacerbates existing inequalities.	Adaptation option is accessible for the majority of the project's target beneficiaries.	Adaptation option is accessible to project beneficiaries and specifically benefits women or other marginalised groups.
5	Flexibility (avoids lock-in)	The adaptation option has a long 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	Transformative potential	Adaptation option is limited to small increases in the resilience of target group but does not involve changes in wider systems.	Adaptation option operates at scale or enables wider implementation of the 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	Complementarity to IFAD themes	No complementarity	Complements at least one other cross-cutting theme that is directly relevant to adaptation outcomes	Complements more than one other cross-cutting theme to support systemic resilience.

3.4 ADAPTATION DECISION MATRIX TABLE

Table 3-1 Adaptation decision matrix table

PRIORITY ADAPTATION OPTIONS	NAME	RATIONALE									
1	Introduce new varieties of fodder, e.g., with greater drought or flood resistance.	New varieties of fodder 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 and enhance livestock feed security.									
2	Promote livestock 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 integrated systems involving dairy and beef livestock and/or aquaculture to improve resilience.	The farmers have to diversify their livelihoods so that if the income from dairy fails, the other income source will come in handy.									
4	Improve pest and disease control practices	The improvement of pest and disease control practices will ensure healthy animals which translates to higher dairy productivity.									
5	Make contingency plans to deal with loss of fodder crops due to drought or flood	contingency plans to deal with loss of fodder crops due to drought or flood will ensure that the animals have adequate feed even during difficult times.									
Select Sector	Adaptation options	Technical feasibility	Cost-benefit ratio	Addresses climate risks	Accessibility for smallholders	Flexibility (i.e avoids lock-in)	Mitigation co-benefits	Transformative potential	Completeness to IFAD themes	Suitability	Total Score
DAIRY	Introduce new varieties of fodder, 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 livestock.	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 / dams to cope with drought	2	2	2	2	1	2	1	1	Suitable	13
	Identify alternative sources of water supply during drought	2	2	2	2	3	1	2	2	Suitable	16
	Promote livestock 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 of agro-forestry systems	2	2	2	2	2	3	2	2	Suitable	17
	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, check dams, contour bunds and vetiver)	2	2	2	2	1	2	1	1	Suitable	13
	Promote flood control structures and river flood defences near vulnerable farming areas	2	2	1	1	1	2	2	2	Not Suitable	0
	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 flood plains where flood sediments increase productivity of pastures)	1	2	1	2	2	2	2	2	Not Suitable	0
	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 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 fodder crops, new breeds and opportunities/ risks of introduction.	1	2	1	2	2	2	2	2	Not Suitable	0
	Expand agricultural areas to regions with lower climate risk	1	1	1	1	1	2	1	2	Not Suitable	0
	Make contingency plans to deal with loss of fodder crops due to drought or flood	3	3	2	3	2	2	2	2	Not Suitable	19
	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	2	2	2	1	2	1	1	Suitable	13
	Make use of integrated systems involving dairy and beef livestock and/or aquaculture 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 fodder cropping strategies.	2	1	2	2	2	2	3	3	Not Suitable	0

	Assume a lower life expectancy and plan for more frequent infrastructure replacement activities.	1	1	1	1	1	1	1	1	Not Suitable	0
	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

3.5 IMPLEMENTATION AND MONITORING.

The oversight for the TAA implementation will be undertaken by the Climate Change Adaptation Specialists, recruited under the country PMUs. The country PMUs will customise, update and include TAA 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 TAA 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.

4. 4.0 CONCLUSIONS AND KEY RECOMMENDATIONS.

This chapter analysed the most common observed hazards, factors that compound beef 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 fodder, e.g., with greater drought or flood resistance.
- b) Promote livestock production in cooler areas of the region and capacity building in cold chain handling and management.
- c) Make use of integrated systems involving dairy and beef livestock and/or aquaculture to improve resilience.
- d) Improve pest and disease control practices and
- e) Make contingency plans to deal with loss of fodder crops due to drought or flood.

Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex: SECAP studies - SEP

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REPUBLIC OF UGANDA.

UGANDA RESILIENT LIVESTOCK VALUE CHAIN PROJECT (RELIV).



STAKEHOLDER ENGAGEMENT PLAN (SEP)

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).
Kampala.
Uganda.**

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The Uganda Resilient Livestock Value Chain Project (RELIV) Stakeholder Engagement Plan (SEP) is intended to provide complete documentation for the requirements of a holistic Stakeholder Engagement system for the project. This SEP contains the findings of a study conducted for the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation and the instrument has been developed based on the local conditions and findings.

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ABBREVIATIONS AND ACRONYMS

CIAT	International Centre for Tropical Agriculture
COSOP	Country Strategic Opportunity Programme
EDPRS	Economic Development and Poverty Reduction Strategies
ESMS	Environmental and Social Management System
ESCMF	Environment, social and Climate Management Framework
ESCMP	Environment, social and Climate Management Plan
FAO	Food and Agriculture Organization
GCF	Green Climate Fund
GDP	Gross Domestic Product
GoU	Government of Uganda
GRM	Grievance Redress Mechanism
HI	Heifer International
ICT	Information and communications technology
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
ITCZ	Inter Tropical Convergence Zone
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries.
MoE	Ministry of Environment
MSMEs	Micro, Small & Medium Enterprises
PAP	Project Affected Person
PMU	Project Management Unit
PO	Producer Organization
NEMA	National Environment Management Authority
SECAP	Social, Environmental and Climate Assessment Procedure
SEP	Stakeholder Engagement Plan
SO	Strategic Objectives.
UNDAP	United Nations Development Assistance Plan
USAID	United States Agency for International Development
VC	Value Chain
WB	World Bank
WFP	World Food Programme

1 INTRODUCTION

1.1 BACKGROUND

This Stakeholder Engagement Plan (SEP) forms part of the set of Environmental and Social Management Instruments for the Uganda Resilient Livestock Value Chain (ReLIV). The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the Implementing Agency of the Project, has the responsibility to effectively engage stakeholders in achieving the project objectives. The SEP document is an ongoing process that needs to be updated throughout the life cycle of the project while engaging in public consultations.

The overall purpose of this SEP is to improve and facilitate decision making and create an atmosphere of understanding where project-affected people are actively involved and their views, concerns and opinions are incorporated in the project planning.

1.2 OBJECTIVES AND TIMING OF STAKEHOLDER ENGAGEMENT PROGRAM

The main goal of the Stakeholder engagement plan is primarily to garner all support of the Agriculture and Social Development sectors. This support will allow for ease of implementation as it is assumed that mobilization of these stakeholders will provide an enabling environment for implementation of the various economic and livelihood activities. The ongoing sharing of information will be aligned with continuing information dissemination meetings that already exist within the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Documentation of these meetings will form part of project documentation. In addition to these scheduled meetings, it is worth mentioning that there will be progress updates on implementation of project activities at different levels. The updates will be provided by the different implementers of project activities.

The Key objectives of the SEP are to:

- Identify key stakeholders that are affected, and/or able to influence the Project and its activities, to ensure that these stakeholders are well informed about the proposed project and relevant Information is disclosed as early and as comprehensively as possible.
- Identify the most effective methods, timing, and structures through which to share project information, and to ensure regular, accessible, transparent, and appropriate consultation,
- Provide guidance for stakeholder engagement in compliance with the International standards of Best Practice,
- Develop a stakeholders' engagement process that provides sufficient opportunity for stakeholders to present their opinions and concerns to influence the project,
- serve as a mechanism to enhance understanding and managing expectations, by disseminating accurate information.
- Establish formal grievance redress mechanisms,
- Define roles and responsibilities for the project implementers in conducting stakeholder consultations,
- Define reporting and monitoring measures to ensure the effectiveness of the SEP and periodical reviews of the SEP based on findings.

The SEP provides a framework for effective involvement of stakeholder, thus It promotes effective execution of the project. Effective stakeholder engagement develops a “social licence” to operate and depends on mutual trust, respect and transparent communication between **RELIV** and stakeholders. The key elements of the SEP are:

- Stakeholder identification and analysis
- Information disclosure
- Stakeholder consultation
- Grievance management
- Stakeholder involvement in project monitoring
- Reporting to stakeholders
- Management functions.

2 REGULATORY REQUIREMENTS

2.1 RELEVANT NATIONAL LEGISLATION

The RELIV SEP takes into account the existing institutional and regulatory framework within the context of Uganda and international laws. These applicable laws and international good practices are discussed below. Table 3-1 outlines the relevant national legislation for the implementation of RELIV project.

Table 2-1 Constitution of The Republic of Uganda.

No.	LEGISLATION	INTERPRETATION
	The Constitution of The Republic of Uganda, 1995	This is the supreme law in the country and it, among other things, calls upon the Government of Uganda to promote sustainable development and public awareness of the need to manage, promote and protect the rational use of natural resources, in a balanced and sustainable manner for present and future generations. The right to a clean and healthy environment is enshrined in Article 39 of the Constitution of Uganda, 1995.

2.2 RELEVANT POLICIES AND STRATEGIC PROVISIONS.

Table 3-1 below discusses the relevant Uganda policies and strategic provisions, their interpretation and relevance to the RELIV Project. Upon implementation, RELIV must recognize the requirements of these acts.

Table 2-2 Relevant Policies and Strategic Provisions in Uganda

No.	RELEVANT POLICIES	INTERPRETATION
1.	The Uganda Vision 2040	Uganda Vision 2040 provides development paths and strategies to operationalize Uganda's Vision statement which is "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years". Agricultural contribution to the GDP has been declining but remains very important to provide a basis for growth in other sectors. Dairy production is an important facet of the agriculture sector.
2.	The National Development Plan III 2019/2020-2023/24	The National Development Plan (NDP) covers the fiscal period 2019/20 to 2023/24. It stipulates the Country's medium term strategic direction, development priorities and implementation strategies. According to the NDP the sharp decline in the share of agriculture in GDP represents significant structural transformation in the economy hence NDP in place.
3.	The national environment management policy 1994-NEMP	The Policy provides for sustainable economic and social development, through a number of strategies. The key policy objectives include the enhancement of the health and quality of life of Ugandans and promotion of long-term, sustainable socio-economic development through sound environmental and natural resource management and use; and optimizing resource use and achieving a sustainable level of resource consumption.
4.	National Agricultural Policy (NAP) 2013	The vision of the NAP is "A Competitive, Profitable and Sustainable Agricultural Sector", and the mission is "To transform subsistence farming to sustainable commercial agriculture and the 5 objectives being: a. Ensure household and national food and nutrition security for all Ugandans; b. Increase incomes of farming households from crops, livestock, fisheries and all other agriculture related activities; c. Promote specialization in strategic, profitable and viable enterprises and value addition through agro-zoning; d. Promote domestic, regional and international trade in agricultural products; and e. Ensure sustainable use and management of agricultural resources. These have much in common with the agriculture component of NDPII, which built on the NAP. The policy also describes the roles of key stakeholders, and notes that as a result of the creation of a number of agencies, several divisions and

No.	RELEVANT POLICIES	INTERPRETATION
		departments have been re-organized, including those with responsibility for disease and pest control.
5.	Uganda Food and Nutrition Policy, 2003	The Uganda Food and Nutrition Policy has been formulated within the context of the overall national development policy objective of eradicating poverty. The overall objective of the policy is to promote the nutritional status of all the people of Uganda through multi-sectoral and co-coordinated interventions that focus on food security, improved nutrition and increased incomes. The goal of Government in the area of food supply and availability is to ensure an adequate supply of, and access to, good quality food at all times for human consumption, income generation, agro-based industries, and local, regional and international markets.
6.	The National Land Policy, 2013	The goal of the policy is to ensure efficient, equitable and sustainable utilization and management of Uganda's land and land-based resources for poverty reduction, wealth creation and overall socio-economic development.
7.	The National Land Use Policy, 2011	The aim of the policy is to: "achieve sustainable and equitable socio-economic development through optimal land management and utilization"
8.	The National Water Policy, 1999	This policy aims to manage and develop the water resources of Uganda in an integrated and sustainable manner. The water policy requires an integration of the water and hydrological cycle concerns in all development programs
9.	The National Employment Policy (2011)	It is aimed at increasing productivity, competitiveness and employability of the labour force, especially the youth and other most vulnerable members of the labour force. It also aims at promoting and protecting the rights and interests of workers in accordance with existing labour laws and fundamental labour standards.
10.	The Climate Change Policy 2013	The Climate Change Policy 2013 promotes harmonized and coordinated approach towards a climate resilient and low carbon development for sustainable development. It promotes conservation of water, forests, wildlife and fisheries in climate change adaptation and mitigation measures
11.	National Strategy for Youth Employment In Agriculture 2014	The strategy has been designed to enable the youth to join the agriculture sector and in so doing enable them to find decent employment which will in the long run solve the major challenges facing agriculture in Uganda, such as low production and productivity, high post-harvest losses and low value addition.
12.	The National Gender policy 1997	The goal of the Policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development. The policy ensures that all Government policies and programmes, in all areas and at all levels, are consistent with the long-term goal of eliminating gender inequalities.
13.	<u>National Child Labour Policy, 2006</u>	This policy is aimed at prohibiting employment of children. The overall objective of the policy is to guide and promote sustainable action aimed at the progressive elimination of child labour starting with worst forms. The specific objectives include: <ul style="list-style-type: none"> • Integrating child labour concerns into national, district and community programmes and plans • Establishing a legislative and institutional framework to initiate, coordinate and evaluate child labour programmes and • stimulating collective concerted efforts, at all levels, to eliminate child labour.
14.	The National HIV/AIDS Policy, 2007	Provides a framework for prevention of further spread of HIV and mitigation of the socio-economic impact of the epidemic within the world of work in Uganda. It provides the principles and a framework for a multi-sectoral response to HIV/AIDS in Uganda's workplaces.

3 INSTITUTIONAL ANALYSIS

The following is an outline of the institutions that will be involved in the implementation of the RELIV.

Table 3-1 Institutional Analysis.

INSTITUTION	DESCRIPTION
<p>Ministry of Agriculture, Animal Industry and Fisheries. (MAAIF)</p>	<p>Ministry of Agriculture, Animal Industry and Fisheries is a Government Ministry charged with creating an enabling environment in the Agricultural Sector. It is commonly known as Ministry of Agriculture and carries out its role by enhancing crop production, improving food and nutrition security, widening export base and improved incomes of the farmers.</p> <p>The Ministry is the overseer of the Agricultural sector where it formulates, reviews and implement national policies, plans, strategies, regulations and standards and enforce laws, regulations and standards along the value chain of crops, livestock and fisheries.</p> <p>The Ministry of Agriculture has Directorates which include:</p> <ul style="list-style-type: none"> • Animal Resources, • Crop Resources, • Fisheries Resources; and • Agricultural Extension Services. <p>Ministry of Agriculture, Animal Industry and Fisheries is mandated to:</p> <ul style="list-style-type: none"> • Formulate, review and implement national policies, plans, strategies, regulations and standards and enforce laws, regulations and standards along the value chain of crops, livestock and fisheries, • Control and manage epidemics and disasters, and support the control of sporadic and endemic diseases, pests and vectors, • Regulate the use of agricultural chemicals, veterinary drugs, biological, planting and stocking materials as well as other inputs, • Support the development of infrastructure and use of water for agricultural production along livestock, crop and fisheries value chains, • Establish sustainable systems to collect, process, maintain and disseminate agricultural statistics and information, • Support provision of planting and stocking materials and other inputs to increase production and commercialization of agriculture for food security and household income, • Develop public infrastructure to support production, quality / safety assurance and value-addition along the livestock, crop and fisheries commodity chains, • Monitor, inspect, evaluate and harmonize activities in the agricultural sector including local governments, • Strengthen human and institutional capacity and mobilize financial and technical resources for delivery of agricultural services; and • Develop and promote collaborative mechanisms nationally, regionally and internationally on issues pertaining to the sector.
<p>Ministry of Water and Environment</p>	<p>The Ministry of Water and Environment (MWE) has the overall responsibility of the development, managing, and regulating water and Environment resources in Uganda.</p> <p>The overall Strategic objectives for Water and Environment Sector among others include:</p>

	<p>a. To increase provision of water for production through development of multi-purpose bulk water storage and supply systems with the involvement of all stakeholders as appropriate.</p> <p>b. To increase water supply coverage in rural areas while ensuring equity through providing at least each village with one safe and clean water source</p> <p>c. To promote improved sanitation services in rural and urban areas including the promotion of hand-washing with soap.</p> <p>e. To improve water resources management to ensure adequate quantity and quality for the various.</p> <p>f. To increase the sustainable use of the environment and natural resources through restoration and to maintain the hitherto degraded ecosystems and undertake massive nationwide tree planting.</p> <p>g. To promote the wise use of wetlands through implementation of approved management plans developed in a participatory manner.</p> <p>h. To increase the functionality and usage of meteorological information to support sector specific early warning to combat the effects of climate change and disaster risks.</p> <p>i. To develop sector capacity throughout all the institutions and support other stakeholders in the sector.</p> <p>j. To review, develop and reform institutional frameworks, laws, policies and regulations to ensure fast and effective delivery of Services.</p> <p>k. To promote gender and equity considerations.</p>
<p>NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)</p>	<p>The National Environment Management Authority (NEMA) is a principal agency of the government responsible for coordinating, monitoring, regulating, and supervising all activities relating to the environment. NEMA reviews Environment and Social Impact Studies before granting approval or rejecting projects that may have an impact on the environment.</p>
<p>CLIMATE CHANGE UNIT in the Ministry of Finance, Planning and Economic Development (MFPED)</p>	<p>The main objective for the establishment of this unit is to strengthen Uganda's implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP).</p> <p>Key Functions of the Climate Change Department include</p> <p>Co-ordination of national climate change actions (Mitigation and Adaptation) in different sectors, including the creation of awareness among various stakeholders to enable them internalize their roles and responsibilities</p> <p>Monitoring the implementation of mitigation and adaptation activities and progressively update Government, the Uganda population and the COP to the UNFCCC and its Kyoto Protocol.</p> <p>Providing technical support to the Permanent Secretary, Ministry of Water and Environment to ease coordination of climate change issues more effectively.</p> <p>To initiate the development and review of appropriate policies, laws and programmes necessary to ensure effective implementation of adaptation and mitigation activities in Uganda.</p> <p>To implement and guide implementation of adopted policies as well as decisions made by the relevant bodies of government including the Climate Change Policy Committee.</p> <p>Provision of technical advice and secretarial services to the Climate Change Policy Committee (CCPC).</p>

	<p>To establish and maintain the relationship with national, regional and international organizations, institutions and agencies as may be appropriate for facilitating the implementation of the relevant policies, programmes, projects and decisions.</p> <p>To guide on precautionary measures to anticipate, prevent or minimize the causes of climate change and its adverse effects.</p> <p>To promote and cooperate in the development, application and diffusion, including transfer of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of green house gases in all the relevant sectors including energy, transport, industry, agriculture, forestry and waste management.</p> <p>To prepare for adaptation to the adverse effects of climate change by guiding the development of elaborate, appropriate and integrated plans for key sectors as well as the rehabilitation of areas affected by drought, desertification and floods.</p> <p>To guide public participation in addressing climate change and its effects and developing adequate responses. Assisting in the identification and mobilization of sources of funds for climate change action.</p>
<p>Ministry of Gender, Labour and Social Development</p>	<p>The Mandate of the Ministry is to mobilize and empower communities to harness their potential while, protecting the rights of vulnerable population groups. It promotes issues of labour productivity and employment, social protection, gender equality & equity, human rights, culture and empowerment. Overall, the Ministry aims to achieve a better standard of living, equity and social cohesion; The Ministry is responsible for the protection and promotion of the rights of the vulnerable population, addressing gender inequalities, ensuring cultural growth, labour and employment as well as community mobilization and empowerment. Therefore, the Ministry plays a fundamental role in creating demand for social services and laying a foundation for other sectors to improve their outcomes.</p> <p>The National Gender Policy for Uganda - RELIV will be a gender inclusive program that will leave no one behind. Therefore, gender issues are mainstreamed from the formulation, planning and implementation of the project consequently complying with the National Gender Policy for Uganda. The goal of the Policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development. The policy ensures that all Government policies and programmes, in all areas and at all levels, are consistent with the long-term goal of eliminating gender inequalities.</p>
<p>Youth</p>	<p>The youth, who represent about 74 percent of Uganda's population have limited involvement in livestock production and have negative perception about dairy and beef production due to delayed returns on investment compared to other economic activities.</p> <p>The National Employment Policy (2011) aimed at increasing productivity, competitiveness and employability of the labour force, especially the youth and other most vulnerable members of the labour force. It also aims at promoting and protecting the rights and interests of workers in accordance with existing labour laws and fundamental labour standards. In line with this policy, RELIV will provide youth with opportunities for skills development and training,</p>

	introduce women and youth friendly businesses and innovations, such as mechanized production, milking and transportation, and facilitate access to finance.
Communities	The communities in targets Districts who will receive project funding to establish village sub-projects will be obliged to act in accordance with all national laws and regulations related to the type of project they are implementing. In addition, village-level leadership committees and elected village officials will be responsible for supporting implementation of the environmental and social management framework.

4 STAKEHOLDERS IDENTIFICATION AND ANALYSIS

4.1 IDENTIFYING STAKEHOLDERS

Stakeholder identification and analysis is a critical part of effective and meaningful stakeholder engagement plan. It is particularly important to identify those individuals and groups who may find it more difficult to participate due to economic constraints and those who may be differentially or disproportionately affected by the project because of their marginalised or vulnerability status. The process includes determining who the stakeholders are by understanding their needs, and expectations, their priorities and objectives about the Project. This information is then used to tailor engagement for each category of stakeholders.

Stakeholders of this project shall be defined as all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project:

The key stakeholders to be continuously engaged could include:

4.3.1 Uganda Government Departments:

- i. Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
- ii. DDA,
- iii. NAGRC & DB,
- iv. NARO - NaLIRRI
- v. National- Animal Disease Diagnostic Centre (NADDEC)
- vi. Makerere College of Veterinary Medicine
- vii. WARM MUK
- viii. Ministry of Local Government (MoLG).
- ix. Ministry of Finance, Planning and Economic Development (MFPED)
- x. National Environment Management Authority (NEMA)
- xi. District Local Government Authorities.

4.3.2 Other Stakeholders

- Development Partners currently operating in the livestock sector
- USAID,
- UKAID
- FAO
- AfDB
- SNV,
- EU,
- World bank
- Royal Netherlands Embassy
- ILRI
- Heifer International
- Equity Bank
- Uganda Development Bank (UDB)
- Uganda Veterinary Association.

- Uganda Meat Producers Cooperative Union (UMPCU).
- Uganda National Farmers Federation (UNFFE)
- Uganda Cooperative Alliance
- URUS Uganda
- Service Providers
- Farmers/farmers groups or associations,
- Women and Youth Councils /Associations

The list above is not exhaustive. As the Programme gets underway, the ReLIV PMU will continuously engage with more stakeholders, identifying their specific information needs and the appropriate modes of consultation as well as feedback mechanisms.

The need to include vulnerable groups during public consultations can never be overemphasised. These are groups of persons who may be disproportionately affected by the project and may require special engagement efforts to ensure proportional representation during consultations and participation in the program. Women and youths fall in in this category at varying levels of impact, consequently, considerations to subcategorise this group is also critical.

The level of engagements and methods will be proportional to the extent to which the project affect the stakeholder and or the intense to which the stakeholder can influence the project. It is important to note that the increased level of impact of the project to stakeholder or the influence of the latter to the project will be met with similar level of engagement in terms of frequency and depth.

4.2 STAKEHOLDERS ANALYSIS

Stakeholder identification and analysis is an essential component of effective and meaningful stakeholder engagement activities. The objective of this step is to provide a general overview of all stakeholders. These are categorised as project-affected parties, interested parties, and those who have the potential to influence project outcomes. The next step will be to assess the level of stakeholder interest and support for the project. The assessment shall be geared toward identifying:

- stakeholders' interests,
- areas of potential risks and misunderstandings,
- mechanisms to positively influence other stakeholders,
- key people to be informed about the project during the preparation and implementation phases and,
- negatively affected stakeholders as well as their adverse impacts on the project.

RELIV through its implementation partners shall continue classifying stakeholders based on:

- their power to influence and their interest on the project,
- the legitimacy of each stakeholder's relationship with the project, and
- the urgency of the stakeholder's claim on the project activities, potential risks, and impacts.

Based on this analysis, the communication strategy, and the coordination mechanism that will be developed by RELIV 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: These stakeholders have a great deal of interest in the project and have a lot of influence to help determine its success. The plan should fully engage this group and apply all effort to ensure that they are satisfied and fully informed about the project. This can be done by focusing efforts during the project cycle, giving them the importance of their involvement in the project governance, decision making bodies, engaging them and consulting with them regularly as well as providing timeous feedback. The engagement plan targeting these stakeholders shall be incorporated into the project annual work plan.

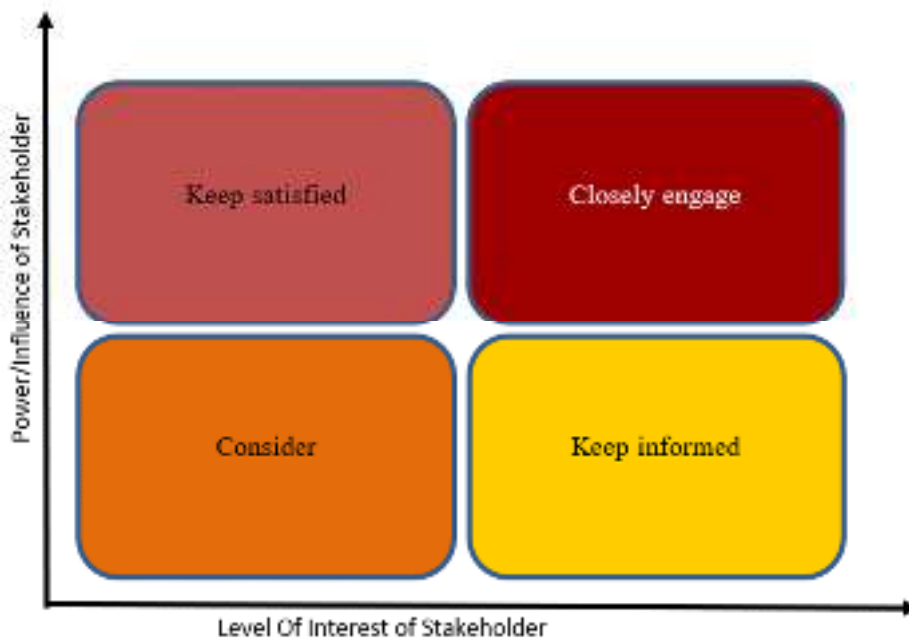


Figure 4-1 Basic Stakeholder Influence/Interest Chart.
 (Adapted from: <https://www.boreal-is.com/data/uploads/2020/07/A-step-by-step-guide-to-building-a-stakeholder-engagement-plan>)

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 project. The project will maintain this group’s interest in the project, 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 RELIV is to provide information in a timely manner that enables meaningful consultations with stakeholders in a culturally appropriate format, with local language that is understandable to stakeholders with the purpose of:

- gathering initial views about the project proposal in order to inform project design, at early stages of the planning process,
- Encouraging stakeholder feedback, particularly as a way of informing project design and engagement by stakeholders in the identification and mitigation of environmental and social risks and impacts,
- Providing education and guidance about the project ensuring that stakeholders understand how the project is likely to affect them.
- Initiating engagements on an ongoing basis as risks and impacts arise and manage stakeholders’ expectations,

- disclose and disseminate information that is relevant, transparent, objective, meaningful to stakeholders.
-
- Supporting active and inclusive engagement with project-affected parties, ensuring that consultation(s) is/are free of external manipulation, interference, coercion, discrimination, and intimidation.
- Ensuring consultation (s) is/are documented and disclosed by the project.

5 STAKEHOLDER ENGAGEMENT CONSIDERATIONS

5.1 INTRODUCTION

The purpose of the current Stakeholder Engagement Plan is to make sure that there is consistent, well-coordinated approach while engaging with stakeholders and comprehensive disclosure of the Project. It includes disseminating of the correct information about the project and elaborates comprehensively how a continuous Stakeholders engagement will be maintained throughout the course of the project. It will further define engagement methods that will be used in the process as well as outlining the responsibilities of RELIV. The project is committed to full compliance with the IFAD SECAP requirements, as applied together with the Uganda EIA Regulations as the project is not expected to cause any serious or substantial environmental and/or social risks.

In the current engagements, the MAAIF/ RELIV PMU was engaged in dialogue with all possible stakeholders as part of the initial preparatory consultations for preparation of the RELIV project. The stakeholder engagement was conducted with the primary beneficiaries of the project which include farmers, cooperatives, the disadvantaged women, and youths in the target districts. Stakeholders were engaged through a variety of techniques in order to build relationships, gather project related information, consult with them, and disseminate project information to them. These consultations were conducted as part of the ReLIV PDR development process and were aimed at briefing the communities and other stakeholders about the project activities, how the activities will be carried out and what sectors of the environment are likely to be impacted. The Project will continue with comprehensive in-person consultations with stakeholder throughout its implementation.

5.2 ENGAGEMENT CONSIDERATIONS

The following considerations should be made when planning for stakeholder engagement:

5.2.1 Resourcing Stakeholder Engagement

Success in stakeholder engagement is built upon relationship., A supportive open dialogue will help to establish and maintain a successful relationship with stakeholders. This requires resources not limited to financial and human. It takes time to develop and build trust-based relationships with stakeholders because relationships do develop, grow, and need to be sustained. Demands to educate and guide stakeholders about the concept of engagement and other related complex issues which may require specialised skills and expertise are eminent. The process is continuous as additional stakeholders might be identified and will need to be inducted, consequently, increasing the cost of consultations required to meet external expectations.

5.2.2 Managing expectations.

Stakeholders can have over expectations of benefits that may accrue to them from a project and as such RELIV needs to ensure that the project does not create, or allow, unrealistic expectations to develop amongst stakeholders about potential project benefits. The stakeholder engagement process will serve as a vehicle to disseminate accurate information about what the project will actually do, establishing a clear understanding of their roles and responsibilities. The engagement processes will manage both community and stakeholders expectations while maintaining relationships with stakeholders and potential project partners.

5.2.3 Securing stakeholder participation.

Engaging stakeholders involves taking into account their varying interests and values they have and being able to address them in the process. It is critical to have strategies in a plan to match these challenges. Many times cultural norms and values stand tall and act against some stakeholders to fully participate in the meetings. Oftentimes correct representation by people of common interests is the key for successful consultations/meetings and cannot be underestimated. However, conflicting demands within a community, can be challenging for the project to identify stakeholders who are true representatives of the common interests. Collaborating with local officers and experts who are sensitive to local power dynamics can be one of the many remedies against hostile conflicting interests, cultural norms and values.

5.2.4 Consultation fatigue.

Stakeholders can easily tire of consultation processes, lose interest, trust, or motivation to engage with the project team, resulting in reduced feedback, support, or collaboration. Stakeholder fatigue often occurs when promises are not fulfilled, opinions and concerns are not considered and their lives are getting no better. This often leads to where consultation meetings become ineffective and rather become a place to voice complaints and grievances about the flaws in the project. Consultation fatigue repercussions includes negative project outcomes such as delays, conflicts, waste of time and missed opportunities. RELIV Implementing Partners should always provide stakeholders accurate information and manage expectations; effective engagements with relevant categories of stakeholders devoid of empty and unrealistic promises. Moreover opinions of stakeholders should be treated as feedback to the project and other project partners and specialists.

5.3 PLANNING FOR STAKEHOLDER ENGAGEMENT

RELIV will establish an operational plan in line with proposed project activities to ensure the participation and engagement of the stakeholders. It will ensure that each group gets involved as defined and received the agreed information. The plan must ensure a balanced representation of all affected groups with particular attention to gender and disadvantaged groups. The plan should ensure that project's objectives are met in terms of enhancing income, nutrition and resilience of smallholder dairy and beef producers. Regular meetings will be scheduled with the representatives of the group involved in the project, for the revision of the plan, activity progress and necessary adjustments according to probable changes in the initial context during the execution of the project.

5.3.1 Preliminary Preparations.

Prior to the commencement of stakeholder’s engagement activities, meetings shall be scheduled with relevant Traditional Authorities, Community Representatives, political leaders in the project area, Government 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 cognisant of all social sensitivities.

Table 5-1 Stakeholder Engagement Activities

STAGE	OBJECTIVES	KEY ACTIVITIES	TARGET STAKEHOLDERS
Preliminary Engagements	<ul style="list-style-type: none"> To gain a preliminary understanding of the scope of the RELIV and relevant stakeholders; 	<ul style="list-style-type: none"> Field Visits Stakeholder identification process 	<ul style="list-style-type: none"> Government Ministries and Departments Communities Coalitions

			<ul style="list-style-type: none"> Local Authorities Local Leadership
Engagements	<ul style="list-style-type: none"> To meet key stakeholders and introduce them to the project and Grievance Redress Mechanism (GRM) Process, To disclose the GRM as well as other project 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, 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Government Ministries and Departments, Communities, Coalitions Local authorities, Local Leadership RELIV Consultants, Public Extension Officers NGOs Farmer organizations/cooperatives Public institutions Private sector Vulnerable Persons
Disclosure of the Grievance Redress Mechanism (GRM) and other project specific Reports.	<ul style="list-style-type: none"> To expose the stakeholders to the developed GRM and other project specific Reports. 	<ul style="list-style-type: none"> Disseminate the GRM and other project specific Reports to all stakeholders, Expound the contents of the GRM and other project specific Reports to all stakeholders, 	<ul style="list-style-type: none"> Government Ministries and Departments Communities Coalitions Local Authorities Local Leadership General Public Media

5.3.1 Stakeholder Consultation Techniques/Methods

There are a variety of engagement techniques used to build relationships with stakeholders, gather information from stakeholders, consult with them, and disseminate project information. A range of techniques will be applied which are specifically tailored to the identified stakeholder groups. The format of every engagement activity should meet general accessibility requirements which include:

- Venues: meetings should be held in places that are easily reachable and do not require long commute, entrance fee or preliminary access authorization.
- Cultural appropriateness : with due respect to the local customs and norms.
- Inclusivity: engaging all segments of the project affected parties including the vulnerable individuals.

Where 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 project. Particular attention will be given to the vulnerable groups to ensure that they are not denied project benefits.

In general, public consultations will take place through physical workshops, seminars, meetings, radio programs, request for written proposals/comments, questionnaire administration, public reading and explanation of project ideas and requirements. There is need to do a cost-benefit analysis such that where necessary make use of virtually based communication channels to complement physical interaction. The techniques mostly used in SEP are outlined in the table below:

Table 5-2 Some Engagement Techniques

ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUES
RELIV - Internal	<ul style="list-style-type: none"> • Emails • Progress Meetings • Bulletin board Grievance procedure Code of conduct •
Official correspondences (Phone, Emails)	<ul style="list-style-type: none"> • Distribute information to Co-Implementing partners (at central, regional and local level), other Government departments, NGOs, Local Government, private sector, and organisations/agencies. • Invite stakeholders to meetings and follow-up
Social Media (WhatsApp, SMS, Face book, Twitter, Zoom, Microsoft Meetings Google classes etc.	<ul style="list-style-type: none"> • Share information with beneficiaries. • Distribute information to Co-Implementing partners. • Invite stakeholders to meetings and follow-up. • Online Meetings with stakeholders • Online Workshops with stakeholders
Project website	<ul style="list-style-type: none"> • Present project information and progress updates • Disclose SEP, GRM and other relevant project documentation
One-on-one physical meetings	<ul style="list-style-type: none"> • Seeking views and opinions • Enable stakeholder to speak freely about sensitive issues. • Build personal relationships. • Record meetings
Formal physical meetings	<ul style="list-style-type: none"> • Present the Project 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 meetings	<ul style="list-style-type: none"> • Present Project information to a large group 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. • Record discussions, comments, questions.
Focus group meetings	<ul style="list-style-type: none"> • Present Project information to a group of stakeholders (8-15 people groups) • Allow stakeholders to provide their views on targeted baseline information. • Build relationships with communities. • Record responses
Project leaflet	<ul style="list-style-type: none"> • Brief project information to provide regular update. • Site specific project information.
Surveys	<ul style="list-style-type: none"> • Gathering opinions and views from individual stakeholders • Gather baseline data. • Record data • Develop a baseline database for monitoring impacts
Multi-stakeholder meetings and/or Workshops	<ul style="list-style-type: none"> • Present project 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

5.4 STRATEGY FOR CONSULTATION

The Agriculture Sector has identified a range of stakeholder groups. These include members of the community level governance structures, District Administration Structures, Ministry Officials and the general public. The Ministry of Agriculture and Animal Industry and Information Office will be responsible for coordination of all events and maintain a schedule of all implementation outreach activities and report on progress.

These groups will be engaged by use of different platforms including:

- Interviews

- Surveys, polls, and questionnaires for beneficiary feedback
- Public meetings, workshops, and/or focus groups on specific topic.
- Participatory methods
- Other traditional/common mechanisms for consultation and decision making.

Table 5-3 Stakeholder engagement techniques

ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUE
Correspondences (Phone, Emails)	<ul style="list-style-type: none"> • Distribute information to Government officials, NGOs, Local Government, and organisations/agencies. • Invite stakeholders to meetings and follow-up
One-on-one meetings	<ul style="list-style-type: none"> • Seeking views and opinions • Enable stakeholder to speak freely about sensitive issues. • Build personal relationships. • Record meetings
Formal meetings	<ul style="list-style-type: none"> • Present the Project 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 meetings (following COVID-19 guidelines)	<ul style="list-style-type: none"> • Present Project information to a large group 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. • Record discussions, comments, questions.
Focus group meetings	<ul style="list-style-type: none"> • Present Project information to a group of stakeholders (8- 15 people groups) • Allow stakeholders to provide their views on targeted baseline information. • Build relationships with communities. • Record responses
Project website	<ul style="list-style-type: none"> • Present project information and progress updates • Disclose SEP, GRM and other relevant project documentation
Project leaflet	<ul style="list-style-type: none"> • Brief project information to provide regular update. • Site specific project information.
Surveys	<ul style="list-style-type: none"> • Gathering opinions and views from individual stakeholders • Gather baseline data. • Record data • Develop a baseline database for monitoring impacts
Workshops	<ul style="list-style-type: none"> • Present project 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

5.5 COMMUNICATION PLAN.

Table 5-4 Stakeholders Engagement Communication Plan

DATE	STAKEHOLDERS	COMMUNICATION	METHOD OF ENGAGEMENT
	MAAIF	<ul style="list-style-type: none"> • Grievance Redress Mechanism • RELIV Stakeholders Engagement Plan 	<ul style="list-style-type: none"> • Formal Meeting
	<ul style="list-style-type: none"> • District Agricultural Officers • Chief Executive Officers 	<ul style="list-style-type: none"> • Preliminary Meeting • Present information on GRM and other project specific reports • Induction and training on use of GRM tools 	<ul style="list-style-type: none"> • Formal Meetings • Workshops

	<ul style="list-style-type: none"> Village Development Committees Community Leadership 	<ul style="list-style-type: none"> Distribute non-technical information. Facilitate meetings with presentations, PowerPoint, posters etc. 	
	<ul style="list-style-type: none"> Project Field Officers (PFO) Public Extension Officers Implementing Agencies 	<ul style="list-style-type: none"> Present information on GRM Induction and training on use of GRM tools Distribute non-technical information. Facilitate meetings with presentations, PowerPoint, posters etc. Allow to provide their views and opinion. Request guidance on how to handle RELIV issues related to their views and opinions 	<ul style="list-style-type: none"> Formal Meeting Workshop Email
	<ul style="list-style-type: none"> Communities Coalitions Project Beneficiaries Vulnerable Persons 	<ul style="list-style-type: none"> Present GRM and other project specific reports to project communities Allow the communities to provide their views and opinions. Build relationships with the communities. Facilitate meeting with presentation and posters. 	Community Meetings
	Media	<ul style="list-style-type: none"> Distribute non-technical information. 	<ul style="list-style-type: none"> Press Statements

5.6 STRATEGY TO INCORPORATE THE VIEW OF VULNERABLE GROUPS

Vulnerable groups in the project refer to those individuals or groups of people who may likely be adversely affected by project impacts and or be limited than others in their ability to take advantages of projects benefits. Such individuals or groups are more likely to be excluded or unable to participate fully in the mainstream consultation process and such may require specific measures of assistance. During the consultation process, the views and inclusion of vulnerable or disadvantaged groups will be sought through a process of free, prior, and informed consultation. their views will be captured and documented in order incorporate them in the project design and development of safeguards instruments the end results will be getting a broader community support This process is best done as part of the social assessment although consultations are likely to continue after its completion. Where projects do not have impacts or direct interventions with the vulnerable or disadvantaged communities, the local communities are informed about such projects, seek their views about the project, and assured that they will not be affected during project implementation.

For projects affecting vulnerable or disadvantaged communities, whether positively or adversely, a more elaborate consultation process is required. This may include, as appropriate:

- Informing the affected vulnerable or disadvantaged communities about project objectives and activities,
- Discussing and assessing possible adverse impacts and ways to avoid or mitigate them,
- Discussing and assessing potential project benefits and how these can be enhanced,
- Discussing and assessing land and natural resource use and how management of these resources may be enhanced,
- Identifying customary rights to land and natural resource use and possible ways to enhance them,
- Identifying and discussing potential conflicts with other communities and how these might be avoided,

- Discussing and assessing food security and how it might be enhanced through project interventions,
- Discussing and eliciting customary norms of the vulnerable or disadvantaged groups and incorporating them into the project design.
- Eliciting and incorporating indigenous knowledge into project design,
- Facilitating and ascertaining the affected communities' broad support to the project,
- Developing a strategy for vulnerable or disadvantaged groups' participation and consultation during project implementation, including monitoring and evaluation.

All project information provided to vulnerable or disadvantaged groups should be in a form appropriate to local needs. Local languages should usually be used and efforts should be made to include all community members, including women and members of different generations and social groups (e.g. clans and socioeconomic background).

If the vulnerable or disadvantaged groups are organized in community associations or umbrella organizations, these should usually be consulted. In some cases, it may be appropriate or even necessary to include or use in the process independent entities that have the affected communities' trust. The experience of (other) locally active NGOs and experts may also be useful.

6 CURRENT ENGAGEMENT PROCESS

6.1 THE ENGAGEMENT PROCESS

The engagement process for this project involved the following:

- Visits to potential project sites,
- Face to face interviews with Keys stakeholders,
- Focus group meetings,
- Virtual Meetings (Zoom, Microsoft Teams, Skype, etc),
- Direct observation and discussion in the field,
- General data Collection from all stakeholders.

The general consultation techniques that were used and will continue to be used for the continuous engagement of the stakeholders throughout the project implementation phases are as listed in table 5-3 above:

The engagement process will be a continuous issue throughout the life of the project and will be used as a means of checks and balances for the proper implementation of the project. The process will employ a technically and culturally appropriate approach, which involves identifying the concerned/affected stakeholders, soliciting their views, and continuously checking if their views are being taken care of as the project implementation progresses.

6.2 CURRENT PUBLIC CONSULTATIONS.

In the process of developing the current ESCMF the local stakeholders were consulted to solicit their views and concerns as regards the proposed beef and dairy value chain project. The list of the consulted stakeholders is included in appendix 4.

The Consultations involved gathering feedback on the information that had been given to the stakeholders about the project, as well as getting more information about local contexts that may not have been obvious, to raise issues and concerns, and to help shape the objectives and outcomes of the project. The objectives of consulting all these stakeholders were:

- To inform them of the proposed project and its likely impacts on their activities and general surroundings.
- To establish the Environmental, Economic, Social and Cultural aspects implications of the project on the different stakeholders.
- To gather the views of the stakeholders on the proposed project.
- To accommodate the stakeholders' suggestions and perceptions during the project implementation.

The stakeholders consulted during this survey were:

- Government ministries,
- District and village administration offices/ local leadership,
- Direct beneficiaries of the project (Members of Associations),
- potential beneficiary communities,



Figure 6-1 Engagement with Oderai Soroti Women’s Cooperative. (Soroti District.)

6.2.1 Consultations with the major organizations.

The consultations with the designated implementing or major organizations involved mainly meetings and one on one interviews. In general, the aims of the consultations included:

- i. introducing the project to the Stakeholders,
- ii. identifying together the potential environmental and social challenges the project may face,
- iii. identifying any other possible challenges and how they should be addressed or mitigated, and
- iv. bringing on board the major stakeholders to garner project ownership from inception.

6.2.2 Consultations with the public.

The public consultations were done to raise awareness of the project by informing the public in the concerned areas through their local leaders and some public gatherings about the upcoming programme in their areas. The public was also interviewed to gather their opinions regarding the programme and the environmental and social consequences that may result from its implementation. The stakeholders who were consulted are listed in appendix 4.

7 THE STAKEHOLDER ENGAGEMENT PLAN (SEP)

7.1 ENGAGEMENT PLAN (SEP)

Table 7-1 below gives a general overview of the stakeholder engagement approaches for the various types of stakeholder groups.

Table 7-1 Summary Overview of the Stakeholder Engagement Plan (SEP)

STAKEHOLDERS	INFORMATION TO BE DISCLOSED	CONSULTATION MEANS
RELIV subprojects, neighbouring communities, public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or district offices, Churches, national and private media, social media, MAAIF website etc.
	Forum to express environmental impact fears and get feedback e.g., accidental release/escape; contamination; emergencies, etc.	Public consultations, focal group discussions, social media Training specific members of the communities, awareness, education
Staff / workers at project sites and infrastructure.	How erection of structures and infrastructure at project sites will affect work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, signs in labs; email, website, meetings with management, staff sensitization & training program in lab safety
Farmer Groups, Agricultural NGOs Farmers' Unions Private and public veterinarians, Private AI technicians, Private breeders	Consultation on information needs / food safety	District Extension services, Baseline surveys / subsequent surveys to monitor impacts, emails, bulletins
	Available information on new technologies, improved breeds of beef and dairy animals etc.	Seminars; District Extension services, sales agents
Intergovernmental Institutions	Sharing Implementation findings and experience.	Intergovernmental meetings and consultations
		Build partnerships through meetings, seminars, workshops
University Graduates	Internship opportunities	Website, public media, bulletin boards
Youths	Opportunities for going into farming and for employment during construction, sponsorships for education	District Agricultural Offices, public consultations

8 INFORMATION DISCLOSURE

8.1 INTRODUCTION

Information and data that will be shared with stakeholders will be provided from the early stages of the project lifecycle. This will enable reasonable time for the stakeholders to acquaint themselves with the proposed project so that they can be consulted from an informed position. The information will include among other issues: project description, the theory of change and the summarized presentation of each of the project components and subcomponents, duration, potential risks and mitigation measures, stakeholder engagement mechanism and how stakeholders can participate and have their views considered in the process.

The type of information to be disclosed to the various stakeholders depends on their interests and how they will be affected by the Programme and or how they may affect RELIV activities. Thereafter various communication tools can be utilized for the engagement process, such as:

- Project notices published in local newspapers,
- Radio advertisements,
- Direct mailings to communities,
- Presentations with or without focus group sessions),
- Targeted e-mails,
- Virtual meetings, presentations, seminars, workshops, with stakeholders,
- One-on-one meetings, presentations, seminars, workshops, e-mails, and phone conversations with stakeholders,
- Site tours, and
- The use of social media.

8.2 DISCLOSURE OF ESCMF DOCUMENTS

The IFAD policy on the disclosure of documents, adopted the principle of “presumption of full disclosure” (IFAD 2021). The sharing of draft and final ESCMFs and other relevant documents with program and project stakeholders and interested parties is subject to the above-mentioned principle. As such, the documents will be disclosed, when available, in a timely manner prior to project appraisal at the quality assurance stage on IFAD’s Website and in an accessible place in the program or project-affected area, in a form and language understandable to project-affected parties and other stakeholders, for the purposes of keeping them informed and obtaining their meaningful feedback.

IFAD policies require that the Government of the Republic of Uganda, and IFAD disclose the ESCMF report as a separate and stand-alone document. The disclosure should be done by the Republic of Uganda and IFAD where it can be accessed by the public, including affected groups and NGOs, and at their respective websites.

The ReLIV PMU will make copies of the ESCMF available in selected public places possibly at relevant government offices for information and comments. The Proposed project activities will be announced through different forms of media. The announcement will include a brief description of the program, references to where and when the ESCMF can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the project client and possible project affected groups, beneficiaries and local NGOs, the ReLIV PMU shall provide relevant material in a timely manner prior to consultations and in a form and language that are understandable and accessible to the groups being consulted.

8.3 INFORMATION SHARING AND CHANNELS

The information will be formally packaged and shared with relevant government ministries for publishing and made accessible project affected persons and general public. There will also be presentations and discussions over scheduled various media channels where project implementing agencies will conduct interactive stakeholders and general public presentations about the project and progress updates. The following will be some of the platforms useful to reach stakeholders.

- Newspapers, posters, radio, television,
- Information centres and exhibitions or other visual displays,
- Brochures, leaflets, posters, nontechnical summary documents and reports,
- Official correspondence, meetings,
- Website, social media.

The strategy will further include improvised means for consultations with stakeholders on instances where the project intent to make significant changes which could pose additional risks and impacts. The most critical aspect of the strategy is leveraging on the village level leadership engagement and collaboration with the District Administrator's Offices.

8.4 PUBLIC DISCLOSURE PLAN

Following the public consultation, all comments and briefs will be analysed. The report will be published and made available to the concerned community groups and to interested bodies upon request.

In line with this, the ESCMF will be available at the relevant institutions at all levels and be publicly disclosed both in country and at the IFAD's websites. The ReLIV PMU will make copies of the ESCMF available in selected public places in English and working language of the country in compliance with the IFAD's *Public Consultation and Disclosure Policy*. It is proposed that the locations of copies are announced through public relation sections of the relevant sector line Ministries, radio announcement in addition to press releases, as applicable.

Any ESCMPs and other SECAP instruments that will be prepared for the proposed project activities under the program will also needed to be disclosed to the public. Copies of the ESCMPs should be made available to communities and interested parties in accessible locations through local government authorities. Copies of the ESCMPs should also be provided to the implementing agencies. This will ensure record keeping of all activities implemented under the ESCMF and ensure that third party audits, if required, have adequate information when undertaking annual environmental and social audits.

8.4.1 Information Disclosure to Consulted Stakeholders

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 ReLIV activities may be affected by them. Thereafter various communication tools can be utilized for the engagement process, such as:

- Project 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.

Table 8-1 below gives a general overview of the types of information needs for various stakeholder groups.

Table 8-1 Summary Overview of a Public Consultation Plan for ReLIV

No.	Stakeholders	Information to be disclosed	Consultation means
1.0	ReLIV project community, neighbouring communities, general public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or Local community offices, Churches, national media, social media, Agriculture website etc.
		Forum to express community / health fears and get feedback e.g., accidental release/escape, contamination. emergencies (fire)	Public consultations, focal group discussions, social media. Training specific members of the communities, awareness, education
2.0	Staff / workers at target Districts	How project work will affect their work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, email, website, meetings with management, staff sensitization & inhouse training programs.
3.0	Farmers Groups/Clusters Agricultural NGOs Farmer Union Agrochemical companies	Consultation on agricultural needs / food security issues. Strengthen management capacity of farm enterprises, Support farmer clusters and group development. Ensuring farmers groups/associations participate in the formulation of agricultural policies and legislation. Promoting dissemination of information (climate, prices, pests and diseases, and markets) access to farmer groups	Agricultural Extension services, Baseline surveys/subsequent surveys to monitor impacts, emails, bulletins
4.0	Intergovernmental Institutions; IFAD, FAO, etc	Setting sustainable development agenda for participating communities	Intergovernmental meetings and consultations
		Capacity building for participating communities.	Build partnerships through meetings, seminars, workshops
5.0	University Graduates	Internship opportunities	Website, public media, bulletin boards
6.0	Youths	Opportunities for employment during project implementation, other opportunities in agro-processing which involves value-addition initiatives in agro-processing, packaging, and promotion of value chains	Agricultural Offices, public consultations

9 RESOURCES AND RESPONSIBILITIES FOR IMPLEMENTATION

9.1 RESOURCES

The stakeholder engagement activities have been estimated to cost about US \$ 25,000.00 throughout the project life and will be allocated from the overall project allotment. However, the design and implementation of a **detailed and accurate** SEP will be the overall responsibility of RELIV. Other resources to be committed will be organized as such:

- The RELIV Information Office will be in charge of the SEP in liaison with the project development team led by MAAIF.
- The RELIV/PMU are committed to the implementation of the project as well as the implementation of the SEP in keeping with requirements and good governance pillars therefore make a commitment to commit some of the project funds towards the implementation of the SEP activities.
- Additional information on SEP related activities will be available from the Information office with support from the MAAIF.

9.1.1 Budget

The Project Coordinator will ensure that RELIV has an adequate standing budget allocated towards the Stakeholder Management Programme.

9.1.2 Training

All the RELIV team and partners will attend a workshop that will bring awareness on the project, SEP, GRM as well as other project specific documents.

8.2 RESPONSIBILITIES

The management, coordination and implementation of the SEP and its integral tasks will be the responsibility of dedicated team members within **RELIV**, partner ministries and its Contractors, Sub-contractors, and Consultants. The roles and responsibilities of the organizations are presented below. **RELIV** will be responsible for the preparation and physical implementation of the RELIV Project.

The Project Coordinator will work closely with the Environmental and Social Specialist (**ESS**) to ensure that the SEP is implemented in a successful manner.

Environmental and Social Specialist (ESS) is responsible for the management of project related social and environmental issues. The ESS will oversee all stakeholders' engagement activities regarding the implementation of the GRM as well as other project specific documents. Responsibilities of the ESS include the following:

- Develop, implement and monitor stakeholders engagement plan for the project, GRM and other project specific documents;
- Liaise with the Project Coordinator to ensure that stakeholders engagement requirements are understood,
- Maintain the stakeholder database; and

Proactively identify stakeholders, project risks and opportunities and inform Project Coordinator to ensure that the necessary planning can be done to either mitigate risk or exploit opportunities.

10 GRIEVANCE REDRESS MECHANISM (GRM).

The detailed GRM for the RELIV has been developed as a separate document.

Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex: SECAP studies - LCHSMP

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

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Report No. 6815-UG

East and Southern Africa Division
Programme Management Department



GOVERNMENT OF UGANDA

**MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND
FISHERIES (MAAIF)**

RESILIENT LIVESTOCK VALUE CHAIN PROJECT (ReLIV)



**LABOUR, COMMUNITY HEALTH AND SAFETY MANAGEMENT PLAN
(LCHSMP)**

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
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ABBREVIATIONS

CoC	Code of Conduct
GBV	Gender Based Violence
GRM	Grievance Redress Mechanism
LMP	Labour Management Procedures
OHS	Occupational , Health and Safety
PDO	Project Development Objective
RELIV	Resilient Livestock Value Chain Project

1. INTRODUCTION

1.1 BACKGROUND

This Labour Management Procedures (LMP) was developed by to manage risks under the Resilient Livestock Value Chain Project (ReLIV), funded by IFAD. The aim of the ReLIV project is to support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

1.2 RELIV GOAL, OBJECTIVE AND OUTCOME

The proposed project goal is to **“Contribute to the improved livelihoods of smallholder livestock farmers”** (aligned to NDP III goal: “Increased Household Incomes and Improved Quality of Life of Ugandans”)

The proposed Project development Objective (PDO) is to **“Enhance income, nutrition and resilience of smallholder dairy and beef producers”**.

The PDO will be achieved through three outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

The project will target poor small-scale cattle farmers and (agro) pastoralists, in line with IFAD’s mandate, and should also support the development of market-oriented production and creation of off-farm jobs. The project will target 41 districts in the cattle corridor, directly benefiting around 200,000 households (about 1,000,000 people), out of which 40% women and 25% youth.

2. OVERVIEW OF LABOUR ON THE RELIV PROJECT

2.1 LMP APPLICATION.

The LMP is applicable, as per ESS 5 to all the RELIV Project workers as per the following condition:

- People employed or engaged directly by RELIV to work specifically in relation to the Project,
- The Government public servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement or arrangement,
- People employed or engaged by consultants to perform work related to core function of the Project, regardless of location,
- People employed or engaged by RELIV's primary suppliers,

2.2 LABOUR REQUIREMENTS

2.2.1 Direct Workers:

Direct workers include, the RELIV PMU staff, MSMEs staff, Program-based Staff and Permanent Government Staff. The RELIV PMU will employ consultants and support staff who will be working on contractual bases as part of the RELIV PMU. Terms and conditions of these consultants will be guided by the Uganda Labour Laws. In addition, the civil servants at the local level will be involved in the program implementation on a full time or on part-time basis. The consultants will be engaged by the Project to undertake short period assignments as necessary. These are consultants guided by specific contractual agreements between them and RELIV PMU.

Direct workers are eligible to work for a fixed contract period of not more than 1 year. Contracts will be renewed annually based on satisfactory services. Consultants will be engaged under a short-term period of not more than six months and the labour requirement including the time schedule and deliverables are stipulated in their respective contracts.

The RELIV PMU will oversee the Project and engage throughout the Project life cycle the following personnel:

- Project Coordinator,
- Administrator,
- Procurement Specialist,
- Project Accountant,
- Internal Auditor,
- Monitoring and Evaluation Specialist,
- SECAP Specialist,
- Driver.

2.2.2 Contracted Workers:

Based on the requirement in every component the RELIV PMU will employ contractors who will hire contracted workers based on their level of skills and program needs. If agreed with the PMU, sub-contracts of the work could be given. Sub-contractors recruited may supply labourers as per the agreed terms and conditions.

Contracted workers are eligible to work for a contract period fixed by the PMU, and then recruited by the Contractor. Their contracts will be renewed, if required, based on satisfactory services.

2.2.3 Primary Supply Workers:

Based on the requirement in every componentY, primary supply workers will be recruited by the suppliers as required. It will be ensured (and monitored periodically by the PMU) that no children are recruited and supplied as worker. Furthermore, it will be monitored like above that these workers are not subject to 'forced labour' in any manner. The PMU will be responsible to make sure that these standards are followed strictly. If any deviation is identified the PMU will take action as prescribed in the contract/agreement following the LMP.

Their tenure service will be based on supplies as procured.

3. ASSESSMENT OF POTENTIAL LABOUR RISKS

3.1 MAIN LABOUR RISKS

The main labour risks associated with the Project are assessed to be related to the work environment and associated risks of accidents. **Based on current conditions in the sector it is assessed that the risk of child or forced labour is negligible**, and already managed through national legislation.

The RELIV has developed this LMP as part of the ESCMF which will illustrate the types of workers to be engaged and their management in line with ESS5 and national labour laws and regulations. Even though labour influx is not anticipated, social impacts such as GBV, sexual exploitation and communicable diseases for local communities cannot be ruled out. Thus, management and mitigation of GBV/SEA risks were integrated in both the stakeholder engagement and LMP.

3.2 LABOUR INFLUX

It is not expected that there will be any labour influx in any project community. The RELIV will mandate and localize the economic benefits and only allow for outside, including expatriate labour, where there is a requirement for special skills.

Specific requirements to manage risks associated with labour influx, related to interaction between project workers and local communities, such as communicable diseases and gender-based violence, are managed through contractual requirements, Code of Conduct and training set out in this document. These procedures are guided by the national legislation.

3.3 OCCUPATIONAL HEALTH AND SAFETY:

The Occupational health and Safety measures and action plan guided by the IFAD updated SECAP 21 will be developed and implemented to assess and manage risks and impacts to the community arising from Project activities and workers. The consultants to be engaged will ensure that their employees/staff will be trained on occupational health and safety and records of which are to be inspected monthly and audited bi-annually. The RELIV will consider the incremental risks of the public's health and safety and potential exposure to operational accidents.

3.4 GENDER-BASED VIOLENCE:

Gender based violence is widespread in Uganda and primarily affects girls and women, hence based on the GBV/SEA/SH Uganda country-level risk assessment ratings, the social risks of Sexual Exploitation/Harassment and GBV are rated as moderate, and the project will not directly or indirectly cause or contribute to any of the pre-existing social issues related to gender-based violence but will attempt to ultimately contribute to their mitigation through improving the livelihoods of the poor stakeholders.

Nonetheless, there is a possibility of contextual risks of GBV and there could be an increase in the risk and exposure of GBV/SEA against women because they have improved economic

opportunity as a result of the project. There is thus a need to uphold safe environments at all sub-project areas and implement the GBV Action Plan in the project ESCMF.

3.5 CHILD AND FORCED LABOUR:

The risk of child labour will be very minimal and will be mitigated through Certification of labourers' age. This will be done by using the legally recognized documents such as the National Identification Card, and Birth Certificate. Further, awareness-raising sessions will be conducted regularly to the communities to sensitize on prohibition and negative impacts of child and forced Labour.

4. REGULATORY FRAMEWORK

4.1 APPLICABLE LAWS

All activities under the proposed project must be consistent with all applicable laws, regulations, and notifications that are relevant in the context of the proposed project interventions. Therefore, it is the responsibility of the RELIV PMU to ensure that the proposed activities are consistent with the national regulatory/legal framework.

4.2 LEGAL FRAMEWORK

RELIV project activities must be compliant with the provisions of the legal framework of the relevant host countries as referenced in IFAD's E&S Policies.

Project stakeholders in committing to adhere to IFAD's E&S Policy thereby commit to achieving and demonstrating compliance with national, environmental, social, occupational health and safety and labour laws, and construction and operation permits, etc.

In cases where the national requirement provides for the more stringent safeguarding standard, RELIV's stakeholders shall conform to the national requirements provided it does not create any inconsistencies with the Framework. In cases where there is inconsistency between national requirements and the RELIV's ESCMF, this Framework will prevail to the extent of the inconsistency.

4.3 NATIONAL LEGAL FRAMEWORKS

The RELIV LMP is also guided by the national laws, regulations, and policies of Uganda. The key national E&S legislation and policies of Uganda are outlined in the ESMF.

5. RESPONSIBLE STAFF AND PROCEDURES

5.1 LMP PROCEDURES

The RELIV PMU has the overall responsibility to oversee all aspects of the implementations of the LMP, in particular to ensure contractor compliance. RELIV PMU will address all LMP aspects as part of procurement for works as well as during contractor induction. The contractors will subsequently be responsible for management of labour issues in accordance with contract specific labour Management Plans, implementation of which will be supervised by RELIV PMU on a monthly basis or at shorter intervals as defined by specific Plans. The detailed approach is described in the following sections.

5.2 OCCUPATIONAL HEALTH AND SAFETY.

The RELIV PMU Environmental Specialist must ensure that the implementation of RELIV will be conducted in compliance to occupational health and safety requirements. The RELIV SECAP Specialist will make sure that each participating Ministry and institution receives the template OHS programs, establish safety representatives for day-to-day monitoring of safety requirements, record and report all incidents accordingly to the RELIV.

5.3 LABOUR AND WORKING CONDITIONS.

Government civil servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement and their contract will include Environmental and Health and Safety Guidelines and industry standard code of conduct that address OHS risks and measures to prevent GBV etc. In addition to these the COVID – 19 regulations 2020 will also apply. A Labour Management Procedure (LMP), which illustrates types of workers to be engaged and their management in line with ESS 6 and national labour laws and regulations, has been developed. although labour influx is not anticipated, social risks such as GBV, sexual exploitation and abuse within the project workforce are envisaged as possibility.

5.4 CONTRACTORS OCCUPATIONAL HEALTH AND SAFETY.

Contractors must engage a minimum of one safety representative. Smaller contracts may permit for the safety representative to carry out other assignments as well. The safety representative will ensure the day-to-day compliance with specified safety measures and records of any incidents are done. Minor incidents are reported to RELIV PMU on a monthly basis; serious incidents are reported immediately. Minor incidents are reflected in the quarterly reports to the IFAD

5.5 CONTRACTOR LABOUR AND WORKING CONDITIONS.

Contractors will keep records in accordance with specifications set out in this LMP. RELIV PMU may at any time require records to ensure that labour conditions are met. The PMU will review records against actuals at a minimum on a monthly basis and can require immediate remedial actions if warranted. A summary of issues and remedial actions will be included in quarterly reports to the IFAD.

5.6 WORKER GRIEVANCES.

The RELIV PMU's procedures currently developed will remain in place for Project staff. Contractors will be required to present a worker grievance redress mechanism which responds to the minimum requirements in this LMP. The PMU's Social Officer will review records on a monthly basis. Where worker concerns are not resolved, the national system will be used as set out in the section, but the PMU will keep abreast of resolutions and reflect them in quarterly reports to IFAD.

5.7 ADDITIONAL TRAINING.

Contractors are required to, at all times, have a qualified safety officer on board. If training is required, this will be the contractor's responsibility. The safety officer will provide instructions to contractor staff. RELIV PMU will provide training to address risks associated with labour influx and will provide a schedule for trainings required. The contractor will be obligated to make staff available for this training, as well as any additional mandatory trainings required by RELIV PMU, as specified by the contract.

6. POLICIES AND PROCEDURES

6.0 RELEVANT POLICIES AND PROCEDURES

The engagement and treatment of program staff will be made on the basis of characteristics related to inherent job requirements. It will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.

Contractors will be responsible for mitigating all environmental and social impacts of subprojects resulting from activities directly under their control. The RELIV PMU SECAP Specialist will incorporate standardized environmental and social clauses in the tender and contract documents in order for potential bidders to be aware of environmental and social performance requirements that will be expected from them and are able to reflect that in their bids and required to implement the clauses for the duration of the contract.

The contractor will be required to ensure that all documentation related to environmental and social management, including the LMP, is available for inspection at any time by the respective Labour Ministries or their appointed agents in the different countries. The contractual arrangements with each project worker must be clearly defined in accordance with each local Legislation. All environmental and social requirements will be included in the bidding documents and contracts in addition to any additional clauses, which are contained, in the Projects environmental and social instruments.

The RELIV PMU, Contractors, suppliers or sub-contractors will never engage forced labour. Forced labour includes bonded labour (working against an impossible debt), excessive limitations of freedom of movement, excessive notice periods, retaining the worker's identity or other government-issued documents or personal belonging, imposition of recruitment or employment fees payable at the commencement of employment, loss or delay of wages that impede the workers' right to end employment within their legal rights, substantial or inappropriate fines, physical punishment, use of security or other personnel to force or extract work from project workers, or other restrictions that compel a project worker to work on a non-voluntary basis.

6.1 LABOUR INFLUX AND GENDER BASED VIOLENCE

Contractors will need to maintain labour relations with local communities through a code of conduct (CoC). The CoC commits all persons engaged by the contractor, including sub-contractors and suppliers, to acceptable standards of behaviour. The CoC must include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and sexual harassment (e.g., termination). The CoC should be written in plain language and signed by each worker to indicate that they have:

- Received a copy of the CoC as part of their contract.
- Had the CoC explained to them as part of induction process.
- Acknowledged that adherence to this CoC is a mandatory condition of employment.

- Understood that violations of the CoC can result in serious consequences, up to and including dismissal, or referral to legal authorities.

A copy of the CoC shall be displayed in a location easily accessible to the community and project affected people. It shall be provided in English and the local language.

Contractors must address the risk of gender-based violence, through: Mandatory training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. Training may be repeated.

- Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted.
- Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
- Developing a system to capture gender-based violence, sexual exploitation and workplace sexual harassment related complaints/issues.

This process will be under the portfolio of the SECAP Specialist to be recruited under the PMU and shall identify and engage the relevant stakeholders on GBV and HIV and Aids related issues.

6.2 OCCUPATIONAL, HEALTH AND SAFETY

RELIV is committed to:

- Complying with the Uganda Governments' legislation and other applicable requirements which relate to the occupational health and safety hazards.
- Enabling active participation in OH&S risks elimination through promotion of appropriate skills, knowledge and attitudes towards hazards.
- Continually improving the OH&S management system and performance.
- Communicating this policy statement to all persons working under the control of RELIV with emphasis on individual OH&S responsibilities.
- Availing this policy statement to all interested parties at all participating educational facilities and institutions.

The RELIV SECAP Specialist will be responsible for overseeing the workplace Safety, Health and Environmental issues. He/she must:

- Identify potential hazards.
- In collaboration with the employer, investigate the cause of accidents at the workplace.
- Attend meetings of the safety and health committee to which that safety and health representative is a member.
- Make recommendations to the employer in respect of safety and health matters affecting employees.

Further to avoid work related accidents and injuries, the contractor will:

- Provide occupational health and safety training to all employees involved in RELIV works.
- Ensure availability of first aid box.

- Provide employees with access to toilets and potable drinking water.
- Provide safety and occupational safety measures to workers with Personal Protection Equipment (PPE) when installing solar systems to prevent accidents during replacement and installation and follow safety measures in installing them.
- Properly dispose of solid waste at designated permitted sites landfill allocated by the local authorities.

Further to enforcing the compliance of environmental management, contractors are responsible and liable of safety of site equipment, labours and daily workers attending to the site installations and safety of citizens for each sub-project site, as mandatory measures.

7. AGE OF EMPLOYMENT

The participating countries have approved both the ILO Minimum Age Convention (C138) and the ILO Worst Forms of Child Labour Convention (C182) in 2002. Section 97 of the Employment Act applies minimum age protections to children working in industrial undertakings, but it does not cover children working in domestic and agricultural work. Similarly, Section 246 of the Children's Protections and Welfare Act 6, 2012 prohibits hazardous work for children under the age of 18 in industrial undertakings.

The African Charter on the Rights and welfare of the Children (also known as ACRWC or Children's Charter) was adopted by the Organisation of African Union (OAU) in 1990 and was entered into force in 1999. Most of the participating countries have also ratified both the ILO Minimum of Age Convention (C138) and the ILO Worst Forms of Child Labour Convention (C182). The ACRWC, C138, C182 prohibit employment of children under the age of 18.

The minimum age of employment for this project shall be 18 years and to ensure compliance, all employees will be required to produce National Identification Cards as proof of their identity and age which is the national identification required for employment.

If any consultant employs a person under the age of 18 years, that consultant will not only be terminated but also reported to the authorities.

8. TERMS AND CONDITIONS

As stated in the LMP sections, the terms and conditions of employment in the project will be governed by the provisions of the local Employment Act. and it is generally mandatory for employers to give its employees a copy of the written particulars of employment, signed by both parties within six weeks of employment.

Contractors will also be required to comply with the most current Regulations of Wages Orders for their particular sector, e.g., the Building and Construction Industry which is issued by the Government and reviewed on a regular basis. The Wages Orders normally specify the minimum wages, hours of work, overtime pay, leave entitlements, travelling and subsistence allowances, and the issue of protective clothing.

Also, it is generally accepted that, before a contractor is awarded a public contract, that contractor is required to certify in writing that the wages, hour and conditions of work or persons to be employed by him on the contract are not less favourable than those contained in the most current wages regulation issued in Uganda. Where a contractor fails to comply with this requirement, the contract with the contractor may be withdrawn as an approved contractor.

8.1 WORKER'S ORGANIZATION

Uganda has ratified the numerous ILO Conventions aimed at ensuring that member states protect the notion of collective bargaining. These Conventions include ILO Convention 87 on Freedom of Association and Protection of the Right to Organize and ILO Convention 98 on the Right to Organize and Collective Bargaining.

Uganda's Constitutions also guarantees all workers, their rights to freely form, join or not join a trade union for the promotion and protection of the economic interest of that worker and collective bargaining and representation.

9. DISCIPLINARY PROCEDURES AND GRIEVANCE MECHANISM

9.1 DISPUTE MANAGEMENT SYSTEM

In any working environment it is essential for both employers and employees to be fully conversant with all aspects of disciplinary processes, the grievance handling procedures and the legal requirements and rights involved. In implementing an effective dispute management system consideration must be given to the disputes resulting from the following:

- Disciplinary Action
- Grievance Redress Mechanism (GRM)
- Individual grievances
- Gender-based violence, sexual exploitation and workplace sexual harassment

9.2 DISCIPLINARY PROCEDURE

The starting point for all disciplinary action is rules. These rules may be implied or explicit and of course will vary from workplace to workplace. Some rules are implied in the contract of employment (e.g., ruling against use of alcohol and drugs at workplace), however it is advisable that even implied rules be included in the disciplinary code or schedule of offences. Therefore, the workplace rules must be:

- Valid and reasonable
- Clear and unambiguous
- The employee must understand the procedure to be applied if he/she contravenes any of the rules.

A comprehensive Grievance Redress Mechanism has been developed for the project, however the following dispute resolution procedures at workplace will be as follows:

- Conducting of a comprehensive investigation to determine whether there are grounds for a hearing to be held.
- If a hearing is to be held, the employer is to notify the employee of the allegations using a language that the employee can understand.
- The employee is to be given reasonable time to prepare for the hearing and to be represented by a fellow employee or lawyer.
- The employee must be given an opportunity to respond to the allegations, question the witnesses of the employer and to lead witnesses.
- If an employee fails to attend the hearing the employer may proceed with the hearing in the absence of the employee.
- The hearing must be held and concluded within a reasonable time and is to be chaired by an impartial representative.
- If an employee is dismissed, it must be given the reasons for dismissal and the right to refer the dispute concerning the fairness of the dismissal to the labour Court.

Therefore, it is incumbent upon the Consultants/Contractor to ensure that they have a disciplinary procedure and Code and Standards which the employees are aware of. Each Consultant/Contractor will be required to produce this procedure to ensure that employees are not treated unfairly.

9.3 INDIVIDUAL GRIEVANCE PROCEDURE

Termination of Employment requires every employer, including contractors, to have a Formal Grievance Procedure which should be known and explained to the employee. Such procedure should at least:

- a) Specify to whom the employee should lodge the grievance.
- b) Refer to time frames to allow the grievance to be dealt with expeditiously.
- c) Allow the person to refer the grievance to a more senior level within the organization, if it is not resolved at the lowest level.
- d) If a grievance is not resolved the employee has the right to lodge a dispute with the employer.

All the contractors who will be engaged for the project will be required to produce their grievance procedure as a requirement for tender which at a minimum comply with these requirements. In addition, good international practice recommends that the procedures be transparent, is confidential, adheres to non-retribution practices and includes the right to representation. After they are engaged, they will be required to produce proof that each employee has been inducted and signed that they have been inducted on the procedure.

9.4 COLLECTIVE GRIEVANCES AND DISPUTES RESULTING FROM THE NEGOTIATIONS OF COLLECTIVE AGREEMENTS

Where a trade union is recognized, it is entitled to negotiate on a regular basis with the employer over terms and conditions existing at the workplace and the employer is obliged to negotiate with it. The procedures followed in such instances is usually contained in the Recognition Agreement, which states how the issues are raised, the procedure for negotiations, the composition of the parties involved in the negotiation and the procedure to deal with issues that are not resolved through consensus.

9.4 GENDER-BASED VIOLENCE, SEXUAL EXPLOITATION AND WORKPLACE SEXUAL HARASSMENT

Violence and harassment in the work world deprives people of their dignity, is incompatible with decent work, and a threat to equal opportunities and to safe, healthy, and productive working environments. It remains a widespread phenomenon, present in all participating countries and disregarding sectors, occupations and workplace arrangements. Convention No. 190 and Recommendation No. 206 recognizes the right of everyone to a world of work free from violence and harassment, including gender-based violence and harassment.

10. CONTRACTOR MANAGEMENT

10.1 LABOUR TERMS AND CONDITIONS.

The RELIV PMU will require that contractors monitor, keep records and report on terms and conditions related to labour management. The contractor must provide workers with evidence of all payments made, including social security benefits, pension contributions or other entitlements regardless of the worker being engaged on a fixed term contract, full-time, part-time or temporarily. The application of this requirement will be proportionate to the activities and to the size of the contract, in a manner acceptable to the RELIV and the IFAD:

- **Labour conditions:** records of workers engaged under the Project, including contracts, registry of induction of workers including CoC, hours worked, remuneration and deductions (including overtime), collective bargaining agreements.
- **Safety:** recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth).
- **Workers:** number of workers, indication of origin (expatriate, local, nonlocal nationals), gender, age with evidence that no child labour is involved, and skill level (unskilled, skilled, supervisory, professional, management).
- **Training/induction:** dates, number of trainees, and topics.
- **Details of any security risks:** details of risks the contractor may be exposed to while performing its work—the threats may come from third parties external to the project.
- **Worker grievances:** details including occurrence date, grievance, and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken. Grievances listed should include those received since the preceding report and those that were unresolved at the time of that report.

Every Safety File is 'site-specific'. It will be compiled following the client's and the site's safety specifications. The overall information requirements remain the same, and the site-specific documents will be added. When Health and Safety File is set up, it will consist of the following Documents:

- Contractor appointment letter.
- Notification of Construction Work
- Copy of the OHS regulations
- Occupational Health and Safety Management Plan
- Company Occupational Health and Safety Policy
- Letter of Good Standing
- Material Safety Data Sheets for hazardous materials used (if required)
- Tax Clearance Certificate
- Risk Assessments
- Safe work procedures (Site Specific)
- Fall Protection Plan (if required)
- Legal appointment with proof of training (Ex. Chief Executive Officer, Risk Assessor, First Aider, etc.)
- Incident Reporting Procedures

- Incident Reports
- Incident Registers
- Reports of Accidents
- Emergency Preparedness Documents
- First Aid Documents
- Induction Records
- Medical Surveillance Records
- Safety Communication (e.g., Toolbox talks)
- Minutes of Safety Meetings
- Inspection Registers

11. COMMUNITY WORKERS

The project will not engage community workers, Community workers are not currently used by the Participating Governments' Ministries of Agriculture in any projects due to the specialized labour needs required.

12. PRIMARY SUPPLY WORKERS

This section addresses labour management risk associated with people employed or engaged by RELIV's primary suppliers. Primary suppliers are suppliers who, on an ongoing basis, provide goods or materials directly to the Project.

The project will require procurement of a substantial number of materials, including protection and control equipment, power-poles, steel products, Solar products, computer products etc.

All primary suppliers are formal businesses who are required to procure and produce materials subject to high standards.

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex: SECAP studies-IPMP

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East and Southern Africa Division
Programme Management Department



REPUBLIC OF UGANDA.

**UGANDA RESILIENT LIVESTOCK VALUE CHAIN PROJECT
(RELIV).**



**INTERGRATED PEST MANAGEMENT PLAN
(IPMP)**

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).
Kampala.
Uganda.**

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1. INTRODUCTION

1.1 BACKGROUND

This Labour Management Procedures (LMP) was developed by to manage risks under the Resilient Livestock Value Chain Project (ReLIV), funded by IFAD. The aim of the ReLIV project is to support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

1.2 RELIV GOAL, OBJECTIVE AND OUTCOME

The proposed project goal is to **“Contribute to the improved livelihoods of smallholder livestock farmers”** (aligned to NDP III goal: “Increased Household Incomes and Improved Quality of Life of Ugandans”)

The proposed Project development Objective (PDO) is to **“Enhance income, nutrition and resilience of smallholder dairy and beef producers”**.

The PDO will be achieved through three outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

The project will target poor small-scale cattle farmers and (agro) pastoralists, in line with IFAD’s mandate, and should also support the development of market-oriented production and creation of off-farm jobs. The project will target 41 districts in the cattle corridor, directly benefiting around 200,000 households (about 1,000,000 people), out of which 40% women and 25% youth.

1.3 ACTIVITIES OF THE BENEFICIARIES

The Small-scale farmers will be involved in rearing beef and dairy Cattle, Growing Fodder for dairy Cattle, producing feed for beef and dairy cattle, collecting milk from the various smallholder farmers to central points, MCPs and MCCs for further delivery to milk processing plants, Processing milk into various products which include sour milk, cheese and yoghurt, establishment of slaughterhouses and slaughter slabs, processing meat and meat products. The intensification of these beef and dairy livelihood activities will entail the use of agro chemicals (pesticides, fertilisers etc). This outline of the Integrated Pest Management Plan (IPMP) has been developed as a decision-making process for the selection, implementation, and evaluation of pest management practices to be employed in the project.

2. RATIONALE AND OBJECTIVES OF THE PEST MANAGEMENT PLAN

2.1 PEST CONTROL PRACTICES

Pests are increasingly becoming a menace in the livestock sector. The farmers carry out routine management of pests on their animals and in their fields, mainly through the use of pesticides. The common pest control practices 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.

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.

2.2 PESTICIDES USE IN CROPS (FODDER PRODUCTION)

2.2.1 Growing a Healthy Fodder/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.

2.2.2 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.

2.2.3 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.

2.2.4 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.

In the Horticulture sector it was noted during the field trip that crop diversification and rotation was practiced to a limited extent. Some of the crops were difficult to sell due to lack of markets. The farmers mentioned lack of markets as one of the reasons why they preferred to stick to the crops that had ready markets. Crop rotation is also difficult due to limitations on availability of land.

2.2.5 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.

2.2.6 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.

2.2.7 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.

2.2.8 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

2.2.9 Proposed Management of major pests of pastures grasses and legumes

The tropical pastures 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 Uganda not reported.

Therefore, the major thrust in pest management in fodder production, pasture legumes and grasses under RELIV will be to identify the pest species present in Uganda, 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 meat and milk and their high agro-chemical price as compared to animal product income. Therefore, the RELIV thrust will be to establish pest spectrum and biodata in Ugandan pastures and forages where the target species will be grown.

2.3 PESTICIDES USE IN LIVESTOCK

2.3.1 Current Pesticides use in livestock.

The pesticides used in livestock are mainly acaricides against tick control. The livestock in Uganda, especially in the Northern Districts, 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. ECF).

In order to minimize the tick attack and disease transmission, the cattle keepers spray the acaricides on their cattle at their kraal at homesteads. In the past and during colonial period, Government used to build dips for communal use. However, the tick control was left to cattle keepers themselves.

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.

3. DESCRIPTION OF PEST MANAGEMENT PRACTICE

3.1 INTEGRATED PEST MANAGEMENT

The Integrated Pest Management (IPM) refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. Generally, it is the pest management technique of choice. It involves the following processes:

- 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 minimises 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:

- **Biological control:** the introduction of insects, mites, micro-organisms that prey on or parasitize harmful species.
- **Bio-pesticides:** these have a pathogenic micro-organism as the active ingredient, for example a bacterium, fungus or a virus.
- **Botanicals:** botanical pesticides contain plant extracts that have biocidal properties e.g., Neem (*Azadirachta indica*).

- **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 agro-ecosystem. 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 RELIV sites 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:

- **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.
- **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.
- **Chemical Control:**
This involves selecting a pesticide with the lowest toxicity to humans and non-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 over-stocking. 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 Act and the Environmental Management Act.

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. INSTITUTIONAL, LEGISLATIVE AND REGULATORY FRAMEWORK

4.1 LEGAL FRAMEWORK AND ENFORCEMENT

Uganda imports substantial amounts of pesticides to control pests and diseases. In order to sustainably manage the pesticides, the government of Uganda has put in place the legal framework to control pesticides. The following laws and policies have been put in place to manage pesticides in Uganda.

4.1.1 Constitution of Republic of Uganda (1995)

Article 39 of the 1995 Constitution of Republic of Uganda (As Amended in 2005) provides that, every person has a right to a clean and health environment, in particular, the State is required to take all possible measures to prevent or minimize damage and destruction to land, air, and water resources due to pollution and other causes. The Constitution imposes the duty of the State to important natural resources including land, water, minerals, oil, fauna and flora on behalf of people of Uganda.

4.1.2 Agricultural Chemicals (Control) Act, No.1 of 2006.

The other important law that provides for the management of pesticides is the Agricultural Chemicals (Control) Act, No.1 of 2006. This Act is enacted to control and regulate the manufacture, storage, distribution, trade, use, importation and exportation of agricultural chemicals and other related matters. Agricultural chemicals are defined to include plant protection chemicals, fungicides, insecticides, nematicides, herbicides, miticides, bactericides, rodenticides, molluscicides, avicides, fertilizers, growth regulators, wood preservatives, bio-pesticides, and bio-fertilizers or any other chemical used for promoting and protecting the health of plants, plant products and by products.

4.1.3 Occupational Safety and Health Act, No 9 of 2006

The Occupational Safety and Health Act, No. 9 of 2006 provides for the safety of persons at work such as factories, plantations and other workplaces where hazardous work may be found. The Act spells out the duties and obligations of both employers and employees in ensuring safety at work places. According to article 34(4) of the Act, children are entitled to be protected from social or economic exploitation and shall not be employed in or required to perform work that is likely to be hazardous or interfere with their education or to be harmful to their health or physical, mental, spiritual, or moral development. The Uganda National Bureau of Standards Act, Cap 327 Section 21 (1) prohibits any person to import, distribute any commodity for which a compulsory standard specification has been declared unless such commodity conform to the compulsory standard or unless the commodity bears a distinctive mark.

4.1.4 Biosafety and biotechnology bill 2012

Biosafety and biotechnology bill 2012 covers issues around biotechnology, especially genetic modification. This is relevant to beef and Dairy production because some of the most widely used modifications confer pest resistance, and in Uganda a number of such traits have been engineered and tested. Enactment of the Bill would provide the necessary regulatory framework for the commercialization and release of these materials, which

would have substantial implication for the way in which pest problems are managed.

4.1.5 National Environment Act, Cap 153

The National Environment Act, Cap 153 prohibits pollution contrary to established standards, prohibits the illegal trafficking of hazardous waste and gives any person generating hazardous wastes the duty of management of the waste, including management of pesticides.

5. MITIGATION AND EMERGENCY PREPAREDNESS ACTIONS/PLAN

5.1 INTEGRATED PEST MANAGEMENT AND MONITORING PLAN (IPMP)

The following is an outline of the integrated pest management and monitoring plan for the RELIV. 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/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
1.	PHYSICAL AND BIOLOGICAL CONTROLS						
1.1	Fodder crops and livestock damage by pests	Low crop yields	Use healthy seed and resistant varieties. Train farmers on importance of using healthy seed	Farm management & farmers	IPM practices	MAAIF - DAR RELIV PMU	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	MAAIF - DAR RELIV PMU	quarterly
			Provide information to farmers on appropriate planting times	Extension workers.	Recommended agricultural practices, IPM practices	Min. of Agriculture RELIV PMU	Half yearly
			Crop rotation, diversity and inter-cropping	Extension workers	Recommended agricultural practices	MAAIF - DAR RELIV PMU	Half yearly
			Train farmers in enhancement of biological control of pests. Research in IPM methods	Extension workers Agricultural Research, NGO's	IPM practices	MAAIF - DAR RELIV PMU	Half yearly
			Make farm inputs and information on pests, pesticides and pest resistant seeds available to farmers	Micro-credit institutions, Extension workers, seed suppliers and NGO's	IPM	MAAIF - DAR RELIV PMU	Half yearly
2.	CHEMICAL CONTROLS (PESTICIDES)						
2.1	Issues / Concerns During Pesticide Transportation						

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
2.1.1	Adulteration	Lack of controls	Inspection, sampling and testing	Transporters	-Packaging and storage standards -Product specifications –Environment Act Agricultural Chemicals (Control) Act, No.1 of 2006.	RELIV PMU	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.	RELIV	-Road traffic regulations. - Vehicle maintenance requirements	- Environment Department	As need arises
2.1.3	Accidental Contamination	Using same vehicle for different purposes	Ensure vehicles are inspected and cleaned when changing use	Transporters	- (pesticide transport regulations).	- Environment Department MAAIF - DAR	As need arises
2.2	Issues/Concerns During Pesticide Storage						
2.2.1	Pesticide loss, degradation and contamination.	-Inappropriate building for storage of pesticides.	-Suitable warehouse	Transporters Agro dealers	- regulations	- Environment Department - RELIV PMU	Before approval of storage faculties for pesticides
		Wrong shelving or stacking	-Routine inspection and inventory checks	Agro-dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly
		-Inadequate storage space. --Bad housekeeping -multi-purpose use of warehouse	-Provide adequate and separate storage space for pesticides	Agro dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly
		Theft and vandalism	Restrict entry to pesticide areas. Check pesticides records regularly	Farm management	Farm security policy	Farm management	quarterly
		Over-stocking	Buying the required quantities only	Agro dealers	Agricultural Chemicals (Control) Act, No.1 of 2006.	Farm management	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. Factories Act	Ministry Of Labour, RELIV PMU	Annually
2.2.3	Occupational Health	Exposure to pesticides	-Provide protective clothing and ensure it is used. -Train farmers in proper pesticides handling. -Routine medical examination	Agro dealers Ministry of Agriculture RELIV PMU	labour regulations, regulations	-Min. of labour. - RELIV PMU	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 RELIV PMU	Pesticide manufacturers regulations	- , RELIV PMU -DEO	Annually

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
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 Act	-Min of labour -RELIV PMU	Annually
2.3.3	Accidental poisoning	lack of knowledge of pesticide potency and negligence	Training	Ministry of Agriculture RELIV PMU	Pesticides Act	-DEO	Annually
		-Equipment malfunction -Wrong type of equipment. -Time and method of application (spraying)	-Regular maintenance of equipment. -Use recommended equipment. -Use approved methods of application. -Use recommended protective clothing. -Training seminars -Integrated Pesticide Management	-Ministry of Agriculture RELIV PMU	-Manufacturer's recommendations. -Equipment maintenance policy	-RELIV PMU	Annually
		-Improper cleaning of equipment.	-Clean equipment and dispose equipment as recommended by manufacturer.	Ministry of Agriculture RELIV PMU	-Manufacturer's recommendations.	-RELIV PMU	Annually
		-Improper disposal of cleaning water and old equipment	-Use bio-beds and draining dams to dispose cleaning and drainage waters -Integrated Pesticide Management		-regulations. Water resources regulations	-RELIV PMU	
		Multi-purpose use of equipment or pesticides	Control use of equipment and pesticides. -Thorough cleaning of equipment -Training -Integrated Pesticide Management	Ministry of Agriculture	Pesticides Act	-RELIV PMU	Annually
2.4.	Issues / Concerns during disposal of pesticides containers and equipment						
2.4.1	Water and Environmental pollution	-Cleaning of equipment, -Disposal of remains of pesticides -Disposal of containers and equipment	-Use of bio-beds, draining channels and draining dams. -Use chemical remains to re-spray. -Clean equipment in one place. -Use plants such as water lilies to absorb waste pesticides. -Take stock of pesticide containers -Integrated Pesticide Management	--- RELIV PMU -Department of Environmental -Water resources Board	-Pesticides and equipment - manufacturer's recommendations. -Water pollution standards.	Department of Environment.	Annually

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
2.4.2	Post Application Monitoring	Pesticides residues in the food chain	<ul style="list-style-type: none"> -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 	-- RELIV PMU	<ul style="list-style-type: none"> -Environmental standards -Wastewater standards 	<ul style="list-style-type: none"> -Department of Environment -Water Resources Board - RELIV PMU 	Annually

Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex: SECAP studies - GRM

Mission Dates: 28 January- 28 March 2024

Document Date: 07/06/2024

Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department



GOVERNMENT OF UGANDA

**MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND
FISHERIES (MAAIF)**

RESILIENT LIVESTOCK VALUE CHAIN PROJECT (ReLIV)



**GRIEVANCE REDRESS MECHANISM
(GRM)**

Prepared for:

Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
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1. INTRODUCTION

1.1 GENERAL

A grievance redress mechanism (GRM) is an instrument through which dispute resolution is sought and provided. It is a process for receiving, evaluating and addressing project related concerns of, and complaints by, project affected communities or persons.

IFAD's Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. IFAD's GRM requires i) working proactively with the affected parties to resolve complaints; ii) ensuring that the complaints procedure is responsive and operates effectively; and iii) maintaining records of all complaints and their resolutions. Thus, the GRM will assist the ReLIV project to ensure that deliberate processes and procedures are put in place to capture, assess, and respond to concerns from the community. This will ensure smooth implementation of the project and timely and effective addressing of the problems that may otherwise derail the project.

1.2 PRINCIPLES OF A GOOD GRM

The principles of a good GRM are¹:

- A mechanism scaled to risk and adverse impact on affected communities.
- Designed to take into account culturally appropriate ways of handling community concerns.
- A clear and understandable mechanism that is accessible to all segments of the affected communities at no cost.
- Transparency and accountability to all stakeholders.
- A mechanism that prevents retribution and does not impede access to other remedies.

1.3 KEY STEPS FOR GRIEVANCE MANAGEMENT

The key steps for grievance management are²:

- i. Publicising grievance management procedures so that the mechanism is accessible to everyone.
- ii. Receiving (i.e., collecting, recording, and registering) and keeping track of grievances.
- iii. Reviewing and investigating grievances to assess the nature of the grievance, its severity and legitimacy.
- iv. Developing resolution options commensurate with the nature of grievances and preparing and communicating a clear response and closing out cases when agreement with the complainants is reached.
- v. Monitoring grievances through tracking to ascertain effectiveness, adapting the mechanism to correct inefficiencies, using the results of monitoring for feedback and lessons learned.

¹ IFC (2009); Good Practice Note – Addressing Grievances from Project-Affected Communities, Guidance for Projects and Companies on Designing Grievance Mechanisms

² *ibid*

2. OPERATION OF THE GRIEVANCE REDRESS MECHANISM

2.1 SCOPE OF THE GRM

The grievance redress mechanism (GRM) is a system by which queries or clarifications about the project will be responded to, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively. It provides a channel for dispute resolution during execution of Services. However, the GRM serves to complement but not replace the existing channels such as rewards and sanctions committee.

The GRM will improve outcomes by creating public awareness about the project and its objectives, deterring fraud and corruption, mitigating socio-economic and environmental risks and providing the ReLIV PMU with practical suggestions and feedback during project implementation.

2.2 PURPOSE OF THE GRM

The GRM will serve the following purpose:

- to be responsive to the needs of beneficiaries and to address and resolve their grievances.
- Resolve any emerging environmental and social grievances in project areas.
- To promote relations between the community and the district
- 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 project's legitimacy among stakeholders.
- to promote transparency and accountability.
- to deter fraud and corruption and mitigate project risks.

2.3 RELIV GRM APPROACHIES.

The RELIV GRM System will consist of three parallel approaches from which an aggrieved person can choose. These include the following:

- The Community-based grievance redress mechanism.
- The ReLIV Formal GRM.
- The IFAD Complaints procedure.

The following is an outline of the three approaches.

2.4 COMMUNITY BASED GRIEVANCE REDRESS MECHANISM.

This will be a stand-alone Grievance Redress Mechanism where the communication mechanism involves only community members and will tend to 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 (including the courts of law, where necessary).

It is known that communities rely substantially on their own internal social regulatory systems

including mechanisms to deal with grievances that work in parallel with the formal systems. Under RELIV it is recommended that these be used to the extent possible at community level. Recourse where necessary will be facilitated by the project, but in general RELIV will ensure culturally appropriate easy access to program information through culturally appropriate measures and language of communication.

Many of the RELIV subprojects implementation will be community based, negotiation and agreement by both parties will provide the first avenue to iron out and resolve any grievances expressed by project affected individuals. In this context, appropriate community-based channels of grievance redress mechanisms will be put in place, and the programme affected people sensitised to make use of them.

Normally, the channels have to be in line with norms of the local communities as well as laws of the country. Thus, the process will involve informal courts handled by traditional leaders (Village headmen, Community councils etc.), and will follow the following route (Figure 2-1):

2.4.1 Community Level/ Village/Ward Council

The first port of entry is the village committees. The village head(chief) organises a village committee to presides over the matter. The village committee will have a set time maybe 15 days) from receipt of the grievance to act upon it.

2.4.2 Parish Council.

When one party is not satisfied with the decision at Community Level, the complaint can be taken up to the Parish Level. The Parish Grievance Redress Committee (PGRC) then investigates and give their ruling on the matter. In most cases such complaints get sorted out at this level.

2.4.3 Sub-County Level.

However, those who are not satisfied will be allowed to appeal to the Sub-County Council (SCC). At this level, the Sub-County Grievance Redress Committee (SCGRC) will preside over the case.

2.4.4 County Level.

If one party is still not satisfied with the decision at Sub-County Council Level, the complaint can be taken up to the County Level. At this level, the County Grievance Redress Committee (CGRC) will preside over the case.

2.4.5 District Commissioner

However, those who are not satisfied will be allowed to appeal to the district commissioner (DC). At this level, the District Commissioner will preside over the case. However, if the aggrieved party is still not satisfied then they can ultimately take the formal route.

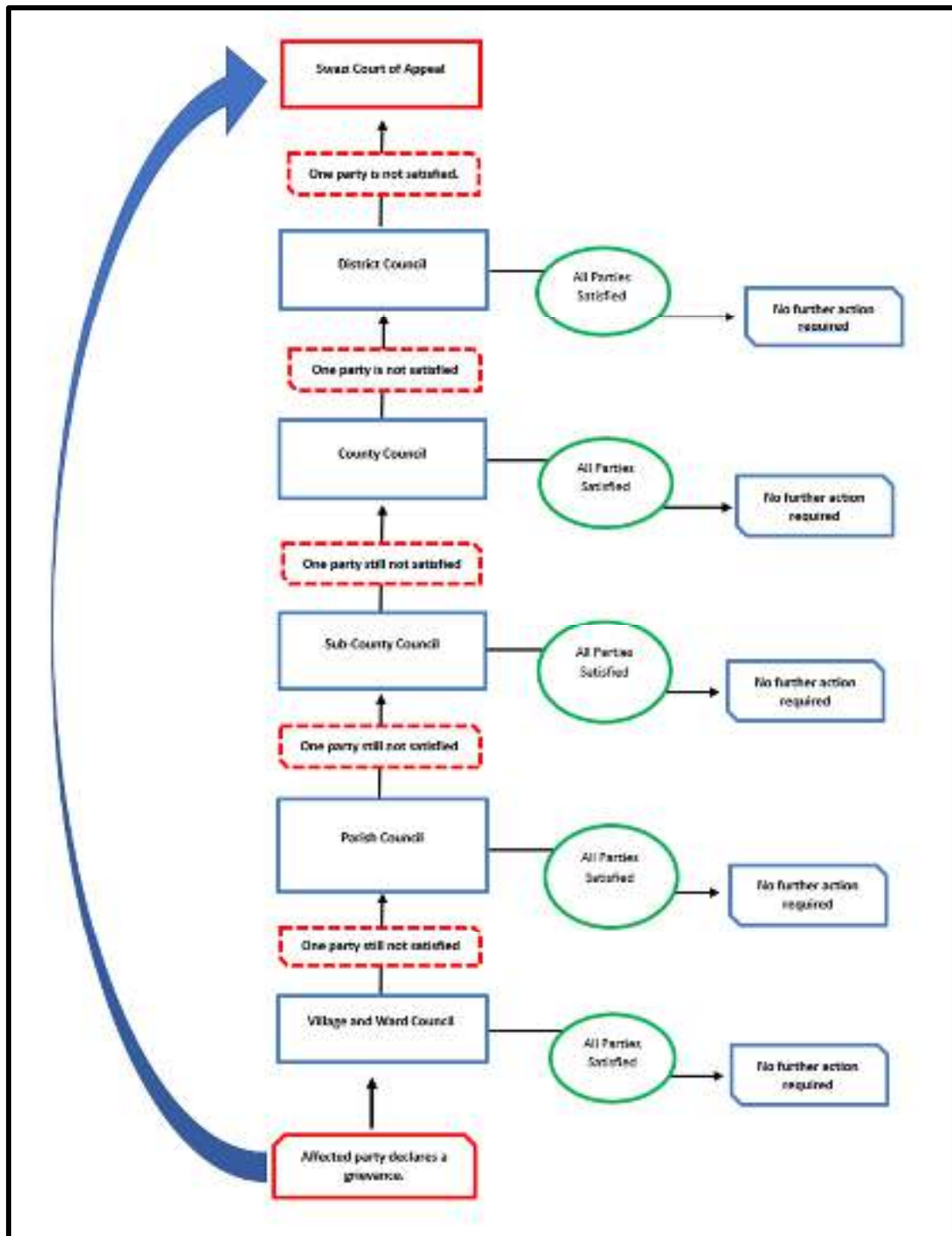


Figure 2-1 The Community-based grievance mechanism.

2.4.6 Community Based Approach-Complaints Handling.

At every community level in figure 2-1, three community leaders shall be appointed and trained to handle complaints. All project beneficiaries shall be informed of the appointed recipients of complaints. These community level leaders 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 standard form as shown in Appendix 1. If the complainant is

not satisfied with the recommendation at any one level, they shall be advised to report to the higher level of redress. These community leaders shall be obligated to submit a quarterly report using the standard format as in Appendix 5. of registered complaints to the District Implementation Committee for onward transmission to RELIV PMU.

The community members shall be advised to register their complaints at the Complaints focal person. The complaints can be made in writing, verbally, over the phone, by fax or emails. The officer receiving the complaints should try to obtain relevant basic information regarding the grievance and then allocates the case to one officer (complaints focal person). After registering the complaint the Grievance Handling Team under the guidance of the complaints focal person will set a date to investigate the matter, after which they shall provide a recommendations. 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.

2.4.6 Community Based Approach-Complaints Handling Process

The following shall constitute the complaints handling process for the Community Based approach.

- a) Complainant fills in Complaint Form.
- b) Complaint is assessed for compliance with Mandate.
- c) If within mandate, complainant focal person commences inquiries and complainant is issued with copy of communication.
- d) If a response is not received from the respondent after 14 working days, complainant focal person sends a first reminder giving the respondent 7 days to comply.
- e) If no response is received after this, a final reminder of 7 days is sent.
- f) Conduct investigations.
- g) Demand and obtain information or documents.
- h) Conduct an inquiry.
- i) Undertake mediation, negotiation and conciliation.

2.5 FORMAL GRM

The formal Grievance Redress Mechanism consists of the following components: -

- 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 RELIV PMU offices. RELIV PMU staff will be responsible for receiving the grievances, classifying, and logging them.
- 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 RELIV PMU/Ministry of Agriculture senior members of staff.
- A response is then communicated to the complainant within the timescale promised.
- The complainant is given room to appeal to the Ministry of Agriculture and Food security or the Courts of Law if they are not satisfied with the response.
- Once done the case is brought to a closure and all the staff members of RELIV PMU

are made aware of the complaint, any underlying issues and plans to prevent any future recurrence of the issue.

2.5.1 Structure of The Formal GRM

The GRM consists of a small number of components:

- The access point for impacted/concerned people.
- Grievance log.
- Acknowledgement stage.
- Assessment stage.
- Passing of resolution.
- Response.
- Room for appeal.
- Case closure.

The following key steps must be followed for all complaints received by RELIV PMU staff:

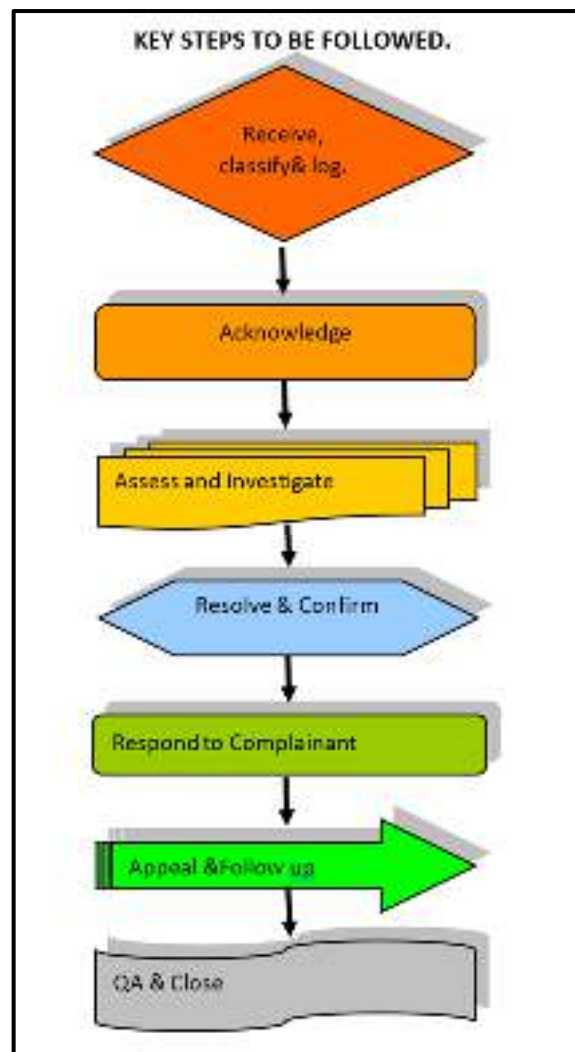
i) Receive, classify & log

All potential issues must be captured and classified for escalation, review and action as required.

a) Receiving the Grievance:

The access points will be as close to the users as possible. Thus, for the programme, an easily accessible and well publicized focal point or user-facing 'help desk' will be the first step. This will be established at each sub-project, and ReLIV Offices so that it will be seen as credible and accessible. 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 RELIV 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.

b) 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 (Grievance Log).

All of these complaints must be formally logged using the standard forms and all complaints must be prioritized as follows:

- **Priority 1 – urgent,**
These pose potentially high health and high business impact. **These require 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 RELIV 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 RELIV reputation.
- **Priority 2, - non-urgent,**
These pose lower health environmental and social impact. **These require 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.

Discretion and flexibility should be exercised in prioritizing all complaints.

The staff member logging the complaint should review the complaint and its priority with the Sub-project/ RELIV Project Manager before proceeding to the next step.

The Sub-project/ RELIV Project Manager 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 RELIV Project Manager.

ii) Acknowledge

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. All complaints, regardless of priority, should receive a pro forma acknowledgement sent out 1st class mail on the day of receipt.

iii) Assess & Investigate

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).

- All areas of interaction and communication should be established (who, what, where, when why etc.) and documented where possible.

iv) Resolve & Confirm

Ensure that the final resolution is clear and fair. Also confirm the proposed action and resolution with another senior person (RELIV Management).

- Ensure that the proposed resolution meets corporate guidelines and does not prejudice RELIV in any unnecessary legal or financial manner.
- Document the proposed action and discuss and agree with the RELIV Project Manager.
- 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.
- This should then be reviewed as part of the bi-monthly quality assurance reviews.

v) Respond to Complainant

Provide the Complainant with the resolution within the timescales promised.

- 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.

vi) Appeal & Follow

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

- All Priority 1 complaints and 95% of priority 2 complaints must be followed up within a reasonable timescale.
- This will be carried out by RELIV Administration team / RELIV Project Manager'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 RELIV Project Managers 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/she is not satisfied.

vii) QA & Close

Ensure that the RELIV 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 RELIV.

2.6 ADDITIONAL GRM APPROACHES

Besides the proposed GRM approaches, aggrieved persons can also employ additional channels to air their complaints. These include the IFAD Complaints procedure. 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. Parties adversely or potentially adversely affected by IFAD-funded projects and programmes may bring issues to the Fund's attention using SECAPcomplaints@ifad.org. ***IFAD has zero tolerance to*** for Sexual Exploitation and Abuse. *Any Sexual Exploitation and Abuse (SEA) complaints received shall be directed to IFAD's Ethics Office.*

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.

3. OPERATION MODALITIES OF GRM IN RELIV

3.1 SUBMISSION OF COMPLAINTS.

Communities and individuals who believe that they are adversely affected by RELIV can submit complaints through the grievance redress mechanism of the programme. The mechanism ensures that complaints are promptly reviewed in order to address concerns related to RELIV.

3.2 ESTABLISHMENT OF GRIEVANCE REDRESS COMMITTEES.

RELIV Project will put in place the strategies to monitor and resolve complaints that may arise during and after the Project implementation by the affected people. For better performance and sustainability of the RELIV project, the committees on GRM have to be established at the different levels of operations. The Grievance Redress Mechanism (GRM) ensures that complaints are received, reviewed and addressed by the elected Grievance redress committees.

3.3 Project Grievance Log

The Grievance Redress Mechanism Committee will ensure that each complaint has an individual reference number and is appropriately recorded and tracked. The project grievance log form will contain record of the person responsible for an individual complaint received, and records dates for the following events:

1. Date of the received complaint.
2. Name of the PAP complaining
3. Status of the complaint
4. PAP Confidentiality/Identity
5. Signatures of the PAP complaining
6. Signature of committee representative
7. How and who addressed the complaint
8. Dates when the complaint was addressed.

3.4 Grievance prevention/Alternative Dispute Resolution

There are ways to proactively solve issues before they even become grievances. Project implementers should be aware and accept that grievances are likely to occur. Dealing with them is part of the work and they should be considered in a work plan. Project implementers can prevent complaints by the following:

- Providing sufficient and timely information to communities
- Conducting meaningful community consultations involving all stakeholders
- Building capacity for project staff, particularly in community facilitations and other field-related issues
- Negotiation, Meditation and reconciliation

4. COMMUNICATION PLAN FOR THE GRIEVANCE REDRESS MECHANISM

4.1 THE COMMUNICATION PLAN.

This Communication plan describes the approach to be taken by the ReLIV PMU in communicating and collaborating with its relevant stakeholders on the Grievance Redress Mechanism. This plan will facilitate effective and coordinated beneficiaries and the general public on standard procedures of the GRM before and during programme implementation.

4.2 COMMUNICATION PLAN OBJECTIVES

The primary objective of the GRM communicate plan is to:

Outline the strategy and methodologies to be used for GRM communications, GRM information distribution, feedback and stakeholder engagement, and how these will be managed during ReLIV project implementation.

Other objectives

- Share information on GRM procedures to the relevant stakeholders before and during programme implementation.
- Develop a detailed communication methodology of disseminating GRM information to the target audience.

4.3 TARGET AUDIENCES

The targeted audiences for this plan are namely:

- Government officials.
- Project staff.
- Project end beneficiaries.
- Project affected people.
- General public.

4.4 GRM COMMUNICATION CHANNELS.

In order to communication all information regarding the GRM to the targeted audience, the ReLIV PMU will need to have platforms and utilize already existing avenues to reach their stakeholders at the different levels. It is noteworthy that the communication channels will vary for each target audience due to group dynamics and accessibility of such platforms especially to the project beneficiaries and local communities.

ReLIV PMU will use the communication channels listed below, depending on its target audience:

- Print media, e.g. posters, flyers, booklets, notices
- Social media: Facebook, Twitter, Whatsapp.
- Use of ICT.
- Radio stations.
- Formal letters

In addition, the following communication activities and methods will be conducted to promote a two-way communication between the PMU and all its relevant stakeholders, that is,

- Setting up Programme's Intranet.
- Information sessions and workshops on GRM.
- Bulletins.
- GRM awareness literature.
- Public forums.
- Training on GRM procedures and structure at the community level

5. APPENDICES

APPENDIX 1: Grievance Log

GRIEVANCE LOG		Month: _____ Year: _____
Date Grievance Filed: _____		
Grievance entered by (Staff person): _____		
Reported to Facility Administrator/Farm Manager? Yes <input type="checkbox"/> No <input type="checkbox"/>		
Facility Administrator/Farm Manager's Signature: _____		
Name of Grievant: _____		
Description of Grievance: _____ _____ _____		
Actions/Steps Taken:		
Date: _____	Actions/Steps completed by (Staff person): _____	

Date: _____	Actions/Steps completed by (Staff person): _____	

Date: _____	Actions/Steps completed by (Staff person): _____	

Resolution: _____ _____		
Was the grievant provided a verbal explanation of the above resolution? Yes <input type="checkbox"/> No <input type="checkbox"/> Date: _____		
Was the Grievance escalated? If so to whom: _____		
*Please attach any documentation regarding the escalation of the grievance.		
Was Acknowledgement Letter Provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Date: _____		
Was Outcome Letter Provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Date: _____		

APPENDIX 2: Acknowledgement Receipt

Complaint no.:

Date of issuing complaint: (dd/mm/yyyy)

Place of issuing complaint:

Village/Town/City/Area:

County:

Details of the Complainant:

Name:

Age:

Address:

Gender:

Email address:

Phone no.:

Supporting documents submitted:

- i.
- ii.
- iii.
- iv.
- v.

Summary of complaint:

.....
.....
.....

Name of Officer receiving Complaint: _____

Signature of Officer receiving Complaint: _____

APPENDIX 3: Meeting Record Structure (Grievance Redress Committee & Other Meetings)

Date of Meeting: Complaint no.: Venue of Meeting:

List of participants:

Complainant Side	Grievance Redress Committee Members
1) 2)	1) 2) 3)

Summary of Grievance:

.....

.....

.....

Key discussions:

- 1)
- 2)
- 3)
- 4)
- 5)

Decisions Made/Recommendations by the Grievance Redress Committee:

- 1)
- 2)
- 3)

Status of Grievance (tick where applicable):

Solved	<input type="checkbox"/>	Unsolved	<input type="checkbox"/>
--------	--------------------------	----------	--------------------------

Chair person's name: _____

Chair person's signature: _____

Date (dd/mm/yyyy): _____

APPENDIX 4: Disclosure Form

Village/Town/City/Area

County

Result of Grievance Redress

- 1. Complaint no.
- 2. Name of Complainant:
- 3. Date of Complaint:
- 4. Summary of the Complaint:

.....
.....
.....

- 5. Summary of Resolution:

.....
.....
.....

- 6. Level of Redress (please tick where applicable)

First/Community	<input type="checkbox"/>	Second/County	<input type="checkbox"/>	Third/National	<input type="checkbox"/>
------------------------	--------------------------	----------------------	--------------------------	-----------------------	--------------------------

- 7. Date of grievance redress (dd/mm/yyyy): _____

Name of complainant: _____

Signature of the Complainant, indicating acceptance of the solution to his/her grievance:

Name of Grievance Handling Officer: _____

Signature of Grievance Handling Officer: _____

Date (dd/mm/yyyy): _____

APPENDIX 5: Quarterly Report of Registered Complaints

Location Date (dd/mm/yyyy) Period (Quarter ending).....

i. Details of Complaints Received:

Place of issuing complaint	Name & Address of complainant	Location of complaint/concern	Date of Receipt	Complaint no.

ii. Details of Grievance Redress Meetings:

Date of meeting	Venue of meeting	Names of participants	Decisions/Recommendations made

iii. Details of Grievances addressed:

Date of issuing complaint	Category of complaint	Category of grievance	Brief description of grievance	Date of complete resolution

Uganda

Resilient Livestock Value Chain Project

Project Design Report

Annex: SECAP studies - ACFP

Mission Dates: 28 January- 28 March 2024

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Project No. 2000003953

Report No. 6815-UG

East and Southern Africa Division
Programme Management Department



REPUBLIC OF UGANDA.

**UGANDA RESILIENT LIVESTOCK VALUE CHAIN PROJECT
(RELIV).**

ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).
Kampala.
Uganda.**

ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

1.0 INTRODUCTION

The purpose of the Archaeological Chance Finds Procedure is to address the possibility of archaeological deposits, finds and features becoming exposed during earthmoving and ground altering activities that will be associated with the **Resilient Livestock Value Chain Project (ReLIV)** and to provide procedures to follow in the event of a chance archaeological find.

The objectives of these procedures, are to identify and promote the preservation and recording of any archaeological material that may be discovered and notify the relevant District Authority, the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery, to resolve any archaeological issue that may arise.

2.0 ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

During the project induction meeting/training, all contractors/construction teams will be made aware of the need to be on the lookout for objects of archaeological interest as they carry out their earthmoving and excavation activities.

Generally, the following procedure is to be executed in the event that archaeological material is discovered:

- All construction activity in the vicinity of the find/feature/site will cease immediately.
- The discovered find/ feature/ site will be delineated immediately.
- Record the find location, and make sure all remains are left in place.
- Secure the area to prevent any damage or loss of removable objects.
- Contact, inform and notify the District Administrator (DA), District Environmental Officer (DEO), the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery,
- The Authorities so notified will avail an archaeologist.
- The archaeologist will assess, record and photograph the find/feature/ site.
- The archaeologist will undertake the inspection process in accordance with all project health and safety protocols under the direction of the District Health and Safety Officer.
- In consultation with the DA, DEO, the Environment Management Authority and the Institution responsible for Museums, the Archaeologist will determine the appropriate course of action to take.

Finds retrieval strategy:

- All investigation of archaeological soils will be undertaken by hand, all finds, osteological remains and samples will be kept and submitted to the National Museum as required. In the event that any artefacts need to be conserved, the relevant license (License to Alter) will be sought from the National Museum Department.

- An on-site office and finds storage area will be provided, allowing storage of any artefacts or other archaeological material recovered during the monitoring process.
- In the case of human remains, in addition to the above, the Local Leadership will be contacted and the guidelines for the treatment of human remains will be adhered to. If skeletal remains are identified, an osteoarchaeologist will be available to examine the remains.

Conservation:

- A conservator should be made available to the project, if required.
- The on-site archaeologist will complete a report on the findings as part of the licensing agreement in place with the Department of Culture.
- Once authorization has been given by the responsible statutory authorities, the client will be informed when works can resume.

Uganda

Resilient Livestock Value Chain Project Project Design Report

Annex: SECAP studies - ESCMF

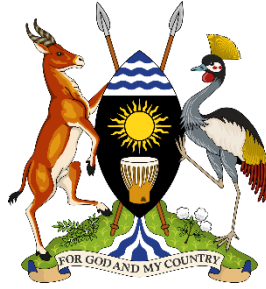
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REPUBLIC OF UGANDA.

UGANDA RESILIENT LIVESTOCK VALUE CHAIN PROJECT (RELIV).



ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT FRAMEWORK (ESCMF)

Prepared for:

**Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).
Kampala.
Uganda.**

THE ENVIRONMENT, SOCIAL AND CLIMATE MANAGEMENT FRAMEWORK

The Uganda Resilient Livestock Value Chain Project (ReLIV) Environment, Social and Climate Management Framework (ESCMF) is intended to provide complete documentation for the requirements of a holistic Environment, Social and Climate Management system for the project. This ESCMF contains the findings of a study conducted for the Livestock sector of Uganda and the instrument has been developed based on the local conditions and findings.

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EXECUTIVE SUMMARY

Introduction.

The Resilient Livestock Value Chain Project (ReLIV), implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), will support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market. As one of the prerequisites for the project through IFAD, an Environmental, Social and Climate Management Framework (ESCMF) must be developed in accordance with the Social, Environmental and Climate Assessment Procedures (SECAP 21).

RELIV Goal, Objective and Outcome

The proposed project goal is to “**Contribute to the improved livelihoods of smallholder livestock farmers**” (aligned to NDP III goal: “Increased Household Incomes and Improved Quality of Life of Ugandans”)

The proposed Project development Objective (PDO) is to “**Enhance income, nutrition and resilience of smallholder dairy and beef producers**”.

The PDO will be achieved through three outcomes:

- Outcome 1: Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems.
- Outcome 2: Enhanced access to market for smallholder producers and access to finance.
- Outcome 3: Strengthened policy and regulatory environment.

Objectives of the Environmental, Social and Climate Management Framework.

The RELIV activities will directly and indirectly generate impacts that may result in varied social and environmental impacts, necessitating the establishment of an ESCMF. This ESCMF has been prepared because the location and design of the subprojects, and the magnitude of their impacts are not precisely known at project appraisal stage, although the types of potential project activities that could take place have been defined. The principal aim of this ESCMF is to provide a framework for addressing all environmental and social risks that the activities and subprojects may pose.

The ESCMF Process.

In the process of developing the ESCMF the following steps were taken: (i) establishment of baseline socio-environmental conditions, (ii) development of the screening criteria/tool, (iii) review of policy, regulations, institutional framework, (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 measures.

Extensive review of related literature was undertaken, covering published and unpublished documents. The investigations also involved scanning of the potential project areas, and consultations with the various stakeholders.

Environment And Social Category

The environmental and social category for the RELIV 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 gender-based violence especially at household levels, child labour, youth unemployment and health and safety issues related to various activities along the beef

and dairy value chain, discharge of poor-quality effluents from MCPs, MCCs, Milk processing plants, Abattoirs, and meat processing plants. Hence, the focus of the Project will be on employment creation for young men and women, household mentoring to minimise gender-based violence, reduced and or eliminated, application of ILO guidelines on child labour when engaging youth in beef and dairy value chain, and grievance redress mechanisms.

Climate Risk Category

The climate risk category is **Substantial**. Beef and dairy farming is perceived as both contributor to and victim of climate change. On the one hand, the sector may contribute to GHG emissions (associated with land use, from livestock or from processing and transportation); on the other hand, beef and dairy farming is highly vulnerable to climate change and variability, mainly through increased temperatures and alterations in rainfall patterns. These factors influence feed and water availability, as well as animal health, and consequently meat/milk production and quality. Although the Project's outputs and outcomes will be impacted by climate variability and change, some adaptation strategies exist, and more measures will be integrated along the beef and dairy value chain.

Policy, Legal and Institutional Framework.

This chapter assessed the relevant Uganda policies, regulations and acts that guide the environmental and social assessment for the RELIV activities, including relevant IFAD SECAP 21 and international conventions.

The policy and legal review established that the RELIV 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 Uganda. All these instruments are guided by the Uganda Constitution which emphasizes on prudent management of the environment and accords future generations full rights to the environment and benefits thereof.

Environmental And Biophysical/Climate/Social Baseline

The Republic of Uganda, located in Eastern Africa, is a landlocked country occupying a total area of 241 550 km², of which 18 percent is open inland waters and wetlands, and 37.8 percent is arable land. The country is endowed with significant natural resources, including ample fertile land, regular rainfall, mineral deposits, and water resources which accommodate diverse species of flora, fauna and fish resources.

41% of Uganda's total area is experiencing degradation, and 12% is in a severe state of degradation. Soil erosion is the most common form of degradation (found on 85% of degraded land)

Uganda has one of the highest population growth rates in the world. From 2000 onwards the population has grown at approximately 3.2% per annum and is estimated to be 64 million in 2030 and 106 million in 2050. The population growth is a key driver of deforestation and encroachment on wetlands as land is cleared for agriculture, settlement and access to resources. As more land is opened up for agriculture, buffer zones between human settlement and protected areas are lost. The high population growth is also placing demands on natural resources for non-agricultural products including fuelwood, clay mining for bricks and other raw materials.

Stakeholder Engagement Plan and The Grievance Redress Mechanism

The RELIV PMU must continuously engage the project stakeholders throughout the project cycle to achieve successful implementation and monitoring. The ESCMF outlines the Stakeholder Engagement plan (SEP) which describes the objectives of such a plan, the key stakeholders, information disclosure and consultation approach, grievance redress mechanism (Appendix 5), feedback, and monitoring.

As part of the continuous consultation process, a grievance redress mechanism (GRM) has been developed. The GRM will be a system by which queries or clarifications about the project will be responded to, 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 and addressing and resolving their grievances.

Screening, Approval and Implementation of Subprojects

Every sub-project that will be funded through RELIV will have to be screened for social and environmental issues. RELIV PMU will conduct the environmental and social screening at district level, using the Environmental and Social Screening Form (Appendix 1) together with information on typical subproject impacts and mitigation measures in the environmental social and climate management plan (ESCMP). In some cases, special planning reports (e.g., site specific ESMPs, Abbreviated ESAs, IPMPs) may have to be developed and implemented.

Environmental and Social Management in RELIV.

The potential associated impacts were analysed and mitigation measures for the identified impacts proposed. The ESCMF then establishes a process for addressing all environmental and social policy issues in sub-projects from preparation, through review and approval, to implementation. The **expected positive impacts** of the proposed project include:

- a) Improved management of pastures and catchments,
- b) Reduce vulnerability of rural communities to environmental degradation and climate shocks because of diversified income,
- c) Economic Opportunities Employment (job creation)

The project's main **potential negative impacts** prior to mitigation measures include:

- a) Vegetation Clearing and potential soil erosion from bare ground and land preparations.
- b) Solid waste generation and Effluent Discharges from MCCs, MCPs, Abattoirs, Meat and Milk processing plants.
- c) Bio-waste generation and Biosafety issues posed by Artificial Insemination (AI) Stations and Veterinary Services centres.
- d) Habitat loss and biodiversity disturbances caused by construction activities.
- e) Ambient air and ambient water pollution.
- f) E-Waste Generation.
- g) Potential abuse and misuse of Agro-Chemicals resulting in pollution and poisoning.
- h) Limited and inadequate Stakeholder Involvement and Poor project Inception/Introduction.
- i) Vulnerable groups excluded from decision-making and affected by fencing off project sites and fields.
- j) Potential Gender Based Violence and SEAH
- k) Poor working conditions for people implementing project activities resulting in occupational Health and Safety Issues

Expected mitigation benefits.

RELIV will implement "multiple-benefit" approaches which will typically build climate resilience alongside other benefits, contributing to poverty reduction, enhancement of biodiversity, increased agricultural productivity and lowering of greenhouse gas emissions from the livestock sector. Climate change mitigation benefits in RELIV are expected from:

- (i) improved net assimilation of crop residues and additional organic matter from leaf litter and minimized wind damage, and reduced soil erosion.
- (ii) capacity building in animal husbandry activities including artificial insemination,
- (iii) Capacity building in Fodder and feed production including fodder seed multiplication,
- (iv) intercropping of fodder with nitrogen-fixing plants and staple crops,

- (v) construction of erosion control and water holding structures and
- (vi) composting of cow dung and mulching among others.

Environmental And Social Monitoring Plan

The RELIV-PMU with the help of relevant authorities will monitor the environmental and social effects of project implementation and the success of mitigation measures. In addition to monitoring the implementation of mitigation measures proposed to address environmental and social impacts of the RELIV project, the overall performance and effectiveness of the project can be assessed through monitoring the following indicators:

Environmental Indicators.

1. Number and percentage of subprojects for which environmental issues are integrated into the project cycle.
2. Number of MCCs, MCPs, abattoirs, meat and Milk processing plants with functioning waste management facilities.
3. Increased use of incinerators by AI stations and veterinary services centres.
4. Evidence of anti-soil erosion measures such as terraces,
5. Re-planted vegetation,
6. intercropping of nitrogen-fixing plants with staple crops
7. Constructed drainage channels,
8. Rehabilitated and filled up burrow pits, etc.

Social indicators.

1. Number, sex and type of target groups participated on the ESCMF, IPMP, and SEP training and awareness creation program.
2. Number and percentage of subprojects for which social issues are integrated into the project cycle.
3. Representation on the community management committees,
4. Equitable sharing of benefits from the programme intervention,
5. Numbers of members attending programme planning and implementation meetings,
6. Effect of programme implementation on local household economies.

Capacity Building and Training For E&S Management

Currently there is little capacity within the MAAIF/RELIV PMU to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the RELIV project activities. Thus, the ESCMF recommends various trainings to build capacity within the MAAIF/RELIV PMU to manage environmental and social risks. This includes training in Environmental and Social Risks and Impacts of RELIV, Environmental and Social Impact Assessment of the Projects, Gender, HIV/AIDS awareness, Water and crop Management, and Agro-chemicals and Dairy-facility Management. Total training costs are estimated at approximately USD 123,600.00.

Funding For the Environmental Management Activities

The estimated cost for the implementation of the ESCMF, which covers technical assistance, site specific ESIA's and ESMPs, mitigation measures, monitoring, training and audits is USD **473,660.00**.

Conclusions and Recommendations

The proposed RELIV programme has potential to significantly enhance the livestock productivity and improve the livelihoods of smallholder beef and dairy farmers, including the beef and dairy value chain players in the target districts. An improvement in the productivity of the Smallholder farmers will translate to improved livelihoods as they now 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, and portable and livestock water resources management and value addition infrastructures construction activities, Solid and liquid waste generation, tree cutting and 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.

During the operation phase of the expanded Livestock services, the potential environmental impacts will include Solid and liquid waste, Chemical and Biological wastes, which will be generated from the normal operations of the facilities and can be managed by incorporating the requisite waste and effluent handling units to the facilities. This impact would be exacerbated by inadequately trained livestock staff, however the ESCMP presented in the study **will be used to mitigate the impacts during and after the rehabilitation of the Livestock infrastructure. 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.**

1. INTRODUCTION AND PROJECT CONTEXT.

1.1 PROJECT BACKGROUND.

The Resilient Livestock Value Chain Project (ReLIV), implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), will support the transformation of the dairy and beef sectors in Southern, Eastern and Northern Uganda, currently characterised by dominance of small and medium size farmers with low productivity and market orientation. It will do so by supporting delivery of essential livestock public services, adoption of resilient and adaptive production technologies, and enhancing access to finance, and market.

ReLIV will address the development challenges related to poverty, food insecurity and high levels of malnutrition through working on production, marketing and regulatory environment in the dairy and beef value chains. The project support on production will include supporting access to feed and water, animal health and nutrition services, breeding services, training and the introduction of climate-resilient practices and nature-based innovations.

Improving production and with higher yields, the project will also work on ensuring access to markets for the target group through strengthening producers organizations/ cooperatives for milk and meat aggregation, facilitation of partnership between private sector and producer groups, support for small-scale processing, creating awareness on nutrition and access to finance. Cutting across the production and marketing activities, the project will promote climate resilient practices, digital innovations, and creating a conducive policy and regulatory framework.

Those interventions will result in increased productivity and production, lower emissions, for the target group and thus resulting in higher incomes which will have impact on reducing their poverty, food insecurity, improving their nutrition status, reducing their environmental and climate impact, while building their resilience to shocks and climate change. With this impact, a sustainable and transformative change would take place in the present situation in the project area.

The project will target poor small-scale cattle farmers and (agro) pastoralists, in line with IFAD's mandate, and should also support the development of market-oriented production and creation of off-farm jobs. The project will target 41 districts in the cattle corridor, directly benefiting around 200,000 households (about 1,000,000 people), out of which 40% women and 25% youth.

1.2 ReLIV OBJECTIVES.

1.2.1 The project goal.

The project goal is to “Contribute to the improved livelihoods of smallholder livestock farmers” (aligned to NDP III goal)

1.2.2 Project development Objective (PDO).

The proposed Project development Objective (PDO) is to “Enhance income, nutrition and resilience of smallholder dairy and beef producers”. This will be achieved through three outcomes: (i) Increased productivity, resilience and reduced climate impact of smallholder beef and dairy production systems; (ii) Enhanced access to market for smallholder producers and access to finance; and (iii) Strengthened policy and regulatory environment. Increased climate adaptation and mitigation is a crosscutting objective and will involve specific indicators and targets in the Log frame.

1.3 TARGETING

1.3.1 Geographical targeting.

ReLIV will focus on selected districts in the cattle corridor of the country. The particular districts will be selected following the following criteria: (i) high incidence and density of poverty, food insecurity, malnutrition; (ii) herd size by the households; (iii) high potential for women and youth to get involved in the dairy value chain; and (iv) potential for dairy value chain development, including markets for dairy products. During the design stage, about 41 districts will be selected from the cattle corridor based on the criteria stated above.

1.3.2 Target group.

ReLIV will target 200,000 households (1,000,000 persons), comprising of smallholder dairy and beef farmers engaged in intensive and semi-intensive small-scale integrated production systems, as well as medium scale extensive agro-pastoral systems. Other direct beneficiaries will be (i) private service providers engaged in AI, veterinary services, feed and fodder seeds production, mechanisation, with a specific focus on youth, (ii) small scale processors, including individuals, groups, women groups in particular (iii) Public institutions involved in delivery of livestock related services (research, extension, regulation and control, policy formulation, animal health and breeding services), and their staff.

1.3.3 Targeting strategy.

Detailed selection will be developed during the design phase and ensure to target the smallholder dairy and beef farmers with the potential of becoming commercial dairy and beef farmers. At least 40 percent of the beneficiaries will be women and 25 percent will be youths.

1.3.4 Women and youth empowerment.

ReLIV will provide opportunities for skills development and training, introduce women and youth friendly businesses and innovations, such as mechanized production, milking and transportation, and facilitate access to finance. The project will apply gender – sensitive lenses and implement gender-sensitive household models, to ensure that both men and women benefit from the dairy and beef development.

1.4 THE RELIV COMPONENTS.

The project is composed by two main technical components and a third one related to project coordination and management (including policy support).

1.4.1 Component 1

Increasing productivity, resilience and reducing the impact of production on climate: Under this component, the project will support transformation of smallholder production systems in order to improve their productivity, their resilience, and lower their emissions. This will be done through the following activities:

- **Research, extension and capacity building of farmers:** the project will support public research centres for the development and testing of technical innovations, including community-based training and extension mechanisms (FFS model or similar).
- **Feed and fodder:** The project will strengthen the National Agricultural Research Organisation (NARO) and the National Animal Genetic Resource Centre (NAGRC) for selection and multiplication of forage species, and their distribution through private seed producers, focusing particularly on legumes and drought resistant/resilient fodder varieties.
- **Animal health** support will strengthen both public veterinary services and private service delivery through better planning, support to digitalization of surveillance, and organization of

targeted mass vaccination and vector control campaigns. Private veterinary services through cooperatives, and community-based animal health services (CAHWs model) will also be facilitated.

- **Animal identification and breeding:** ReLIV will support the roll out of the National Livestock Identification and Traceability System (LITS) which will allow effective breeding, more efficient disease control, theft control, and traceability. The public AI mechanism will also be strengthened to improve the quality of locally produced semen, and their availability throughout the country.

1.4.2 Component 2

Enhancing access to market for smallholder producers and investments in the value chain: The interventions under this component are intended to foster collective action among smallholder beef and dairy farmers, broaden market opportunities for farmers, increase investment at different levels of the value chain, improve access to finance, promote food safety, and increase milk and beef value chain efficiency. This will be done through the following activities:

- **Producer organisations/cooperatives support:** ReLIV will strengthen and develop cooperatives to foster collective action among smallholder beef and dairy farmers. Strong and well managed cooperatives will help farmers to obtain market access or broaden market opportunities, secure low-cost credit and strengthen access to veterinary, breeding and extension Services.
- **Upscale of sustainable business models:** The project will upscale business models that are sustainable and with potential impact to improve market access, access to finance, improve smallholder farmer income, increase productivity, and promote food safety and value chain efficiency. In the dairy sector, the Cooperative led Milk Collecting Center (MCC) business model will be supported. The same principle of aggregation and sale by cooperatives will also be applied to the beef sector.
- **Digitalization of the value chain:** the project will support digitalization of value chain, including through mobile based solutions, to improve efficiency of transactions, traceability of animals and products (e.g. digital quality-based payment system, electronic certification for export), profiling of farmers, and access to finance.
- **Small scale processing, and consumption of quality beef and dairy products:** ReLIV will support development and promotion of short value chains to increase milk output, value addition and consumption. The project will upscale the Quality Based payment system.
- **Access to finance:** ReLIV will work with financial institutions to support beneficiaries access to finance through various available instruments.
- **Local Multistakeholder Platforms:** ReLIV will engage Local Multistakeholder Platforms for policy participation at national level and local level (e.g. District level).

1.4.3 Component 3

Policy support: the project will support the formulation, review or updating of sector policies, strategies and regulations, based on MAAIF demand, as well as stakeholder participation in policy, through national stakeholder platforms. Policy support will focus on key missing strategic frameworks that are important both for sector development and project implementation, including animal health strategy and action plans, animal feed strategy, breeding strategy, and sub sector strategies (Beef and Dairy strategies).

Policy support will also include climate action, in particular for updating the Nationally Determined Contribution (NDC) of Uganda as well as improving the GHG emissions inventories to include improvements in livestock production.

2. THE ReLIV ESCMF.

2.1 JUSTIFICATION FOR THE PREPARATION OF THE ESCMF

The ESMF has been prepared to set out the principles, rules, guidelines, and procedures for screening, assessing, and managing the potential social and environmental impacts associated with the proposed RELIV Project interventions. The ESCMF identifies the steps for detailed screening and assessment of the Programme's potential social and environmental risks, and for preparing and approving the required management plans.

The main activities in components 1 and 2 of the project will have environmental, social and climate concerns. These activities may cause various impacts, most of which are localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures.

The environmental and social category of the project is "Substantial". The project may lead to adverse risks to the environment and humans which are reversible through proposed mitigation actions. Some of the sub-project's activities which are likely to have significant or adverse risks include: a) rehabilitation and or construction of water sources like dams, Rehabilitation of MCCs, MCPs, abattoirs, meat and milk processing plants, erection of water harvesting infrastructure close to homes, Milk - processing facilities construction and operations; operations of Milk Collection bays, and increased use of agrochemicals.

Potential environmental, social and climatic risks include vegetation clearance; land degradation; inappropriate use of agrochemicals leading to pollution; conflicts; gender-based violence; child labour etc. These lead to the requirement to prepare SECAP instruments to mitigate the potential adverse impacts from the project. In this case an Environmental, Social and Climate Management Framework (ESCMF) is required since the actual project sites are not yet known. The ESCMF must contain a generic Environmental Social and Climate Management Plan (ESCMP), which will be adopted by the individual sub-projects when they finally get selected. An ESCMF is a useful tool meant to guide environmental and social risk management considerations of the project Implementation.

2.2 SCOPE AND PURPOSE OF THE ESCMF

The ESCMF has been developed on the basis of the Programme risk categorisation and to outline the processes that will be undertaken during the Programme implementation phases for the additional assessment of potential impacts and identification and development of appropriate risk/impacts management measures. It contains measures and plans to avoid, and where avoidance is not possible, to reduce, mitigate and/or offset adverse risks and impacts.

The ESCMF also details the roles and responsibilities for its implementation and includes a detailed monitoring and evaluation plan, and guidelines for Terms of Reference to be used to guide the development of the required assessments and management plans.

2.3 OBJECTIVES OF THE ESCMF

The overall objective of the ESCMF is to provide a framework for environmental and social management of the planned activities under RELIV programme. The ESMF is aimed at establishing specific procedures and methods for addressing environmental and social impacts during the implementation of the programme.

2.4 APPROACH TO THE PREPARATION OF THE ESCMF

The ESCMF has been prepared in accordance with applicable Uganda 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, and National government level.

The strategies of preparing the ESCMF followed the following six steps:

- a) Review current conditions of the existing livestock livelihood activities, and provide an assessment of their status and operation levels,
- b) Review and analysis of the level of degradation of the grazing areas, and Fodder fields (Baseline Conditions) in the potential project areas.
- c) Review of typical implementation approach and processes for the proposed development activities within the smallholder sector,
- d) Identification and analysis of potential environmental and social impacts the implementation processes will likely trigger and generate within and around the agriculture activities,
- e) Development of a screening process for negative impacts for proposed programme sites and activities,
- f) 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 project activities.

In general, the study was then prepared in accordance with applicable IFAD's SECAP 2021 and policy documents and Uganda's Environmental Impact Assessment Guidelines, July 2020, and the Environmental Impact Assessment (EIA) Regulation, S.I. No. 13/1998. The distinct phases of the study are outlined below:

2.4.1 Literature Review

Review of the existing baseline information and relevant literature was undertaken to have better insight of the RELIV Program areas. Similarly, the national policies and legal framework and IFAD social, environmental, climate assessment procedures (SECAP 21) were also reviewed.

2.4.2 Field Visits.

As part of the RELIV Design mission, visits were conducted to the project districts to carry out consultations with the stakeholders and with the beneficiaries of RELIV and to inspect such facilities as Cattle posts, abattoirs, meat processing plants, MCCs, MCPs and milk processing plants for their compliance or capacities to comply with the SECAP requirements. The design mission met the relevant institutions and communities including woman and youth at the district level.

The visits gave the 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 RELIV implementation.

2.4.3 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 beef and dairy value

chains. The consultations were conducted at National, Provincial and District levels. The strategy that was applied included the following:

- Virtual (Zoom, Microsoft Teams, Skype, etc.) Meetings with some of the key stakeholders in IFAD, MAAIF, PMU, etc
- Physical meetings with some of the key stakeholders

2.5 STRUCTURE OF THE ESCMF

This ESMF is organized in thirteen chapters: -

Chapter One provides background information to the proposed Resilient Livestock Value Chain Project, (**RELIV**). It covers the Project Development Objectives, Project Design, project structure, target areas and socio-economic targeting and the project components.

Chapter two Covers the justification for the preparation of the ESMF. It also covers the scope and purpose of the ESMF, including the objectives and structure. It also provides an outline of the purpose of the Environmental and Social Management Framework, and the approach and methodology that was taken in developing the framework.

Chapter three describes the relevant legal frameworks which regulate and manage resource utilization, protection of sensitive areas including aquatic and land ecosystems, land use control and protection of endangered species in Uganda. It then explains in general terms IFAD's Social, Environmental and Climate Assessment Procedure (SECAP) and the GCF Guiding Frameworks including the GCF Revised Environmental and Social Policy.

Chapter four provides the environmental, (Biophysical), Climate and social baseline conditions of the potential project area.

Chapter five describes the Stakeholder engagement, information disclosure and the GRM. It sets out the Public Consultation plan to be followed throughout the project implementation process. It then outlines the current stakeholder engagement process that was conducted for the development of the ESCMF. In the process it outlines the importance of continuous consultation with relevant stakeholders throughout the project implementation cycle to ensure the success of the project. It identifies the measures which need continuous consultations and then defines the structure of the consultations and the reporting requirements. The chapter also outlines the disclosure plan and the Grievance redress mechanism for RELIV.

Chapter six provides the procedure for sub-project screening assessment and management. It is the procedure for ensuring that environmental and social potential impacts are adequately addressed through the institutional arrangements and procedures used by RELIV for managing the identification, preparation, approval, and implementation of sub-projects. It also provides a step-by-step screening process for sites for future sub-projects.

Chapter Seven outlines the nature and scope of the proposed activities under the proposed project, the process for environmental and social categorisation, impacts significance rating, components likely to be affected by the project activities, the nature and potential sources of the main environmental and social risks and impacts, environmental and social impact analysis. The chapter then outlines the typical environmental management plan for the impacts for integration into the project activities. The plan includes responsible authorities for collaboration in the implementation of the mitigation measures and recommendations of appropriate monitoring activities by different stakeholders at local level, district level and national level to ensure compliance to mitigation measures.

Chapter Eight describes the institutional frameworks which will govern the project. It outlines how the project will be coordinated, the implementing agents, and the end beneficiaries. The chapter further describes the relevant environmental and social training and capacity building measures for stakeholders at all levels to adequately participate in the implementation. It includes specific training activities for the stakeholders and the cost estimates to facilitate the training programme.

Chapter Nine covers the costs and budgetary considerations for the implantation of the RELIV ESMF. This includes costs for conducting site specific ESIA's and ESMPs, costs for conducting any mitigation measures, costs for monitoring and evaluation, costs for capacity building, and costs for annual audits.

Chapter Ten outlines the monitoring Plan, reporting and document review process for RELIV. It outlines the areas of concern, the method of monitoring, the indicators, the frequency of monitoring and the responsible authorities. It covers collection of monitoring data, monitoring process, reporting, performance monitoring, results monitoring, and reviews. It explains that the lead implementing Agent (RELIV) with the help of relevant authorities must monitor the environmental effects of project implementation and the success of mitigation measures.

Chapter Eleven Provides a conclusion of the findings of the ESMF drawing from the analysis of the preceding chapters.

References, this provides the literature which was used in the study is then listed and,

Appendices, **Six appendices** are then attached at the end of the report covering (i) The environmental and social screening form, (ii) Methodology for significance rating of impacts, (iii) Guidelines for the development of sub-project ESMPs, (iv) Proof of public consultation and disclosure, (vii) Grievance redress mechanism, (ix) IFAD's environmental and social standards.

3. PROJECT ADMINISTRATIVE STRUCTURE, MANAGEMENT, AND IMPLEMENTATION

3.1 INTRODUCTION.

This chapter describes the administrative, policy and regulatory framework relevant to environmental and climate change concerns in Uganda that may trigger the IFAD SECAP requirements. The objective is to ensure that project activities and implementation processes are consistent with local laws and policies and IFAD Safeguards Policies, and to point out possible gaps in local legislation in view of full compliance with IFAD Safeguards Policies. The proposed Uganda Resilient Livestock Value Chain Project (ReLIV) will be subject to a number of these pieces of legislation. The following paragraphs highlight some selected policies and laws which are applicable in the planning and implementation of the project:

3.2 THE UGANDA CONSTITUTIONAL PROVISIONS.

The Constitution of the Republic of Uganda, promulgated in 1995, articulates the rights and responsibilities of all citizens and the role of the state regarding the environment, providing that every citizen is entitled to a healthy and satisfying environment and that, every person has the duty to protect, safeguard and promote the environment.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO ReLIV
	The Constitution of The Republic of Uganda, 1995	This is the supreme law in the country and it, among other things, calls upon the Government of Uganda to promote sustainable development and public awareness of the need to manage, promote and protect the rational use of natural resources, in a balanced and sustainable manner for present and future generations. The right to a clean and healthy environment is enshrined in Article 39 of the Constitution of Uganda, 1995.	To ensure ReLIV compliance with the Constitutional obligations on sustainability, an ESMF has been prepared which outlines mechanisms for environment assessment and mitigation measures included therein.

3.3 RELEVANT POLICIES AND STRATEGIC PROVISIONS.

Table 3-1 below discusses the relevant Uganda policies and strategic provisions, their interpretation and relevance to the RELIV Project. Upon implementation, RELIV must recognize the requirements of these acts.

Table 3-1 Relevant Policies and Strategic Provisions in Uganda

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
1.	The National Gender policy 1997	The goal of the Policy is to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development. The policy ensures that all Government policies and programmes, in all areas and at all levels, are consistent with the long-term goal of eliminating gender inequalities.	RELIV is a gender and social inclusive program that will leave no one behind. RELIV has mainstreamed gender dimensions into its formulation, planning and implementation framework hence, its compliance with the National Gender Policy for Uganda.
2.	The national environment management policy 1994-NEMP	The Policy provides for sustainable economic and social development, through a number of strategies. The key policy objectives include the enhancement of the health and quality of life of Ugandans and promotion of long-term, sustainable socio-economic development through sound environmental and natural resource management and use; and optimizing resource use and achieving a sustainable level of resource consumption.	With regard to RELIV, aspects of Environmental Assessment have been integrated into the project with the objective of ensuring sustainability in the project.

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
3.	The National Development Plan III 2019/2020-2023/24	The National Development Plan (NDP) covers the fiscal period 2019/20 to 2023/24. It stipulates the Country's medium term strategic direction, development priorities and implementation strategies. According to the NDP, the share of agriculture in GDP was 51.1% in 1988 and 33.1% in 1997, declining further to 15.4% in 2008. The sharp decline in the share of agriculture in GDP represents significant structural transformation in the economy.	It is therefore recognized that, there is a compelling need to ensure that productivity growth in agriculture supports the high population growth, particularly in the Dairy sector.
	The Uganda Vision 2040	Uganda Vision 2040 provides development paths and strategies to operationalize Uganda's Vision statement which is "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years" as approved by Cabinet in 2007. Agriculture is the main stay of the Ugandan economy employing 65.6% (UBOS, 2010) of the labour force and contributing 21% to the GDP. Agricultural contribution to the GDP has been declining but remains very important to provide a basis for growth in other sectors. Dairy production is an important facet of the agriculture sector.	RELIV addresses issues of dairy production and nutritional uptake through local consumption of dairy products.
	National Agricultural Policy (NAP) 2013	The vision of the NAP is "A Competitive, Profitable and Sustainable Agricultural Sector", and the mission is "To transform subsistence farming to sustainable commercial agriculture and the 5 objectives being: a. Ensure household and national food and nutrition security for all Ugandans; b. Increase incomes of farming households from crops, livestock, fisheries and all other agriculture related activities; c. Promote specialization in strategic, profitable and viable enterprises and value addition through agro zoning; d. Promote domestic, regional and international trade in agricultural products; and e. Ensure sustainable use and management of agricultural resources. These have much in common with the agriculture component of NDPII, which built on the NAP. As in the NDPIII, pests are mentioned as a cause of limited production, and something that will be addressed. The policy also describes the roles of key stakeholders, and notes that as a result of the creation of a number of agencies, several divisions and departments have been re-organized, including those with responsibility for disease and pest control.	
	Uganda Food and Nutrition Policy, 2003	The Uganda Food and Nutrition Policy has been formulated within the context of the overall national development policy objective of eradicating poverty. The overall objective of the policy is to promote the nutritional status of all the people of Uganda through multi-sectoral and co-ordinated interventions that focus on food security, improved nutrition and increased incomes. The goal of Government in the area of food supply and availability is to ensure an adequate supply of, and access to, good quality food at all times for human consumption, income generation, agro-based industries, and local, regional and international markets.	
	National Strategy for Youth Employment In Agriculture 2014	About seventy eight percent (78%) of Ugandans are below 30 years of age. Despite being the majority, they still face varying problems including inability to own or access land, lack of affordable financing for agribusiness start-ups as well as the technical know-how to be effectively employed in the	

No.	RELEVANT POLICIES	INTERPRETATION	RELEVANCE TO RELIV
		sector. The gender differences among the youth have had a negative impact especially on the young women. The strategy therefore, has been designed to enable the youth to join the agriculture sector and in so doing enable them to find decent employment which will in the long run contribute in solving the major challenges facing agriculture in Uganda, such as low production and productivity, high post-harvest losses and low value addition.	
	The National Land Policy, 2013	The goal of the policy is to ensure efficient, equitable and sustainable utilization and management of Uganda's land and land-based resources for poverty reduction, wealth creation and overall socio-economic development.	The policy addresses the need to mitigate the impacts of investments (such as those that will be attributed to RELIV) on land and other natural resources to deliver equitable and sustainable development; and protect the land rights of citizens in light of such investments, including the rights of vulnerable groups.
	The National HIV/AIDS Policy, 2007	Provides a framework for prevention of further spread of HIV and mitigation of the socio-economic impact of the epidemic within the world of work in Uganda. It provides the principles and a framework for a multi-sectoral response to HIV/AIDS in Uganda's workplaces.	As required by this policy, it is important that MEMD, REA and UECC as the implementing agencies have adequate measures to mainstream HIV/AIDS into the proposed RELIV interventions.
	The National Employment Policy (2011)	It is aimed at increasing productivity, competitiveness and employability of the labour force, especially the youth and other most vulnerable members of the labour force. It also aims at promoting and protecting the rights and interests of workers in accordance with existing labour laws and fundamental labour standards.	Employment to the RELIV will be carried out in line with this policy. Furthermore, no child labour will be practiced.
	The National Water Policy, 1999	This policy aims to manage and develop the water resources of Uganda in an integrated and sustainable manner. The water policy requires an integration of the water and hydrological cycle concerns in all development programs	The policy applies to component 1 of RELIV that may involve construction of distribution lines within or across the water sources. Implementation of RELIV components will be done in conformity with this policy.
	The National Land Use Policy, 2011	The aim of the policy is to: "achieve sustainable and equitable socio-economic development through optimal land management and utilization"	The implementation of RELIV component 1 will entail restrictions on the use of the land and this will be carried out in conformity with this policy
	The Climate Change Policy 2013	The Climate Change Policy 2013 promotes harmonized and coordinated approach towards a climate resilient and low carbon development for sustainable development. It promotes conservation of water, forests, wildlife and fisheries in climate change adaptation and mitigation measures	The RELIV will promote reduction on dependence of wood fuel and hence promote the conservation of forests through promotion of clean cooking technologies. RELIV will be implemented in conformity with this policy.
	<u>National Child Labour Policy, 2006</u>	This policy is aimed at prohibiting employment of children	Children may be enticed to the RELIV project areas in search of employment opportunities. The Project Coordination Unit will ensure child labour is not engaged by any of the project implementing agencies, partners or contractors.

3.4 RELEVANT UGANDA LEGISLATION

3.4.1 Relevant Uganda legislation

Table 3-2 below discusses the relevant Uganda legislation, their interpretation and relevance to the RELIV Project. On implementation, RELIV must recognize the requirements of these acts.

Table 3-2 Relevant Uganda legislation.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
1.	The National Environment Act, Cap 153.	<p>The objectives of the Act include: to provide for the management of the environment for sustainable development; to provide for strategic environmental assessment; and to address emerging environmental management issues, among others.</p> <p>This Act is the umbrella legislation in terms of environmental protection and has several sections which protects the environment from project which include the following:</p> <ul style="list-style-type: none"> • Section 70(3) stipulates that, a person shall not import, export, manufacture, formulate, distribute, or use hazardous chemicals or products containing hazardous chemicals prohibited under its subsections (1) and (2). • Part X of the Act in its Section 110 provides for preparation of environmental and social assessments whose purpose is to evaluate environmental and social impacts, risks or other concerns of a given project or activity, taking into account the environmental principles set out in its Section 5(2). 	<p>The Act through its respective schedules addresses dairy production (Agriculture) projects among those that may be subjected to environmental assessments. This to a large extent depends on the nature and scale of the projects.</p> <p>The ESMF outlines some of the salient impacts in RELIV as well as mechanisms for conducting further assessments on the project sub-components.</p>
	Environmental Impacts Assessment (EIA) regulations, 2020.	<p>The EIA Regulations gives a systematic EIA procedure in Uganda. It gives EIA a legal mandate, thus paving the way for an enabling environment for it to use as a tool for environmental protection. The regulation also has punitive measures for offenders. It recognizes three levels of EIA:</p> <ol style="list-style-type: none"> a. An environment impact review shall be required for small scale activities that may have significant impact; and b. Environmental impact evaluation for activities that are likely to have significant impacts; and c. Environmental impact study for activities that will have significant impacts. 	<p>In all, issues of EIA are being addressed in the project in line with these Regulations.</p>
	Biosafety and biotechnology bill 2012	<p>There has been much debate about the pros and cons of biotechnology, especially genetic modification. This is relevant to Dairy production because some of the most widely used modifications confer pest resistance, and in Uganda a number of such traits have been engineered and tested. Enactment of the Bill would provide the necessary regulatory framework for the commercialization and release of these materials, which would have substantial implication for the way in which pest problems are managed.</p>	<p>GMOs impact much on dairy production and this Bill is relevant in this sector.</p>
2.	The Occupational Safety and Health Act, 2006	<p>The Act provides for the prevention and protection of persons at all workplaces from injuries, diseases, death and damage to property.</p> <p>It consolidates, harmonises and updates the law relating to occupational safety and health. Section III of the Act provides for duties, obligations and responsibilities of employers.</p>	<p>Potential hazards associated with the activities of RELIV project components jeopardise the safety and well-being of project workers as well as the project host communities.</p>

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
		Section VI of the Act provides for duties, rights and responsibilities of workers.	The ESMF provides for provision of safety gear for workers during implementation of RELIV school and selected Farmer Groups activities.
	The Local Governments Act (CAP 243)	The Act creates a decentralized system of government based on the district as the main unit of administration. Administrative powers and functions are devolved from the central government to the local governments. The Act allocates responsibility for service delivery of a number of functions to local government councils (districts, cities, municipalities or town councils) and to lower local government councils (sub-counties / divisions). I	In conformity with this Act, the respective District Local Governments shall be involved in the implementation of RELIV.
	Land Act, CAP 227	The Land Act vests land ownership in Uganda in the hands of Ugandans and that, whoever owns or occupies land shall manage and utilize the land in accordance with the Forest Act, Mining Act, National Environment Act, the Water Act, the Uganda Wildlife Act and any other law [section 43, Land Act].	The planned RELIV has integrated Environmental Assessments in its ESMF in compliance with the Act provisions.
	The Land Acquisition Act, Cap 226	The Act spells out modalities that the Government has to follow for purposes of compulsory acquisition of land for public use whether for temporary or permanent use	Acquisition and restrictions on the use of land by the host communities of the RELIV will be carried out within the provisions of the Land Acquisition Act. The guidelines in the Resettlement Policy Framework (RPF) shall be closely adhered to during the lifetime of RELIV.
	The Public Health Act, Cap 281	Section 7 of the Act provides local authorities with administrative powers to take all lawful, necessary and reasonable practical measures for preventing the occurrence of, or for dealing with any outbreak or prevalence of any infectious, communicable or preventable disease to safeguard and promote public health; and to exercise the powers and perform the duties in respect of public health conferred or imposed by this Act or other relevant laws.	Public health and hygiene are key in RELIV with regard to waste management arising from agro-chemicals use, including use of pesticides.
	The Workers Compensation Act, 2000	This law provides for compensation to be paid to workers (or their dependents) for injuries suffered and scheduled diseases incurred in the course of their employment.	Workers that are injured or ill due to employment during the implementation of the RELIV, especially component 1 will need to be compensated in line with the Act.
	The Water Act, Cap 152	This law provides for the management of water resources and the protection of the water supply. It regulates public and private activities that may influence the quality and quantity of water available for use and establishes the Water Policy Committee to maintain an action plan for water management and administration. It gives general rights to use water for domestic use, firefighting or irrigating a subsistence garden. A permit is required to use water for constructing or operating any works.	Water may need to be abstracted for use in some of the project activities and so such use will be governed by the provisions of the Act.
	Employment Act, 2006	Provides for the recruitment, contracting, deployment, remuneration, management and compensation of workers. Section 32 of the Act prohibits employment of children under 12 years. A child of 12-14 years can only be employed for light work under supervision of an adult and not during school hours. The Act also prohibits employment or work, which is	Labour conditions and relations during the implementation of RELIV will be governed by the employment Act. In accordance with the Act and

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
		injurious to a child's health, dangerous, hazardous or otherwise unsuitable.	<p>standard 5 of SECAP, RELIV implementing partners and contractors shall ensure that children below the legal age requirement are not employed. Even under employment for light works that are possible at the project campsites, contractors shall ensure that children do not work beyond permitted working hours and for a permitted time period. The most important consideration is that any piece of work should not jeopardize the health and wellbeing of a child.</p> <p>It is worth noting that there is no conflict between the Employment Act and ESS2. Both emphasize that work should not jeopardize the health, education, and morals of a child.</p>
	The Local Government Act, 1997	This Act provides for the decentralised governance and devolution of central government functions, powers and services to local governments that have their own political and administrative set-ups	The respective district local governments in the host project districts will be consulted and involved in the implementation and monitoring of the project activities in their areas.
	The Historical Monument Act, Cap 46	The main goal of the reservation and protection of historical monuments and objects of archaeological, paleontological, ethnographical and traditional interest. It requires that any person who discovers any portable object in the course of an excavation shall surrender such objects to the Minister who shall deposit them in the museum.	Archaeological, paleontological, ethnographical, traditional and historical monuments may be discovered as part of project construction activities and particularly where excavation work is involved.
	The Uganda Wildlife Act, 2019	The main goal of the Act is the conservation and sustainable management of wildlife.	There is a possibility that RELIV project activities might be undertaken in areas neighbouring protected areas although efforts will be made to avoid routing of lines within such areas. Nevertheless, the provisions of the Wildlife Act will regulate the electrification of communities, refugee settlements and public institutions that are adjacent to protected areas such as wildlife and forest reserves.

3.4.2 Relevant Statutory Instruments (SI)

Several regulations have been enacted to support the implementation of the main Acts. Table 3-3 below discusses the subsidiary legislation which supports the legislation in table 3-2. These are the regulations which give teeth to the legislation and on implementation, RELIV must recognize the requirements of these regulations.

Table 3-3 Relevant Statutory Instruments (SI).

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
1.	Environmental Impacts Assessment Regulations, 2020	The EIA Regulations gives a systematic EIA procedure in Uganda. It gives EIA a legal mandate, thus paving the way for an enabling environment for it to use as a tool for environmental protection. The regulation also has punitive measures for offenders. It recognizes three levels of EIA: <ol style="list-style-type: none"> a. An environment impact review shall be required for small scale activities that may have significant impact; and b. Environmental impact evaluation for activities that are likely to have significant impacts; and c. Environmental impact study for activities that will have significant impacts. 	In all, issues of EIA are being addressed in the project in line with these Regulations.

3.5 INTERNATIONAL CONVENTIONS AND TREATIES

The key international conventions and treaties ratified by GoU that are applicable to the planning, implementation and monitoring of RELIV are discussed in **table 3-4** below:

Table 3-4 Overview of the relevant International Conventions and Treaties.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
	Convention on Biological Diversity, 1992	The three main goals of the convention are conservation of biodiversity; sustainable use of biodiversity; and fair and equitable sharing of the benefits arising from the use of genetic resources.	The components of the RELIV project that may affect protected areas and the associated biodiversity will be implemented in line with this convention.
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	This convention seeks to ensure that international trade in species of wild fauna and flora does not threaten their survival in the wilderness.	This Convention will be relevant to prevention of poaching of wildlife in wildlife conservation areas imprinted by RELIV project activities.
	Convention on Wetlands (Ramsar, Iran, 1971)	The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.	The implementation of RELIV shall promote the conservation of wetlands and waterfowl in case of project areas within wetlands.
	The African Convention on the Conservation of Nature and Natural Resources, 1968	This Convention encourages the conservation, utilization and development of soil, water, flora and fauna for the present and future welfare of mankind, from an economic, nutritional, scientific, educational, cultural and aesthetic point of view.	This will be relevant to the conservation, utilization and development of soil, water, flora and fauna within the RELIV project areas.

No.	LEGISLATION	INTERPRETATION	RELEVANCE TO RELIV
	The World Heritage Convention, 1972	The primary mission of the Convention is to identify and protect the world's natural and cultural heritage considered to be of Outstanding Universal Value.	The convention will be relevant to the protection of cultural heritage (if any) that may be identified in the RELIV project areas during project implementation.
	The Stockholm Declaration, 1972	The objective of the declaration is to coordinate global efforts to promote sustainability and safeguard the natural environment.	The declaration will be relevant in the management of environmental and social risks of RELIV.
	Bonn Convention, 1979	The objective of the Bonn Convention is the conservation of migratory species worldwide.	The RELIV in line with this convention will be mindful of the effects of it's activities that may be located along migratory routes.
	East African Community Protocol on Environment and Natural Resources, 2006	The objective of this protocol is to provide for EAC joint effort to co-operate in efficient and sustainable use and management of natural resources and promote adaptation to climate change.	The protocol will be relevant in promoting efficiency and sustainable use and management of the natural resources in a way that promotes adaptation to climate change mainly through the use clean energy.
	The Nile Basin Cooperation Framework Agreement, 2010	The Objective of this agreement is to achieve sustainable socioeconomic development through the equitable utilization of, and benefit from, the common Nile Basin water resources.	The impact of RELIV could have a ripple effect on some of the Nile Basin riparian countries.
	The Paris Agreement	The Paris Agreement requires all countries both developed and developing to make significant commitments to address climate change through decreasing global warming described in article 2 of UNFCCC.	The RELIV will be deploying clean technologies or low carbon project interventions that are critical for reversing the effects of climate change.
	UN Declaration on The Elimination Of Violence Against Women 1993	The Declaration on the Elimination of Violence Against Women (abbreviated as DEVAW) recognizes "the urgent need for the universal application to women of the rights and principles with regard to equality, security, liberty, integrity and dignity of all human beings". It recalls and embodies the same rights and principles as those enshrined in such instruments as the Universal Declaration of Human Rights, and Articles 1 and 2 provide the most widely used definition of violence against women	In the course of implementation, RELIV will take into consideration the provisions of this declaration and respect the dignity of all human beings
	The Safety and Health in Agriculture Convention	The Safety and Health in Agriculture Convention (Convention 184) adopted by the conference of the International Labor Organization (ILO) addresses the protection of workers in the agricultural sector. In addition, more children work in agriculture than in any other sector and they are differently and particularly vulnerable to the toxic effects of chemicals such as pesticides.	Application of the Convention is an important step in improving the health and safety of the workers in a project as such; there will be need to ensure workers in the project are provided with appropriate PPEs during project implementation.

3.6 GAP ANALYSIS OF LEGISLATION

The following is a gap analysis between the IFAD SECAP and Uganda Legislation.

3.6.1 Project Classification

The Uganda legislation classifies projects and activities into four categories which are Category 1 to Category 4. Similarly, IFAD classifies projects into four categories as “high, substantial, moderate and low” Categories. These categories are outlined in table 3-5 below:

Table 3-5 Comparison of Uganda and IFAD Classification.

NO.	UGANDA CLASSIFICATION	IFAD CLASSIFICATION
1.0	<p>Category 4: A full EIA is normally required because the project may have diverse significant impacts. The screening process shows that the project will have significant impacts on the environment and that the project brief discloses no sufficient mitigation measures to cope with the anticipated impacts, to the level that the project be required to conduct a Full EIA. Projects in this category could include:</p> <ul style="list-style-type: none"> (i) storage dams, barrages, weirs, valley tanks and dams, (ii) river diversions and inter-basin water transfer, (iii) irrigation and drainage schemes. 	<p>High Risk Category: A proposed project is classified as High-risk Category, if it is likely to have sensitive, diverse, irreversible or unprecedented significant adverse environmental and social impacts. These impacts may affect an area broader than the sites or facilities subject to physical works and may be cumulative and transboundary in nature. The risks and potential impacts are not readily remedied by preventive actions or mitigation measures.</p>
2.0	<p>Category 3: A limited environmental analysis is appropriate, as the project impacts can be easily identified and for which mitigation measures can be easily prescribed and included in the design and implementation of the project. The screening process shows that the project will have less significant impacts on the environment and that the project brief discloses no sufficient mitigation measures to cope with the anticipated impacts, to the level of the project being required to conduct a partial EIA. Projects in this category could include:</p> <ul style="list-style-type: none"> (i) rural water supply, (ii) large earth reservoirs, (iii) big gravity flow schemes 	<p>Substantial Risk Category: A proposed project is classified as Substantial risk Category, if its potential adverse environmental and social impacts on human populations or environmentally important areas – including wetlands, forests, grasslands and other natural habitats – are less adverse than those of the High-Risk category projects. Its environmental and social scale is not in such a sensitive area but may pose significant risks and impacts if not adequately managed. These impacts are site – specific, mostly temporary, predictable, few if any of them are irreversible. They affect medium to large geographical areas and in most cases mitigatory measures can be designed more readily than for High-Risk category projects. 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.</p>
3.0	<p>Category 2: Environmental analysis is normally unnecessary, as the project is unlikely to have significant environmental impacts. The screening process shows that the project should be approved on the basis of already identified mitigation measures, so the project brief is enough. This could include project location in less sensitive areas or where many such schemes are in the same locality and their synergetic effects have potential impacts.</p>	<p>Moderate Risk Category: 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 predictable and expected to be temporary or reversible, Site-specific, without the likelihood of impacts beyond the project life cycle. The project’s risks and impacts can be easily mitigated in a predictable manner.</p>

4.0	Category 1: Small projects which do not have potential significant impacts and for which separate EIAs are not required, as the environment is the major focus of project preparation. The screening process is used to determine that the project is exempt from EIA. These could include borehole drilling, hand augured shallow wells, protected springs and earth reservoir construction.	Low Risk: A project should be classified as Low Risk if it will have negligible or no environmental or social implications. Such projects include technical assistance grants for agricultural research and training, Health, Nutrition, Education and Capacity- and institution building.
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Both IFAD and GoU require that all its projects be screened for their potential environmental and social impacts to determine the appropriate extent and type of environmental work. It then requires that the requisite environmental assessment work be carried out based on these screening results.

3.6.2 Environmental and Social Assessment Procedures

While Uganda’s EA procedures are generally consistent with the IFAD policies, there are some gaps regarding the screening of subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project. Therefore, under the ReLIV the environmental and social screening processes as described in this report will be used. Table 3-6 describes the gap analysis and comparison of IFAD and Uganda environmental and social assessment procedures.

Table 3-6 Comparison between IFAD and Uganda ESA Procedures.

REQUIREMENT OR CATEGORY	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
EIA process	EA is initiated as early as possible in project processing and is integrated closely with the economic, financial, institutional, social, & technical analyses of all proposed projects. projects with substantial risk require Abbreviated ESIA. Projects with High-Risk Category require a full EIA study.	A project cannot receive authorization for implementation unless issued with a certificate stating that an EIA is not required or, basing on an EIA report, NEMA has approved the project.	EIA should be initiated as early as possible in project processing to inform design of all projects (Appendix 3)

3.6.3 The Framework Approach

The Uganda Laws do not provide for the Framework Approach (ESCMF and RPF) but rather only, specific instruments (ESIA, ESMP, Environmental Audits). This ESCMF prepared for ReLIV in line with SECAP will guide the preparation of the specific instruments; Table 3-7 summarises the comparison of the Framework Approach Requirements.

Table 3-7 Comparison of the Framework Approach Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
The Framework Approach	IFAD requires an ESCMF, RPF, etc. for projects whose location and design of the Program activities and subprojects, and the magnitude of their impacts are not precisely known at project appraisal stage. ESCMF used for screening of subprojects where the sites and	Uganda Legislation does not provide for screening of subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project.	This ESCMF prepared for ReLIV in line with SECAP will guide the preparation of the specific instruments for the sub-projects as and when deemed necessary. ReLIV will use the environmental and social

	potential adverse localized impacts cannot be identified prior to the appraisal of the project.		screening process as described in this ESCMF.
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3.6.4 Environmental and Social Categorisation.

The IFAD requires that all its projects are screened for their potential environmental and social impacts to determine the appropriate extent and type of environmental and social work. The Uganda EIA regulations provide for screening of all projects. This is via a project brief submitted to NEMA. NEMA process screens proposed projects into 3 screening categories (1, 2 and 3) and during screening exempts projects from EIS; requires EIS or determine whether adequate measures have been incorporated. The screening requirements are compared in table 3-8 below.

Table 3-8 Environmental and Social Risk Classification.

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
<p>High Risk Category (Category 4)</p>	<p>The programme/project may have significant environmental and social implications that are sensitive, adverse, irreversible or unprecedented and affect an area broader than the sites or facilities subject to physical interventions.</p> <p>Relevant Project Type and Scale:</p> <p>Irrigation projects exceeding 999ha per scheme.</p> <p>SECAP 21 categorises the following as High Risk and requiring full ESIA:</p> <ul style="list-style-type: none"> • New construction, rehabilitation or upgrade of large/major dams or reservoirs (more than 15 metre high wall, more than 500-metre long 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); <p>Requirements: For High-Risk Category projects a formal ESIA, RAP and/or IPMP, as applicable, are required with ESMP elaboration.</p>	<p>Category 4 projects listed in the third schedule of the National Environment Cap 153 are subject to a full EIS. The list contains no minimum thresholds or location criteria. NEMA may also screen projects that are not listed in the third schedule but are likely to be out of character with the surroundings and conclude that these are subject to EIS.</p> <p>At the LG level, screening of projects is provided for using an existing Environmental and Social Screening Form (ESSF) and is a key task of the Environmental Officers (EO) and District Technical Planning Committees (DTPC).</p> <p>The municipal government screening and ESMP development procedures and associated screening form incorporate the same concepts to an extent that is appropriate for the scale and riskiness of projects for which EA is handled locally.</p>	<p>Category 4: projects require a full EIA Study where potential impacts of a project and their magnitude are identified</p>
<p>Substantial Risk Category (Category 3)</p>	<p>The project may have some environmental and social impacts on human populations or environmentally significant areas, but which are site-specific and less adverse than High Risk Category.</p> <p>SECAP 21 categorises the following as Substantial Risk projects:</p>	<p>Category 3 Projects are believed to have adverse, but not irreversible environmental impacts and for which mitigation and management measures can be readily designed and incorporated into the project.</p>	<p>EIA is mandatory in this level to identify environmental impacts of the project and their magnitude.</p> <p>There will be need to conduct site-specific EA studies,</p>

Subject/Issue	IFAD SECAP and Other Policies	GoR Policy	Solution/mitigation
	<ul style="list-style-type: none"> • New construction, rehabilitation or upgrade of medium dams/reservoirs (between 10-14 metre high wall, and/or with a reservoir 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). <p>SECAP 21 categorises the following as Moderate Risk projects:</p> <ul style="list-style-type: none"> • Small dam or reservoir construction (between 5-9 metre high wall, and/or with a reservoir below 100,000m3); • Construction of small-scale irrigation schemes rehabilitation/development (below 300 hectares per scheme); and/or • New construction, rehabilitation or upgrade of rural roads (AADT below 400). <p>Requirements: <i>While no formal ESIA is required, environmental analysis will be undertaken in the course of project implementation. This can be in the form of an ESMP which may be a stand-alone document or an output from environmental analysis</i></p>	<p>Requirements: A limited environmental analysis is appropriate since the project brief discloses no sufficient mitigation measures to cope with the anticipated impacts,</p>	<p>monitoring, inspections, and compliance auditing.</p>
<p>Moderate Risk Category (Category 2)</p>	<p>The project will have negligible environmental and social implications.</p> <p>Requirements: <i>No further environmental analysis is specifically required.</i></p>	<p>Category 2 projects: Projects believed to have minimal adverse impacts, that can easily be identified through a Project Brief and not requiring further environmental analysis. Category 2 project are exempt from further EA work.</p>	<p>In both regulations there is no demand for ESIA.</p>

3.6.5 Climate Risk Classification

Climate Risk Classification is discussed in table 3-9 below.

Table 3-9 Climate Risk Classification.

Climate Risk Classification	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
High Risk:	<p>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.</p> <p>Requirement: High Risk investments require a detailed vulnerability impact and adaptation assessment in order to identify measures for reducing risks and impacts.</p>	The Uganda EIA guidelines do not have a climate risk classification methodology but suggest climate risk analysis during the analytical development of qualitative profile of areas affected by a policy, programme or plan.	Climate risk analysis not yet a requirement at National level but it is essential to meet IFAD requirements, and therefore must be conducted.
Substantial Risk:	<p>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.</p> <p>Requirement: Substantial Risk projects require a targeted adaptation assessment in order to identify measures for reducing risks and impacts.</p>		
Moderate Risk:	<p>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.</p> <p>Requirement: Literature Review of Climate assessment</p>		

Climate Risk Classification	IFAD SECAP AND OTHER POLICIES	GoU Policy	COMMENTS
Low Risk:	<p>Low Risk: No negative impact from climate change is expected based on the best available data. Financial, environmental and social underperformance or failure appears very unlikely.</p> <p>Requirement: No Climate Assessment is required.</p>		

3.6.6 Disclosure Requirements,

Table 3-10, below gives a comparison of the disclosure requirements:

Table 3-10 Comparison of disclosure Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Disclosure	<p>IFAD's Policy on the Disclosure of Documents, approved in 2010, adopted the principle of "presumption of full disclosure".</p> <p>The sharing of draft and final ESIA's and other relevant documents with project stakeholders and interested parties is subject to this principle. It is mandatory to disclose these documents, when available, in a timely manner at the DRM, on IFAD's website and in an accessible place in the project-affected area, in a form and language understandable to project-affected parties and other stakeholders.</p> <p>The documents to be disclosed include information notes on projects being developed for Board presentation, agreements for approved loans and grants, and project/programme design documents which include ESIA's, ESCMFs, RAPs and RAFs.</p>	<p>NEMA, in consultation with the lead agency determines whether or not a public hearing is necessary based on the submitted project brief of the proposed development. NEMA arranges and facilitates at least 3 public consultations on the final report from which justified objections may result in the refusal to proceed.</p>	<p>Uganda Legislation will be applied as far as is possible. Where there are gaps the provisions of SECAP will apply</p> <p>Upon completion of ESA reports, these must be:</p> <ul style="list-style-type: none"> • circulated for written comments from the various agencies and government agencies. • notify the public of the place and time for its review; and • solicit oral or written comments from those affected.

3.6.7 Public Consultation Requirement

The table 3-11 below gives a comparison of the requirements for public consultation Requirements.

Table 3-11 Comparison of public consultation Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
<i>Public Consultation</i>	<p>IFAD is committed to engage stakeholders and mobilize their feedback in its supported projects. Consultations with target groups, communities and other stakeholders likely to engage with IFAD's operations are sought throughout the project life cycle, commencing as early as possible in project development in order to ensure that their feedback is considered. The objective is to ensure:</p> <ul style="list-style-type: none"> (i) that communities contribute to the development of management plans and provide feedback on draft ESIA reports and other important documents. (ii) broad community support of projects (especially High-Risk projects or those sensitive to climate, social and environmental risks, and impacts); and (iii) that affected people endorse the proposed risk reduction, mitigation, and management measures. <p>Consultation is mandatory and inclusive, ensuring non-discrimination⁹ and aims to provide opportunities for disadvantaged and vulnerable groups or individuals to participate in and benefit from projects on an equal basis with others.</p> <p>FPIC must be sought when project activities affect communities' land access and use rights.</p>	<p>According to the Guidelines for EIA in Uganda, 1997 and EIA Regulations, 1998, consultation and public participation constitute an integral part of the EIA process. It is, therefore, a requirement that appropriate mechanisms for ensuring full involvement and participation of the public is accorded priority and should be a continuous process from screening, scoping, during EIA Study report preparation, draft EIA report, and during EIA finalisation and review.</p>	<p>Consultation Process in this ESCMF will guide the consultations for the project.</p> <p>Identification of affected persons must consider vulnerable persons (disabled, women, youth, etc.).</p> <p>Notification periods should allow adequate time to salvage property being removed for the project (i.e., two weeks prior to any construction activity).</p>

3.6.8 Labour and working conditions.

The Employment Act of 2006 is discussed in table 3-12 below, comparing the labour and working conditions requirements.

Table 3-12 Comparison of health and labour safety requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Labour and working conditions	<p>IFAD is commitment to inclusive and sustainable economic growth, full and productive employment, and decent work for all including protecting the rights of project workers, ensuring their fair treatment and providing</p>	<p>Part III, General Principles, Sections 5 to 7 of the Employment Act 2006 deals with issues of Forced labour, Discrimination in employment, and Sexual</p>	<p>Uganda Legislation will be applied as far as is possible. Where there are gaps the provisions of SECAP will apply.</p>

	<p>them with safe and healthy working conditions.</p> <p>Thus it :</p> <ul style="list-style-type: none"> • Promotes 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. • Protects and promote the safety and health of workers. • Ensures that projects comply with national employment and labour laws, and international commitments. <p>Leaves 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.</p>	<p>harassment in employment and unequivocally discourages these acts at work.</p> <p>Part IV, deals with the employment relationship covering such issues as contract and conditions of service including treatment of death issues. It also includes occupational health and safety where employers are required to ensure the health, safety and welfare in the workplace for employees. The law includes measures relating to OHS for protecting workers from injuries, illness or impacts associated with exposure to hazards encountered in the work place during work (Section 10).</p>	
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3.6.9 Cultural Heritage

Table 3-13 below gives a comparison of the Physical Cultural Resources Requirements for the ReLIV project.

Table 3-13 Comparison of cultural heritage Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Physical Cultural Resources and chance finds procedures	<p>IFAD is committed to preserve, protect and promote cultural heritage in all IFAD supported projects in a manner consistent with UNESCO cultural heritage conventions, and other applicable national and international legal instruments.</p> <p>Cultural heritage is defined as encompassing both tangible (sometimes referred to as physical cultural resources) and intangible heritage. Thus, IFAD sets out to:</p> <ul style="list-style-type: none"> • 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. 	<p>EIA guidelines indicate criteria for EIA compliance requirements to include location and potential to affect environmentally sensitive areas including National Parks and Protected Areas, wetlands, productive agricultural land, important archaeological, historical and cultural site and areas containing rare or endangered flora or fauna.</p>	<p>Uganda Legislation will be applied as far as is possible. Where there are gaps the provisions of SECAP will apply</p>

3.6.10 Grievance Mechanisms

Table 3-14 below gives a comparison of the Grievance Mechanisms.

Table 3-14 Grievance Mechanisms.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Grievance Mechanisms	<p>IFAD has developed a Complaints Procedure for “Alleged Non-Compliance with its Social and Environmental Policies and Mandatory Aspects of Its Social Environmental and Climate Assessment Procedures”. Parties adversely or potentially adversely affected by IFAD-funded projects and programmes may bring issues to the Fund’s attention using SECAPcomplaints@ifad.org</p> <p><i>Any Sexual Exploitation and Abuse (SEA) complaints received shall be directed to IFAD’s Ethics Office</i></p> <p>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. IFAD does not provide monetary compensation to resolve complaints. The IFAD website provides a clear summary of the steps involved and guidance on how to report issues</p>	<p>It is common practice in development projects that grievance mechanisms are formulated during project design for all stages of the project in order that affected parties present grievances to the project authorities without cost and with assurance of satisfactory and timely solutions. They commonly include institution of a grievance resolution committee and its working procedures as well as grievance logging and monitoring systems.</p> <p>Uganda is required by the UNFCCC to put in place an effective mechanism for grievances and dispute resolution.</p> <p>As part of Uganda’s readiness for entering the “Carbon phase” of REDD+ processes, the country was required to put in place an effective mechanism for grievances and dispute resolution. The Country did so at National, regional and even district level. Each level of local governance has developed their own GRM.</p> <p>Uganda’s GMR aims to contribute to conflict detection, prevention and resolution, as well as transforming the conflict into peaceful co-existence and community cohesion. In this regards, Uganda’s GRM.</p>	<p>IFAD has an established Grievance redress mechanism (GRM) this could compliment Uganda Legislation.</p>

3.6.11 Physical and Economic Resettlement

Chapter 15 of the Constitution also provides for Land and Environment. Article 237 provides that Land in Uganda belongs to the citizens of Uganda and shall vest in them in accordance with the land tenure systems provided for in this Constitution.

Notwithstanding the above, an exception is provided in Article 237 (2) (a) which states that; “the Government or a local government may, subject to article 26 of this Constitution, acquire land in the public interest; and the conditions governing such acquisition shall be as prescribed by Parliament.”

The Constitution of the Republic of Uganda (1995) provides government and local authorities a statutory power of compulsory acquisition of land in public interest, and makes provision, inter alia, for the “prompt payment of fair and adequate compensation” prior to the taking of possession of any privately-owned property.

Such compensation is assessed in accordance with the valuation principles laid out in the Rules of Procedure under Section 78 of the Land Act (Cap 227), briefly outlined below:

- The value for customary land is the open market value of unimproved land.
- The value of buildings on the land is taken at open market value for urban areas, and depreciated replacement cost for rural areas.
- The value of standing crops on the land is determined in accordance with the district compensation rates established by the respective District Land Board. Annual crops which could be harvested during the period of notice to vacate given to the landowner/ occupier of the land are excluded in determining compensation values.
- In addition to the total compensation assessed, there is a disturbance allowance paid of 15% or, if less than six months’ notice to vacate is given, 30% of the total sum assessed.

Article 237 of the Constitution, 1995, vests land ownership in citizens of Uganda and thus recognizes ownership of property and every person’s right to private property. Consequently, private property, whether individually or collectively owned, is inviolable. Exceptionally, the right to property may be overruled in the case of public interest as outlined above. In these cases, circumstances and procedures are determined by the law and subject to fair and prior compensation.

On the other hand, IFAD SECAP 21 policies require the need to provide alternative land, resettling the Project Affected Persons (PAPs) to levels or standards of livelihood similar to or better than before compensation. The Uganda legislation also does not provide for restoration of livelihoods, resettlement assistance and compensation at replacement value. Under circumstances like these regarding shortcomings in the Uganda law on compensation process, the provisions of SECAP 21 shall be applied. Table 3-15 below gives a comparison of the Involuntary Resettlement Requirements.

SECAP 21 not only considers resettlement as the physical relocation of people but as economic, social, and cultural displacement restricting people’s access to livelihoods and culturally important sites.

FPIC should be obtained from all people potentially affected by resettlement to ensure that mitigation and benefit-sharing measures improve their livelihoods and are appropriate and sustainable.

Table 3-15 Comparison of Involuntary Resettlement Requirements.

Subject/Issue	IFAD SECAP and Other Policies	GoU Policy	Solution/mitigation
Involuntary Resettlement	Involuntary resettlement should be avoided wherever feasible, or minimized, exploring all viable alternative project designs.	Ugandan legislation make provision for involuntary resettlement (Constitution 1995) including expropriation.	The project design will seek to avoid physical and economic displacement. Where such impacts cannot be avoided, best efforts will be made to minimize impacts through design review. Acquisition of land will only be pursued once all viable alternatives have been considered.
	Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.	Uganda legislation provides for public notification of the intention to take land and allows for objections to be lodged.	Affected persons will be meaningfully consulted throughout the preparation of implementation of resettlement plans. Any severely affected persons will be consulted on the development of mitigation measures for relocation or livelihood restoration.

Affected land and non-land property is required to be compensated at full replacement cost.	Uganda legislation provides for terms of payment of compensation, as assessed in accordance with the valuation principles laid out in the Rules of Procedure under Section 78 of the Land Act (Cap 227).	Compensation will be provided at full replacement cost. For land, compensation will be based on market value plus transaction costs. For structures, compensation will be sufficient to replace the affected structure without depreciation plus the cost of any transaction costs such as registration fees. For non-land property that can be feasibly moved, assistance will be provided to restore the affected property.
WHO IS ELIGIBLE: IFAD requires compensation/assistance to informal land users & illegal occupants (“squatters and encroachers”)	Uganda Legislation does not recognize illegal settlers.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation, since the most stringent standard has to be applied every time.
VALUATION: IFAD requires compensation equal or better than replacement value of land/assets	Uganda legislation make a provision for fair compensation using market values and depreciated values.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation.
BEYOND COMPENSATION: IFAD requires assistance for restoration of livelihoods (not worse off as result of project)	There is no provision for beyond compensation restoration of livelihoods.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation.
TIMING: IFAD requires compensation/assistance provided in full prior to beginning implementation of works	No provision for compensation/assistance in full prior to implementation of works.	The provisions of SECAP shall be applied where there are short comings in the Uganda legislation.

3.6.12 Summary of the Comparisons

The IFAD SECAP 21 procedures and the Uganda legislation have a number of differences which include the following:

- Uganda’s EA procedures do not provide for screening of small-scale subprojects where the sites and potential adverse localized impacts cannot be identified prior to the appraisal of the project. Therefore, ReLIV will use the environmental and social screening process as described in this report.
- Uganda categorises projects into four categories which is similar to SECAP 21 categorisation. Thus the risk thresholds for the national laws are in line with SECAP 2021 requirements.
- SECAP 21 has a comprehensive Climate risk classification system ranging from low, moderate, substantial to high risk, with specified actions for each risk category, whilst Uganda policies do not specifically provide for climate risk categorisation, and FPIC.
- SECAP 21 outlines a comprehensive GRM process whilst Uganda, though there is no distinct law providing for grievance redress, it has adopted a policy of developing feedback and Grievance Redress Mechanisms at all governance levels down to project sites.
- In terms of physical and Economic Resettlement, IFAD SECAP 21 policies require the need to provide alternative land, resettling the Project Affected Persons (PAPs) to levels or standards of livelihood similar to or better than before compensation. However, Uganda legislation provides for market and depreciated value compensation of compulsory real property acquisition for public purposes and does not provide for restoration of livelihoods, resettlement assistance and compensation at replacement value. Further Uganda legislation does not provide for economic displacement.

Under such circumstances regarding short comings of either laws, the provisions of the most stringent standard will be applied at all times.

3.7 RELEVANT IFAD POLICIES

RELIV has been designed and informed by IFAD's Climate Change Strategy, Environment and Natural Resources Management (ENRM) Policy, Indigenous Peoples Policy, Gender and Targeting Policy and Land Policy. The Project 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.

3.7.1 IFAD Environment and Natural Resources Management (ENRM) Policy

The goal of the ENRM policy is: "To enable poor rural people to escape from and remain out of poverty through more productive and resilient livelihoods and ecosystems".

The purpose of the policy 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 ENRM. 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.

3.7.2 IFAD's Strategy and Action Plan on Environment and Climate Change (2019-2025)

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 (IFAD, 2018)

3.7.3 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 per cent of the world's population, but 15 per cent of those people living 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.

3.7.4 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.

3.7.5 IFAD Land Policy

Secure access to productive land is critical to the millions of poor people living in rural areas and depending on agriculture, livestock, 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.

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.

3.8 THE SOCIAL, ENVIRONMENTAL AND CLIMATE ASSESSMENT PROCEDURES (SECAP 2021)

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 has 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

3.8.1 IFAD’s Environmental and Social Standards

IFAD’s Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects (Table 3-16, Appendix 6).

Table 3-16 Standards most relevant to RELIV

STANDARDS	RELEVANCE TO RELIV	
	Less Relevant	More Relevant
Standard 1: Biodiversity conservation		X
Standard 2: Resource efficiency and pollution prevention		X
Standard 3: Cultural heritage	X	
Standard 4: Indigenous peoples	X	
Standard 5: Labour and working conditions		X
Standard 6: Community health and safety		X
Standard 7: Physical and economic resettlement	X	
Standard 8: Financial intermediaries and direct investments	X	
Standard 9: Climate change		X

The IFAD’s Environmental and Social Standards are detailed in Appendix 6.

3.8.2 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:

- i. Result in sensitive, irreversible or unprecedented significant risks and impacts (for example, resulting in loss of major natural habitat or conversion of wetlands),
- ii. 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.

- **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.

- **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.

- **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.

In addition, the environmental and social screening exercise of sub-projects is used to determine the exposure of the programme objectives to climate-related risks (High, Moderate or Low). SECAP provides guidance statements on biodiversity and protected area management; agrochemicals; energy; fisheries and aquaculture; forest resources; water; small dams; physical cultural resources; rural roads; development of value chain, microenterprises and small enterprises; and physical and economic resettlement – most of which are applicable in the context of the RELIV programme. Where resettlement or economic displacement is envisaged, SECAP requires that the principles of “do no harm” and “free, prior and informed consent” are adhered to at all times and for all beneficiaries for any intervention that might affect the land access and user rights of communities.

Included in SECAP are a series of standards which focus on nine environmental, social and climate issues that should be met through the project life cycle. These standards are aimed predominantly at borrowing governments and private sector partners, which are responsible for undertaking environmental, social and climate risk assessments, and for implementing projects. The table 3-17, below indicates which ones are most relevant to RELIV:

3.8.3 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”¹:

- **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.

¹ United Nations Development Group (UNDG), Guidelines on Indigenous Peoples’ Issues, 2009:30

- **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.

IFAD requires the application of FPIC in two scenarios:

1. 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.

Figure 3-1 below, depicts the process of seeking FPIC in IFAD’s project cycle.

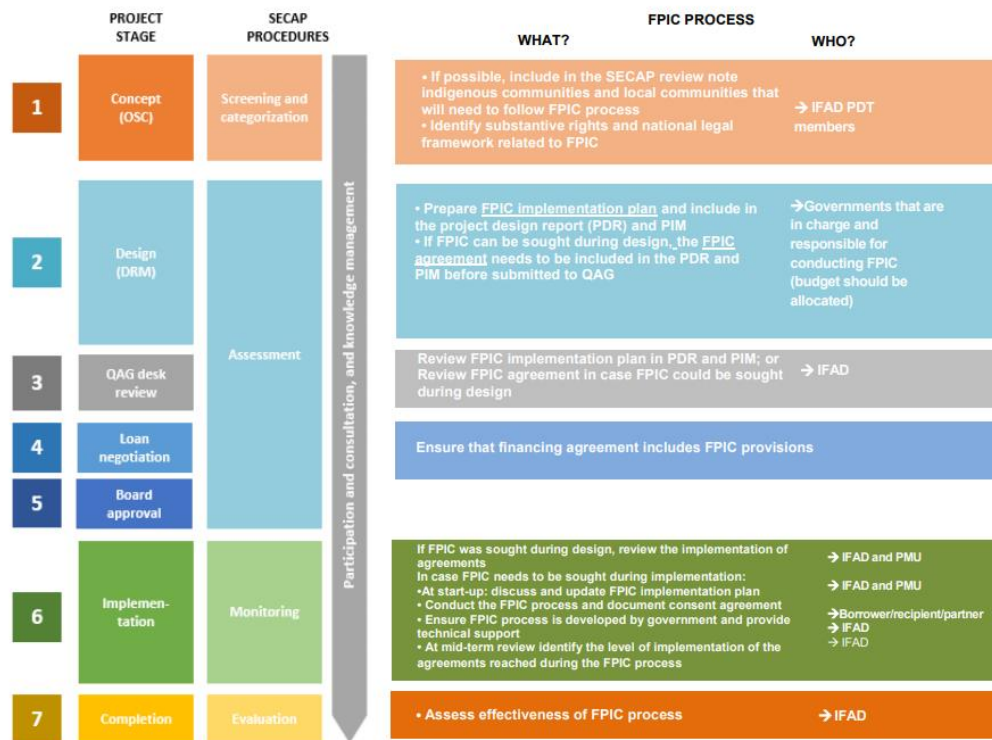


Figure 3-1 Free, Prior and Informed Consent (FPIC)

3.8.4 General guiding principles

a) Identification of parties to the negotiation and decision makers

In order to ensure legitimacy, it is crucial that FPIC be obtained from the representative institutions of local communities. Understanding how communities make decisions is an important step in the FPIC process. There may be a need to go beyond traditional institutions – for example, to ensure participation of women, youth and people with disabilities in decision-making. Representative institutions must strive to adhere to the principles of inclusive consultation, participation and consent in their internal decision-making processes.

The important criteria are that representation should be determined by the concerned peoples and communities themselves to avoid misrepresentation or manipulation. This can be done in line with the community structure for representation, figure 3-1 below.

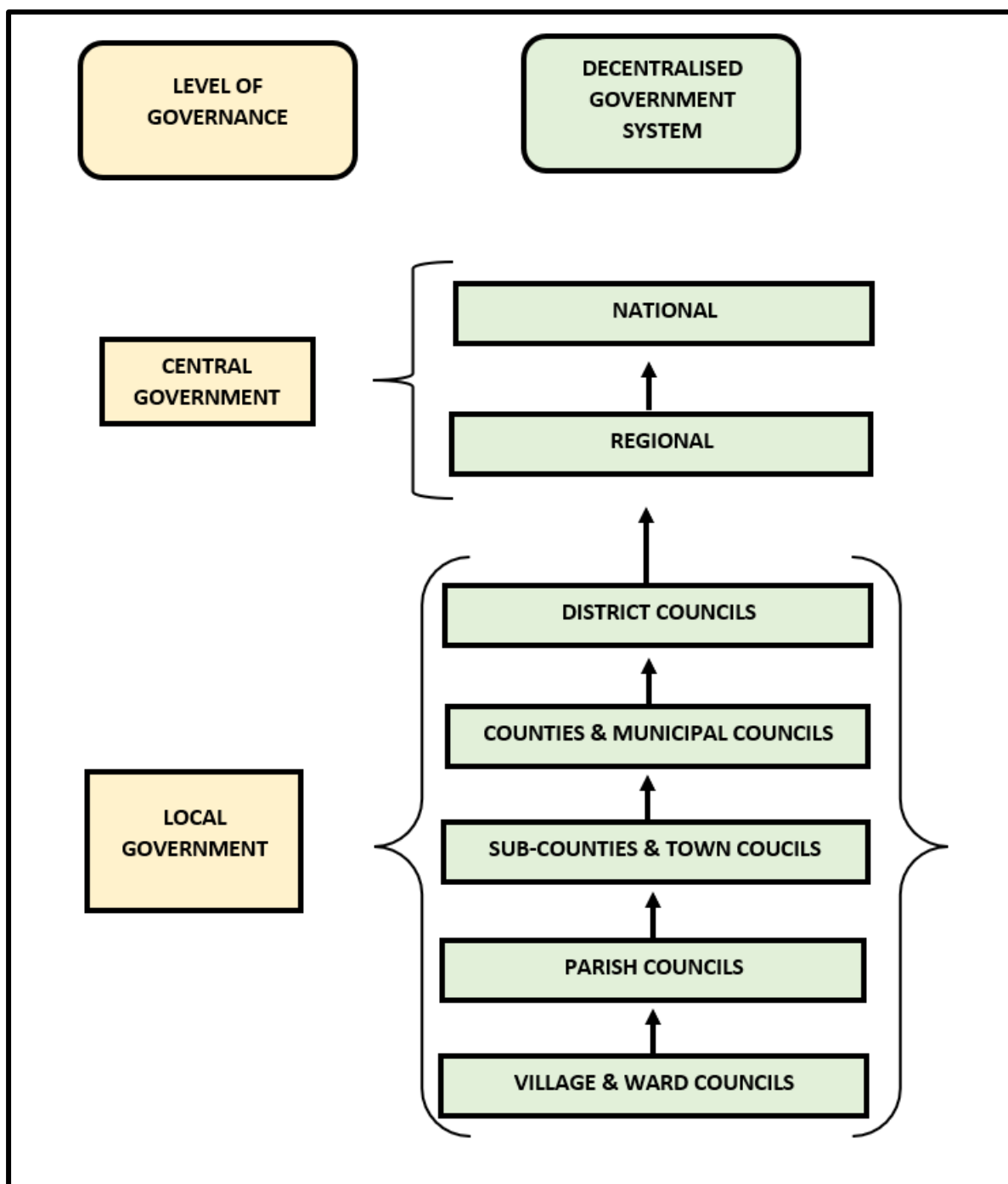


Figure 3-2 The Local Governance structures in Uganda.
 (Disclaimer: This structure is aimed at improving understanding of the administration.)

a) Elaboration of the decision-making processes of the respective parties.

FPIC is not just a means to obtain consent to a particular project; it is also a process in itself, and one by which indigenous peoples and local communities are able to conduct their own independent and collective discussions and decision-making. They do so in a culturally appropriate way, on matters

affecting their rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible). An early agreement must be reached with the indigenous peoples/local communities on the modalities of the consultations, most likely in their territory, where they may feel more able to express themselves, and where they have the support of their community. This includes the right to privacy in negotiations and deliberations for them to discuss and decide freely.

**c) The role of outside counsel and expertise.
(Including a third-party mediator/negotiator.)**

Some local or indigenous peoples' institutions may require additional technical capacity to ensure that their right to FPIC is respected. Facilitators may play an important role in the FPIC process, as the process itself is an empowering tool to build the capacities of local institutions and communities.

d) Identification of and respect for community protocols.

It is fundamental to respect the traditional and customary protocols, including social norms, for both verbal and non-verbal communication. The latter can include body language, personal space and eye contact.

**a) Sharing of information.
(In a meaningful, accessible and culturally appropriate manner.)**

It is important to take into consideration information needs, communication channels and media (ranging from traditional/local media to information and communications technology, and communication activities. Consideration should be made for the diverse levels of literacy, local languages and interest in the technical aspects of the project. Ensure that the process is as participatory as possible and keep community members informed at every step.

**f) Identification of other project activities or circumstances.
(activities or circumstances that might trigger additional consent processes.)**

The project must establish a process of mutual trust and reach an agreement on the project activities. This should be done by obtaining full and effective participation of and engagement with indigenous peoples and local communities.

b) The format for documenting the agreement.

There is no universal way of documenting consultation, participation, and consent. However, the main suggestions for documenting the FPIC process are as follows:

- **Keep records of consultations undertaken:** how participants were selected; their roles or accountability links to their communities; how they were invited; which consultations they participated in; what documentation/information they received beforehand and in which language; who participated; what was discussed.
- **Document FPIC agreements:** Often FPIC is expressed as an agreement between the designated project management unit and the concerned local communities. These agreements should clearly articulate: what has been agreed (e.g. issues, commitments, time frames, budgets, roles, responsibilities); 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.

3.8.5 Seeking FPIC at the design stage.

Ideally, project components and activities that require FPIC should be identified early in the project design. When the precise nature and specific location of an investment is known and well defined, FPIC must be solicited at design stage. In the case of RELIV the precise nature and specific locations of

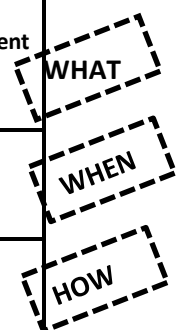
the potential investment were not known, thus the Government of Uganda was not expected to directly seek FPIC at this stage.

However, ReLIV was required to carry out an Environmental, Social and Climate Management Framework (ESCMF) study using the IFAD Social, **IFAD Social, Environmental and Climate Assessment Procedures (SECAP)**. SECAP is a key mechanism to identify requirements for FPIC at the design stage. As an integral part of the design phase, the RELIV undertook an Environmental, Social and Climate Management Framework study (ESCMF) with support from IFAD.

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 3-17 below summarizes a step-by step approach to ensure FPIC through SECAP.

Table 3-17 Seeking FPIC at design stage (IFAD, 2021)

Conduct sociocultural and land tenure assessment and analyse substantive rights and legal framework	Identify decision making institutions and representatives	Conduct consultation leading to FPIC	Formalize consent agreement
From Concept Note through first design mission	During first design mission	From first design mission through appraisal	Before QAG (to be annexed to the PDR)
Identify: <ul style="list-style-type: none"> • Customary laws, informal rules and organizing practices on land ownership. • Institutions and governance systems. • Types of livelihoods. • Mutual support and solidarity mechanisms. • Community stakeholders, land users and assess who has the right to give or withhold the consent. • Substantive rights and national legal framework related to FPIC. • Assess consequences from the proposed project that may result in the change of the status of the lands, territories and resources. 	<ul style="list-style-type: none"> • 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 for the consent agreement. 	<ul style="list-style-type: none"> • Share objectives and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC. • 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. • Formalize consent agreement. 	Include: <ul style="list-style-type: none"> • Respective expectations. • Proposed project duration. • expected results and activities. • Participatory monitoring and verification plan and procedures. • Identification of grievances procedures and mechanisms. • Terms of withdrawal of consent. • Record of process through means and languages accessible to all stakeholders and parties involved.



3.8.6 Seeking FPIC at the implementation stage.

When investments in specific communities and territories are not identifiable during the project design stage, FPIC can only be sought during the implementation phase. 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 assessment (as part of the IFAD standard poverty analysis, which needs to be deepened in certain aspects as described in Table 3-19 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 3-18 Seeking FPIC at implementation stage (IFAD, 2021)

Prepare FPIC Implementation Plan.	Present to participants at the start-up workshop.	Conduct Consultations leading to FPIC	Formalise Consent Agreement	Asses Implementation FPIC
During Design Phase (Annexed to design report)	At start-up workshop.	After start-up workshop.	Before any investment is made	Implementation support/joint review/Mid-term review missions
<p>The FPIC implementation plan should specify:</p> <ul style="list-style-type: none"> • How and when to conduct the sociocultural 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 peoples' organizations and agree on the FPIC plan (use the Farmers' Forum and the Indigenous Peoples' Forum networks). • Grievance mechanisms. 	<ul style="list-style-type: none"> • Confirm/revise FPIC implementation plan at start up workshop. • Conduct/(review if available) sociocultural 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 for the consent agreement 	<ul style="list-style-type: none"> • Share objectives and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC. • 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 	<p>The format for a consent agreement to include:</p> <ul style="list-style-type: none"> • Respective expectations. • Proposed project duration. • Participatory monitoring and verification plan and procedures. • Identification of grievances procedures and mechanisms. • Terms of withdrawal of consent. • Record of process through means and languages accessible to all stakeholders and parties involved 	<ul style="list-style-type: none"> • Engage experts in joint review missions to analyse: (i) quality of project target group engagement and feedback; (ii) Implementation of FPIC processes; (iii) SECAP requirements for implementation; and (iv) to inform corrective/adaptive measures and learn lessons for subsequent dissemination and uptake in other projects. • Engage with national agencies in charge of Indigenous peoples' consultations.

WHAT
WHEN
HOW

3.8.7 FPIC Implementation Plan

The purpose of the present FPIC Implementation Plan is, among others, to provide information on how the FPIC Process will be conducted throughout the course of the project and which methods will be used as part of the process; as well as to outline the responsibilities of MAAIF AND ReLIV PMU.

3.8.7.1 Decision-Making Institutions And Representatives

The key institutional actors involved with issues of resettlement, property and land rights, access to resources, etc, are the local government departments both at National level and District level. The implementing agency will be the **MAAIF** through the RELIV PMT.

ReLIV PMU's Environmental and Social Specialists will work very closely with the National Environmental Management Authority (NEMA), Local Government officials and District Council

Officials to facilitate consultations leading to FPIC with concerned communities /project affected persons (PAPs).

3.8.7.2 Consultations Leading To FPIC

Subsequent to the socio-cultural and land tenure assessments and the identification of key decision-making institutions, consultations will be held with the sub-project communities and Cooperatives /Cooperatives /Associations during programme implementation – when site specific ESMPs and designs are being updated or prepared, as the case may be. Consultations will be conducted by the RELIV Environmental and Social Specialist, or by an independent facilitator/advisor hired by ReLIV PMU.

The use of participatory mapping will be instrumental for the consultation process leading to FPIC. This is because of the advantages of participatory mapping and accompanying participatory enquiry techniques which allow the assessment of ownership, occupation and use of land and resources as well as the social dynamics (e.g., movements and relationships among the different social groups) and right holders.

Given that the sub-projects are initiated by the communities and proposed to the ReLIV PMU the consultations will:

- Confirm that the sub-project is a community-driven initiative.
- Share the objective and scope of the proposed sub-project with the communities/Cooperatives /Cooperatives /Associations directly or through their representatives (existing or elected by the communities in the process).
- Clearly inform the Cooperatives /Cooperatives /Associations/communities' representatives 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 socio-cultural, land tenure and environmental assessment and reality check/confirmation of findings.
- Engage selected Association/community members or their representatives in the resources and social mapping activities, in order to assess ownership, occupation and use of land and resources as well as the social dynamics (relationships among the different social groups).
- Share the objective and scope of the mapping exercise with the Cooperatives /Cooperatives /Associations/communities.
- Ensure inclusive participation - men, women, young people, the elderly, representatives of different communities present on the same land and neighbouring villages - and provide for multiple maps by the different Cooperatives /Cooperatives /Associations/communities.
- Share the maps with all stakeholders and actors; and,
- Formalise ownership of the land use maps by the communities that have developed them.

3.8.7.3 Formalising The Consent Agreement

Once project activities and project sites requiring FPIC agreement are identified, this will be formalised in a written form in English as well as in the local language. The effective time the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made.

The consent agreement will be prepared by the RELIV District Teams. The format for a consent agreement would, among others, include:

- Project activities on which consent is provided,
- Respective expectations,
- Proposed project duration, expected results and activities,
- Participatory monitoring and verification plan and procedures,

- Identification of grievances procedures and mechanisms,
- Terms of withdrawal of consent,
- Record of process through means and languages accessible to all stakeholders and parties involved.

The FPIC agreement and record of process will be made available through means and languages that are accessible to all stakeholders and parties involved.

3.8.7.4 Disclosure

The FPIC Implementation Plan will be disclosed together with the Programme Design Report (PDR), Environmental, Social and Climate Management Framework (ESCMF), and other documents to be submitted to the Executive Board (and Evaluation Committee).

3.8.7.5 Documenting The FPIC Process

FPIC process will be documented through minutes of consultations, mapping documents prepared by the Cooperatives /Associations/communities, videos where feasible, and FPIC agreements/formalisation documents.

3.8.7.6 The FPIC Implementation Plan

The following is a summary of the RELIV FPIC implementation Plan:

Table 3-19 Summarised RELIV FPIC Implementation Plan

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
1.0	Conduct sociocultural and land tenure assessment:		
	<p>Identify:</p> <ul style="list-style-type: none"> • Customary laws, informal rules and organizing practices on land ownership. • Institutions and governance systems. • Types of livelihoods. • Mutual support and solidarity mechanisms. • Cooperatives /Associations/Community stakeholders, land users and assess who has the right to give or withhold the consent. <p>Assess:</p> <ul style="list-style-type: none"> • Consequences from the proposed project that may result in the change of the status of the lands, and resources 	District offices of the ReLIV PMU (who may hire consultants to carry out the sub-project specific socio-cultural/land tenure assessments.	<p>At the beginning of programme implementation phase.</p> <p>This could be part of the participatory mapping exercise.</p>
2.0	Identify decision-making institutions and representatives		
	<ul style="list-style-type: none"> • Conduct preliminary consultations with the Cooperatives /Associations/community and explain the nature of the proposed project. • Allow time for Cooperatives/Associations/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 for the consent agreement. 	District offices of the ReLIV PMU, possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	At the beginning of programme implementation phase (this could be done in tandem with the socio-cultural and land tenure assessment and mapping exercise)
3.0	Capacitate the implementors and the stakeholders		
	Conduct various capacity building workshops for both the implementing partners and the stakeholders so that they are	<ul style="list-style-type: none"> • MAAIF • National Aids Council (NAC) 	Programme implementation phase - before individual sub-

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
	<p>all on the same page and will make informed decisions (See Section 5 for Details):</p> <ul style="list-style-type: none"> • Training of implementing partners on background of project: Environmental and Social Risks and Impacts of RELIV. • Training of Extension staff on background of project: Environmental and Social Impact Assessment of the Projects: • Cascading training to lower levels on background of project: Environmental and Social Impact Assessment of the Projects: • Training of Stakeholder on Gender, HIV/AIDS awareness: • Training of Stakeholder on land issues: <ul style="list-style-type: none"> ○ Land Tenure and rights ○ Land rights ○ Use of land ○ Pollution and degradation. 	<ul style="list-style-type: none"> • Ministry of Environment • Private Consultant 	<p>projects start begins and throughout the project cycle</p>
4.0	Conduct consultation leading to FPIC on the proposed project/specific component/activities		
	<ul style="list-style-type: none"> • Share objective and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC. • 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 • Formalize consent agreement. 	<p>District offices of the ReLIV PMU possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.</p>	<p>At the beginning of programme implementation phase and before individual sub-projects start.</p>
5.0	Formalize the consent agreement		
	<p>Formalize the consent agreement (written or in other form if so, requested by the community)</p> <p>The format for a consent agreement would include:</p> <ul style="list-style-type: none"> • Respective expectations • Proposed project duration, expected results and activities • Participatory monitoring and verification plan and procedures • Identification of grievances procedures and mechanisms • Terms of withdrawal of consent <p>Record the process through means and languages accessible to all stakeholders and parties involved.</p> <p>Annex the FPIC agreement and documented process to the PDR.</p>	<p>District offices of the ReLIV PMU possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.</p>	<p>Programme implementation phase. Timing agreed upon during the consultation process and before individual sub-projects starts.</p>
6.0	FPIC implementation		
	<p>Implement the FPIC agreements throughout the project life.</p>	<p>MAAIF/ ReLIV PMU, IFAD implementation support and joint supervision missions</p>	<p>Programme implementation phase - before individual sub-projects start begins and throughout the project cycle</p>

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
7.0	Monitoring the FPIC implementation		
	<p>Assess FPIC implementation as part of the M&E exercise during the project life.</p> <p>Appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement</p>	MAAIF/ ReLIV PMU, IFAD implementation support and joint supervision missions	Programme implementation phase - before individual sub-projects start begins and throughout the project cycle

3.8.8 Timeframes for Seeking FPIC.

When the precise nature and specific location of an investment is known and well defined, FPIC must be solicited at design stage. In the case of RELIV the precise nature and specific locations of the potential investment were not known, thus the Government of Uganda was not expected to directly seek FPIC at this stage.

FPIC will be sought at Implementation stage before any of the sub-projects is implemented and the FPIC process will be implemented throughout the project life cycle with constant monitoring and evaluation.

3.8.9 FPIC Implementation Arrangements

The following is a description of arrangement responsibilities and mechanisms for seeking FPIC, as well as the role of independent, impartial entities to monitor the FPIC implementation process.

The lead implementing agency for the project is MAAIF with the assistance of ReLIV PMU. RELIV PMU will be tasked with the day-to-day coordination, planning and management of select project activities.

Due to the multifaced nature of RELIV, a project steering committee (PSC) will be established and will contribute to the project oversight.

The ReLIV PMU will spearhead the implementation of the FPIC process and will be assisted by several key implementation ministries who have staff down to district level. The structure of the implementation is outlined in figure 3-4 below.

ReLIV PMU staff with their District teams comprised of the staff from the key implementing partners will be capacitated by undergoing training as explained in section 5 of this report. The target beneficiaries will similarly be capacitated. All the training will be conducted by designated Ministries or private consultants. Once capacitated the teams will start the consultation processes leading to FPIC. This process will also be assisted with private consultants.

3.8.10 Assess FPIC Implementation.

To assess FPIC implementation, the appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement. Subsequent workshops and stakeholders' reviews of the FPIC plan may also amend the various indicators to be established in the FPIC agreement. Joint supervision missions assessing project progress will also assess the implementation of FPIC agreements on a regular basis. Whenever possible, supervision and evaluation missions would include experts of relevance.

4. ENVIRONMENTAL AND BIOPHYSICAL/CLIMATE/SOCIAL BASELINE

4.1 INTRODUCTION

Livestock sector accounts for 17% in value addition and 4.3 % of national Gross Domestic Product (GDP). Cattle are by far the most important species with 14.2 million heads, and 1.4 million households keeping cattle, which contribute from 12 to 75 % to their total income. Most of these households are subsistence-oriented smallholders (FAO 2019²), and 75% of them own less than 5 heads.

Total meat and milk production is valued at USD 8.7 million per year (UBOS, 2017). Cattle represent 1 % of export value. Uganda is a net exporter of livestock products and live animals. Livestock exports are dominated by dairy products (USD 80 million), with beef (USD 6.2 million) playing a minor role. There is a high potential for further increasing exports, mostly within the region for milk, but also to the Middle East for beef.

Cattle provide income, food, draft power, insurance and savings, social capital and other goods and services to the population. Per capita consumption of beef and cow milk is 6 kg and 36 litres per year, respectively, which is still low compared to other countries in the region. However, the Food and Agriculture Organisation (FAO) estimates that demand for beef and milk in the country will increase by 320% and 200% by 2050 respectively due to ongoing population growth³.

4.2 CONTEXT

The expected growth in demand for beef, dairy products will provide major business opportunities for cattle and poultry farmers who will invest to expand their herd/flock and improve productivity. There will be business opportunities also for value chain actors, such as input and service suppliers, traders, processors, wholesalers and retailers of animal source foods (ASFs). Most importantly, consumers might benefit from the availability of affordably priced ASFs in the market. However, these developmental opportunities come with some major challenges that, if not properly addressed, risk jeopardizing the development of the livestock sector itself, with broader negative impacts on public health, environment and livelihoods

An inclusive, competitive and climate smart livestock sector in Uganda offers important opportunities for economic growth, improved livelihoods for smallholder producers, inclusion of women and youth and employment along the VC. It also brings important benefits in the areas of nutrition and public health, and there is a good potential for mitigating environmental and climate impact, while improving resilience.

4.3 BIOPHYSICAL BASELINE

4.3.1 Topographical Features & Agro-Ecological Zones

Uganda is located in the heart of Africa and includes within its borders part of Lake Victoria, the largest African lake. The territory consists of a plateau at an altitude of 1,200 meters, enclosed by various mountain ranges culminating in the south-west in the over 5,000 meters of the Ruwenzori; the economic and population situation is slightly better than in neighboring countries.

Uganda (located in East Africa) has an area of 241,500 km² sharing borders with South Sudan to the North, the Democratic Republic of the Congo to the west, Tanzania and Rwanda to the South and Kenya to the East. The country is divided into four regions of Northern, Central, Eastern and Western. Uganda

² FAO & New Zealand Agricultural Greenhouse Gas Research Centre. 2019. Options for low emission development in the Uganda dairy sector - reducing enteric methane for food security and livelihoods. Rome.

³ FAO. 2019. The future of livestock in Uganda. Opportunities and challenges in the face of uncertainty. Rome

contains and shares some of the world’s most important ecosystems with its neighbors such as Lake Victoria, Albert, Edward, the Nile Basin, its mountain ranges such as the Ruwenzori, Elgon and Virunga series.

Crops and livestock kept in Uganda are dependent on a number of factors such markets, farming systems, agro-ecological zones, government interventions, policies, pests and diseases and environmental conditions (Hill, 1997; Nkonya et al., 2005; Epule et al., 2018). The agro-ecological zones are classified as Western mid-altitude farmlands, Lake Victoria Crescent, Karamoja, South Kyoga floodplains, Afro-montane, Northern Moist farmland and South-west rangelands.

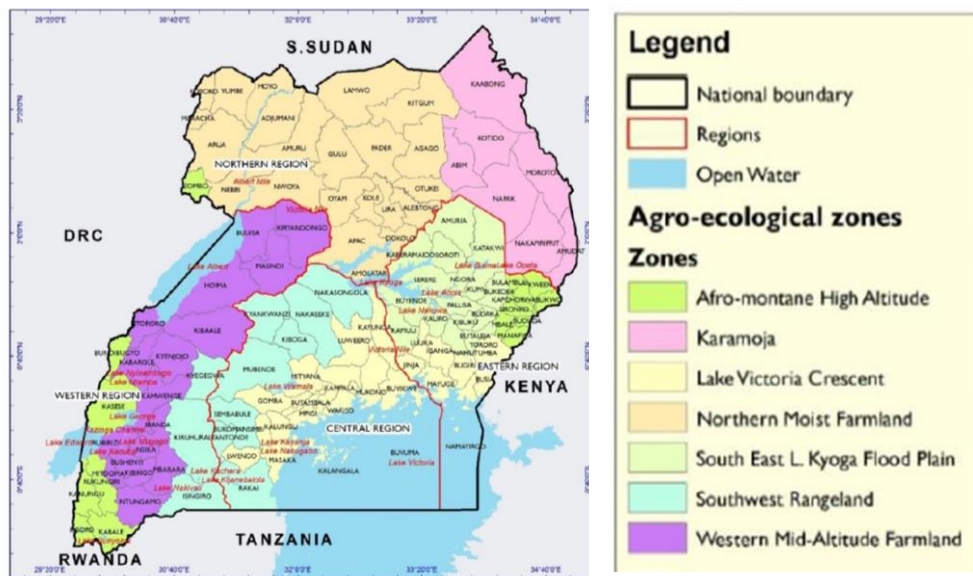


Figure 4-1 Agro-ecological Zones (Source: AgriFoSe2030 Report 5, 2018)

cattle are considered the most important livestock although other animals such as goats, sheep, pigs and poultry are equally important. Cattle are the main source of meat in the country and are reared on rangelands which occupy 84 000 km². The greatest concentration of livestock is found in the "cattle corridor", extending from South-Western to North Eastern Uganda. This corridor covers the districts of Ntungamo, Mbarara, Mpigi, Kiboga, Luwero, Apac, Lira, Soroti, Kumi, Mbale, Moroto, and Kotido (INFOTRADE, 2011).

Cattle production is considered as the critical means to liberate smallholder farmers from hunger and poverty (MAAIF, 2009). 60 % of the population is directly involved in livestock rearing as source of livelihood, though the nomadic pastoral livestock keepers are amongst the poorest in the country because livestock rearing is a matter of cultural pride and pristine other than trade. (MAAIF, 2002; UNHS, 2017). The 2008 national livestock census estimated that about 94% of the Ugandan cattle herds were indigenous comprising of Ankole (30%) and Zebu/Nganda (70%) (UBOS, 2010).

Regionally, nomadic pastoralism constitutes the principal livelihood for many households in the Northeastern part of Uganda (Karamoja agro-ecological zone). Also, the ‘cattle belt’ or the ‘cattle corridor’, which stretches across the central Uganda starting from the highlands in Southwest through Lake Kyoga basin to the Northeast of Uganda (Ransom et al., 2017). The cattle belt offers vast and scattered patches of savanna grasslands and thickets/shrubs that are palatable to cattle and available most of the year (Katongole et al., 2016).

Agro-ecological landscapes	Regions	Livestock systems	Animal/bird type
Afro-montane	Eastern	Mixed farming	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Karamoja	Northeastern	Pastoral system	Cattle, goats, chicken, sheep, pigs, camels
Lake Victoria Crescent	Central	Agro-pastoral system	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Northern moist	North	Mixed farming system	Cattle, goats, pigs, chicken, ducks, sheep, turkey
South East L.Kyoga floodplain	Eastern	Mixed farming	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Southwest rangeland	Western	Agro-pastoral system	Cattle, goats, pigs, chicken, ducks, sheep, turkey
Western Mid-altitude	Western	Agro-pastoral system	Cattle, goats, pigs, chicken, ducks, sheep, turkey

Figure 4-2 Agro-ecological Zones and type of livestock (Source: AgriFoSe2030 Report 5, 2018)

Commercial beef ranching is limited accounting for less than 10% of the national herd. The main sources of meat are the culled animals and excess steers in the various farming systems. In western-central Uganda cattle corridor, even up to Luwero, zebu a long horned cattle are kept for beef production. Zebu and the Ankole-Watusi cattle are small, hardy and well adapted to local conditions, but beef yields are relatively low because the animals don't grow too big. The Ankole-Watusi is medium in size weighing between 900 – 1,200 pounds and the bulls weighing 1,000 -1,600 pounds (Uganda Investment Authority, 2016)

4.3.2 Hydrology

The country's precipitation is highly variable, but overall, Uganda has experienced a significant reduction in annual as well as seasonal rainfall. Seasonal rainfall that covers the months of March, April, has been mostly affected, with decreases of 6.0 mm per month, per decade (McSweeney, 2010). The prominent decline in rainfall has been observed in some of the Northern districts of Gulu, Kitgum, and Kotido. While trends in extreme rainfall conditions are more difficult to define due to the lack of data and seasonal variability. Droughts have increased over the past 60 years, the western, northern and north-eastern regions have experienced more frequent and longer-lasting droughts over the past 20 years (WBG, 2021).

In the highly arid, north-eastern district of Karamoja, seven droughts occurred between 1991–2000, with additional droughts occurring in 2001, 2002, 2005, 2008 and 2011. The percentage of rainfall occurring from heavy precipitation events is anticipated to increase, which would also escalate the risk of disasters such as floods and landslides (Future Climate for Africa, 2016).

Drought and heat-induced livestock mortality has increased in Uganda due to starvation and lack of water; this causes significant economic losses, and negatively impacts on livelihoods of pastoral communities and increases their impoverishment (Stites et al. 2010, Mwaura and Katunze 2014).

4.3.3 Vegetation Types and Associated Habitats

Rangelands cover 44% of Uganda's total land area. This area support 80% of the national livestock herd and 90% of the cattle). Most of the rangelands in Uganda are dominated by pastoralists, and approximately 64% of them (22% of Uganda's human population) are categorized as poor (Kirkbride and Grahn, 2008 & MAAIF et al. 2010).

Vegetation zones can be classified according to the rainfall or climatic zones: the Lake region, the Northern Region, and the highlands of the Southeast. The south of Uganda has the heaviest vegetation

and typically becomes wooded savannah in central and northern Uganda. However, cultivation is intensive in the highlands southwest, even on the high mountain slopes. Scattered patches of thick forest or elephant grass and mvuli trees provide excellent timber.

Over time, a high proportion of the vegetation has been modified by cutting, cultivation, burning, grazing and other human actions, and many of these vegetation types have been significantly reduced in quality and range over time. Majority of the remaining natural areas are found in places where they have been protected from human encroachment and other disturbances in officially designated protected areas (International Resources Group, 2006)

Increased bush expansion in Ugandan rangelands by several native species, including *Acacia* (*Vachellia*) *hockii* De Wild and *Lantana camara* L., and increasing non-palatable grass species such as *Cymbopogon afronardus* Stapf have contributed to a decline in rangeland productivity, especially for grazers (Mugasi et al. 2000, Oba et al. 2008, Roschinsky et al. 2012)

4.3.4 Biodiversity inventories

Uganda has a unique combination of biological diversity in both its topography and wildlife. The majority of the country's biodiversity is found in natural forests and other natural ecosystems which are mountains, savannahs, wetlands, lakes and rivers. Uganda has approximately 18,783 species of which 7.5% are mammals, 10.2% of birds, 6.8% butterflies and 4.6% dragonflies. (MWE, 2015)

The ecosystems range from the snow-capped peaks of the Rwenzori (Mountains of the moon), the Virunga Volcanoes and Mount Elgon to high altitude montane forests, to the open waters of Lakes Victoria, Albert and others. A unique blend of semi-arid woodlands, savannah and forest communities as well as a wealth of montane and lake habitats.

Most of the remaining natural areas are found in those places where they have been protected from human encroachment and other disturbances. They include various subsets of forests, wetlands, grasslands/savannas and open water bodies. Wetlands contain significant habitats, flora and fauna. They are categorized into lakes and estuarine wetlands, riverine swamps and flood plains. The lakes and estuarine wetlands comprise Lakes Victoria, George, Edward, Albert, Wamala, Bisina, Opet, Kyoga, Kwania and Bunyonyi. The riverine swamps and flood plains include the Okole, Kafu and Nile systems (NRSP, 2001).

Grasslands/savannas cover more than 50% of the land area various locations are dominated by variety of species ranging from grasses, palms or acacias. However much of these habitats have been converted to agricultural productivity. The remaining pockets of natural savannas and grasslands are primarily found in protected areas.

4.3.5 Forests

Forests in Uganda occur as gazetted areas, protected areas and on private and ungazetted public land. Forest reserves constitute around 7% of the area of the country with 700,000 hectares in tropical high forests, 632,000 hectares in savanna forests and 24,300 ha in plantation forest. Tropical high forests are found in western Uganda around Lake Victoria and on Mt. Elgon in the east. Over the years, these forests have been cleared, and from a coverage of 12.7% of the country's land area at the start of the century, tropical high forests now account for only 3% of Uganda's land area. Plantations make up 2.2% of gazetted forests and were established to meet the demand for industrial wood. They consist of conifer (pine) and hardwood (mainly eucalyptus) plantations and are located in almost every agro-ecological zone, but particularly in the southwestern part of the country and along the northwestern areas of Lake Victoria. UNEP (1988).

The woodlands are natural forests with a sparse cover comprising of shrubs and average size trees. Woodlands produce high quality fuel wood, particularly charcoal. This makes woodlands easy target for charcoal production for domestic consumption in urban areas. It is asserted that the high deforestation rate that occurred between 2005 and 2015 was largely linked to charcoal production. Moreover 75% of forests were lost on private land between 1990 and 2015, this came as consequence of changes in forest governance (NEMA et al. 2016).

Tropical High Forests represent prime natural forest estate for wood products such as timber and poles, while a well stocked and low stocked are a good for timber and land conversion for agriculture (Turyahabwe et al. 2015). The Tropical High Forests are important habitats for mammals, birds and other species. Efforts to expand reforestation on private land and in central forest reserves (CFR) have had limited impact. Between 1990 and 2015, Uganda forest plantations expanded by only 75,533 ha against a forest cover loss of 3.05 million ha.

An increasing population (population growth rate of 3.2%) exert pressure on demand for wood, coupled with poorly segregated governance system have proven a good recipe for high deforestation. Other factors such as civil strife in the mainly woodland areas and limited livelihoods options contribute to the high rates of deforestation

4.3.6 Water Resources

Uganda is enriched with water resources in both surface and ground water. Surface water resources are found in the form of streams, rivers, lakes and wetlands divided into eight water catchment basins.

- Lakes in Uganda cover one fifth of the total area of the country. Water resources comprise
- open water bodies, ground water and rain harvest. NEMA (1996) indicates that on a regional
- basis, 39.1% of water bodies are found in central, 30.3% in eastern, 3% in northern and 8% in
- western regions. The whole of Uganda lies in the upper Nile catchment consisting of numerous rivers and streams flowing into principal lakes such as Victoria, Kyoga, Edward and
- Albert and eventually into the River Nile. (EPRC, 2000).
- The natural state of some of these water bodies was greatly impacted by the introduction of exotic species, including Nile perch, other fish species and water hyacinth.

Uganda's wetlands are not only enormous source of water, they provide a large array of ecosystem services in urban and rural areas. According to NEMA (1996) wetlands can be characterised as papyrus swamps, swamp forests, riverine wetlands, lake edges, flood plains, dambos and artificial wetlands. Wetlands possess distinct trees, shrubs and grasses and their soils are quite unique. They are used for farming, fishing, and livestock grazing, and are primary supplies for water for many rural households. Wetlands also play a crucial role at a regional level by filtering pollutants and regulating water flow. Wetland coverage across the country is in decline, at 15.6% in 1994 and 10.9% in 2008. These changes have been attributed to massive wetland degradation for rice cultivation and dairy farming, flower farming along the shores of Lake Victoria; especially in Buikwe, Mukono, Wakiso and Kampala districts, with occasional conversion for human settlement (WBG,2021).

Decline in water resources is further worsening due to degradations exhibited in poor quality and quantity in the major freshwater bodies. Soil erosion and industrial pollution have reduced surface water quality. Watershed degradation and climate change also reduced surface and ground water quantities. Other major drivers of reduced water quality and quantity are encroachment on water catchments, increased water abstraction for domestic, industrial, infrastructure development and production, discharge of effluent into the environment and inadequate sanitation facilities especially among fishing communities (NEMA, 2012).

4.3.7 Soils

Most of Uganda forms part of the interior plateau of the African continent and its landforms are characterized by flat-topped hills in the central, western and eastern parts of the country. The rise of the plateau in the eastern and western part of the country is represented by spectacular mountain topography located along the borders as, for example, the Rwenzori Mountains and Mufumbira volcanoes in the west and Mt. Elgon, Mt. Moroto, Mt. Murungole and Mt. Timu and Mt. Kadam in the East (NEMA 2002)

Uganda soils are dominated by ferralitic soil which accounts for about two-thirds of the soils found in the country. The most productivity soils cover 8% of the area of Uganda Based Uganda's soils categorized according to: (a) very high to high productivity, (b) moderate productivity, (c) fair productivity, (e) low productivity (e) negligible productivity and (f) zero productivity. The high productivity soils cover only 8% . (NEMA 1996).

Soils in Uganda are also classified according to the FAO system whereby Ferrisols and eutrophic soils are the most productive and are found all over the country. Ferruginous soils are scattered throughout the country but are concentrated in Tororo and Gulu districts. Studies suggest that ferruginous soils are less productive and require careful usage to preserve their poorly developed top soils, whereas lighter soils unlike heavy soils are more susceptible to leaching. (EPRC, 2000)

The most dominant soil type in Uganda is ferralitic soil which accounts for about two thirds of the soils found in the country (NEMA, 1996).

Soil type and topography are key determinants of land use and soils are classified in seven groups (World Bank, 1993). These are:

- a) Buganda surfaces which cover much of the region south of Lake Kyoga including districts north and north west of Lake Victoria and embrace five types of deep sandy clay loams with medium to high productivity.
- b) Tanganyika surfaces cover much of the area north of Lake Kyoga, West Nile and parts of the southwest. They consist of sandy clay loam soils with low to medium productivity.
- c) Karamoja surfaces in the North east comprise sandy clay loams and black clays of low productivity.
- d) Rift valley soils in the west and north are sandy clay loams with alluvial parent rock of high productivity.
- e) Volcanic soils of high productivity are found on Mt. Elgon and in the extreme southwest. In northern Karamoja these soils have low productivity.
- f) Alluvial soils found in central and northern Uganda (Lango and Acholi as well as west of Lake Victoria) are sandy and of low productivity.
- g) Other soil types in the north are of low productivity.

More than two-thirds of Uganda lies at altitudes ranging from 1,000 m–2,500 m above sea level. The relatively high altitude has led to many areas in Uganda being badly eroded while others are at risk of having their soils permanently destroyed unless prompt and proper action is taken (NEPAD–CAADP,2004)

4.3.8 Climatic Conditions

Uganda experiences moderate temperatures throughout the year. However, the country's diverse topography results in wide-ranging temperature, from 0°C in the ice-capped Rwenzori Mountain Range and Mt Elgon, to 30°C in the north-eastern areas of Gulu, Kitgum and Moroto. The Rwenzori Mountain Range has permanent ice caps, however due to rising temperatures, the area typically covered by ice reduced by 49% between 1987 to 2003 and is projected to disappear by the 2040s (MWE, 2014)This

has implications for the area's water resources, livelihood activities and is likely to change its epidemiological profile.

The World Bank Group's Climate Change analysis projects the annual mean temperature for Uganda by 2020 to be 22.8°C, with monthly temperatures ranging between 21.7°C (July) and 23.9°C (February). During this period, total annual average precipitation of 1,197 mm, and mean monthly precipitation of the country varies from 39.6 mm in January to 152.7 mm in April(WB,2021).

The effects of climate change and environmental degradation are increasingly felt in the country. The country experiences unpredictable weather phenomena in the form of irregular rainfall, resulting either in drought or in flooding accompanied by landslides. These risks are exacerbated by the reduction of wetlands and deforestation. Uganda has a high rate of forest cover loss – between 2001 and 2019, Uganda lost 11% of its tree cover. Contributing factors to degradation include agriculture activities, explorations of soil and other natural resources, the high demand for fuel wood where more than 80% of Uganda's rural households use firewood for cooking. The rise in temperatures and inadequate rainfall in the first quarter of 2022 have disrupted the agricultural planting season which has an impact on food security, poverty, inflation, and hence economic growth.

4.4 SOCIO-ECONOMIC BASELINE

4.4.1 Political and Civil Administration

The 1995 constitution of Uganda as amended the president is the head of state, government, and the armed forces assisted by a prime minister and cabinet. Legislative powers are vested in the unicameral Parliament where most members are elected to five year terms. The constitution provides for a comprehensive representation of the members of the public in the parliament which include one female representative from every district and representatives of specific groups, such as the army, youth, labour, and persons with disabilities. The constitution also recognizes the right of ethnic groups to pursue their own cultural practices.

Uganda is divided into 136 districts, gathered in the four regions of the north, west, east and center; the central region, which includes the capital Kampala and its suburbs, is the most populated, while the northern region is the one with the largest surface area.

The Local Governments Act, provides for decentralized governance and delegation of central government functions, powers and services to local governments. Districts have powers to oversee implementation of development activities under supervision of their relevant departments. District and Local Council administration are critical in implementation of development projects by mobilizing political goodwill and sensitizing local communities. Districts are administered by an elected chairperson and a district council. The councils consist of elected members with the political and judicial power to manage community affairs. While Subdistrict administrative units are governed by a tiered structure of elected councils.

4.4.2 Population and Demographic Conditions

Uganda population is one of the highest growth rate ranging between 3.0-3.2% per annum. The projected Uganda's total population for mid-2022, was 43.7 million with a growth of 3.0 percent per annum in the last decade.

However, UN World Population Prospects 2022 projection showed that, Uganda's will reach 100 million by 2060. Around 69% of the population are below 25 years old, describing a rising youth growth, and 47% are of working age 15-64 while 47.9% of the population are aged 0-14 and lastly 2.9% are aged 65 years and above . The young population forms a broad base of the country's population structure.

Having a predominantly young population creates a high population momentum which means that the country's population will continue increasing because of the large cohorts of young women entering their childbearing years, with 53.9% beginning child bearing by age 19.6 The dependency ratio remains unfavourably high at 103, indicating a heavy burden on the economically productive population as well as impacting government's efforts to provide adequate and quality social services.

The 2021 State of Uganda Population Report, indicated that Uganda was showing signs of a demographic transition, in which birth and death rates shift from high to low levels in population. While Uganda's total fertility rate is showing signs of decline, further pro-poor social and economic development policies are important in order to improve education and health, increase labour force participation with skilled and healthy future labour force in order to reap the benefits of accelerated economic growth.

4.4.3 Land Tenure and Landuse

The Land Act of Uganda 1998 and (Article 246) of the Constitution recognizes four major systems of land tenure in Uganda namely: customary tenure, freehold, leasehold and mailo tenure

Customary tenure is the most common tenure system in Uganda whereby access to land is "governed by the customs, rules, and regulations of the community." Holders of land under the customary system do not have a formal title to the land they use, but generally have secure tenure. (IFPRI, 2008)

Mailo tenure is a quasi-freehold tenure system established in 1900 by the British colonial government remains a relatively secure and well-defined system of tenure, particularly in the Central region. An important feature of mailo systems is that much of the land is used by tenants who are restricted in their security of tenure on the land they farm.

Freehold tenure is a system whereby owners of the land have a title to their land which allows them to hold the registered land indefinitely. The landowner is given complete rights to use, sell, lease, transfer, subdivide, mortgage and bequeath the land as they see fit, so long as it is done in a manner consistent with the laws of Uganda.

Leasehold tenure is a system where the owner of the land grants the tenant exclusive use of the land, usually for a specific period of time. Land may also be leased from the state to individuals for typical lease periods of five, 45, or 99 years. In return, the tenant usually pays an annual rent or service under specified terms and conditions. Leaseholders may or may not hold formal contracts with the owner. (IFPRI, 2008)

Uganda has a total area of 241,550,000 ha. Agricultural land occupied 60% of the total area and increased significantly since 1994 to 14,415,000 ha (72%) in 2013 growing at the annual rate of 0.3% (FAOSTAT, 2016). Agricultural land refers to the share of land area that is arable, under permanent crops, and under permanent pastures. Arable land includes land defined by the FAO as land under temporary crops, temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Arable land increased from 0.54% annual growth in 2000 to 2.36% in 2012, while permanent cropland area decreased from an annual growth rate of 1.69% to 0.72%. Notably in the last decade, agricultural land has steadily increased at a rate of 1% per annum, and if this rate continues agricultural land will account for 90% of Uganda's land by 2040 (UBOS, 2014). Natural forest cover has declined drastically from 54% in the 1950s to 20% of the total area, while grassland has increased by 28.18% during 1996– 2013 (NEMA, 2004). About 41% of the country's total area is experiencing degradation, of which 12% is in a severe state of degradation (Vågen T-G at al,2016). The most common form of land degradation is soil erosion, found on around 85% of degraded land (NEMA, 2004). Areas severely affected by soil erosion (85–90%) include the highlands of Kabale

and Kisoro, while the badly affected ones (75–80%) include Mbale, Rakai and the cattle corridor districts. Forest cover loss of about 25 million tons of wood consumed annually translates into 50% degradation of all tropical high forests on private land and 15% in forest reserves (FAO, 2012) .

4.4.4 Socio-Economic Conditions

Urbanization

Although Uganda is one of the least urbanized countries in the world in absolute terms, the urban population is growing. Urban population in Uganda increased from less than one million persons in 1980 to about three million in 2002, representing a nearly fourfold increase. However, between 2002 and 2014, the urban population rapidly increased to 7.4 million (UBOS 2017).

Employment

Unemployment Rate in Uganda increased to 4.20 percent in 2010 from 1.90 percent in 2007 (UBOS 2011) 12 . Unemployment remained predominantly an urban problem as the unemployment rate in urban areas is more than three times that of their rural counterparts. The unemployment rate was highest in Kampala (11%) and lowest in Western and Eastern regions (2%) respectively 13 . About 83% of young people have no formal employment (MFPED 2012). Youth unemployment in Uganda is the highest in Sub Saharan Africa. Employment is expected to remain a challenge in the years ahead. Generally, the high youth unemployment rate in Uganda is largely attributed to high population growth rate, slow growth in industrial development, and small formal labour markets, lack of sufficient experience and skills, rural-urban migration, and youth's limited access to resources like capital and land. In addition, the overall existing policies continue focusing on creating job seekers rather than job creators. However, growing sectors of agro processing, tourism and services offer opportunities for youth employment (NEMA, 2012).

4.4.5 Livelihood Conditions

Poverty

Over the past three decades, Uganda's national poverty rate has fallen by more than half, from 56 percent in FY 1992/1993 to 20.3 percent in FY 2019/2020, owing mostly to improved agricultural incomes among poor households. Yet Uganda remains one of the poorest countries in the world. The COVID-19 pandemic aggravated the poverty situations. As per the 2019/2020 Uganda National Household Survey, due to COVID-19 pandemic the number of poor people in the country increased from 8 million to 8.3 million. In June 2020, the United Nations in Uganda's Socioeconomic Impact Assessment of the COVID-19 pandemic projected that some 4.4 million people were likely to fall into extreme poverty. Similarly, the World Bank update for 2022 showed that poverty in Uganda increased from 27.5 to 32.7 percent after the first lockdown in 2020 due to reduced remittances, limited credit, and job losses. Likewise, in the first half of 2021, Uganda's Finance Ministry also reported that 28% of Ugandans were poor. That rate had increased from 18% before the pandemic. The Finance Ministry also noted that two-thirds of Ugandans had lost at least some income due UNDP,2022

poverty is significantly higher among large households of seven or more persons (46.6 percent), teenage-headed households (52.7 percent) and households headed by widows/widowers (51.1 percent). There are also notable regional and subregional disparities in multidimensional poverty in Uganda. Multidimensional poverty is highest in the Northern region (63 percent), followed by the Eastern region (45.7 percent). At the subregional level, Karamoja has the highest level of multidimensional poverty with 85 percent UNDP,2022

World Bank released a new report in October 2022 which showed that 42.1 percent of the Ugandan population is estimated to be in extreme income poverty . Forecasts shows that accelerated growth might marginally lower the poverty rate from 42.1 percent in 2022 to 41.9 percent in 2024, but this

prediction is subject to a number of downside risks, including the trajectory of COVID-19, the course of the Ukrainian conflict, the rate of food inflation, and any environmental shocks that negatively affect households due to their limited capacity for adaptation. World bank ,2022

4.4.6 Agriculture

Investors consider Uganda’s agricultural potential to be among the best in Africa, with low temperature variability, fertile soils, and two rainy seasons over much of the country - leading to multiple crop harvests per year. According to the UN’s Food and Agriculture Organization, Uganda’s fertile agricultural land has the potential to feed 200 million people. Eighty percent of Uganda’s land is arable but only 35% is being cultivated. In FY 2022/23, agriculture accounted for about 24% of GDP, and 35% of export earnings. The UBOS estimates that about 68% of Uganda’s working population is employed in agriculture. Uganda produces a wide range of agricultural products including coffee, tea, sugar, livestock, fish, edible oils, cotton, tobacco, plantains, corn, beans, cassava, sweet potatoes, millet, sorghum, and groundnuts. Commercialization of the sector is impeded by farmers’ limited use of fertilizer and quality seeds, and a lack of irrigation infrastructure – rendering production vulnerable to climatic extremes and pest infestations. Sector growth is also impaired by the lack of quality packaging capabilities, insufficient storage facilities, poor post-harvest handling practices, shortage of agricultural credit, high freight costs, the lack of all-weather feeder roads in rural areas, a complicated and inefficient land tenure system, and limited knowledge of modern production practices. (ITA, 2023)

The Agricultural Sector continues to be the most important sector in Uganda; it employs approximately 72% of the population and contributed about 32% to the GDP. However, Productivity is limited by reliance on natural weather conditions and the still widespread use of traditional methods and equipment.

Uganda is among the leading producers of coffee, bananas and oil seed crops (sesame, soybean, sunflower etc.). It is also a major producer of other crops like tea, cotton, organic cotton, tobacco, cereals, fresh foods and vegetables, nuts, essential oils, flowers, poultry and freshwater fish.

The Ugandan Government is pushing for greater commercialisation of agriculture by encouraging the use of irrigation and mechanised farming. Opportunities for investment exist in:

- Commercial farming in both crops and animal industries as well as aquaculture.
- Value addition (agro-industries, agro food industries);
- Manufacturing of inputs such as improved seeds, fertilizers and pesticides
- Cold storage facilities and logistics
- Farm machinery manufacturing and assembly
- Packaging
- Irrigation schemes.

Beef Production

In Uganda, the livestock sector accounts for about 20 percent of agricultural value added and 3.8 percent of GDP (UBOS, 2020). Fifty-eight percent of households depend on livestock for their livelihoods and most of them are subsistenceoriented smallholders. Cattle is the most important livestock subsector in the country, with production valued at USD 8.7 million per year and with a population of about 14.6 million cattle (FAO, 2019; UBOS, 2020). The indigenous breeds continue to be dominant over the exotic ones; 9 in every 10 (13.6 million out of 14.6 million) cattle in Uganda are indigenous. Most cattle in Uganda are found in the ‘Cattle Corridor’, which extends diagonally across the country from the pastoralist Ankole area in the southwest to the Karamoja region in the northeast (Egeru et al., 2014). The pastoral areas of Karamoja have the highest concentration of cattle in the country (head/km²), where cattle is the main source of livelihood and backbone of the local economy (Gradé, Tabuti and van Damme, 2009).

Uganda produced around 2.4 million heads of cattle annually on average between 2005 and 2019 and the total number of cattle in the country has not changed much within this period, with an average growth rate of 1 percent (FAOSTAT, 2021). The growth rate is similar for beef production, reaching around 170 thousand tonnes in 2019. The low growth rate of cattle in Uganda could be explained by the fact that around 90 percent of cattle farmers are smallholders, engaged in pastoral, agro-pastoral or mixed crop-cattle production systems with limited access to animal health services. Water shortages and scarcity of feed during droughts (cattle largely feed on natural pastures including communal grazing areas and fallow land), are other factors. (FAO, 2018). High productive systems such as commercial ranching with substantial investments made in animal health and breeding, accounts for less than 10 percent of the national herd (UIA, 2016). Cattle in Uganda is mainly raised for meat: over 80 percent of the national herd is devoted to beef production (FAO, 2019). Per capita annual consumption of beef is 6 kg and the trend is increasing. The growth in beef demand is explained by a population growth at 3.3 percent per annum, increasing urbanization, rising purchasing power and exports, and changes in consumption habits (Kingdom of the Netherlands, 2012).

4.4.7 Labour and Migration

Migration

There has been an increase in internal migration, particularly from rural to urban centres. The main motivation for migration to urban settings is to earn money in accordance with youth's actual or perceived responsibility to contribute to their households. A new research study commissioned by the International Organization for Migration (IOM) in Uganda shows that thousands of people are being forced to move due to climate change and environmental degradation. Uganda has progressive policies to support the integration of migrants, refugees and asylum seekers. The Refugees Act ensures the freedom of movement for refugees within Uganda and ensures access to social services including health care and education for both refugees and members of their families. Similarly, the implementation of migration-related East African Community Protocols is also leading an increase in the number of Ugandans living in Eastern African countries. With the diversification of East African economies, such as Kenya, South Sudan, and Rwanda, the demand for Ugandan workers has increased outside the country. In recent years, Ugandans are also emigrating to the Middle East in search of job opportunities as house maids and security guards.

Labour

Unemployment continues to be one of the biggest problems for Uganda, which was further worsened by COVID-19 pandemic. The national household survey 2019/2020 reported the pre-COVID-19 national unemployment rate was 9.2%, women were more affected than men. The same survey stated that the unemployment rate for youth aged 18 – 30 was 13% which was 4 percentage points higher than the national rate. Uganda is one of the countries in the world which has the youngest populations. According to World Bank data, Uganda's population stood at 45 million (World Bank, 2020) half of which are 15 years or younger. More than a million young people are entering the job market each year in the country, but these numbers cannot be absorbed in the formal sector, data shows that around 10% of those employed have formal jobs, while 90% work informally, without a formal contract or any type of social security, implying high levels of job insecurity (Challenge Fund for Youth Employment, 2022)

Generally, the high youth unemployment rate in Uganda is largely attributed to high population growth rate, slow growth in industrial development, and small formal labour markets, lack of sufficient experience and skills, rural-urban migration, and youth's limited access to resources like capital and land. In addition, the overall existing policies continue focusing on creating job seekers rather than job

creators. However, growing sectors of agro processing, tourism and services offer opportunities for youth employment (NEMA, 2012).

5. VARIOUS MANAGEMENT PLANS

5.1 INTRODUCTION.

The following chapter summarises some of the environmental and social management plans which the project has to implement. The plans are dealt with in detail as separate documents.

5.2 THE INTEGRATED PEST MANAGEMENT PLAN.

5.2.1 Pest Control Practices

Pests are increasingly becoming a menace in the livestock sector. The farmers carry out routine management of pests on their animals and in their fields, mainly through the use of pesticides. The common pest control practices 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.

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.

5.2.2 Integrated Pest Management

The Integrated Pest Management (IPM) refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. Generally, it is the pest management technique of choice. It involves the following processes:

- 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 minimises 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:

- **Biological control:** the introduction of insects, mites, micro-organisms that prey on or parasitize harmful species.
- **Bio-pesticides:** these have a pathogenic micro-organism as the active ingredient, for example a bacterium, fungus or a virus.
- **Botanicals:** botanical pesticides contain plant extracts that have biocidal properties e.g., Neem (*Azadirachta indica*).
- **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 agro-ecosystem. 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 RELIV sites 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:

- **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.
- **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.
- **Chemical Control:**

This involves selecting a pesticide with the lowest toxicity to humans and non-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 over-stocking. 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 Act and the Environmental Management Act.

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.

5.3 THE LABOUR, COMMUNITY HEALTH, AND SAFETY MANAGEMENT PLAN.

This section summarises the Labour, Community Health, And Safety Management Plan of the RELIV programme. The relevant policies are outlined in Appendix 9.

5.3.1 LMP APPLICATION.

The LMP is applicable, as per ESS 5 to all the RELIV Project workers as per the following condition:

- People employed or engaged directly by RELIV to work specifically in relation to the Project,
- The Government public servants, who may provide support to the Project, will remain subject to the terms and conditions of their existing public sector employment agreement or arrangement,
- People employed or engaged by consultants to perform work related to core function of the Project, regardless of location,
- People employed or engaged by RELIV's primary suppliers,

5.3.2 LABOUR REQUIREMENTS

i. Direct Workers:

Direct workers include, the RELIV PMU staff, MSMEs staff, Program-based Staff and Permanent Government Staff. The RELIV PMU will employ consultants and support staff who will be working on contractual bases as part of the RELIV PMU. Terms and conditions of these consultants will be guided by the Uganda Labour Laws. In addition, the civil servants at the local level will be involved in the program implementation on a full time or on part-time basis. The consultants will be engaged by the Project to undertake short period assignments as necessary. These are consultants guided by specific contractual agreements between them and RELIV PMU.

Direct workers are eligible to work for a fixed contract period of not more than 1 year. Contracts will be renewed annually based on satisfactory services. Consultants will be engaged under a short-term period of not more than six months and the labour requirement including the time schedule and deliverables are stipulated in their respective contracts.

The RELIV PMU will oversee the Project and engage throughout the Project life cycle the following personnel:

- Project Coordinator,
- Administrator,
- Procurement Specialist,
- Project Accountant,
- Internal Auditor,
- Monitoring and Evaluation Specialist,
- SECAP Specialist,
- Driver.

ii. Contracted Workers:

Based on the requirement in every component the RELIV PMU will employ contractors who will hire contracted workers based on their level of skills and program needs. If agreed with the PMU, sub-contracts of the work could be given. Sub-contractors recruited may supply labourers as per the agreed terms and conditions.

Contracted workers are eligible to work for a contract period fixed by the PMU, and then recruited by the Contractor. Their contracts will be renewed, if required, based on satisfactory services.

iii. Primary Supply Workers:

Based on the requirement in every component Y, primary supply workers will be recruited by the suppliers as required. It will be ensured (and monitored periodically by the PMU) that no children are recruited and supplied as worker. Furthermore, it will be monitored like above that these workers are not subject to 'forced labour' in any manner. The PMU will be responsible to make sure that these standards are followed strictly. If any deviation is identified the PMU will take action as prescribed in the contract/agreement following the LMP.

Their tenure service will be based on supplies as procured.

5.3.3 MAIN LABOUR RISKS

The main labour risks associated with the Project are assessed to be related to the work environment and associated risks of accidents. **Based on current conditions in the sector it is assessed that the risk of child or forced labour is negligible**, and already managed through national legislation.

The RELIV has developed this LMP as part of the ESCMF which will illustrate the types of workers to be engaged and their management in line with ESS5 and national labour laws and regulations. Even though labour influx is not anticipated, social impacts such as GBV, sexual exploitation and communicable diseases for local communities cannot be ruled out. Thus, management and mitigation of GBV/SEA risks were integrated in both the stakeholder engagement and LMP.

5.3.4 LABOUR INFLUX

It is not expected that there will be any labour influx in any project community. The RELIV will mandate and localize the economic benefits and only allow for outside, including expatriate labour, where there is a requirement for special skills.

Specific requirements to manage risks associated with labour influx, related to interaction between project workers and local communities, such as communicable diseases and gender-based violence, are managed through contractual requirements, Code of Conduct and training set out in this document. These procedures are guided by the national legislation.

5.3.5 OCCUPATIONAL HEALTH AND SAFETY:

The Occupational health and Safety measures and action plan guided by the IFAD updated SECAP 21 will be developed and implemented to assess and manage risks and impacts to the community arising from Project activities and workers. The consultants to be engaged will ensure that their employees/staff will be trained on occupational health and safety and records of which are to be inspected monthly and audited bi-annually. The RELIV will consider the incremental risks of the public's health and safety and potential exposure to operational accidents.

5.3.6 GENDER-BASED VIOLENCE:

Gender based violence is widespread in Uganda and primarily affects girls and women, hence based on the GBV/SEA/SH Uganda country-level risk assessment ratings, the social risks of Sexual Exploitation/Harassment and GBV are rated as moderate, and the project will not directly or indirectly cause or contribute to any of the pre-existing social issues related to gender-based violence but will attempt to ultimately contribute to their mitigation through improving the livelihoods of the poor stakeholders.

Nonetheless, there is a possibility of contextual risks of GBV and there could be an increase in the risk and exposure of GBV/SEA against women because they have improved economic opportunity as a result of the project. There is thus a need to uphold safe environments at all sub-project areas and implement the GBV Action Plan in the project ESCMF.

5.3.7 CHILD AND FORCED LABOUR:

The risk of child labour will be very minimal and will be mitigated through Certification of labourers' age. This will be done by using the legally recognized documents such as the National Identification Card, and Birth Certificate. Further, awareness-raising sessions will be conducted regularly to the communities to sensitize on prohibition and negative impacts of child and forced Labour.

5.4 THE TARGETED ADAPTATION ANALYSIS.

This section summarises the Targeted Adaptation Analysis for the RELIV programme. The Adaptation decision matrix table is outlined in Appendix 10.

5.4.1 The Impacts Of Climate Change On Dairy Production.

The potential effects of climate stressors (Figure 5-1), include drought, rainfall variability, floods, temperature increases, on beef and dairy production. The climate impacts point to the connection between climate change and beef and dairy productivity. It shows that four climate stressors – temperature increase, rainfall variability, droughts, and floods – affect the beef and dairy sectors and ultimately reduce their productivity.

Mean temperatures in Uganda are projected to increase by up to 1.9°C by 2050, under an RCP8.5 scenario. The vulnerable sectors to the rise 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 5-1).

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.

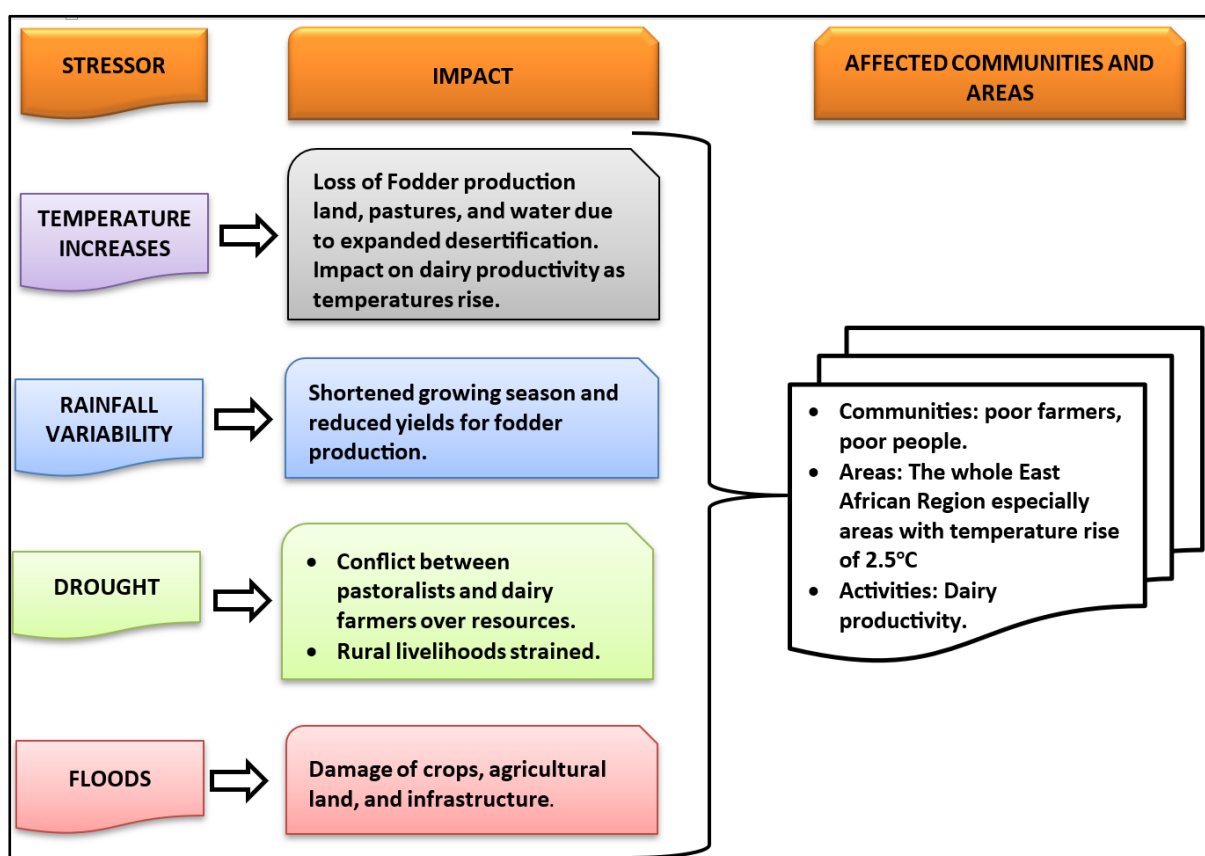


Figure 5-1 Climate stressors and their potential impacts on agriculture.

The climate change impacts will occur through different channels and will affect each of the four beef and dairy production dimensions of food security: access, availability, utilisation and stability⁴.

Changes in temperature, precipitation, water availability, extreme climate events, and atmospheric composition will have direct effects on beef and dairy production, which may then translate into impacts on prices, incomes and livelihoods in general.

Table 5-1 Climate-change impacts on different aspects of beef and dairy production security⁵

BEEF & DAIRY PRODUCTION SECURITY DIMENSION	POTENTIAL IMPACTS
Availability	<ul style="list-style-type: none"> • 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 fodder crop and livestock pests and diseases, • Higher post-harvest losses as a result of climate change.
Access	<ul style="list-style-type: none"> • Loss of agricultural income due to reduced yields and higher costs of production inputs 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	<ul style="list-style-type: none"> • Greater instability of supply due to increased frequency and severity of extreme events, including droughts, • Instability of incomes from agriculture.
Utilisation	<ul style="list-style-type: none"> • Impact on food safety due to increased temperatures, • Impacts on nutrition resulting from reduced water quality and quantity, • Climate induced morbidity.

⁴ Food and Agriculture Organisation (FAO) (2016) The state of food and agriculture. Climate change, agriculture and food security. FAO, Rome, Italy.

⁵ 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.

5.4.2 ADAPTATION MEASURES.

This section provides a snapshot of the most important national level adaptation and mitigation efforts. Adaptation to climate change for beef and dairy production may include shifting planting periods for fodder crops, growing of drought tolerant fodder crops, rearing more resilient breeds, and raising dairy cattle mainly in the cooler regions of country.

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 livestock systems. Identifying adaptation needs helps prioritize actions and allocate resources to address the most critical challenges. Based on the emerging findings of this study, the adaptation needs in the beef and dairy sector in Uganda are as shown in the following sub-sections:

i) Access to climate-smart technologies.

Farmers need access to climate-smart technologies such as improved livestock breeds, drought-tolerant forage varieties, and energy-efficient beef processing and milk cooling and processing equipment. These technologies can enhance productivity, conserve resources, and mitigate climate change impacts. Improving the beef and dairy industry's production efficiency is an effective way towards reducing emissions per unit of milk or beef (Place & Mitloehner, 2010).

ii) Capacity building and knowledge transfer.

Providing training programs, Farmer Field Schools, and extension services can enhance farmers' technical knowledge and skills in beef and dairy management. This includes training on sustainable feeding practices, breeding strategies, disease control measures, and effective use of water resources.

iii) 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).

iv) Strengthening infrastructure.

Investing in rural infrastructure, such as improved road networks, electricity supply, and milk collection and processing facilities, slaughterhouses and meat processing plants, can reduce transportation costs, post-harvest losses, and improve overall market access for dairy farmers.

v) Climate information and early warning systems.

Developing and disseminating climate information, early warning systems, and advisory services can assist livestock producers in making informed decisions related to feed management, breeding, and disease control. This helps pastoralists anticipate and adapt to climate-related risks. Market information systems form a key component of these early warning systems.

vi) Policy support and institutional strengthening

Developing supportive policies and regulations that address the specific needs of the beef and dairy sector, as well as strengthening the institutions involved in research, extension, and market development, are crucial for enabling a conducive environment for livestock farmers to thrive. Collaboration between government departments, research institutions, livestock cooperatives, financial institutions, and development partners is required to address the identified key barriers and adaptation needs.

6. STAKEHOLDER ENGAGEMENT, INFORMATION DISCLOSURE AND THE GRM

6.1 INTRODUCTION.

ReLIV has been designed in close consultation with a wide group of stakeholders, the details of which can be found in appendix 4. Public consultations were conducted to confirm the relevance of the proposed interventions and solicit the views of the various stakeholders about the proposed interventions. The consultations also assist to determine the effectiveness and efficiency of the proposed approaches.

The ReLIV PMU has the responsibility to effectively engage stakeholders to achieve the project objectives. This Stakeholder Engagement Plan (SEP) is for use during public consultation in the screening processes for every ReLIV funded project and sub-projects. This chapter provides a summary of the Stakeholder Engagement Plan (SEP) which is covered in more detail in a separate document.

6.2 OBJECTIVES OF THE PLAN

The SEP provides a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the project is carried out effectively. To ensure the effective implementation of this plan, ReLIV shall be committed to the following principles:

- Promoting openness and communication,
- Ensuring effective stakeholder involvement,
- Evaluating the effectiveness of the engagement plan in accordance with the expected outcomes.

The key elements of the Stakeholder Engagement Plan are:

- Stakeholder identification and analysis
- Information disclosure
- Stakeholder consultation
- Grievance management
- Stakeholder involvement in project monitoring
- Reporting to stakeholders
- Management functions.

6.3 KEY STAKEHOLDERS

Stakeholders of this project shall be defined as all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project:

The key stakeholders to be continuously engaged could include:

6.3.1 Uganda Government Departments:

- i. Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
- ii. DDA,
- iii. NAGRC & DB,
- iv. NARO - NaLIRRI
- v. National- Animal Disease Diagnostic Centre (NADDEC)
- vi. Makerere College of Veterinary Medicine
- vii. WARM MUK
- viii. Ministry of Local Government (MoLG).
- ix. Ministry of Finance, Planning and Economic Development (MFPED)

- x. National Environment Management Authority (NEMA)
- xi. District Local Government Authorities.

6.3.2 Other Stakeholders

- Development Partners currently operating in the livestock sector
- USAID,
- UKAID
- FAO
- AfDB
- SNV,
- EU,
- World bank
- Royal Netherlands Embassy
- ILRI
- Heifer International
- Equity Bank
- Uganda Development Bank (UDB)
- Uganda Veterinary Association.
- Uganda Meat Producers Cooperative Union (UMPCU).
- Uganda National Farmers Federation (UNFFE)
- Uganda Cooperative Alliance
- URUS Uganda
- Service Providers
- Farmers/farmers groups or associations,
- Women and Youth Councils /Associations

The list above is not exhaustive. As the Programme gets underway, the ReLIV PMU will continuously engage with more stakeholders, identifying their specific information needs and the appropriate modes of consultation as well as feedback mechanisms.

6.4 CURRENT CONSULTATIONS

6.4.1 Stakeholder Engagement

Stakeholders were engaged through a variety of techniques in order to build relationships, gather project related information, consult with them, and disseminate project information to them. These consultations were conducted as part of the ReLIV PDR development process and were aimed at briefing the communities and other stakeholders about the project activities, how the activities will be carried out and what sectors of the environment are likely to be impacted.

6.4.2 The Engagement Process

The engagement process for this project involved the following:

- Visits to potential project sites,
- Face to face interviews with Keys stakeholders,
- Focus group meetings,
- Virtual Meetings (Zoom, Microsoft Teams, Skype, etc),
- Direct observation and discussion in the field,
- General data Collection from all stakeholders.

The general consultation techniques that will be used for the continuous engagement of the stakeholders throughout the project implementation phases are as listed below:

Table 6-1 Stakeholder engagement techniques

No.	ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUE
1.	Correspondences (Phone, Emails)	<ul style="list-style-type: none"> • Distribute information to Government officials, NGOs, Local Government, and organisations/agencies in the project area. • Invite stakeholders to meetings and follow-up
2.	One-on-one meetings	<ul style="list-style-type: none"> • Seeking views and opinions • Enable stakeholder to speak freely about sensitive issues. • Build personal relationships. • Record meetings
3.	Formal meetings	<ul style="list-style-type: none"> • Present the Project 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
4.	Public meetings	<ul style="list-style-type: none"> • Present Project information to a large group 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. • Record discussions, comments, questions.
5.	Focus group meetings	<ul style="list-style-type: none"> • Present Project information to a group of stakeholders (8-15 people groups) • Allow stakeholders to provide their views on targeted baseline information. • Build relationships with communities. • Record responses
6.	Project website	<ul style="list-style-type: none"> • Present project information and progress updates • Present GRM and another relevant project documentation
7.	Project leaflet	<ul style="list-style-type: none"> • Brief project information to provide regular update. • Site specific project information.
8.	Surveys	<ul style="list-style-type: none"> • Gathering opinions and views from individual stakeholders • Gather baseline data. • Record data. • Develop a baseline database for monitoring impacts
9.	Workshops	<ul style="list-style-type: none"> • Present project 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

The engagement process will be a continuous issue throughout the life of the project and will be used as a means of checks and balances for the proper implementation of the project. The process will employ a technically and culturally appropriate approach, which involves identifying the concerned/affected stakeholders, soliciting their views, and continuously checking if their views are being taken care of as the project implementation progresses.

6.4.3 Public Consultations



Figure 6-1 Engagement with Oderai Soroti Women’s Cooperative. (Soroti District.)

In the process of developing the current ESCMF the local stakeholders were consulted to solicit their views and concerns as regards the proposed beef and dairy value chain project. The list of the consulted stakeholders is included in appendix 4.

The Consultations involved gathering feedback on the information that had been given to the stakeholders about the project, as well as getting more information about local contexts that may not have been obvious, to raise issues and concerns, and to help shape the objectives and outcomes of the project. The objectives of consulting all these stakeholders were:

- To inform them of the proposed project and its likely impacts on their activities and general surroundings.
- To establish the Environmental, Economic, Social and Cultural aspects implications of the project on the different stakeholders.
- To gather the views of the stakeholders on the proposed project.
- To accommodate the stakeholders' suggestions and perceptions during the project implementation.

The stakeholders consulted during this survey were:

- Government ministries,
- District and village administration offices/ local leadership,
- Direct beneficiaries of the project (Members of Associations),
- potential beneficiary communities,

i. Consultations with the major organizations.

The consultations with the designated implementing or major organizations involved mainly meetings and one on one interviews. In general, the aims of the consultations included:

- i. introducing the project to the Stakeholders,
- ii. identifying together the potential environmental and social challenges the project may face,
- iii. identifying any other possible challenges and how they should be addressed or mitigated, and
- iv. bringing on board the major stakeholders to garner project ownership from inception.

ii. Consultations with the public.

The public consultations were done to raise awareness of the project by informing the public in the concerned areas through their local leaders and some public gatherings about the upcoming programme in their areas. The public was also interviewed to gather their opinions regarding the programme and the environmental and social consequences that may result from its implementation. The stakeholders who were consulted are listed in appendix 4.

6.5 INFORMATION DISCLOSURE

6.5.1 Disclosure of ESCMF Documents

The IFAD policy on the disclosure of documents, adopted the principle of “presumption of full disclosure” (IFAD 2021). The sharing of draft and final ESCMFs and other relevant documents with program and project stakeholders and interested parties is subject to the above-mentioned principle. As such, the documents will be disclosed, when available, in a timely manner prior to project appraisal at the quality assurance stage on IFAD’s Website and in an accessible place in the program or project-affected area, in a form and language understandable to project-affected parties and other stakeholders, for the purposes of keeping them informed and obtaining their meaningful feedback.

IFAD policies require that the Government of the Republic of Uganda, and IFAD disclose the ESCMF report as a separate and stand-alone document. The disclosure should be done by the Republic of Uganda and IFAD where it can be accessed by the public, including affected groups and NGOs, and at their respective websites.

The ReLIV PMU will make copies of the ESCMF available in selected public places possibly at relevant government offices for information and comments. The Proposed project activities will be announced through different forms of media. The announcement will include a brief description of the program, references to where and when the ESCMF can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the project client and possible project affected groups, beneficiaries and local NGOs, the ReLIV PMU shall provide relevant material in a timely manner prior to consultations and in a form and language that are understandable and accessible to the groups being consulted.

6.5.2 Public Disclosure Plan

Following the public consultation, all comments and briefs will be analysed. The report will be published and made available to the concerned community groups and to interested bodies upon request.

In line with this, the ESCMF will be available at the relevant institutions at all levels and be publicly disclosed both in country and at the IFAD’s websites. The ReLIV PMU will make copies of the ESCMF

available in selected public places in English and working language of the country in compliance with the IFAD's *Public Consultation and Disclosure Policy*. It is proposed that the locations of copies are announced through public relation sections of the relevant sector line Ministries, radio announcement in addition to press releases, as applicable.

Any ESCMPs and other SECAP instruments that will be prepared for the proposed project activities under the program will also needed to be disclosed to the public. Copies of the ESCMPs should be made available to communities and interested parties in accessible locations through local government authorities. Copies of the ESCMPs should also be provided to the implementing agencies. This will ensure record keeping of all activities implemented under the ESCMF and ensure that third party audits, if required, have adequate information when undertaking annual environmental and social audits.

6.5.3 Information Disclosure to Consulted Stakeholders

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 ReLIV activities may be affected by them. Thereafter various communication tools can be utilized for the engagement process, such as:

- Project 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.

Table 6-2 below gives a general overview of the types of information needs for various stakeholder groups.

Table 6-2 Summary Overview of a Public Consultation Plan for RELIV

No.	Stakeholders	Information to be disclosed	Consultation means
1.0	ReLIV project community, neighbouring communities, general public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or Local community offices, Churches, national media, social media, Agriculture website etc.
		Forum to express community / health fears and get feedback e.g., accidental release/escape, contamination. emergencies (fire)	Public consultations, focal group discussions, social media. Training specific members of the communities, awareness, education
2.0	Staff / workers at target Districts	How project work will affect their work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, email, website, meetings with management, staff sensitization & inhouse training programs.
3.0	Farmers Groups/Clusters Agricultural NGOs Farmer Union Agrochemical companies	Consultation on agricultural needs / food security issues. Strengthen management capacity of farm enterprises, Support farmer clusters and group development. Ensuring farmers groups/associations participate in the formulation of agricultural policies and legislation.	Agricultural Extension services, Baseline surveys/subsequent surveys to monitor impacts, emails, bulletins

		Promoting dissemination of information (climate, prices, pests and diseases, and markets) access to farmer groups	
4.0	Intergovernmental Institutions; IFAD, FAO, etc	Setting sustainable development agenda for participating communities	Intergovernmental meetings and consultations
		Capacity building for participating communities.	Build partnerships through meetings, seminars, workshops
5.0	University Graduates	Internship opportunities	Website, public media, bulletin boards
6.0	Youths	Opportunities for employment during project implementation, other opportunities in agro-processing which involves value-addition initiatives in agro-processing, packaging, and promotion of value chains	Agricultural Offices, public consultations

6.6 GRIEVANCE REDRESS MECHANISM

A grievance redress mechanism is a process for receiving, evaluating and addressing project-related concerns of, and complaints by, project affected communities or persons. IFAD's Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process (Appendix 5).

IFAD's Grievance Redress Mechanism requires: (i) working proactively with the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions.

The Grievance Redress Mechanism is detailed in Appendix 5. The purpose of the grievance redress mechanism will be:

- 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 project's legitimacy among stakeholders.
- To promote transparency and accountability.
- To deter fraud and corruption and mitigate project risks.

The principles of a good grievance redress mechanism are:

- A mechanism scaled to risk and adverse impact on affected communities,
- Designed to take into account culturally appropriate ways of handling community concerns,
- A clear and understandable mechanism that is accessible to all segments of the affected communities at no cost,
- Transparency and accountability to all stakeholders,
- A mechanism that prevents retribution and does not impede access to other remedies,

The key steps for grievance management are:

- Publicizing grievance management procedures so that the mechanism is accessible to everyone,
- Receiving (i.e., collecting, recording and registering) and keeping track of grievances,

- Reviewing and investigating grievances to assess the nature of the grievance, its severity and legitimacy,
- Developing resolution options commensurate with the nature of grievances and preparing and communicating a clear response, and closing out cases when agreement with the complainants is reached,
- Monitoring grievances through tracking to ascertain effectiveness, adapting the mechanism to correct inefficiencies, using the results of monitoring for feedback and lessons learned.

The ReLIV PMU will establish a grievance redress mechanism in line with the above requirements, at project start. Beyond the project-level grievance mechanism, project stakeholders may use IFAD's Complaint Procedures that can be found at <https://www.ifad.org/en/accountability-and-complaints-procedures>

6.7 FEEDBACK AND MONITORING

As part of the Stakeholder Engagement Plan (SEP) a mechanism for providing feedback to the stakeholders on their particular 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 in regard to engagement.

The SECAP specialists in the ReLIV PMU will be responsible to ensure that the SEP is implemented throughout the life of the Program. They will also be responsible for communicating and reporting on all stakeholder matters to ReLIV PMU Manager.

7. PROCEDURE FOR SCREENING ASSESSMENT AND MANAGEMENT

7.1 INTRODUCTION

Every subproject that will be funded under RELIV will require environmental and social screening. Environmental and Social screening is a process of determining the sub-projects' significant environmental and social consequences, deciding on the level of EA work to be done and then implementing the developed mitigation measures. The screening will be done using the Environmental and Social Screening Form (see Appendix 1) together with information on typical subproject impacts and mitigation measures in the environmental, social and climate management plan (ESCMP) (Table 8-27)

The environmental and social risk category for the RELIV project has been rated "Substantial", thus most of its subprojects will fall within this category. There will not be a "High" Risk Category subproject funded by RELIV. However, it is recommended that RELIV should avoid sensitive areas and take steps to ensure that subprojects stay within "Substantial" Risk Category.

The following sections outline the stages of the screening process leading towards the review and environmental and social approval of any subproject that will be undertaken in the RELIV. This is depicted in Figure 7-1 below.

7.2 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. This helps to determine the environmental and social category, and climate risk classification for the project, together with the necessary actions to address the associated environmental, social and climate risks, and their expected impacts. The screening tool and checklist (see Appendix 1) should be used in conjunction with the exclusion list (Table 7-1).

7.3 EXCLUSION LIST

Table 7-1 below provides criteria based on which subprojects and activities which will not be eligible for financing under RELIV:

Table 7-1 Subproject and Activity Exclusion List

No.	Negative sub project list
	The proposed RELIV project will automatically exclude subprojects that:
1	Require acquisition of land and physical or economic displacement of people.
2	Block the access to or use of land, water points and other livelihood resources used by others.
3	Production or activities involving harmful or exploitative forms of forced labour.
4	Production or activities involving harmful or exploitative forms of child labour.
5	Activities prohibited national legislation or international conventions relating to the protection of biodiversity resources, cultural heritage or other legally protected areas.
6	Activities prohibited by national legislation or other legally binding agreements regarding genetically modified organisms (GMOs).
7	Production and distribution, or investment in media that are racist, antidemocratic or that advocate discrimination against an individual, group or part of the population.

In addition to the above, any subprojects that would be categorised as High-Risk Category subprojects will not be eligible for financing under RELIV.

7.4 STAGES OF ENVIRONMENTAL AND SOCIAL SCREENING.

7.4.1 Desk Appraisal of the planned activities

The first stage of the environmental and social screening process. is a desk appraisal of the planned activities, including designs. The desk appraisal will be carried out at the District Offices level by a technical team comprising experts from the MAAIF, National Environment Management Authority (NEMA), and Ministry of Local Government, to ensure that all pertinent environmental and social issues are identified.

This initial screening will be carried out through the use of the Environmental and Social Screening Form (Appendix 1). This form will be completed by ReLIV PMU Environment Officers with assistance from the District Technical team.

Completion of this screening form will facilitate the identification of potential environmental and social impacts, determination of their significance, assignment of the appropriate environmental and social category, proposal of appropriate environmental and social mitigation measures, and carrying out any further environmental and social work, if necessary.

7.4.2 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 Form (Appendix 1). The same technical team of experts will be responsible for categorizing the sub-project activity either as High, Substantial, Moderate or Low.

The assignment of the appropriate environmental and social category will be based on the SECAP 21, provisions on Environmental Assessment. Most of the subprojects and activities of the current project are likely to be categorized as Substantial Risk, meaning that their potential adverse environmental and social impacts on human populations or environmentally important areas will be site-specific, few if any of the impacts are irreversible, and they can be mitigated readily. Possible sub-projects may include Rehabilitation of water sources (small dams, boreholes etc), Water harvesting infrastructure development, Rehabilitation of Abattoirs, Rehabilitation of MCCs and MCPs, Beef and Dairy Value chain development related activities e.g., livestock, Fodder and feed production, pasture management, Meat and Milk processing and value addition, Marketing, Post-harvest technologies for fodder and Access to financial Services.

Some activities might be categorized as “Low” which will be reflected as a “No” entries in the screening form, the proposed activity will not require further environmental and social work, and the technical team of experts will recommend approval of this proposal and implementation can proceed immediately in line with category 1 of the Government of Uganda EIA guidelines.

RELIV will not support the environmental and social High-Risk category (significant, irreversible impacts) subprojects and activities. High Risk Category subprojects and activities will be eliminated at the first stage of screening, where the eligibility of the subprojects is determined.

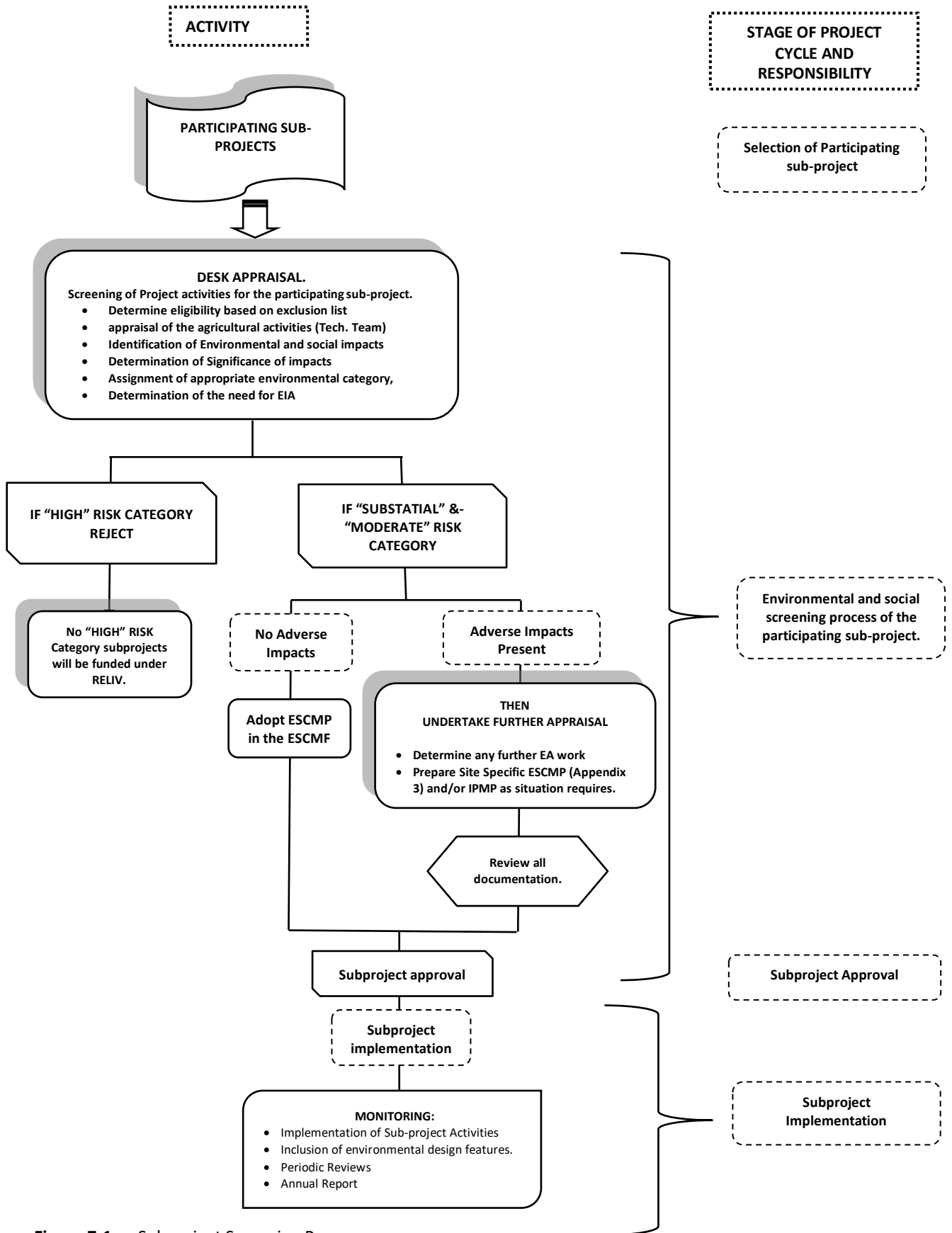


Figure 7-1 Subproject Screening Process

7.4.3 The Review Process.

The completed screening form along with any additional planning reports, will be forwarded to the Review Committee, under the MAAIF, represented by the ReLIV PMU Head Office. The Review Committee 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 (Appendix 1) will suffice; or whether further Environmental and social work needs to be done.

The Sub-projects which did not require the preparation of additional EA work 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 SECAP 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 Review Committee may require the preparation of additional mitigation plans as the situation may require. The additional EA work may include site specific ESCMPs, IPMPs, site specific ESIAS etc. Once all documentation is in place these will then be submitted to the Environment Department for Synchronization with the main ESCMF and/or approval. Generally, most of the sub-projects that will be financed by RELIV will not need any further EA work beyond just the site specific ESCMPs to guide the implementation of the ESCMF.

7.4.4 Public Consultation and Disclosure for Sub-projects.

Public consultations are critical in preparing an effective proposal for the agricultural activities. The first step is to hold public consultations with the communities surrounding the proposed sub-project sites and all other interested/affected parties during the screening process and in the course of any further environmental and social work. These consultations should identify key issues and determine how the concerns of all parties will be addressed.

The public consultation methods include press conferences, information notices, brochures/fliers, interviews, questionnaires and polls, open houses, community meetings, advisory committees, and public hearings. The guidelines for public consultation include, among others, a requirement that major elements of the consultation program should be timed to coincide with significant planning and decision-making activities in the project cycle. In terms of Uganda's EA process, public consultation should be undertaken during (i) the preparation of the EA terms of reference; (ii) the carrying out of an EA; (iii) government review of an EA report; and (iv) the preparation of environmental and social terms and conditions of approval.

7.4.5 Monitoring and Reviews.

Environmental and social monitoring needs to be carried out during the implementation of the subprojects. Monitoring of the compliance of subproject implementation with the mitigation measures set out in the ESCMF and IPMP will be carried out jointly by the beneficiary farmers, extension teams and RELIV staff. RELIV field officers should supervise the monitoring activities and are required to report annually on subproject activities during the preceding year. An annual monitoring report must be submitted to IFAD by the RELIV project. Environmental and social monitoring and reviews for RELIV will cover the following issues:

- Environmental and social monitoring.
- Site Inspections.
- Compliance Auditing and
- Annual Reviews.

a) Environmental and social monitoring.

Environmental and social monitoring 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.

The SECAP specialist from the ReLIV PMU will conduct the monitoring exercises of the implementation of the mitigation measures. In conducting the monitoring, the specialist will verify that the proper procedures are being followed in screening the Sub Project activities and in the implementation of the mitigation measures. The specialist will also make field observations to ensure that no negative environmental impacts are taking place at all project sites.

This impact monitoring involves measuring the biophysical and socio-economic impacts of the project. The purpose of this monitoring is to support compliance with SECAP policies, to identify the occurrence of any unforeseen SECAP issues, to determine lessons learnt during project implementation, to provide recommendations for improving future performance, and to provide an early warning about potential cumulative impacts.

To be able to conduct the performance monitoring, the following must be in place:

- The various SECAP instruments (ESCMP, ESIA, IPMP, GRM,) have been prepared to the required standard, within the required timelines.
- The safeguards instruments have been reviewed and approved by the responsible entities.
- Environmental and social mitigation measures have been/are being implemented and that mitigation measures are effective.
- The community is participating in all stages of the environmental and social management and monitoring processes.
- Relevant implementation level officers have been trained in accordance with the capacity building proposals.
- Reports are prepared and delivered as required.

b) Site Inspections

Compliance monitoring comprises on-site inspections of activities to verify that measures identified in the ESCMF and IPMP are being implemented. The RELIV SECAP Specialist will have the responsibility of conducting the environmental and social inspections. An annual inspection report must be submitted (together with the monitoring report) to IFAD.

These should be routine inspections to make observations about issues such as waste management, erosion control (supplemented by WQ analysis), area of disturbance, spoil management, etc. This would be done on a routine basis by trained RELIV field officers under the guidance of the RELIV SECAP Specialist.

c) Compliance Auditing

Compliance Auditing involves checking compliance with all legally required permit conditions and the requirements set out in the approved ESCMP. The audit involves evaluation to identify compliance of social and environmental aspects of the sub-projects (to applicable compliance requirements) and identify implementation gaps, along with related corrective actions.

The compliance auditing will be done once per year and will be facilitated by the RELIV PMU/IFAD/ and NEMA. The objective of the report is to provide feedback on the activities of and observations on the implemented RELIV sub-projects and their compliance with the SECAP requirement over the audit period.

The objectives of environmental and social auditing are twofold, firstly to assess the compliance of implementation to project SECAP instruments regarding the intermediate environment and social impacts of the wider RELIV interventions, i.e., assess project performance in complying with ESCMF procedures, gaps identified, lessons learnt, and improve future performance, and secondly to assess the occurrence of, and potential for, cumulative impacts due to project and other development activities. This enables the project to improve its decision making and ensure that it is environmentally sound, socially acceptable, and economically feasible.

The compliance assessment report, which will be produced by the independent reviewer, will be used as a monitoring and review tool to track ESCMP results. The annual review report should be delivered to project management and to IFAD as well.

d) Annual Reviews

Annual reviews may be carried out by an independent local consultant, NGO or other service provider that are not otherwise involved with RELIV. Annual reviews should evaluate the annual monitoring report from RELIV field officers and the annual inspection report from RELIV. The purpose of the reviews is three-fold:

1. To assess compliance with ESCMF procedures, learn lessons, and improve future ESCMFs,
2. To assess performance in terms of environmental and social risk management,
3. To assess the occurrence of, and potential for, cumulative impacts due to RELIV -funded and other development activities.

The annual reviews are intended to be used by project management to improve procedures and capacity for integrating natural resources and environmental/social management into project operations. It will also be used as a monitoring and review tool to track ESCMP results and will be a principal source of information to the RELIV Project for improving performance, and to IFAD supervision missions. Thus, they should be undertaken after the annual report on monitoring has been prepared and before IFAD supervision of the project.

8. ENVIRONMENTAL, CLIMATE AND SOCIAL IMPACTS ANALYSIS

8.1 INTRODUCTION

The ReLIV Project is envisaged to result in more positive than negative environmental and social impacts. With appropriate design, adequate management and monitoring, the negative impacts can be kept to a minimum. It is important to identify the potential risks early in the project cycle whose stages are:

- a) the project's overall design and planning,
- b) construction/setting up and
- c) operational stage.

Construction/setting up stage will be short/medium term, while the operation stage will be long term. Inadequate capacity for designing, planning, execution and monitoring of the project can lead to low environmental and social performance, exacerbating adverse impacts and limited enhancement of the positive impacts.

Potential environmental and social impacts were identified through a comprehensive site investigation and stakeholder consultation process, including a review of relevant literature and other preliminary studies for similar investments. Appendix 4 lists the consulted stakeholders. The impacts indicated in this section will be reduced and mitigated as described in the ESCMP in the current study.

8.2 ACTIVITIES AND SOURCES OF ENVIRONMENTAL AND SOCIAL IMPACTS.

The critical components of the negative impacts are derived from the RELIV activities that will require development, construction, and operation of infrastructure such as:

- a) rehabilitation and or construction of water supply infrastructure (small dams and wells).
- b) construction of agro-processing and storage facilities.
- c) Rehabilitation/construction of abattoirs, markets, etc.
- d) use of agrochemicals; fertilisers, herbicides, pesticides, etc
- e) preparation of land for pastures, fodder crops, etc.

The potential environmental, social and climatic risks emanating from these activities will include deforestation; land degradation; inappropriate use of agrochemicals leading to pollution; conflicts; gender-based violence; child labour and social unrests.

These activities may cause pollution of environmental media such as water, soil, etc, and pose occupational health hazard, water use conflicts, conversion and/or loss of physical cultural resources during construction of infrastructures etc. Most of the impacts will be localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures. The following is an outline of the possible beneficial and adverse impacts of the project.

8.3 SIGNIFICANCE RATING METHOD

The significance of adverse impacts from project activities will be rated on the basis of their magnitude, duration and probability as shown in **Table APP 2-1 in Appendix 2**. 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.

8.4 ENVIRONMENTAL IMPACT ANALYSIS

The potential environmental impacts that will be generated by the implementation of the RELIV activities have been grouped as follows:

8.4.1 Environmental Impact Analysis - Planning Phase

8.4.1.1 Potential Negative Environmental Impacts During Planning Phase.

a) **Vegetation Clearing for cutlines.**

Vegetation will be cleared during the topographical surveys of project site and pegging of pipeline routes 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 cutline will be affected.

Required Mitigation Measures

- Cutline clearance is to be minimized as far as possible to reduce the potential for any environmental impacts.

Table 8-1 Vegetation Clearing for Cutlines.

Impact of Vegetation Clearing for Cutlines.	
Project Phase	Planning Phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Site-specific
Intensity	Low
Consequence	low
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of vegetation clearing for cutlines (i.e. potential dust generation, soil erosion) on local environment will be reduced to one of **No** significance for the whole project area.

8.4.1.2 Potential Positive Environmental Impacts During Planning Phase.

a) **None Identified.**

8.4.2 Environmental Impact Analysis – Construction/Establishment Phase

8.4.2.1 Potential Negative Environmental Impacts During Construction Phase.

a) **Ambient air pollution**

Air quality will be impacted by dust emissions mainly from the construction of infrastructure which includes the sheds 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-high.

Required Mitigation Measures

The mitigation measures will include:

- Animal waste must be handled properly to avoid smell.
- Contractors should use dust screens or nets in windows, doorways and ventilators of rooms where demolition or other dusty construction activities are occurring.
- 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.
- Water sprinklers to be used, especially on the road leading to the project side.

Table 8-2 Ambient air pollution

Impact of Ambient air pollution	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

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 **No** significance for all people.

b) Ambient Water pollution

Quality of water especially rivers and groundwater may be affected negatively by discharges of debris from civil works, oil spills, and other pollutants generated from construction/establishment 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/establishment. 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-high.

The disturbances from the Ambient Water pollution 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. The moderate detrimental and definite probability result in this impact being of **Low significance**.

Required Mitigation Measures

The mitigation measures include the following:

- 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 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.
- activities related to slaughtering of cattle should be carefully conducted.
- 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.

Table 8-3 Ambient Water pollution

Impact of Ambient Water pollution	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Ambient Water pollution could be reduced to one of **No** significance for all people once oil and grease separators have been installed.

c) Soil Erosion

Beef and dairy farming activities may result in soil erosion occurring, e.g. close to watering points or rivers where the cattle come for water. Although construction work will be limited to local areas, the project may involve works that 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 establishment/construction phase, all soil forms will be susceptible to erosion to some extent because the vegetation cover will be cleared before establishment of pastures or fodder fields.

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.

Required Mitigation Measures

The mitigation measures for soil erosion include the following:

- Revegetation, re-grassing of all bare surfaces.
- Minimisation of vegetation clearing to working areas only.
- Use existing roads to access the fields and farm sites and employ drainage control measures and culverts to control natural runoff and overland flow.
- Installing soil erosion control structures like, gabions, contour ridges, swells, and check dams.

Table 8-4 Soil Erosion

Impact of Soil Erosion	
Project Phase	Construction
	Pre-Mitigation Impact

Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of soil erosion on the local landscapes could be reduced to one of **little** significance.

d) **Vegetation Clearing.**

Vegetation clearing will occur at most sites which will include excavations for pipelines and foundations, clearing for pasture development, Construction of agro-processing and storage facilities, preparations of farmlands. All will involve localized land clearing, removal of trees and shrubs. This will result in habitat fragmentation and small wildlife disturbance (migration included) especially for pastures and fodder fields. 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. The vegetation clearing will lead to dust, noise and ultimately soil erosion.

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. 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 these impact will be medium-high.

The disturbances from the Vegetation clearance will be **negative and direct** 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 site it is considered to be of **Low significance**. The moderate detrimental and definite probability result of this impact being of **Low significance**.

Required Mitigation Measures

The mitigation measures include the following:

- Dust suppression.
 - Dust suppression measures are to be implemented, which shall include covering soil mounds, spraying water, etc.
 - 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 road leading to the project side.
- Sensitive habitats should be avoided. (Wetlands and stream banks).
- Clearing should be limited to working areas only, and these include areas for foundations for agricultural infrastructure etc.
- 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 re-grassing bare areas.
- Sustainable range management must be practiced including rotational grazing, etc.

Table 8-5 Vegetation Clearing.

Impact of Disturbance from Nuisance Factors

Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

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 **No** significance for all people.

e) Temporary Visual Intrusion (Marred landscape).

Construction of micro dams and water supply systems, agricultural infrastructure, 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, and bricks will be moulded and burnt for warehouses and sheds construction. Pits will be dug, and trees will be cut for firewood. 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.

Required Mitigation Measures

The borrow pits and scarred landscapes should be rehabilitated by backfilling and revegetation.

Table 8-6 Temporary Visual Intrusion (Marred landscape).

Impact of Marred Landscapes	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

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 **No** significance.

f) Solid waste nuisance

Huge quantities of solid wastes are normally generated during project establishment. 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 using 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 during project establishment 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 medium-high.

The disturbances from the solid waste will be **negative and direct** in nature. This impact will definitely occur during the establishment/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 **Low significance**. The moderate detrimental and definite probability result in this impact being of **Low significance**.

Required Mitigation Measures

The mitigation measures include:

- Seek guidance of local environmental officers to identify acceptable disposal sites.
- Collection of all construction debris for proper disposal at designated landfills.
- Waste from agricultural activities can be further processed into other uses, e.g., organic manure.
- Reuse and recycling must be preferred over disposal of the waste.

Table 8-7 Solid waste nuisance

Impact of Solid waste nuisance	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	medium to long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of solid waste management could be reduced to one of **No** significance as the system gets underway.

g) Loss of natural and cultural heritage.

The construction/establishment works at the project site may affect some natural features, antics, and relics in the project area. The excavations for the works will potentially cause destruction of the natural features, antics, and relics. This is anticipated during trenching for the pipeline and digging of foundations for buildings.

Assessment of the impact

Any encountered antics or relics are in danger of being destroyed in the process of trenching and construction works.

Required Mitigation Measures

If any natural features, antics, and relics are encountered the trenching should stop immediately and the chance finds procedure be followed (Appendix 7).

Table 8-8 Loss of natural and cultural heritage

Impact of Loss of natural and cultural heritage	
Project Phase	Construction
	Pre-Mitigation Impact

Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Loss of **natural and cultural heritage** could be reduced to one of **No** significance for all people.

h) **Habitat loss and Biodiversity disturbances.**

Noise and vibrations from the development activities may disturb the normal roaming patterns of the small game in the area, especially birds as most of them forage during the day and cause them to migrate away from the area and/or be in conflict with human beings.

Assessment of the impact

The Bio-diversity 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 will cause the migration of small game to neighbouring areas.

There will also be increased road traffic during the pre-construction and construction phases, and this will be **negative and indirect**, introducing noise and vibrations in the area. The impact will be experienced at the **site level**. The consequences of this impact can be described as slight detrimental as it will only be effective during the cycle of the project, and it can be mitigated.

Required Mitigation Measures

The mitigation measures include:

- 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.
- Traffic management measures are to be implemented and travel speed of contractors and suppliers' vehicles will be restricted.

Table 8-9 Bio-diversity disturbances

Impact of Bio-diversity disturbances	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Bio-diversity disturbances will be reduced to one of No significance for the whole project area and the small game and birds will be able to migrate back as the area will now be revegetated and rehabilitated.

8.4.2.2 Potential Positive Impacts During Construction Phase.

a) Rehabilitation of fragile ecosystems

Some steep slopes in some localities are badly degraded resulting in deeply incised gullies. Some wetlands have been converted into fields and they have lost their functions. These areas will need some rehabilitation and conservation works. The badly degraded lands and wetlands will then be rehabilitated by erecting gabions where necessary and revegetation.

Assessment of Impact

The **Rehabilitation of fragile ecosystems** of the project area 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 high beneficial – the community regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of **medium significance**.

Table 8-10 Rehabilitation of fragile ecosystems

Impact on Rehabilitation of fragile ecosystems	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

b) Revegetation

In the process of establishing pastures and fodder fields the vegetation will be restored and enhanced. There will be a deliberate exercise to revegetate the project area. This will protect and conserve the environment in the process.

Assessment of Impact

The revegetation of the project area 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 area 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 high beneficial – the community regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of **medium significance**.

Table 8-11 Revegetation

Impact on revegetation	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

8.4.3 Environmental Impact Analysis – Operation Phase

8.4.3.1 Potential Negative Impacts During Operation Phase.

a) Soil Erosion

During the operation phase, the potential for soil erosion will be much less. However loose soil at the livestock water points and rivers where they also go for water will 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 establishment of pastures and before construction takes place at infrastructure areas.

Required Mitigation Measures

The mitigation measures for soil erosion include the following:

- Revegetation, re-grassing of all bare surfaces
- Minimisation of vegetation clearing to working areas only
- Installing soil erosion control structures like, gabions, contour ridges, swells and check dams.
- Establishment of grassed drainage systems to prevent erosion.

Table 8-12 Soil Erosion

Impact of Soil Erosion	
Project Phase	Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of soil erosion on the local landscapes could be reduced to one of **little significance**.

b) Solid waste

Less quantities of solid wastes are normally generated during the operation phase. Such wastes include domestic wastes, plastics, animal carcasses, etc. However, during early implementation of the project (construction/pre-operation and operation phases), a Waste Management Plan will be prepared. The plan will address both solid and liquid waste including disposal of agricultural waste (agrochemicals, expired vaccines) and biological. The sub-project proponents will also 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 **regional** effect as they will not only be a problem to the footprint area but can

affect the wider surrounding community if not managed properly. 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 impact will be experienced at the **regional level**. Some indirect impacts could be experienced because of the presence of higher volumes of people, including jobseekers in the area resulting in pressure on social services and infrastructure.

The consequence of the impact is anticipated to be moderate detrimental. For the people residing 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 **Low significance**.

Required Mitigation Measures

The mitigation measures will include:

- Collection of all solid waste in a systematic manner for disposal at designated landfills.
- Solid waste should never be burnt on site.
- Develop a solid waste management plan and implement it

Table 8-13 solid wastes

Impact of solid wastes	
Project Phase	Operation Phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	medium – long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of solid waste pollution on local communities could be reduced to one of **No significance** for all people if solid waste management protocols are followed.

c) Agro-Chemical Pollution

Up-scaling of agricultural activities (Fodder production) may result in the use of more agro-chemicals to realise better yields and control pests and diseases. Raising beef and dairy livestock entails the use of vaccines and pest control chemicals. 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.

Pesticides reach the soil by deposition after being sprayed on foliage when the pesticide is washed off treated foliage by rainfall or overhead irrigation, by release from the surface of treated seeds or by direct application of granules or spray to soil. The inappropriate disposal of unwanted or out of date 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 **regional level**. For the people residing nearest to the project site the impact is considered to be of medium significance. The moderate detrimental and definite probability result in this impact being of medium significance.

Required Mitigation Measures

The mitigation measures include:

- 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.
- Split application of fertiliser to avoid excess being washed away.
- No application before major storms.
- Don't store fertilisers and agrochemicals and food in the same store room.
- All workers to use appropriate PPE every time.
- Use the least potent variants of pesticides to minimise poisoning.

Table 8-14 Agro-chemical pollution

Impact of Agro-chemical pollution	
Project Phase	Operation phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	medium

Residual Impact

Post-mitigation, it is expected that the impact of Agro-chemical pollution on local communities could be reduced to one of **No significance** for all people.

d) Effluent Discharges

Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent besides the solid waste. This includes effluents from MCCs, MCPs, Milk processing plants, Abattoirs, laboratories, veterinary service centres, etc. 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 moderate detrimental. For the people residing 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 **Low significance**.

Required Mitigation Measures

The mitigation measures include:

- Installation of appropriate effluent treatment facilities next to any processes that generate effluent.
- Monitoring the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards.

Table 8-15 effluent discharge

Impact of effluent discharge	
Project Phase	Operations Phase
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of effluent discharge on local communities could be reduced to one of **No significance** for all people once proper effluent treatment plants are installed and are running properly.

e) Ambient Water pollution

Oil and grease leaks and spills are noted to be prevalent in most work areas like the farm sheds. If not well contained these leaks 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. There are still many people relying on river water as a source for drinking water.

Groundwater contamination occurs from percolation of oil and lubricants spills into the soil.

Assessment of the impact

The Ambient Water pollution disturbances will be **short to medium term** in nature and will occur for the duration of the operations phase. 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. It is expected that the intensity of these impact for most people will be medium-high.

The disturbances from the Ambient Water pollution will be **negative and direct** in nature. The impact will be experienced at the **regional level**. This impact will definitely occur during the operations phase 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 result in this impact being of **medium significance**.

Required Mitigation Measures

The mitigation measures include the following:

- 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.

Table 8-16 Ambient Water pollution

Impact of Ambient Water pollution	
Project Phase	Pre-Construction, Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	medium

Residual Impact

Post-mitigation, it is expected that the impact of Ambient Water pollution could be reduced to one of **No** significance for all people once oil and grease separators have been installed.

f) Animal Health and welfare

Animal and public health are a major concern in the beef and dairy value chains. The livestock tend to be prone to diseases some of which can easily be spread to humans. Thus, disease prevention and control have become a major program in the beef and dairy development programme. This has given rise to Biosecurity, which is “a strategic and integrated approach to analysing and managing relevant risks to human, animal and plant life and health and associated risks for the environment.”

Further they way the animals are treated in the process of raring them is fast becoming of great concern, especially those under zero grazing schemes. They are confined to very small spaces 24/7 and at times the pans will be very dirty.

Assessment of the impact

The Animal Health and welfare issues will be **short to medium term** in nature and will occur for the duration of the operations phase. These impacts have a **regional effect** as the diseases can very easily spread if not contained. It is expected that the intensity of these impact for most people will be medium-high.

The disturbances from the Animal Health and welfare will be **negative and direct** in nature. The impact will be experienced at the **regional level**. This impact will definitely occur during the operations phase 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 result in this impact being of **medium significance**.

Required Mitigation Measures

The mitigation measures include the following:

- Contain all disease out-breaks in as short time as possible.
- Institute the one health approach to curb spread of diseases.
- Strengthen Biosecurity in the beef and dairy industry by instituting all disease preventive measures.
- Institute the five measures of biosecurity i) bio-exclusion, (ii) bio-compartmentalization, (iii) bio-containment, (iv) bio-prevention, and (v) bio-preservation,
- Construction of Proper Zero grazing structures with enough room space for resting to prevent animals stand for long periods.
- Affording the animals time to freely walk around or even taking them for a walk.

Table 8-17 Ambient Water pollution

Impact of Ambient Water pollution	
Project Phase	Operations

	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short-medium term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	medium

Residual Impact

Post-mitigation, it is expected that the impact of Animal Health and welfare could be reduced to one of **little** significance for all people once measures are taken.

8.4.3.2 Potential Positive Impacts During Operation Phase.

a) 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 high beneficial – the community regard this as a major long-term positive change as it will improve their livelihoods. The impacts are therefore of **medium** significance.

Table 8-18 revegetation

Impact on revegetation	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent
Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

8.4.4 Summary of the Magnitude of Potential Environmental Impacts

Tables 7-19 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 Appendix 2:

- The intensity criteria (low, medium, high) examines whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment.
- The consequence criteria (low, medium, high) Combination of duration, extent, and intensity of impact in relation to the type.
- The Probability criteria (low, medium, high) describes the likelihood of the impacts actually occurring.
- The significance criteria (low, medium, high) determine the Synthesis of the characteristics of the rest of the criteria.

The final significance of the impacts depends on the duration of the impact and period when it occurs in the project life cycle, e.g. air pollution is given a low significance despite having a medium-high intensity because it occurs over a short period during the construction phase of the project.

Table 8-19 Magnitude of Potential Environmental Impacts

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.4.1	PLANNING PHASE									
8.3.1.1	<i>Potential Negative Impacts During Planning Phase.</i>									
(i)	<i>Vegetation clearing for Site Surveying and Pegging</i>	<ul style="list-style-type: none"> • Clearing vegetation for visibility • Opening Cutlines for survey purposes 	<ul style="list-style-type: none"> • Removal of vegetation cover. • Exposure of topsoil and possibility for erosion. • Loss of biodiversity and habitat changes. • Disturbances of small wildlife • Compaction of soil. 	Negative	2	2	2	2	8 Low	6 Negligible
8.3.1.2	<i>Potential Positive Impacts During Planning Phase.</i>									
(a)	None Identified									

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.4.2	CONSTRUCTION PHASE									
8.4.2.1	<i>Potential Negative Impacts During Construction Phase.</i>									
(a)	Vegetation clearing for infrastructure development and pasture development.	<ul style="list-style-type: none"> Preparation of land for Agriculture (Pastures and fodder crops) excavations for pipelines and foundations, construction of water supply systems, Construction of agro-processing and storage facilities, Construction of access roads. 	<ul style="list-style-type: none"> Removal of vegetation cover. Exposure of topsoil and possibility for erosion. Loss of biodiversity and habitat changes. Disturbances of small wildlife Compaction of soil. Pollution of soil and water from oil leakage. Dust and noise generation. 	Negative	3	2	1	5	11 Moderate	9 Low
(b)	Temporary Visual Intrusions (Marred landscape)	<ul style="list-style-type: none"> Extraction of building materials like sand, gravel and brick moulding resulting in borrow pits and scurred landscapes. Construction of agricultural facilities like water reticulation systems, Warehouses, abattoirs and other possible facilities. 	<ul style="list-style-type: none"> change the characteristics of the area. leave a marred landscape. 	Negative	4	4	1	4	13 Moderate	8 Low
(c)	Soil Erosion.	<ul style="list-style-type: none"> All Construction Activities, Intensive farming techniques, Watering points for livestock. inappropriate drainage management, Inappropriate use of farm machinery, Accidental discharge of hazardous substances, 	<ul style="list-style-type: none"> Soil and water pollution. Soil erosion Soil salinization Loss in soil fertility Loss of crop productivity Scarring of the landscape due to sand mining and borrow pits. 	Negative	4	4	1	4	13 Moderate	8 Low

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		<ul style="list-style-type: none"> Sand and quarry stone for construction, Gravel for road construction, Extraction of building materials and brick Moulding. 								
(d)	Solid waste nuisance.	<ul style="list-style-type: none"> Agricultural processes generating waste, e.g., from Abattoirs. Spoils from access road and infrastructure construction wastes generated from construction activities, such as stones, wood, broken glasses, containers, rods of metal, pieces of iron sheets etc.. 	<ul style="list-style-type: none"> Pollution of soil and water resources Littering and indiscriminate dumping. Deterioration of the aesthetics of the areas. 	Negative	4	3	1	2	10 Moderate	9 Low
(e)	Loss of natural and cultural heritage	<ul style="list-style-type: none"> Digging of trenches for pipelines Digging of foundations for agricultural infrastructures, sheds and pens. 	<ul style="list-style-type: none"> Natural features, antics and relics destroyed in the project area e.g., during excavations. 	Negative	5	4	4	3	16 High	10 Moderate
(f)	Habitat loss and biodiversity disturbances	<ul style="list-style-type: none"> Digging of trenches will be by heavy duty machinery. Excavations will temporarily disrupt the natural habitats. Conversion of open lands to arable lands/fields 	<ul style="list-style-type: none"> Noise and vibrations 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 	Negative	5	4	4	3	16 High	10 Moderate
(g)	Ambient Air Quality	<ul style="list-style-type: none"> Dust generated from construction activities. 	<ul style="list-style-type: none"> Pollution of air Increases in bronchial disorders. 	Negative	2	2	3	3	10 Moderate	8 Low

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		<ul style="list-style-type: none"> Pesticides used in pests and diseases control 	<ul style="list-style-type: none"> Impaired Visibility on the roads Disturbs normal developments of vegetation. Causes acid rain 							
(h)	Ambient Water Quality (surface and ground water)	<ul style="list-style-type: none"> Waste generated from agricultural activities. Effluents from slaughterhouses, MCCs, MCPs, 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. 	<ul style="list-style-type: none"> Effluent pollutes soil and water resources. 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 	Negative	<p>3 (groundwater)</p> <p>4 (Surface water)</p>	5	<p>2 (groundwater)</p> <p>4 (surface water)</p>	<p>4 (groundwater)</p> <p>3 (surface water)</p>	14 high	10 Moderate
8.4.2.2	Potential Positive Impacts During Construction Phase.									
(a)	Revegetation	<ul style="list-style-type: none"> Proper degraded land management will encourage restoration and enhancement of the vegetation. Rehabilitation of degraded lands afforestation. Fencing off the project sites will induce environmental protection of the area. 	<ul style="list-style-type: none"> environment protected and conserved. revegetation by planting required species. In the process of establishing proper degraded land management the vegetation will be restored and enhanced 	Positive	4	3	4	4	15 High	19 Very High

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
(b)	Rehabilitation of Fragile Ecosystems	<ul style="list-style-type: none"> rehabilitation and conservation work. Levelling and closing up of gullies and dongas. Limited protection using Gabions. 	<ul style="list-style-type: none"> Rehabilitation of wetlands. Arrest the Erosion of mountain sides and steep slopes. Prevent the Loss of natural ecosystems. Rehabilitate and protect the open lands. 	Positive	4	4	4	4	16 High	18 Moderate
8.4.3	OPERATION PHASE									
8.4.3.1	Potential Negative Impacts During Operation Phase.									
(a)	Soil Erosion	<ul style="list-style-type: none"> Animal watering points River drinking points Bare ground along the access roads. Any vegetation clearing during operations 	<ul style="list-style-type: none"> 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 	Negative	5	4	4	3	16 High	10 Moderate
(b)	Solid waste pollution.	<ul style="list-style-type: none"> Less quantities of solid wastes generated include domestic wastes, plastics, carcasses, veterinary samples and animal dung. 	<ul style="list-style-type: none"> Pollution of the water ways. Littering the neighbourhood 	Negative	3	4	3	3	13 Moderate	9 low
(c)	Effluent Discharges	<ul style="list-style-type: none"> Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent, e.g. MCCs, MCPs, Milk processing plants, Abattoirs, laboratories, etc. 	<ul style="list-style-type: none"> Pollution of water resources Destruction of habitats 	Negative	5	4	4	3	16 High	9 low
(d)	Agro-chemicals Pollution	<ul style="list-style-type: none"> Limited knowledge of the poisonous nature of the chemicals. 	<ul style="list-style-type: none"> Poisoning of farmers by chemicals. 	Negative	5	4	4	3	16 High	10 Moderate

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
		<ul style="list-style-type: none"> ▪ Accidental spillages. ▪ Poor disposal methods being employed. ▪ Washing of equipment in rivers. ▪ Poor application methods being used. ▪ Poor handling of the chemicals. ▪ Accidental discharge of hazardous substances. 	<ul style="list-style-type: none"> ▪ Poisoning of aquatic and inland ecosystems by the chemicals. ▪ Poisoning of the soil by the chemicals. ▪ Poisoning of farm products consumers by chemicals. 							
(e)	Ambient Water pollution	<ul style="list-style-type: none"> • Oil and grease leaks 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 discharge of hazardous substances. 	<ul style="list-style-type: none"> • Pollution of water resources • Destruction of habitats 	Negative	5	4	4	3	16 High	10 Moderate
(f)	Animal Health and welfare	<ul style="list-style-type: none"> ▪ Disease outbreaks. ▪ Uncontrolled Spread of diseases. ▪ Spread of animal disease to humans ▪ Improper structures for zero grazing systems. ▪ Confining the animals to small spaces 24/7 	<ul style="list-style-type: none"> ▪ Compromised animals. health which can easily spread to humans ▪ Failure to contain disease outbreaks. ▪ Ill treatment of animals by confining them to insanitary conditions ▪ Animals suffering effects of continuously standing. ▪ Poor productivity due to poor conditions of animal raising. 	Negative	5	4	4	3	16 High	10 Moderate
		•	•							

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY / SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.4.3.2	<i>Potential Positive Impacts During Operation Phase.</i>									
(a)	Revegetation	<ul style="list-style-type: none"> planting of grass and continuous rehabilitation of the degraded lands. 	<ul style="list-style-type: none"> Habitat restoration. Erosion stopped. 	Positive	4	4	4	4	16 High	18 Moderate

8.5 SOCIAL AND HEALTH IMPACT ANALYSIS

The following is a social and health impacts analysis of the project. The chapter assesses the construction and operation phase impacts identified for the proposed RELIV Project, including both the positive and negative impacts.

The potential social impacts that will be generated by the implementation of the RELIV activities have been grouped as follows:

8.5.1 Social and Health Impact Analysis - Planning Phase

8.5.1.1 Potential Negative Impacts During Planning Phase.

a) *Poor Project Inception, Anxiety and Anticipation*

The planning stage brings a lot of anxiety and anticipation as most stakeholders do not know exactly what will happen and when it will happen. Lack of proper plan of action with timelines and full disclosure creates anxiety among stakeholders. They then hold the whole process with suspicion and do not want the planning phase to drag for too long.

Assessment of Impact

Poor Project inception mostly results in the locals not fully cooperating with the project preparation team and not disclosing all the relevant information during consultations. The intensity of the Poor Project inception impact on households is rated as moderate.

Mitigation Measures

The project beneficiaries and persons directly or indirectly affected by the proposed project will be assessed in terms of extent of loss of livelihood opportunities and compensation if any is required.

The RELIV PMU will ensure the following:

- Production of proper plan of action with timelines.
- Presenting full disclosure of project decisions and actions to all concerned stakeholders.
- The planning phase should not drag for far too long as people tend to lose despair.
- Efforts must be made to stick to agreed timelines
- Transparency and full disclosure of key elements of the project

Table 8-20 Impact of Poor Project inception

Impact of Poor Project inception	
Project Phase	Pre-Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Long term
Extent	Footprint
Intensity	High
Consequence	Detrimental
Probability	Definite
Significance	Medium to High

Residual Impact

Implementation of the above mitigation measures is expected to reduce the impact of Poor Project inception to one of **low** significance post-mitigation, due to the over-riding positive expectations.

b) *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.

The beneficiary Communities expressed concern on any top-down approaches being imposed on them and then the projects are just handed over to them without their initial consent. Such poor stakeholder participation will result in the lack of ownership of the project by the locals, poor participation in project implementation and low chances of sustainability of the project.

Assessment of Impact

The Limited Stakeholder Participation may occur at project inception. The intensity of this impact on project stakeholders is rated as moderate, as the households will be affected by not being consulted properly.

Mitigation Measures

The relevant project beneficiaries will be identified and continuously conferred with. The RELIV PMU will ensure the following:

- Consultation and information disclosure becomes a continuous process in the project.
- Stakeholders are continuously appraised of the project progress.
- If any people are affected, assistance will be provided to the project affected persons (PAP) to improve, or at least restore incomes and living standards to at least the equivalent level prior to project implementation, if not better.
- Affected persons should be consulted on decisions that affect their livelihoods and well-being and shall be fully informed of their options and the compensation rates.
- Grievance redress mechanisms are developed and accessible.

Table 8-21 Impact of Limited Stakeholder Participation

Impact of Limited Stakeholder Participation	
Project Phase	Pre-Construction
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	Short term
Extent	Surrounding villages
Intensity	High
Consequence	Detrimental
Probability	Definite
Significance	Medium to High

Residual Impact

Implementation of the above mitigation measures is expected to reduce the impact of Limited Stakeholder Participation to one of **low** significance post-mitigation, due to the over-riding positive expectations.

8.5.1.2 Potential Positive Impacts During Planning Phase.

a) Project as uniting centre

The project is bringing people to work together as communities for the benefit of everyone. The stakeholders fully support this community-based approach, but there is a major concern based on their past experiences with the projects that were implemented before this one; people are concerned about the possibility of the project not delivering its promises and transparency when it comes to benefits that the project will bring to the communities.

Assessment of Impact

The project is bringing people to work together as communities for the benefit of everyone. The impact is rated as **High**, as the households are highly in favour of it.

Mitigation Measures

The enhancement measures will include:

- Continuous Consultation and information dissemination for the stakeholders to keep abreast with the project.
- Availing the grievance redress mechanisms for everyone to have a channel to air their views and grievances.

Table 8-22 Impact of Project as uniting centre

Impact of Project as uniting centre	
Project Phase	Pre-Construction
	Pre-Mitigation Impact
Type of Impact	Positive, direct
Duration	Long term
Extent	Footprint and surrounding villages
Intensity	High
Consequence	Detrimental
Probability	Definite
Significance	Medium to High

Residual Impact

Implementation of the above enhancement measures is expected to enhance the impact of Project as uniting centre to one of **High** significance post-mitigation, due to the over-riding positive expectations.

8.5.2 Social and Health Impact Analysis – Construction/Operations Phase.

8.5.2.1 Potential Negative Impacts During Constructions/Operations Phase.

a) Gender Based Violence (GBV)

There are high chances of sexual exploitation (in its various forms) of poor women and young girls by construction workers and project implementation personnel. If not well controlled, there could be rampant exploitation of women and youths in the project area. Assessment of exposure and appropriate preventive actions must be carried out to avoid gender-based violence at all costs.

Assessment of the impact

The risk of Gender Based Violence (GBV) will be **medium to long term** in nature and will occur for the duration of **Constructions/Operations phases**.

The risk of Gender Based Violence (GBV) will be **negative and direct** in nature. The impact will be experienced at the sub-project sites and at the households of project beneficiaries. Some indirect impacts could be experienced because of the presence of jobseekers in the area

resulting in increased population of job seekers exposing the vulnerable ones. The consequence of the impact is anticipated to be moderate detrimental. The moderate detrimental and definite probability result in this impact being of **Medium significance**.

Required Mitigation Measures

The mitigation measures include:

- Zero tolerance to gender-based violence
- Ensure sexual harassment Policy at all levels involved in the project.

Table 8-23 Disturbance from Gender Based Violence (GBV)

Impact of Disturbance from Gender Based Violence (GBV)	
Project Phase	Constructions/Operations phases.
	Pre-Mitigation Impact
Type of Impact	Negative, direct
Duration	medium to long term
Extent	Regional
Intensity	Medium-high
Consequence	Moderate detrimental
Probability	Definite
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of Gender Based Violence (GBV) on local communities could be reduced to one of **No** significance for all people.

b) Displacements or shifts of livelihood activities.

Nature of Impact

The RELIV 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. Crops are grown primarily for household consumption but in some instances are sold and bartered. Households without agricultural fields often undertake sharecropping or work as labourers for other households.

Thus, the resettlement of permanent homes is not anticipated according to the project design, and the resettlement of livelihood activities (cattle grazing and hunting grounds) and assets will also not occur as the **infrastructure that will be constructed and rehabilitated will be on state land already and will not cause any** land acquisition from individual farmers and/or the community.

Assessment of Impact

Communities will be affected by the construction activities of micro-dams and other agricultural infrastructure, causing a shift in livelihoods for many who were depending on these lands for hunting, gathering and collection of medicinal plants. Therefore, the sensitivity of the receptors is rated as **low**.

Required Mitigation Measures

The mitigation measures include:

- Engage in good irrigation scheme designs.
- Relocate the footpaths and construct foot bridges where possible.
- Create alternative sources of livelihood e.g., by involving the affected parties in the scheme.

Table 8-24 Loss of agricultural fields

Impact of loss of agricultural fields	
Project Phase	Pre-Construction, Construction (extending into Operation)
	Pre-Mitigation Impact
Type of Impact	Direct
Duration	Long term
Extent	Footprint
Intensity	Low
Consequence	Negligible
Probability	Improbable
Significance	Low

Residual Impact

Post-mitigation, it is expected that the impact of the shift in livelihoods of the local communities could be reduced to one of **No** significance for all people as they will neither be physically or economically displaced.

c) **Occupational Health and Safety Issues:**

Weak technical capacity and/or negligence on operation of vehicles and machinery resulting in temporary and permanent physical injuries, Bronchial diseases from dust, diseases, and/or loss of life.

The safety of the local population trying to access construction sites (Dam Sites etc) may be at risk during the construction period. The operation of various equipment and machinery and the actual construction activities will expose workers to work-related accidents and injuries.

Pollutants such as dust and noise could also have negative implications for the health of workers and near-by communities such as bronchial diseases from dust and hearing impairments due to prolonged working under noisy conditions. Personal Protective Clothing is required at all times during construction and operation of machinery, pesticides and other agro chemicals in accordance with relevant national guidelines.

Required Mitigation Measures

The mitigation measures include:

- A Health/Safety/Environment officer should be present during construction.
- All safety precautions must be enforced.
- Provide PPE to all workers.
- Institute dust and noise suppression measures.

d) **Poor Public Health**

The construction and development phase of the project is likely going to bring outside workers to stay for considerable lengths of time. Communicable diseases such as HIV/AIDS infection rate is likely to increase as the workers, drivers interact with the local population. Poverty is likely going to be the main driver as young women from poor households try to exploit the situation to earn a living. Negotiation power for safe sex may be limited. Contractors might be idolised as being wealthy by local people which gives them an upper hand in negotiating for sex and participation in illicit affairs. Awareness raising within local communities and workers through

Information, Education and Communication (IEC) and distribution of free condoms and counselling and treatment will help alleviate the impacts.

Required Mitigation Measures

The mitigation measures include:

- Education on Public health issues.
- Awareness raising within local communities and workers through Information, Education and Communication (IEC) and distribution of free condoms and counselling and treatment will help alleviate the impacts.
- Provision of toilets that are constructed in such a way that they cannot leak into water resources.
- Provision of potable water supply that will include the use of groundwater resources that can be used as a reference to the performance of the project surface water supply.

8.5.2.2 Potential Positive Impacts During Constructions/Operations Phase.

a) Economic Opportunities Employment (job creation)

The project area offers very limited economic opportunities beyond subsistence-based agriculture. The introduction of various beef and dairy value chains raises high expectations for employment and business opportunities which will bring about improvements to the standard of living of the communities.

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 Uganda.

Assessment of Impact

The communities in the sub-project areas can be considered to have **Low** sensitivity in that the economic opportunities that will most likely be available are small scale initiatives since the majority of the population is unlikely to have the skills or capital to set-up big businesses. A few will be able to set-up small initiatives that will increase their ability to earn some income.

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 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.

Required Enhancement Measures

The enhancement measures include:

- Set up favourable working relationships between the project PCU and the communities.
- Meet all promises.
- Endeavour for a win-win situation.
- Scout for skilled workers in the project area before hiring outsiders.

Table 8-25 Economic Opportunities and Improved Livelihoods

Impact on Economic Opportunities and Improved Livelihoods	
Project Phase	Operation
Type of Impact	Positive, direct
Duration	Long-term to permanent

Extent	Local
Intensity	Medium
Consequence	High beneficial
Probability	Most likely
Significance	Medium

8.5.3 Summary of the Magnitude of Potential Social Impacts

Table 8-26 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 Appendix 2:

- The intensity criteria (low, medium, high) examines whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment.
- The consequence criteria (low, medium, high) Combination of duration, extent, and intensity of impact in relation to the type.
- The Probability criteria (low, medium, high) describes the likelihood of the impacts actually occurring.
- The significance criteria (low, medium, high) determine the Synthesis of the characteristics of the rest of the criteria.

The final significance of the impacts depends on the duration of the impact and period when it occurs in the project life cycle, e.g. air pollution is given a low significance despite having a medium-high intensity because it occurs over a short period during the construction phase of the project.

Table 8-26 Magnitude of Potential Social Impacts

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILITY	SEVERITY OR SIGNIFICANCE	EXTENT	DURATION	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
8.5.1	PLANNING PHASE									
8.5.1.1	<i>Potential Negative Impacts During Planning Phase.</i>									
(a)	Poor project Inception/Introduction	<ul style="list-style-type: none"> • Lack of transparency from the implementing Partners. • Lack of proper timelines for the different phases of the project. • Dragging the planning phase too long. 	<ul style="list-style-type: none"> • Anxiety and anticipation. • Limited cooperation. • Suspicion and hence concealing of important information. 	Negative	4	3	2	1	10 Moderate	7 Low
(b)	Limited and inadequate Stakeholder Involvement	<ul style="list-style-type: none"> • Predominance of the top-down approach and just handing a project to stakeholders • Inadequate dissemination/sharing of information. • Unclear roles and responsibilities • Negative perception 	<ul style="list-style-type: none"> • Low chances of success and sustainability. • Failure to take up ownership of the project by the partners. 	Negative	4	3	3	2	12 Moderate	8 Low
8.5.1.2	<i>Potential Positive Impacts During Planning Phase.</i>									
	Project as uniting centre	<ul style="list-style-type: none"> • The Swazi have a CULTURE of working together as a community 	<ul style="list-style-type: none"> • Community prepared to work together • Readily accepting the project concept 	Positive	4	4	3	5	16 High	17 High

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILIT Y	SEVERITY OR SIGNIFICANCE	EXTENT	DURATI ON	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
	(Project acceptance)	for the benefit of everyone and will easily form clusters for the project, stakeholders fully support this community-based project	<ul style="list-style-type: none"> Youths are expecting to stop migrating to SA for employment. High chances of success and sustainability. Ready to take up ownership of the project by the partners. Available for employment and partnerships. 							
8.5.3	CONSTRUCTION/OPERATIONS PHASE.									
8.5.3.1	Potential Negative Impacts During Constructions/Operations Phase.									
(a)	Gender Based Violence	<ul style="list-style-type: none"> Poverty which leads to women being exploited by men during construction phase. 	<ul style="list-style-type: none"> Physical body harm Lack of productivity Communicable disease incidences 	Negative	5	5	5	3	18	13
									High	Moderate
(b)	Displacements or shifts of livelihood activities (cattle grazing and hunting grounds)	<ul style="list-style-type: none"> Fencing off the grazing lands for improved degraded land management. Expansion of irrigation farmlands and construction of micro dams. Construction of various agricultural value chain facilities – abattoir. Cutting off the usual resources areas and areas normally used by local people (grazing lands, hunting grounds, etc blocked) 	<ul style="list-style-type: none"> Removal/alteration of usual source of livelihood. long-term hardship, impoverishment, and social unrest among the affected community. Migration to alternative livelihoods. 	Negative	4	4	1	4	13	7
									Moderate	Low
(c)	Occupational Health and Safety Issues	<ul style="list-style-type: none"> Weak technical capacity and/or negligence on operation of vehicles and machinery Lack or inadequate use of safety gear may also contribute to accidents that may result in trauma and other casualties. Weak security measures in the project area. 	<ul style="list-style-type: none"> Temporary and permanent physical injuries. Bronchial diseases from dust. Loss of life 	Negative	4	5	4	3	16 (High)	9
										Low

REF:	PARAMETER UNDER CONSIDERATION			CRITERIA FOR ASSESSMENT OF POTENTIAL RISK						
	CATEGORY	CAUSE	IMPACT	QUALITY	PROBABILIT Y	SEVERITY OR SIGNIFICANCE	EXTENT	DURATI ON	MAGNITUDE OF IMPACT	RESIDUAL SIGNIFICANCE AFTER MITIGATION
(d)	Poor Public Health	<ul style="list-style-type: none"> • Presence of contract workers from outside the area and interaction with locals. • Influx of people to the areas in search of employment opportunities. • Development of agriculture systems 	<ul style="list-style-type: none"> • Spread of communicable diseases such as HIV/AIDS. • Increase in the prevalence of water-borne diseases (intestinal and urinary bilharzia and malaria) 	Negative	3	3	3	5	14 High	10 Moderate
8.5.2.2	Potential Positive Impacts During Constructions/Operations Phase.									
(a)	Economic Opportunities Employment (job creation)	<ul style="list-style-type: none"> • Improved cattle rearing approaches. • Improved Agricultural practices. • Availability of many small-scale initiatives. • setting-up of businesses in the agriculture value chains. 	<ul style="list-style-type: none"> • improvement on their income generation. • Improvement of livelihoods. • maintained land output gain. • capacitation on entrepreneurial skills. 	Positive	4	4	3	4	15 High	16 High

8.6 THE ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN (ESCMP)

The ESCMP provides guidelines for the management of potential environmental and social aspects at the project. The ESCMP also identifies parties responsible for monitoring actions, and any training or capacity building needs.

The ESCMP identifies mitigation measures to reduce present and potential impacts associated with the proposed project activities. In addition, mitigation measures are identified as either social or physical measures. Social mitigation measures include the measures used to mitigate effects such as noise, land use, and other effects to the human environment. Physical mitigation measures include measures that address impacts to the physical environment, such as biological communities, vegetation, air quality, and others.

Table 8-27 Environmental and Social Management Plan (ESCMP).

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
8.4	ENVIRONMENTAL IMPACTS					
8.3.1	PLANNING PHASE					
8.4.1.1	<i>Potential Negative Impacts During Planning Phase.</i>					
(a)	<ul style="list-style-type: none"> Vegetation Clearing for cutlines resulting in Dust generation and soil erosion. 	<ul style="list-style-type: none"> Contractors to minimise cutline clearance as far as possible to reduce the potential for dust generation and other impacts. Contractors to implement dust suppression measures, which shall include Water sprinklers and covering moulds with nets. 	Contractors monitored by: <ul style="list-style-type: none"> Local Environment Officers. ReLIV SECAP specialist. Local Leadership. Beneficiaries. 	Environmental awareness training to local communities	Soil Erosion Control	Area of Rangelands, and wetlands rehabilitated and protected.
8.4.1.2	<i>Potential Positive Impacts During Planning Phase.</i>					
(a)	None Identified					
8.4.2	CONSTRUCTION PHASE					
8.4.2.1	<i>Potential Negative Impacts During Construction Phase.</i>					
(a)	<i>Ambient air pollution</i>					
	<ul style="list-style-type: none"> Pollution of air. Increases in bronchial disorders. Impaired Visibility on the roads. Disturbs normal developments of vegetation. Causes acid rain. 	<ul style="list-style-type: none"> Beneficiary farmers must handle animal waste properly to avoid smell. Contractors should use dust screens or nets in windows, doorways, and ventilators of rooms where demolition or other dusty construction activities are occurring. Contractors must institute dust suppression measures at all sites which shall include covering soil mounds and spraying bare areas with water. Contractors must minimise site clearance as far as possible to reduce the potential for dust and other impacts. 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	None	WHO hourly Total Suspended Particulates (TSP) limit of 500 µg/m ³ measured at 25°C and 101.325 kPa (one atmosphere).	WHO hourly Total Suspended Particulates (TSP) limit of 500 µg/m ³ maintained..

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> The local Environment officer monitor dust levels to maintain the WHO hourly Total Suspended Particulates (TSP) limit of 500 µg/m³ measured at 25°C and 101.325 kPa (one atmosphere) for construction dust impact assessment. 				
(b)	Ambient Water pollution					
	<ul style="list-style-type: none"> Water quality will be impacted by wastewater discharges from construction activities including onsite sewage and rainwater run-off. Soil and water pollution resulting from the accumulation of solid and liquid waste. Soil and water pollution from chemicals & fertilizers meant for production. Water quality may be impacted by waste streams from abattoir. 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 	<ul style="list-style-type: none"> Contractors to erect proper sanitary facilities. - Toilets at convenient locations throughout the project area. Contractors to contain all oil leaks at workshops and surfaces by collecting in oil separators. Pollution from lubricants and other wastes to be avoided. Local Environmental Officer to enforce 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. Beneficiary farmers must recycle waste and reused it as much as possible to avoid dumping in waterways. Polluted water shall be treated prior disposal to watercourse. Slaughterhouses must manage and pretreat their effluents before discharging into water ways. Facility owners must install oil and grease separators to collect rain runoff around workshops and parking areas. 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	None	Local water pollution and effluent Discharge Standards must be strictly adhered to. SECAP Standard 2: Resource efficiency and pollution prevention Water Quality Standards. Waste Management Standards	Water quality improving in the watering points.
(c)	Soil Erosion					
	<ul style="list-style-type: none"> soil erosion occurring, ego close to watering points or rivers. Point source contamination from diesel, lubricants etc around working areas. 	<ul style="list-style-type: none"> Contractors to establish appropriate containment measures for all operational 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Contractors Local Leadership. 	Environmental awareness training	Soil Erosion Control	Are of land revegetated/reforested.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> 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. 	<p>areas and proper disposal of used lubricants.</p> <ul style="list-style-type: none"> At any site, the contractor must institute soil erosion control measures (e.g., re-vegetation, reseeding of grasses, land preparation, terracing, use of gabions, stabilization of banks etc.) Contractors must restore the environment at borrow pits, sand and quarry stone abstraction sites. Contractors must ensure that all bare surfaces are revegetated, and re-grassed. Contractors must minimize vegetation clearing to working areas only. Contractors must install soil erosion control structures like, gabions, contour ridges, swells and catch dams at all badly degraded areas in the sub-project areas. Farmers must use existing roads to access the fields and farm sites and employ drainage control measures and culverts to control natural runoff and overland flow. 	<ul style="list-style-type: none"> Beneficiaries. District Agriculture Office. 			Number of erosion control structures installed.
(d)	<ul style="list-style-type: none"> Vegetation Clearing 					
	<ul style="list-style-type: none"> Vegetation Clearing for cutlines resulting in Dust generation and soil erosion. Vegetation clearing may occur during the establishment of the RELIV project as new infrastructure and pastures will be established. <ul style="list-style-type: none"> Preparation of land for Agriculture (Fodder Fields and pastures) Construction of Sheds, Cattle Pans, Warehouses, Construction of Abattoirs. 	<ul style="list-style-type: none"> Contractors to minimise cutline clearance as far as possible to reduce the potential for dust generation and other impacts. Contractors to implement dust suppression measures, which shall include Water sprinklers and covering moulds with nets. Project proponents to avoid Sensitive habitats such as Wetlands, stream banks, and mountain slopes. 	<p>Contractors monitored by:</p> <ul style="list-style-type: none"> Local Environment Officers. ReLIV SECAP specialist. Local Leadership. Beneficiaries. 	Environmental awareness training to local communities	Soil Erosion Control	Area of Rangelands, and wetlands rehabilitated and protected.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> o etc 	<ul style="list-style-type: none"> Contractors should limit vegetation clearing to working areas only, which include areas for foundations for structures, etc. Communities must conduct revegetation and reforestation (e.g., Planting grass, and trees as appropriate) throughout the project area. End beneficiaries must be assisted to restore Habitats where effects have been caused e.g. re-grassing bare areas. The Local communities must be assisted to develop Catchment Management plans and then implement Sustainable Catchment management. 				
(e)	Temporary Visual Intrusions (Marred landscape)					
	<ul style="list-style-type: none"> Changing of the characteristics of the area and leaving a marred landscape due to construction of micro dams and water supply systems, Establishment of pasture farms, agricultural infrastructure, and other possible facilities and other possible facilities will 	<ul style="list-style-type: none"> Contractors should ensure minimum footprint of construction activities and provide decent accommodation for workers. All altered landscapes (Sand pits, borrow pits, brick moulding sites etc) should be rehabilitated by the contractor, i.e., filled and re-grassed. 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	none	SECAP Standard 2: Resource efficiency and pollution prevention.	Number of borrow pits rehabilitated,
(f)	Solid waste nuisance					
	<ul style="list-style-type: none"> Pollution of soil and water resources Littering and indiscriminate dumping. Deterioration of the aesthetics of the areas. 	<ul style="list-style-type: none"> Environmental Specialist and Local environmental officers at District level must identify acceptable disposal sites. Contractors must collect all construction debris for proper disposal at designated landfills. Farmers must process waste from agricultural activities into other uses, e.g., organic manure. Reuse and recycling must be preferred over disposal of the waste. Abattoirs must establish proper treatment facilities for effluents from their operations. 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist Local Leadership. Beneficiaries. Contractors. District Agriculture Office. 	None	SECAP Standard 2: Resource efficiency and pollution prevention. Local Waste Management Standards.	No indiscriminate Dumping of Waste in the catchment.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> May generate biogas from the waste by erecting Bio-gas digesters. 				
(g)	Loss of natural and cultural heritage					
	<ul style="list-style-type: none"> Natural features, antics and relics destroyed in the project area e.g., during excavations. 	<ul style="list-style-type: none"> The project must conduct feasibility studies, fence out important sites, and introduce proper antiquity education programmes. The project must come up with a Physical cultural resources' management plan. The project must establish procedure for chance finds. If any natural features, antics, and relics are encountered the contractors should stop trenching and the chance finds procedure be followed. 	<p>Museums Department assisted by:</p> <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Contractors. Local Environment Officers 	Requirement of the National Monuments Act.	<p>Local Museums Department standards to be adhered to.</p> <p>SECAP Standard 3: Cultural heritage</p>	Number of Discovered and preserved monuments.
(h)	Habitat loss and biodiversity disturbances.					
	<ul style="list-style-type: none"> Noise and vibrations cause small wild animals to migrate, contamination of the rivers may cause fish kills and destruction of other aquatic life, 	<ul style="list-style-type: none"> Local Environment Officers must enforce the parks and wildlife law and the environment law, Contractors must avoid contamination of soil and water. The project must always provide for/reserve environmental flows. Contractors must conduct Noisy operations at certain times of the day. 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. Contractors must implement traffic management measures and travel speed of contractors and suppliers' vehicles must be restricted. Farmers to conserve all the varieties of food, timber plants, microbes and agricultural plants. Farmers to preserve unique ecosystems. 	<p>Local Environment Officers assisted by:</p> <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Contractors. Museums Department. District Agric. Officer, 	<ul style="list-style-type: none"> Requirement of the Parks and Wildlife Act. Conservation of natural resources 	<p>Noise levels below 55 dBA in the daytime.</p> <p>National Parks requirement</p> <p>SECAP Standard 1: Biodiversity conservation</p>	Noise levels maintained below 55 dBA in the daytime.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> Local Environment Officers to curb poaching and hunting of wild animals by enforcing the Wildlife Act. Local Environment Officers to manage the developments in the reserves and protected areas and ascertain that deforestation is strictly prohibited. Local Environment Officers to ensure the conservation of the useful and endangered species of plants and animals in their natural as well as artificial habitats. ReLIV SECAP specialist to create public awareness regarding biodiversity conservation and its importance. 				
8.4.2.2	<i>Potential Positive Impacts During Construction Phase.</i>					
(a)	Rehabilitation of Fragile and Degraded Ecosystems					
	<ul style="list-style-type: none"> environment protected and conserved. revegetation by planting required species. Arrest the Erosion of mountain sides and steep slopes. Prevent the Loss of natural ecosystems. Rehabilitate and protect the upper reaches of the project site. 	<ul style="list-style-type: none"> Local Environment Officers to carry out Environmental Conservation Measures in degraded sites of the project areas, Farmers to revegetate by planting grass, install gabions as necessary. ReLIV SECAP specialist to oversee the re-routing and channelising drainage of water from the steep gradients to reduce gully formations, Farmers to establish Soil erosion control measures (e.g., terracing, use of gabions, stabilization of banks etc) The project to construct the gabions along the riverbanks where the project will abstract water to prevent loss of property as well as siltation of the river. The project will encourage the use of stone pitching along the slopes to prevent soil erosion. 	<p>Local Environment Officers assisted by:</p> <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. District Agriculture Office. 	<p>Natural resources conservation.</p> <p>Soil conservation works</p>	SECAP Standard 1: Biodiversity conservation	Area of land restored/reforested.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
(b)	Revegetation					
	<ul style="list-style-type: none"> In the process of establishing well managed degraded lands and fields the vegetation will be restored and enhanced. 	<ul style="list-style-type: none"> The project will study and identify the correct indigenous plants that can thrive in the area. The project will conduct deliberate exercise to revegetate the project area by re-grasses. 	District Agriculture Office assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Local Environment Officers 		SECAP Standard 1: Biodiversity conservation	Area of land revegetated/reforested.
8.4.3	OPERATION PHASE					
8.4.3.1	Potential Negative Impacts During Operation Phase.					
(a)	Soil Erosion					
	<ul style="list-style-type: none"> Much less potential for soil erosion. loose soil at livestock watering points and at the sides of levelled irrigation pipelines as well as roads on steep slopes will still be susceptible to erosion. reduction in soil quality and the reduced water-holding capacity. disruption of riparian ecosystems and sedimentation leading to reduced water quality. 	<ul style="list-style-type: none"> End-Beneficiaries to revegetate and re-grass all bare surfaces, End-Beneficiaries to minimize vegetation clearing to working areas only – fields under preparation. End-Beneficiaries to install soil erosion control structures like, gabions, contour ridges, swells and catch dams. End-Beneficiaries to establishment of grassed drainage systems to prevent erosion. 	<ul style="list-style-type: none"> ReLIV SECAP specialist assisted by: Local Environment Officers Contractors Local Leadership. Beneficiaries. District Agriculture Office. 	Environmental awareness training	Soil Erosion Control	Are of land revegetated/reforested. Number of erosion control structures installed.
(b)	Solid waste					
	<ul style="list-style-type: none"> Less quantities of solid wastes generated include domestic wastes, plastics, animal carcasses, veterinary samples, and animal dung. 	<ul style="list-style-type: none"> End-Beneficiaries to collect all solid waste in a systematic manner for disposal at designated landfills. End-Beneficiaries to place waste collection bins at strategic positions throughout the project area. Solid waste should never be burnt on site. End-Beneficiaries to have a solid waste management plan and implement it 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Contractors. District Agriculture Office. 	<ul style="list-style-type: none"> Environmental awareness training Environmental awareness training 	SECAP Standard 2: Resource efficiency and pollution prevention. Local Waste Management Standards.	No indiscriminate Dumping of Waste in the catchment.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> End-Beneficiaries to institute proper manure management at zero grazing sites and cowsheds preferably composting it into manure for application in the fields. End-Beneficiaries to institute proper urine management in properly constructed pits which avoids discharge into the environment. End-Beneficiaries to reuse and recycle waste rather than disposing it. Environmental Specialist must monitor any waste accumulations in the project area. End-Beneficiaries may generate biogas from the waste by erecting Bio-gas digesters.. 				
(c)	Agro chemicals					
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> District Agriculture Office to encourage organic farming and limit the use of Agro chemicals like inorganic fertilizers. Farmers to use integrated Pest Management approaches to minimize pesticide use. ReLIV SECAP specialist to conduct awareness training & workshops on safe handling of chemicals. Farmers to erect separate storerooms for all agro chemicals so that they are always under lock and key away from food staffs. Farmers to use split application of fertiliser to avoid excess being washed away. Also to avoid application before major storms. Farmers to desist from storing fertilisers, agrochemicals and food in the same sore room. End beneficiaries to ensure that all their workers to use appropriate PPE every time. Farmers to use the least potent variants of pesticides to minimise poisoning. 	<p>District Agriculture Office. assisted by:</p> <ul style="list-style-type: none"> Local Environment Officers ReLIV SECAP specialist. Local Leadership. Beneficiaries. Contractors. 		<p>SECAP Standard 2: Resource efficiency and pollution prevention</p>	<p>Number of farmers employing organic farming.</p> <p>Number of farmers trained and using IPM approaches.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
(d)	Effluent Discharges					
	<ul style="list-style-type: none"> Most agricultural, agro-processing, packaging, and marketing operations produce liquid effluent e.g. from MCCs, MCPs, Milk processing plants, Abattoirs, laboratories, veterinary service centres, etc. 	<ul style="list-style-type: none"> Project beneficiaries to Install appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc Processing plants and factories to collect and channel all effluent to a properly constructed effluent treatment plant, which could be oxidation ponds, septic tanks or biogas digesters. Local Environment Officers to monitor the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards. 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Contractors. District Agriculture Office. 	Operations of effluent waste treatment plants.	Local Effluent discharge standards.	Number of treatment plants erected. Quality of Effluent being discharged.
(e)	Ambient Water pollution					
	<ul style="list-style-type: none"> Oil and grease leaks 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. 	<ul style="list-style-type: none"> Establishments to contain all oil leaks at workshops and surfaces. Beneficiaries to maintain all vehicles and equipment to avoid oil and grease leaks. Beneficiaries to Install oil and grease separators to collect rain runoff around workshops and parking areas. 	Local Environment Officers assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. District Agriculture Office. 	Operations of effluent waste treatment plants.	Local Effluent discharge standards.	Number of treatment oil separators erected. Quality of Effluent being discharged.
(f)	Animal Health and welfare.					
	<ul style="list-style-type: none"> Disease outbreaks. Uncontrolled Spread of diseases. Spread of animal disease to humans Improper structures for zero grazing systems. Confining the animals to small spaces 24/7 	<ul style="list-style-type: none"> Local Veterinarians to contain all disease outbreaks in as short time as possible. MAAIF to spearhead the implementation of the one health approach to curb spread of diseases (in collaboration with Ministry of Health). MAAIF to Strengthen Biosecurity in the beef and dairy industry by instituting all disease preventive measures. 	District Agriculture Office assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Local Environment Officers 	Disease control and surveillance	SECAP Standard 2: Resource efficiency and pollution prevention. Local Waste Management Standards.	Rate at which disease outbreaks are contained. Success of preventing diseases

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> • MAAIF to institute the five measures of biosecurity i) bio-exclusion, (ii) bio-compartmentalization, (iii) biocontainment, (iv) bio-prevention, and (v) bio-preservation, • Beneficiaries to construction of Proper Zero grazing structures with enough room space for resting to prevent animals from standing for long periods. • Beneficiaries to afford the animals time to freely walk around or even taking them for a walk. 			Animal welfare and management.	
(g)	Waste Generation and Biosafety issues at Artificial Insemination (AI) centres and Veterinary Labs.	<ul style="list-style-type: none"> • 				
	<p>The AI activities will generate different kinds of waste requiring different kinds of handling. The generated effluent has potential to pollute the soil and water resources, but also contaminate gene pools and affect human and animal health.</p> <ul style="list-style-type: none"> • These stations will handle blood samples, e.g., during diseases outbreaks and these have to be disposed of properly. 	<ul style="list-style-type: none"> • AI Centres to handle all waste streams appropriately, and effluents should be channelled to waste stabilization/treatment ponds. • AI centres should segregate Waste at source: there is need for accurate and complete labelling and safe storage, transport, treatment and disposal of wastes. Wastes should be segregated, and mixing avoided where possible, as unexpected reactions may occur. • AI centres should minimize waste generation where possible. Waste chemicals and solvents will be stored in suitable areas whilst awaiting collection and must not be accumulated. Regular disposal from the laboratories must be part of the laboratory OHS program. • AI centres should designate a separate residue container for any one particular type of waste which will be generated in large amounts. The 	<p>ReLIV SECAP specialist with the assistance of</p> <ul style="list-style-type: none"> • Local Leadership • Beneficiaries • Contractors • Local Environment Officers 	<p>Training on Hazardous Waste Management.</p>	<p>SECAP Standard 2: Resource efficiency and pollution prevention.</p> <p>Local Waste Management Standards.</p>	<p>Access to Incinerator services by veterinarians.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<p>container must be leak-proof and there should be no spillage on the exterior of the container.</p> <ul style="list-style-type: none"> AI centres should provide Personal Protective Equipment (PPE) for normal laboratory operations and for handling any chemical waste. All researchers, veterinarians at AI and VET labs should adhere to biosafety regulations. AI and VET centres should have easily accessible incinerators preferably on site, The Veterinarians should incinerate all blood and other samples especially from disease outbreak surveys. 				
8.3.3.2	Potential Positive Impacts During Operation Phase.					
(a)	Revegetation					
	<ul style="list-style-type: none"> planting of grass and continuous rehabilitation of the open lands. 	<ul style="list-style-type: none"> The project is to identify the correct indigenous plants that can thrive in the area. The project is to conduct deliberate exercise to revegetate the project area by re-grasses. 	District Agriculture Office assisted by: <ul style="list-style-type: none"> ReLIV SECAP specialist. Local Leadership. Beneficiaries. Local Environment Officers 			Hectares revegetated
8.4	SOCIAL AND HEALTH IMPACTS					
8.4.1	PLANNING PHASE					
8.4.1.1	Potential Negative Impacts During Planning Phase.					
(a)	Poor project Inception/Introduction					
	<ul style="list-style-type: none"> Anxiety and anticipation Limited cooperation Suspicion and hence concealing important of information. Inadequate planning, implementation taking too long to start, unclear 	<ul style="list-style-type: none"> Project to develop an appropriate Action Plan with realistic timelines using a Problem Driven Iterative Adaptation Approach ReLIV to make sure that the planning phase should not drag for 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	<ul style="list-style-type: none"> Problem Driven Iterative Adaptation Approach Team Building 	SECAP	<ul style="list-style-type: none"> Reviewed Stakeholder Engagement Plan

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> information resulting in anxiety and fear of possible losses 	<p>far too long as people tend to lose despair.</p> <ul style="list-style-type: none"> ReLIV SECAP specialist to review and update the Stakeholder Engagement Plan ReLIV SECAP specialist to engage stakeholders continuously as per Stakeholder Engagement Plan (SEP) ReLIV SECAP specialist to communicate project strategy clearly and demonstrate how it is different and how it will produce different and positive outcome including roles and responsibilities and available opportunities to all concerned stakeholders including marginalised groups, herders, women and youths. ReLIV SECAP specialist to avail free and accessible Grievance Redress Mechanism (GRM) for everyone to have a channel to air their views and grievances 		<ul style="list-style-type: none"> SEP implementation GRM implementation 		<ul style="list-style-type: none"> Stakeholder Engagement reports Participatory Action Plan developed. GRM Schedule of issues reported and solved
(b)	Limited Stakeholder Involvement and Capacity to manage project Risks.					
	<ul style="list-style-type: none"> Low chances of success and sustainability Failure to take up ownership of the project. Limited capacity within the PMU in handling SECAP requirements, including in relation to requirements on establishing and maintaining a functional grievance redress mechanism 	<ul style="list-style-type: none"> ReLIV SECAP specialist to conduct annual training of all staff on SECAP requirements. ReLIV PMU to conduct a comprehensive participatory stakeholder mapping exercise including roles and responsibilities. ReLIV PMU to Timeously disseminate information and to target 'buy in' at decision making level. ReLIV PMU to adequately consult affected persons on decisions that affect their livelihoods and well-being and to fully inform them of their options and the compensation rates. 	<p>ReLIV SECAP specialist assisted by:</p> <ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	<ul style="list-style-type: none"> Team building Social, Environmental and Climate Assessment Procedures: ESCMP implementation and monitoring, SEP, GRM and other social management plans 	SECAP	<p>Social Safeguard Specialist recruited.</p> <p>Training workshops held annually.</p>

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> ReLIV SECAP specialist to develop Grievance redress mechanisms and make sure they are accessible. 				
(c)	Elite Capture and Power Relations					
	Too influential members of the community and political influence that may result in unequal access to resources and projects benefits	<ul style="list-style-type: none"> ReLIV SECAP specialist to Conduct an inclusive and transparent stakeholder engagement process to identify and determine different players and their influence on the project, and in the community. ReLIV SECAP specialist to Rein in the most influential members and assign them with some responsibility as a way of subduing them and removing the elitism mentality. ReLIV Project to Capacitate district/local staff in appropriate community communication and facilitation skills in order to manage the community socio-political processes 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	Community level communication for effectiveness	None	<ul style="list-style-type: none"> Reviewed Stakeholder Engagement Plan GRM Schedule of issues reported and solved. District and local staff capacitated in community engagement
8.4.1.2	Potential Positive Impacts During Planning Phase.					
(a)	Stakeholder Scepticism, Expectations, Anxiety, Fear of Exclusion and Loss (Project acceptance)					
	<ul style="list-style-type: none"> Community prepared to work together. Readily accepting the project concept Youths are expecting to stop migrating to SA for employment. High chances of success and sustainability. Ready to take up ownership of the project by the partners. Available for employment and partnerships. 	<ul style="list-style-type: none"> ReLIV SECAP specialist to enhance Community Participation in the project. Beneficiaries to prefer participating stakeholders for employment in the project, ReLIV to use bottom-up approaches for project planning so as to involve the potential partners effectively. The Project to provide potential skills development for the local youths in the farming sector. ReLIV SECAP specialist to continuously consult and inform dissemination for the stakeholders to keep abreast with the project. ReLIV SECAP specialist to avail the Grievance redress mechanisms for 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	<ul style="list-style-type: none"> Problem Driven Iterative Adaptation Approach Team Building SEP implementation GRM implementation 	SECAP	<ul style="list-style-type: none"> Reviewed Stakeholder Engagement Plan Stakeholder Engagement reports Participatory Action Plan developed. GRM Schedule of issues reported and solved

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		everyone to have a channel to air their views and grievances.				
8.4.2	CONSTRUCTION/OPERATIONS PHASE					
8.4.2.1	<i>Potential Negative Impacts During Constructions/Operations Phase</i>					
(a)	<i>Gender Based Violence</i>					
	<ul style="list-style-type: none"> Physical body harm. Lack of productivity. Communicable disease incidences. 	<ul style="list-style-type: none"> ReLIV to institute Zero tolerance to gender-based violence ReLIV to ensure sexual harassment Policy at all levels involved in the project. ReLIV to disseminate and educate on sexual harassment policy at all levels of the project and ensure Zero tolerance to Gender-Based Violence in accordance to national policy as well as IFAD/GEF ZERO tolerance policy on sexual exploitation and abuse ReLIV to ensure women get employment in the project at the same level and with the same payment as men (consider a gender quota of at least one-third (1/3) female as per national policy) ReLIV and its sub-projects to give priority in staff recruitment to households headed by women and that are particularly vulnerable. ReLIV SECAP specialist to avail free and accessible Grievance Redress Mechanism (GRM) for everyone to have a channel to air their views and grievances. 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Local Environment Officers 	Gender Based Violence, Sexual Harassment and abuse.	National and SECAP	<ul style="list-style-type: none"> Community and stakeholders educated on GBV management. Reduction of GBV cases Women getting first priority in employment within the wetland. GRM schedule of GBV cases reported and solved
(b)	<i>Displacements or shifts of livelihood activities</i>					
	<ul style="list-style-type: none"> Usual routes closed. Long routes in use - women, the elderly and school children affected. Removal/alteration of usual source of livelihood. (Cattle grazing and hunting grounds) 	<ul style="list-style-type: none"> Project proponents to relocate the footpaths and construct foot bridges where possible. ReLIV to create alternative sources of livelihood e.g., by involving the affected parties in the scheme. 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Local Environment Officers District Agriculture Office. 	<ul style="list-style-type: none"> Alternative livelihoods New farming technologies Entrepreneurial technical and 	FPIC	<ul style="list-style-type: none"> Alternative livelihoods created. Vulnerability and Risk

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> long-term hardship, impoverishment, and social unrest among the affected community. Migration to alternative livelihoods. 	<ul style="list-style-type: none"> ReLIV to conduct a participatory Vulnerability and Risk Assessment involving the communities through their leadership. ReLIV to explore alternative livelihood approaches in close consultation with the community. ReLIV to provide capacity building to communities in accordance with the capacity gaps identified during the Vulnerability and Risk Assessment process. ReLIV to provide capacity building for extension services staff who interact with community on day-to-day basis for continued assistance e.g., Veterinary services should be improved to assist farmers in alternative animal husbandry including vaccination. 		financial management skills		<ul style="list-style-type: none"> Assessment report Affected communities compensated.
(c)	<i>Conflicts between local people and external work force</i>					
	<ul style="list-style-type: none"> Conflict over employment opportunities Conflict over relationships. Conflict over available resources Local community especially the youth will have high hopes of being employed in various project activities ahead of external people. 	<ul style="list-style-type: none"> End beneficiaries to give first preference for employment to locals, including for technical work. End beneficiaries to encourage migrant workers to bring their spouses along. ReLIV to conduct a local skills audit and try to integrate both local and outside workers but giving first preference to locals. ReLIV to target skills development for locals especially willing youths as part of giving back to community, the project can. ReLIV to use the Labour assessment and management procedures (LA/MP) prepared for mitigation of labour related risks and impacts 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Beneficiaries. Local Environment Officers District Agriculture Office. 	None	National Labour laws and ILO requirements.	<ul style="list-style-type: none"> Skills audit conducted. Youth skills development report
(d)	Occupational Health and Safety Issues					

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
	<ul style="list-style-type: none"> • Temporary and permanent physical injuries. • Bronchial diseases from dust. • Loss of life 	<ul style="list-style-type: none"> • A Health/Safety/Environment officer should be present during construction. • All safety precautions must be enforced. • End beneficiaries to provide PPE to all workers. • End beneficiaries to institute dust and noise suppression measures. • ReLIV SECAP specialist to create awareness on occupational health and safety as part of other capacity building initiatives which will be carried out during the project. 	Health Dept assisted by;, Social safeguards consultant <ul style="list-style-type: none"> • (RELIV PCU). • ReLIV SECAP specialist. • Local Leadership. • Local Environment Officers 	Application of various types of PPE and their proper use. Occupational Health and Safety.	National, ILO and SECAP	<ul style="list-style-type: none"> • Engagement reports on community-based resource management • Workshop reports on occupational health and safety • PPE provided for wetlands working personnel. • Monitoring reports
(e)	Poor Public Health					
	<ul style="list-style-type: none"> • Spread of communicable diseases such as HIV/AIDS. • Increase in the prevalence of water-borne diseases (intestinal and urinary bilharzia and malaria) 	<ul style="list-style-type: none"> • ReLIV SECAP specialist to provide education on Public health issues. • Local Environment Officers to provide awareness raising within local communities and workers through Information, Education and Communication (IEC) and distribution of free condoms and counselling and treatment will help alleviate the impacts. • Project proponents to provide toilets that are constructed in such a way that they cannot leak into water resources. • Project proponents to provide potable water supply that will include the use of groundwater resources that can be used as a reference to the performance of the project surface water supply 	Health Dept assisted by;, Social safeguards consultant <ul style="list-style-type: none"> • ReLIV SECAP specialist. • Local Leadership. • Local Environment Officers 	HIV/AIDS and related communicable diseases		Clinical reports in project areas.
(f)	Women and Youth Participation					
	Limited Women and Youth Participation due to unequal power relations and mismanaged natural resources.	<ul style="list-style-type: none"> • ReLIV SECAP specialist to prepare a Gender Action Plan (GAP) for the project implementation phase, to address the gender issues identified. 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> • Local leadership, • Local community 	Gender Mainstreaming and youth Inclusion	National and SECAP	Gender and Youth Action Plan produced and implemented

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
		<ul style="list-style-type: none"> Project Proponents will be encouraged to prioritise Youth engagement through creation of lucrative opportunities along the value chains. 	<ul style="list-style-type: none"> Local Environment Officers Local Agricultural Officers 			
(g)	Child Labour					
	Use of child labour in project activities	<ul style="list-style-type: none"> ReLIV SECAP specialist to disclose Child protection laws through awareness creation and education to prevent the use of child labour in project activities. ReLIV SECAP specialist to Monitor Child labour throughout the project through a participatory surveillance and control system. 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> Local leadership, Local community Local Environment Officers Local Agricultural Officers 	Monitoring Child labour	ILO	No of cases reported and addressed
(h)	Loss of Cultural and Geological Heritage					
	Loss of cultural heritage due to construction and development in the lake area	<ul style="list-style-type: none"> Local Environment Officers to Create awareness on the importance of preserving the landscape and its associated cultural and geological heritage, its beauty and identity. In the case of Chance Finds, the contractor has to immediately contact the office responsible for cultural heritage for guidance through the PMU local and national office. 	ReLIV SECAP specialist with the assistance of: <ul style="list-style-type: none"> Local leadership, Local community Local Environment Officers Local Agricultural Officers 	Preservation of cultural and geological heritage	National Standards	<ul style="list-style-type: none"> Awareness raising sessions held with stakeholders. Documentation on special vegetation that need to be preserved for cultural preservation. Chance Finds report
8.4.2.2	Potential Positive Impacts During Constructions/Operations Phase.					
(a)	Economic Opportunities Employment (job creation)					
	<ul style="list-style-type: none"> improvement on their income generation. Improvement of livelihoods. maintained land output gain. capacitation on entrepreneurial skills. 	<ul style="list-style-type: none"> ReLIV to set up favourable partnership agreements. ReLIV to meet all promises. ReLIV to endeavour for a win-win situation. 	ReLIV SECAP specialist assisted by: <ul style="list-style-type: none"> Local Leadership. Local Environment Officers District Agriculture Office. 	<ul style="list-style-type: none"> Entrepreneurial approaches. Good animal Husbandry 	<ul style="list-style-type: none"> ILO labour requirements 	<ul style="list-style-type: none"> Number of Jobs created by the project.

TEXT REF.	POTENTIAL IMPACTS/ISSUES	MITIGATION/ENHANCEMENT	RESPONSIBILITY	CAPACITY BUILDING	RELEVANT STANDARDS	KPIs
				<ul style="list-style-type: none"> Commercial farming approaches. 		
8.4.3	CLIMATE IMPACTS					
(a)	Vulnerability to climate change and variability					
	<p>The wetland areas are highly vulnerable to climate change and variability, mainly through increased temperatures and alterations in rainfall patterns.</p>	<ul style="list-style-type: none"> ReLIV PMU will adopt climate smart technologies such as sustainable land management, conservation, and restoration of forests ecosystems etc to reduce GHG emission and sequester carbon in the project area. Farmers/Communities will be encouraged to reduce livestock numbers and use improved breeds. ReLIV SECAP specialist will train communities in more efficient application of fertilizers, minimising the use of synthetic fertilisers and better manure management to reduce GHG emissions. Communities and the PMU must Use cover crops over the winter to keep carbon in the soil. 	<p>ReLIV SECAP specialist with the assistance of:</p> <ul style="list-style-type: none"> Local leadership, Local community 	Effects of Climate Change and Variability	CSA GAP	<ul style="list-style-type: none"> No of Climate smart technologies implemented. No of farmers reducing their herd No of farmers practicing good agricultural practices
(b)	Availability of Water.					
	<p>Availability of Water affecting agriculture and aquatic habitats in the project areas</p>	<ul style="list-style-type: none"> ReLIV PMU to plant/promote different vegetation types/fodder crops in different habitats according to the water level. ReLIV PMU to invest in water supplies through boreholes, shallow wells, small dams, and other water harvesting techniques. 	<p>ReLIV SECAP specialist with the assistance of:</p> <ul style="list-style-type: none"> Local leadership, Local community 	Effects of wetlands in water retention, flood control and subsequent slow water release.	Standard water harvesting techniques.	Landscape transformation

9. INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

9.1 - INTRODUCTION

The Lead Implementing Agent for the ReLIV project will be MAAIF-DAR, with the assistance of ReLIV PMU and various other institutions which will be playing different roles. It is important that these institutions be capable of carrying out the ESCMF recommendations. Thus, the following is an outline of the institutional arrangements for implementing the project and the SECAP requirements in particular. The Chapter also outlines the capacity building and training needs that were identified for the implementing partners of the ReLIV project, to enhance their environmental and social management capacity. Table 9-1 outlines the responsibilities of different institutions for ReLIV implementation.

Table 9-1 Responsibilities for Implementation of Different ReLIV Activities

ESMF PROCEDURE	ACTIVITY	IMPLEMENTING AUTHORITY
Screening of sub-projects	<ul style="list-style-type: none"> Establishing eligibility of sub-project for categorisation Categorisation of sub-projects 	<ul style="list-style-type: none"> ReLIV PMU. NEMA
ESIAs	Preparation of Abbreviated ESIA, reports for Category 3 / Substantial Risk (IFAD's SECAP 21)	Independent Consultants
	Disclosure of ESIAs	<ul style="list-style-type: none"> IFAD ReLIV PMU
	Review and approval of ESIA, Site Specific ESCMP reports	<ul style="list-style-type: none"> ReLIV technical Review Panels NEMA IFAD
	Implementation of ESCMP	<ul style="list-style-type: none"> ReLIV PMU SECAP Specialist Beneficiary communities
	Project Compliance Monitoring on site	<ul style="list-style-type: none"> ReLIV PMU SECAP Specialist IFAD's ECC Officer
Environmental and Social Audits	Once every two years for Category 3 / Substantial Risk (IFAD's SECAP 21)	Independent Consultants
Reporting	Submission of environmental, social performance reports to IFAD	ReLIV PMU
Grievance Redress Mechanism	<ul style="list-style-type: none"> Grievance receipt, evaluation, resolution and communication with complainant. Referral of grievance to higher levels when the need arises. 	ReLIV Grievance Redress Committee

9.2 IMPLEMENTATION ARRANGEMENTS.

Agricultural programmes cut across several sectors, and thus requires multi-sectoral and integrated solutions to Implement them. They call for the participation of multiple stakeholders and strong coordination mechanisms. However, to keep the institutional arrangement simple a single Project Management Unit (PMU) at the Ministry of Agriculture (MAAIF) will spearhead the implementation of the entire Project. MAAIF will establish a Project Steering Committee (composed of representatives of other relevant ministries and private sector organisations that will provide overall strategic direction and ensure coordination among sectors.

MAAIF will establish a lean project management unit (PMU) with competitively recruited staff, to be responsible for coordination of the agencies involved in implementation of the project. The PMU will handle core functions of coordinating the overall implementation and implementing partners focusing on: Financial Management; Procurement; Monitoring, Evaluation and Learning.

Actual implementation will be undertaken by MAAIF’s Directorate of Animal Resources, DDA, NAGRC & DB, and NARO, under the coordination of the PMU. MoUs will be signed with each of these agencies, specifying responsibilities and roles to be played. The PMU will ensure that these agencies conduct joint planning and review sessions, to ensure harmonisation in implementing the different components.

The project, where relevant, will collaborate with some private sector entities, NGOs, farmers’ cooperatives and Local Governments to deliver project services to the targeted farmers. Thus, ReLIV will receive support from various national institutions who will offer their expertise in support of ReLIV activities from as early as the design stage, through to the implementation stage (Figure 9-1).

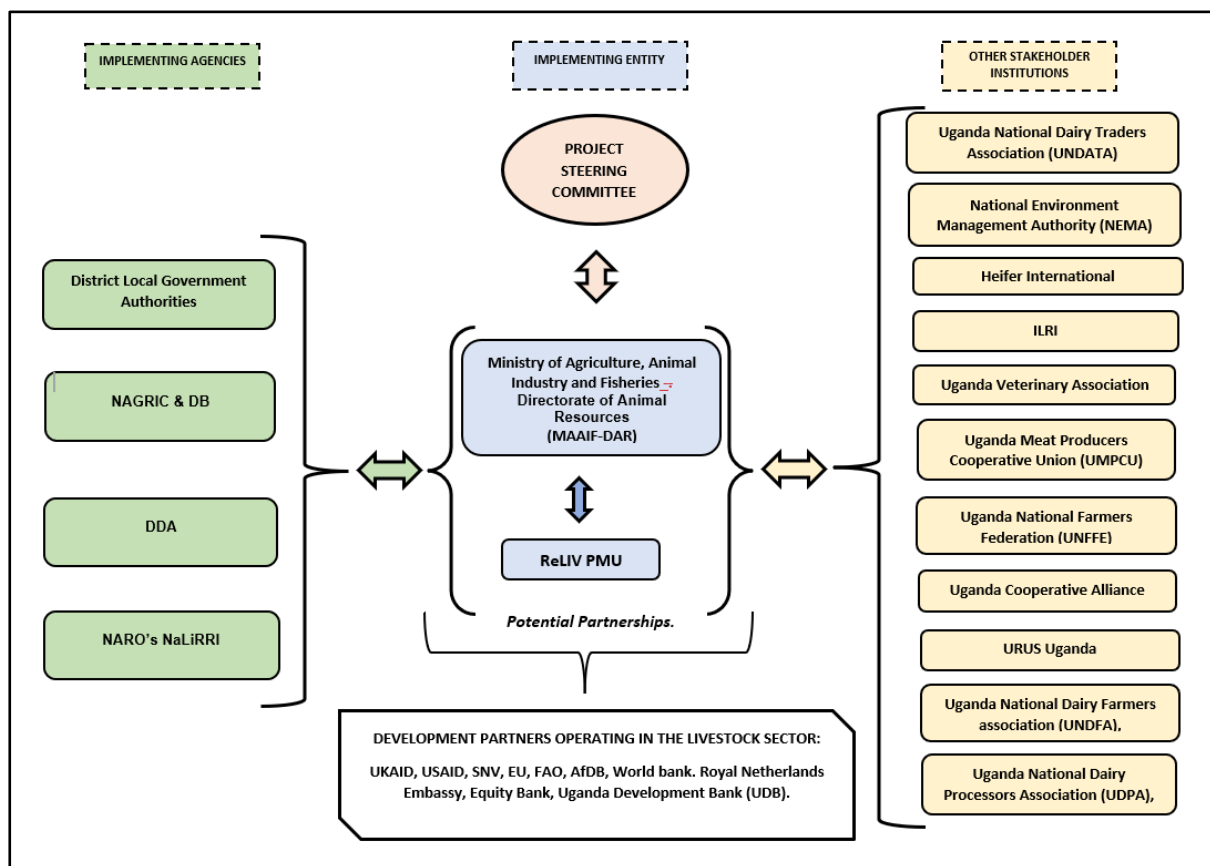


Figure 9-1 Implementation Arrangements.

The main support institutions include, DDA, NAGRC & DB, NARO – NaLIRRI, National- Animal Disease Diagnostic Centre (NADDEC), National Environment Management – Authority (NEMA), District Local Government Authorities. The benefiting communities, with the assistance of the ReLIV PMU and MAAIF-DAR will oversee sustainable use of project infrastructure such as water and ensure enforcement of legal requirements, including compliance with the ESCMF. The National Environment Management Authority (NEMA) will also monitor compliance, during construction, the operational phase and post project period. IFAD will take responsibility for monitoring the environmental and social performance of ReLIV, both through the compliance reports that will be submitted by the

ReLIV PMU as well as through its review missions that will evaluate actual progress on the ground.

9.3 CAPACITY BUILDING NEEDS

The implementing partners for the ReLIV project must be provided with appropriate training and awareness to enable them to successfully implement and monitor the Environmental, Social and Climate Management Framework (ESCMF) together with its environmental and social management plans (ESMPs).

Currently there is little capacity within MAAIF to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the proposed agricultural activities of ReLIV.

i. National Level

ReLIV District Technical Committees will be responsible for completing the Environmental and Social Screening Form (Appendix 1) to be able to identify and mitigate the potential environmental and social impacts of rolling out the various beef and dairy value chains. MAAIF-DAR /ReLIV PMU will review the recommendations from the districts and undertake the process of seeking the approval of the Site Specific ESCMPs through the EIA Department of National Environment Management Authority (NEMA). In addition, strategic decisions on the direction of rolling out the project chains 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:

- ReLIV PMU Staff
- MAAIF staff
- National Environment Management Authority (NEMA)
- District Local Government Staff
- NAGRIC & DB staff
- DDA Staff
- NARO Staff
- ReLIV Steering Committee
- Other collaborating institutions.

ii. District (Local) Level

At District and local level, the groups that will receive environmental and social training include the following:

- the Association members.
- individual farmers.
- Extension workers in project impact areas.
- District environmental officers.
- District agricultural extension officers.

9.4 TRAINING REQUIREMENTS

The proposed ReLIV project activities will be numerous and challenging and will require knowledgeable professionals for successful implementation. Thus, regular short and tailor-made training courses and seminars will be required to reinforce the capacity and skills of the stakeholders and farmers during the entire project period. Training activities and target groups are presented in Table 9-2 below.

9.4.1 Capacity building needs for RELIV Partners.

The key experts from the RELIV implementation partners 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 RELIV PMU so that they can offer their services from an informed position.

9.4.2 Capacity Building needs for RELIV PMU

The RELIV PMU will be responsible for the day-to-day environmental, social and climate interactions on the ground. It is therefore important that the capacity within the RELIV PMU 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 sub-projects.

9.4.3 Capacity Building needs for beneficiary communities

The training needs for the 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 District Development Committees as well as the management structures for each benefiting association, depending on the stage at which the sub-project activities are at.

9.4.4 Necessary training to support business farming:

RELIV PMU, in collaboration with the MAAIF and other strategic partners, will continue to sensitise beneficiary communities (Fodder and Feed producers, Fodder seed producers, Beef and Dairy associations and farmers) in using technological advancements to improve productivity and quality of produce.

9.4.5 Training on business management.

RELIV PMU will provide capacity building for beef, 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.

8.4.6 Training on the use and interpretation of early warning systems.

RELIV PMU, in collaboration with the Meteorological Services 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.

9.4.7 Training of all farmers on watershed management issues

Every Beef and Dairy farmer is key in ensuring compliance with the ESCMP 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 ReLIV 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.

9.4.8 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.

9.4.9 Social and psychosocial support for RELIV communities

RELIV PMU 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.
- Prepare communities for the culture shocks through sensitisation sessions and training.
- Establish structures for the control and resolution of conflicts related to the impacts of RELIV on family fabric.

9.4.10 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 such as COVID-19.

9.5 SUMMARY OF TRAINING REQUIREMENTS.

Table 9-2 provides a summary of the training needs for the ReLIV including the target groups and trainers for each training activity and its cost estimates:

Table 9-2 Environmental and Social Training

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
1.	<p>High Level Environmental, Social and Climate Risks and Impacts of ReLIV.</p> <ul style="list-style-type: none"> • ReLIV and linkage to SECAP policies. • Typical issues. • Mitigation requirements. • Management plans. • Monitoring requirements. • Management review. • Budgeting for E&S risk management. • early warning systems. • health, safety and environmental quality. 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Participating Ministries, Departments and Directorates. • EIA Department (NEMA). • ReLIV coordinator and management. • Sub-project management. • Other collaborating institutions. <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) • <u>Private Consultant</u> 	<ul style="list-style-type: none"> • 30 high level decision makers, managers, coordinators trained 	<p>One session during the entire project period</p> <p>Length: 1 day</p> <p>Total cost: \$ 15,000.00</p>
2.	<p>Environmental and Social Impact Assessment of the Projects:</p> <ul style="list-style-type: none"> • Screening process. • Use of checklists. • Preparation of terms of reference. • Identification of Impacts. • ESIA report preparation and processing. • Policies and laws in Uganda. • IFAD safeguard policies • early warning systems • health, safety and environmental quality 	<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • District Agriculture Office Team • District Environment Units • Extension workers in project impact areas. <p>TRAINER:</p> <ul style="list-style-type: none"> • National Environmental Management Authority (NEMA) • Private Consultant 	<ul style="list-style-type: none"> • 10 members of District Agriculture Office Team are trained. • 10 District Environment Units members are trained. • 10 Extension workers in project impact areas trained. 	<p>Three sessions during the entire project period</p> <p>Length: 5 days per session</p> <p>Total cost: \$ 12,000.00</p>
		<p>TARGET GROUP:</p> <ul style="list-style-type: none"> • Cascading training to lower levels: <ul style="list-style-type: none"> ○ Associations/cooperatives/farmers. ○ The rest of the District Forestry staff ○ District Councils and Extension workers <p>TRAINER:</p>	<ul style="list-style-type: none"> • 30 members of the Associations/cooperatives/farmers. • 30 Extension Workers • 10 District Council/Extension workers 	<p>Four sessions during the entire project period</p> <p>Venue: In project areas</p> <p>Length: 5 days per session</p> <p>Total cost: \$14,000.00</p>

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
		<ul style="list-style-type: none"> National Environmental Management Authority (NEMA) 		
3	Watershed and Rangelands Management <ul style="list-style-type: none"> Rehabilitation of mountain sides and gullies. Reforestation/revegetation. Control of Alien Invasive Species. General Catchment management. 	TARGET GROUP: <ul style="list-style-type: none"> District Agriculture Office Team District Environment Units Extension workers in project impact areas. TRAINER: <ul style="list-style-type: none"> National Environmental Management Authority (NEMA) Private Consultant 	<ul style="list-style-type: none"> 10 members of District Agriculture Office Team are trained. 10 District Environment Units members are trained. 10 Extension workers in project impact areas trained. 	(Three sessions during the entire project period) Length: 5 days per session Total cost: \$ 15,000.00
		TARGET GROUP: <ul style="list-style-type: none"> Cascading training to lower levels: <ul style="list-style-type: none"> Associations/cooperatives/farmers The rest of the District Agriculture staff District Councils and Extension workers TRAINER: <ul style="list-style-type: none"> National Environmental Management Authority (NEMA) 	<ul style="list-style-type: none"> 30 members of the Associations/cooperatives/farmers 30 Extension Workers 10 District Council/Extension workers 	(Four sessions during the entire project period) Venue: In project areas Length: 5 days per session Total cost: \$14, 000.00
4.	Facilitate Gender, HIV/AIDS awareness <ul style="list-style-type: none"> Impacts of HIV/AIDS on social wellbeing, livelihood and projects Mitigation measures Sensitisation on GBV/SEA Care of victims Social and psychosocial support 	TARGET GROUP: <ul style="list-style-type: none"> Extension workers in project impact areas Associations/cooperatives/farmers. TRAINER: <ul style="list-style-type: none"> National Aids Council (NAC) Private Consultant 	<ul style="list-style-type: none"> 10 Extension workers in project impact areas trained. 30 Cluster members/Farmers trained 	TO USE NAC RESOURCES Two sessions during entire project period Venue: Length: 5 days Total cost: \$9, 500.00
5.	Water Management <ul style="list-style-type: none"> Water resources management. Water for livestock. 	TARGET GROUP: <ul style="list-style-type: none"> Extension workers and Farmers 	<ul style="list-style-type: none"> 10 Extension Workers 30 Farmers from various trial farms trained 	Four sessions during the entire project period

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
	<ul style="list-style-type: none"> Water quality management. Water rights 	TRAINER: <ul style="list-style-type: none"> Private Consultant 		Venue: Farms Length: 5 days per session Total cost: \$ 9,000.00
6.	Crop Management <ul style="list-style-type: none"> Fodder management. Cropping calendar. How to apply fertilizer. Use of organic manure / compost. Weeding. Crop harvesting & storage.	TARGET GROUP: <ul style="list-style-type: none"> Extension workers and Farmers. TRAINER: Private Consultant.	<ul style="list-style-type: none"> 10 Extension Workers 30 Farmers from various trial farms trained 	(Four sessions during the entire project period) Venue: Farms Length: 5 days per session Total cost: \$ 9,000.00
7.	For Agricultural activities - Pesticide Management <ul style="list-style-type: none"> Pesticide Types and Use. Packaging, labelling and Handling. Storage, Stacking and Release. Pesticides Record Maintenance. Pesticides Application and Disposal <ul style="list-style-type: none"> Types and Handling of Equipment. Pesticides Toxicity. Safety of Applicators (OSHA). <ul style="list-style-type: none"> First Aid. Care, Cleaning and Disposal of Pesticides and Equipment. Agro-facility Management <ul style="list-style-type: none"> disposal of wastes, biosafety, security, emergency response. 	TARGET GROUP: <ul style="list-style-type: none"> Storekeepers. Pesticide Transporters. Pesticide Users. Agro dealers. All Farmers. Trial Farm Management Committee. Agro facilities, e.g., warehouses, etc. TRAINER: <ul style="list-style-type: none"> MAAIF 	<ul style="list-style-type: none"> 10 members of Scheme Procurement Committee Trained 10 Extension Workers 30 Cluster members/Farmers trained. 	(Three sessions for the entire project period) Venue: Farms Length: 5 days per session Total cost: \$11,000.00

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
8.	<p>Maintenance of the Agricultural Facilities</p> <ul style="list-style-type: none"> - Detecting the damaged structures - Materials needed to maintain the damaged structures. <p>Hygiene and Sanitation</p> <ul style="list-style-type: none"> - Water supply - Sanitation - Water and sanitation related diseases - Infrastructure needed on the scheme for sanitation enhancement 	<ul style="list-style-type: none"> • Extension workers and Farmers • Extension workers and Farmers <p><u>TRAINER: PRIVATE CONSULTANT OR MAFS</u></p>	<ul style="list-style-type: none"> • 10 Extension Workers • 30 Farmers from various trial farms trained 	<p>(Two sessions during the entire project period)</p> <p>Venue: The farms Length: 5 days per session</p> <p>Total cost: \$6,800.00</p>
9.	<p>Laboratories and Research Facility Management</p> <ul style="list-style-type: none"> - Handling of chemicals/ reagents, - disposal of wastes, - biosafety, - security, - emergency response. 	<ul style="list-style-type: none"> • Research Scientists • Research technicians. <p>Admin and general centre staff</p>	<ul style="list-style-type: none"> • 10 Research Scientists • 10 Research technicians • 5 admin staff 	<p>(Two sessions during the entire project period)</p> <p>Venue: research laboratories</p> <p>Length: 5 days per session</p> <p>Total cost: \$8,300.00</p>
TOTAL ESTIMATED BUDGET				123,600.00

9.6 PROPOSED APPROACH IN EXECUTING TRAINING ACTIVITIES

ReLIV 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 ReLIV coordinator and management staff and other high-level persons are sensitized in the potential environmental and social risks and impacts due to the proposed ReLIV project activities. This training may be conducted by a private consultant or by the EIA Department of the National Environmental Management Authority (NEMA).

9.7 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 9-2 above.

10. COSTS AND BUDGETARY CONSIDERATIONS

10.1 COSTS OF IMPLEMENTING THE ESCMF

The following is a breakdown of the cost estimates for the activities in the environmental social and Climate management plan. This detailed budget is meant for implementing and monitoring the recommended mitigation measures throughout the project life. **The budget is integrated into the overall programme costs to ensure that the proposed mitigation measures are actually implemented.**

10.2 SITE-SPECIFIC ESIA^s AND ESMP^s

This component will comprise Mitigation issues to do with Site-specific ESIA^s, ESMP^s (Appendix 3) and the Environmental License fees for registering these EA studies with the National Environmental Management Authority (NEMA) (Table 10-1).

Table 10-1 Site-specific ESIA^s and ESMP^s Budget

No.	ACTIVITY	ESTIMATED COST (US \$)
1.0	Site-specific ESIA - Lumpsum Provision.	45,000.00
2.0	Site-specific ESMP ^s and Environmental Checklists – Lumpsum Provision (Trained Field Officers to train beneficiaries) lump sum.	100,000.00
	Sub-Total	145,000.00

10.3 MITIGATION MEASURES

This provision is for implementing mitigation measures in each district. These resources will provide for:

- prevention of soil erosion, vegetation clearance and land degradation,
- Protection of critical natural habitats (mountain sides, wetlands, marginal lands, natural forests, nesting sites etc.),
- prevention of water-borne diseases,
- Climate change resilient activities,
- Gender and Youth mainstreaming.

Mitigation and enhancement measures were discussed in detail in table 9-2 and the following is a summary of some of the measures with cost implications (Table 10-2).

Table 10-2 Mitigation and enhancement measures Budget

No.	MITIGATION/ENHANCEMENT	ESTIMATED COST (US \$)
1.0	Stakeholder Participation <ul style="list-style-type: none"> • Conduct a comprehensive participatory stakeholder mapping exercise including roles and responsibilities at national, provincial, district and local area level • Conduct adequate situational assessment to determine different vulnerability dimensions. 	22,000.00

No.	MITIGATION/ENHANCEMENT	ESTIMATED COST (US \$)
2.0	Catchment/Rangelands Management <ul style="list-style-type: none"> • Institute catchment conservation. • Habitat restoration must be done where effects have been caused. • All altered landscapes (Sand pits, borrow pits, brick moulding sites etc.) should be rehabilitated. • Institute measures to reduce and control soil erosion like contouring and terracing, stabilising slopes and banks, re-vegetation, reseeding of grasses, land preparation, use of gabions, etc.) 	35,000.00
	Sub-total	57,000.00

10.4 MONITORING AND EVALUATION

This provision is for training both the ReLIV staff and the beneficiaries in participatory environmental monitoring. This entails monitoring the implementation of mitigation measures at the sub-project level (e.g., each MCC, MCP, meat and milk processing plants, abattoirs, fodder production unit, Cow shed or zero grazing sheds, etc.). (Table 10-3). The component will comprise:

- i) the monitoring and evaluation issues of the whole programme
- ii) Monitoring and Evaluation of the progress of the implementation of the ESCMF. Assessing whether it is being effective or not.

Table 10-3 Monitoring and Evaluation Budget

No.	ACTIVITY	Estimated Cost (US \$)
1.0	Monitoring and evaluation exercises	50,000.00
	Sub-Total	50,000.00

10.5 ENVIRONMENTAL AND SOCIAL TRAINING

Environmental and Social Training were discussed in detail in table 9-2 and the following is a summary of the budgetary requirements for the proposed training activities (Table 10-4).

Table 10-4 Environmental and Social Training Budget

No.	TRAINING ACTIVITIES	Estimated Cost (US \$)
1	High level training in Environmental and Social Risks of RELIV	15,000.00
2	Training in Environmental and Social Impact Assessment	12,000.00
3	Cascading training on Environmental, Social and Climate Management Framework and its ESMP	14,000.00
4	Watershed and Rangelands Management Training	15,000.00
5	Cascading training on Watershed and Rangelands Management	14,000.00
6	Facilitate Gender, HIV/AIDS awareness	9,500.00
7	Water Management	9,000.00
8	Crop Management	9,000.00
9	Agricultural Chemicals Management	11,000.00
10	Maintenance of the Agricultural Facilities and Hygiene and Sanitation,	6,800.00
11	Laboratories and Research Facility Management	8,300.00
TOTAL		123,600.00

10.6 ANNUAL AUDITS

The project will be subjected to annual audits and an end of project audit. The following is the cost estimate for the Audits (Table 10-5).

Table 10-5 Monitoring and Evaluation Budget

No.	ACTIVITY	ESTIMATED COST (US \$)
1.0	Bi- Annual Audit	20,000.00
2.0	Annual Reviews	10,000.00
3.0	End of Project Audit	25,000.00
	Sub-Total	55,000.00

10.7 ESCMF IMPLEMENTATION BUDGET SUMMARY

The following (Table 10-6) is the ESCMF Implementation budget summary taking into consideration all the issues covered in sections 10.1 to 10.7:

Table 10-6 Estimated Budget for ESCMF Implementation (US\$)

No.	ACTIVITY	YEAR						TOTAL
		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	
1.	Site-specific ESIA's, ESMPs and Environmental License fees	50,000.00	35,000.00	25,000.00	15,000.00	10,000.00	10,000.00	145,000.00
2.	Mitigation Measures	15,000.00	12,000.00	10,000.00	10,000.00	7,000.00	3,000.00	57,000.00
3.	Monitoring and evaluation purposes (R&D, M&E, Field Visits)		10,000.00	15,000.00	15,000.00	5,000	5,000	50,000.00
4.	Environmental and Social Training	38,000.00	29,000.00	19,000.00	19,000.00	9,000.00	9,400.00	130,000.00 123,600.00
5.	Bi-Annual Audit		4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	20,000.00
6.	Annual Reviews			5,000.00		5,000.00		10,000.00
7.	End of Project Audit						25,000.00	25,000.00
	Sub – Total							430,600.00
	10% Contingency							43,060.00
	Grand Total							473,660.00

11. MONITORING PLAN AND ARRANGEMENTS

11.1 INTRODUCTION

Environmental and social monitoring of the ReLIV project is an important part of managing the potential project impacts. The monitoring will be the responsibility of the ReLIV PMU SECAP Specialist who will be coordinating all SECAP issues. The PMU will be assisted by the rest of the implantation partners and other relevant authorities like NEMA.

The objective for monitoring is threefold (section 6.4.5 for details):

- **Environmental and Social 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. This must 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 WQ analysis), area of disturbance, spoil management, etc. This should be done on a routine basis by trained ReLIV 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 ReLIV PMU/IFAD/ and NEMA.

11.2 AREAS TO BE MONITORED

11.2.1 Environmental issues

a) Soils

Soil degradation may occur as the soils are exposed and or compacted during the construction of agriculture 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.

b) Vegetation

Unnecessary vegetation clearing during the development of pastures and fodder fields must be well planned and managed in such a way as to provide for buffer vegetation zones. Grass and veldt 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 Wildlife Act.

d) Marginal lands/fragile ecosystems

Marginal lands and fragile ecosystems must be protected against abuse.

e) Chemical pollution

A great likelihood of chemical pollution of the water 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.

11.2.2 Social Issues

a) Loss of natural and cultural heritage

The rehabilitation/construction of roads, 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 (Appendix 7).

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 parameters mentioned above be monitored during the implementation and operation stages and any impacts should be mitigated as soon as possible. The farmers and the ReLIV PMU should monitor on a periodic basis.

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.

11.3 ENVIRONMENTAL AND SOCIAL MONITORING PLAN

Screening will ensure that no activities in the exclusion list (Table 6-1) will be accommodated under ReLIV. 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 for the ReLIV programme:

11.3.1 The Monitoring Plan.

The Monitoring Plan is summarized in Table 11-1 below.

Table 11-1 Monitoring Activities and Indicators

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Soil erosions	In the process of constructing roads, dams and other agriculture infrastructure, the contractors should make a daily inspection of earth works and ensure that slopes are suitably graded. Once earthworks are complete the Implementing Agent should monitor the restoration measures implemented by the Contractor, such as re-vegetation	<ul style="list-style-type: none"> • Soil erosion • Conservation activities • Rangelands management 	An absence of rills, gullies or other erosion features occurs	Daily and ongoing as project is implemented	ReLIV PMU SECAP Specialist assisted by: <ul style="list-style-type: none"> • MAAIF-DAR • DDA • NAGRIC & DB • NARO - NaLIRRI
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	<ul style="list-style-type: none"> • Soil Fertility 	Soil nutrient levels satisfactory.	Annually	<ul style="list-style-type: none"> • MAAIF-DAR
Vegetation	The clusters/farmers must clear areas to be used and site works only.	<ul style="list-style-type: none"> • Clearing of the project sites and disturbance of animals. • flora and fauna 	No unnecessary vegetation cleared	Weekly and ongoing as project is implemented	NEMA assisted by: <ul style="list-style-type: none"> • MAAIF-DAR • ReLIV PMU SECAP Specialist.
Birds	Interference with nesting sites	<ul style="list-style-type: none"> • Nesting sites • Migratory routes 	Reproductive patterns of birds undisturbed	Weekly and ongoing as project is implemented	Department of National Parks and Wildlife assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist.
Small mammals habitat loss	Ensure that no unnecessary habitat loss occurs, and that poaching is curtailed.	<ul style="list-style-type: none"> • Animal habitats • Poaching 	No Mammals are displaced from their habitats. Number of poaching incidences reduced or eliminated.	Weekly and ongoing as project is implemented	Department of National Parks and Wildlife assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist. • Police department.
Crime	The RELIV-PMU Secretariat should Liaise with police department if crime/theft becomes a problem.	<ul style="list-style-type: none"> • Criminal activities in the area 	Crime theft kept to a minimum. Incidences of stock theft and house breaking minimized.	Weekly and ongoing as project is implemented	Department of National Parks and Wildlife assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist. • Police department. • District Administrators.
Noise	Noise monitoring should be carried out on an ad-hoc basis by the Environmental Monitor or the RELIV-PMU to establish noise levels in the work areas.	<ul style="list-style-type: none"> • Noise Levels 	Noise levels at the nearest sensitive receiver would be kept to a minimum.	Weekly and ongoing as project is implemented.	Ministry of Health assisted by: <ul style="list-style-type: none"> • NEMA. • ReLIV PMU SECAP Specialist.

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Health	RELIV-PMU must ensure that education and awareness campaigns are implemented and must mainstream HIV/AIDS issues into the project implementation programme.	<ul style="list-style-type: none"> 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 Avian flu, AIDS/STD related diseases recorded at hospital and medical clinic	Monthly and ongoing as project is implemented	Ministry of Health assisted by: <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist. DDA. MAAIF-DAR.
Archaeology	This should concentrate on chance finds. Provision should be made to allow archaeologists to be present on site during the excavation periods if they so wish. The RELIV-PMU should inspect all excavations, and where archaeological remains are found work must stop until the RELIV-PMU has been given all clear to proceed. The RELIV-PMU should contact the Uganda Museums Department in the event of a significant archaeological find.	<ul style="list-style-type: none"> Archaeological Findings 	Archaeological remains not excavated, disturbed or destroyed.	<ul style="list-style-type: none"> Daily and ongoing as project is implemented. Room for chance finds 	Uganda Museums Department assisted by: <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist.
Energy	The Clusters/Developers must inspect the provisions made by the Contractor to supply energy to the workforce, and ensure that fuel wood is not being collected. The NEMA should enforce legislation which prohibits cutting down of trees. The NEMA, RELIV and local leadership (cultural and political) should sensitize the workers against cutting down of trees.	<ul style="list-style-type: none"> Types of energy sources used in the project 	Energy supplied by electric generator or other suitable source. Deforestation and resultant erosion controlled and reduced	Regularly	Department of Forestry assisted by: <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist. Local Leadership
Air Pollution	Observations should be made on the level of dust generated during the construction and Agricultural activities by the Environmental Monitor or RELIV PMU. Use dust buckets to monitor dust fall outs in the vicinity of the construction sites. Dampening should be carried out if levels are unacceptable.	<ul style="list-style-type: none"> Levels of dust emissions Ambient air quality 	Deposition of dust on surfaces should decrease with increased dampening.	Daily	Health ministry assisted by: <ul style="list-style-type: none"> ReLIV PMU SECAP Specialist. MAAIF-DAR.
Water resources	<ul style="list-style-type: none"> Water resources should be managed well The Ministry of Health should test borehole water quality in the area to ascertain the suitability for human consumption. 	<ul style="list-style-type: none"> Watercourses and impoundments. Surface water quality Ground Water Quality Recommended distances from watercourses. Possible dam construction sites. 	<ul style="list-style-type: none"> Water made available for environmental concerns. Pollution of water resources monitored/detected early, and remedial measures taken on time 	Tests for water pollution to be done Monthly.	Health ministry assisted by: <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist. MAAIF-DAR. Department of Water Development, (DWD)
Landscape	The RELIV-PMU 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.	<ul style="list-style-type: none"> Visual intrusions Aesthetics 	Landscape alteration reduced to a minimum	Monthly	Uganda Museums Department assisted by: <ul style="list-style-type: none"> NEMA. ReLIV PMU SECAP Specialist.

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Complaints	The RELIV-PMU should inspect the record of complaints made by local residents, to be kept by the coalitions/farmers, and should check that action is taken quickly and that the number of complaints do not rise significantly.	<ul style="list-style-type: none"> Complaints 	Number of complaints decreases.	Monthly	ReLIV PMU SECAP Specialist assisted by: <ul style="list-style-type: none"> NEMA. MAAIF-DAR. DDA NARO
Local governance	MLGC to ensure the following. <ul style="list-style-type: none"> compliance to designs. Employment opportunities and recruitment are transparent. Allocation of land is overboard. Cultural values are respected.	<ul style="list-style-type: none"> Land management. Land allocations. Socio cultural issues Local governance Social Aspects, Land rights 	<ul style="list-style-type: none"> Disputes over land reduced. Cooperation of local leadership is secured. Locals employed in the projects	Regularly	Ministry of Local Government assisted by: <ul style="list-style-type: none"> District Councils ReLIV PMU
Agricultural Activities	<ul style="list-style-type: none"> Ensure that Agricultural Activities follow designs and recommendations given for proper agricultural practices. Ensure overall management of the Programme. Appropriate land use downstream is done and no pollution of crops from contaminated water from spillages occur.	<ul style="list-style-type: none"> Siting of works, plan 	Land degradation curbed. Program running smoothly\.	Regularly	ReLIV PMU Assisted by: <ul style="list-style-type: none"> MAAIF-DAR. DDA NARO

11.3.2 Environmental and Social Monitoring Indicators

Several environmental and social monitoring indicators and parameters can be used to track the performance of the ESCMF of ReLIV. The goals of environmental and social monitoring indicators include

- (i) to verify the accuracy of the environmental and social impact predictions,
- (ii) 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 participated on the ESCMF, IPMP, and SEP training and awareness creation program.
- Inclusive, free and prior concert community participation and consultation.
- Documentation of community consultation in planning, implementation, and monitoring.
- Number and percentage of subprojects for which environmental and social issues are integrated into the project cycle.
- Number of Sub-projects which have completed the Environmental and social screening checklist or conducted site specific ESMPs.
- Implementation of the mitigation measures identified and planned in the ESCMP.
- Documentation of community consultation processes.

12. CONCLUSIONS AND RECOMMENDATIONS

The proposed ReLIV programme has potential to significantly enhance the beef and dairy value chain productivity and improve the livelihoods of the smallholder beef and dairy farmers, including the rest of the beef and dairy value chain players in the target districts. An improvement in the productivity of the Smallholder farmers will translate to improved livelihoods as they now 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, and portable and livestock water resources management and value addition infrastructures construction activities, Solid and liquid waste generation, tree cutting and 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.

During the operation phase of the expanded Livestock services, the potential environmental impacts will include Solid and liquid waste, Chemical and Biological wastes, which will be generated from the normal operations of the facilities and can be managed by incorporating the requisite waste and effluent handling units to the facilities. This impact would be exacerbated by inadequately trained livestock staff, however the ESCMP presented in the study **will be used to mitigate the impacts during and after the rehabilitation of the Livestock infrastructure. 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 livestock, agricultural and value addition infrastructure must include the requisite waste disposal or handling systems.
- It is important that stakeholder organisations such as District Administrators, The National Environmental Management Authority (NEMA), 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.
- The land around any sub-project works should be left intact and pollution be minimised.
- 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 use of destructive machinery should be avoided as much as possible. Machinery will adversely affect soils and undergrowth.
- The recommended mitigation measures should be implemented to reduce significant environmental impacts.

The project overall will not have any apparent significant environmental impacts if the recommended mitigations are carried out.

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14. APPENDICES

APPENDIX 1: ENVIRONMENTAL AND SOCIAL SCREENING FORM

Government of the Republic of Uganda.

Environmental & Social Screening Form

(Guidelines: Site inspection of project site. The evaluation results to be a consensus of at least three officials)

Sub-Project Name:

Sub-Project Type:

Project Location:

Name of Evaluator:

Signature of Evaluator:

Date of Field Evaluation:

		Appraisal		Significance			Potential Mitigation Measures
		Yes	No	Low	medium	high	
1.0	Type of activity – Will the sub-projects:						
1.1	Involvement in 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	Involvement in food processing?						
1.6	Build or rehabilitate any structures or buildings?						
1.7	Support agricultural activities?						
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?						

If the answer to any of questions 1.1 -1.10 is "Yes", please use the indicated Resource Sheets or sections(s) of the ESMF for guidance on how to avoid or minimize typical impacts and risks

2.0	Biodiversity Conservation and Sustainable Natural Resource Management - Will the project generate the following negative impacts.					
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					
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					

If the answer to any of questions 2.1 - 2.11 is "Yes", please use the indicated Resource Sheets or sections(s) of the ESMF for guidance on how to avoid or minimize typical impacts and risks

3.0	Community Health, Safety and Working Conditions - Will the project generate the following negative 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)					
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)					

If the answer to any of the questions 3.1 - 3.12 is "Yes", please consult the ESMF and, if needed, prepare a Stakeholder Engagement Plan (SEP) and a Health and safety Plan (HSP)

4.0	Social, Gender and human rights - Will the project generate the following negative impacts					
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						
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.						
<i>If the answer to any of the questions 4.1 – 4.9 is "Yes", please consult the ESMF and, if needed, prepare a Stakeholder Engagement Plan (SEP)</i>							
5.0	Resettlement Screening - Will the project generate the following negative 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.						
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						
<i>If the answer to any of the questions 5.1 – 5.16 is "Yes", please consult the ESMF and, if needed, prepare an Resettlement Action Plan (RAP)</i>							
6.0	Climate Change Mitigation and Adaptation- Will the project generate the following negative social and economic 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 answer to any of the questions 6.1 – 6.5 is "Yes", please consult the ESMF and, if needed, prepare a Climate Risk Assessment (CRA)							
7.0	Cultural Heritage- Will the project generate the following negative social and economic 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)?						
7.2	Project utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes.						
It the answer to any of the questions 7.1 – 7.2 is "Yes", please consult the ESMF and, if needed, prepare a Chance Finds Procedure (CFP)							

Overall evaluation of Environmental and Social Screening Exercises.

The results of the screening process would be either the proposed sub - projects would be exempted or subjected to further environmental and resettlement assessment. The basis of these options is listed in the table below:

Review of Environmental Screening	Tick	Review of Social Screening	Tick
1. The project is cleared. No serious impacts. <i>(When all scores are "No" in form)</i>		1.The project is cleared. No serious social impact. <i>(Where scores are all "No", "few" in form)</i>	
2. There is need for further assessment. <i>(when some scores are "Yes, High" in form)</i>		2. There is need for resettlement/compensation. <i>(When some scores are "Yes, High" in form)</i>	
3. Need to prepare ESMP		3. Need to prepare RAP	

Endorsement by Environmental District Officer	Endorsement by Director of Agriculture
Name	Name:
Signature: Date	Signature: Date:

NOTES:

- The RELIV PMU Environment Officer shall ensure that a completed form is filed within project file immediately after endorsement. He/she should keep a duplicate.
- Project Management Committee will maintain a copy of completed form.

APPENDIX 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 shown below in Table APP 1. 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 Section 7.6 only considers the impacts that have been rated moderate and high significance as these present impacts that need attention.

Table APP 2-1 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	
	Type	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 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	
	<i>Positive</i>	Beneficial impacts	N/A
	<i>Negative</i>	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

No.	CRITERIA	DESCRIPTION	SCORING
	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	
	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 unfeasible 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
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

No.	CRITERIA	DESCRIPTION	SCORING
	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	
	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
	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

No.	CRITERIA	DESCRIPTION	SCORING
	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

APPENDIX 3: GUIDELINES FOR THE DEVELOPMENT OF SUB-PROJECT ESMPs

APP 3.1 ESMP Development

When a sub-project includes distinct mitigation measures (physical works or management activities), an Environmental and Social Management Plan (ESMP) needs to be included with the sub-project application. An example ESMP is presented in Chapter 7 of this ESCMF.

ESMP Contents:

An ESMP usually includes the following components:

- Description of adverse effects: The anticipated effects are identified and summarized.
- Description of mitigation measures: Each measure is described with reference to the effect(s) it is intended to deal with. As needed, detailed plans, designs, equipment descriptions, and operating procedures are described.
- Description of monitoring program: Monitoring provides information on the occurrence of environmental effects. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation. How environmental effects are monitored is discussed below.
- Responsibilities: The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies.
- Implementation schedule: The timing, frequency and duration of mitigation measures and monitoring are specified in an implementation schedule and linked to the overall sub-project schedule.
- Cost estimates and sources of funds: These are specified for the initial sub-project investment and for the mitigation and monitoring activities as a sub-project is implemented. Funds to implement the EMP may come from the sub-project grant, from the community, or both. Government agencies and NGOs may be able to assist with monitoring.

Monitoring Methods:

Methods for monitoring the implementation of mitigation measures or environmental effects should be as simple as possible, consistent with collecting useful information (see example below) and that community members can apply themselves. For example, they could just be regular observations of sub-project activities or sites during construction and then use. Are fences and gates being maintained and properly used around a new water point? does a stream look muddier than it should and, if so, where is the mud coming from and why? are pesticides being properly stored and used? Most observations of inappropriate behaviour or adverse effects should lead to common sense solutions. In some cases (e.g., unexplainable increases in illness or declines in fish numbers), there may be a need to require investigation by a technically qualified person.

App 2.2 Typical Sub-Project ESMPs

The following groups of agricultural activities have been considered:

- Valley Dams and Weirs
- Fodder/Crop Production
- Milk Processing

1.0 Valley Dams and Weirs

- Establishing/maintaining Small Storage Reservoirs (tanks, small dams/weirs).
- Development of Small-scale Farmer Driven Rainwater Harvesting.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
1.	Soil erosion	<ul style="list-style-type: none"> • Proper design and layout of structures avoiding too steep a gradient. • Land levelling. • Design of terraces on hillside minimizing surface erosion hazard.
2.	Negative environmental effects of construction: <ul style="list-style-type: none"> • air and water pollution from construction and waste disposal • soil erosion • destruction of vegetation, sanitary and health problems from construction camps 	<ul style="list-style-type: none"> • Measures to minimize impacts: <ul style="list-style-type: none"> ○ air and water pollution control ○ careful location of camps, buildings, borrow pits, quarries, spoil and disposal sites. ○ precautions to minimize erosion. ○ land reclamation
3.	Dislocation of people living in inundation zone.	<ul style="list-style-type: none"> • Relocation of people to suitable area, provision of compensation in kind for resources lost, • provision of adequate health services, infrastructure, and employment opportunities.
4.	Loss of land (agricultural, forest, range, wetlands) by inundation to form reservoir.	Siting of dam to decrease losses; decrease size of dam and reservoir; protect equal areas in region to offset losses.
5.	Loss of historic, cultural, or aesthetic features by inundation.	Siting of dam or decrease of reservoir size to avoid loss, salvage or protection of cultural properties.
6.	Loss of wildlands and wildlife habitat.	Siting of dam or decrease of reservoir size to avoid/minimize loss. establishment of compensatory parks or reserved areas; animal rescue and relocation.
7.	Proliferation of aquatic weeds in reservoir and downstream impairing dam discharge, irrigation systems, navigation and fisheries and increasing water loss through transpiration.	Clearance of woody vegetation from inundation zone prior to flooding (nutrient removal); provide weed control measures; harvest of weeds for compost, fodder or biogas; regulation of water discharge and manipulation of water levels to discourage weed growth.
8.	Impediment to movement of livestock and humans.	Provision of passageways.
9.	Threat to historic, cultural or aesthetic features.	<ul style="list-style-type: none"> • Siting of project to prevent loss. • salvage or protection of cultural sites.
10.	Siting of project to less vulnerable area.	<ul style="list-style-type: none"> • Siting of project to less vulnerable area. • Limitation and regulation of water take-off to minimize problems to extent possible.
11.	Social misdemeanour by construction workers Impacts associated with the contractor's camp include: <ul style="list-style-type: none"> • disposal of liquid and solid wastes. • theft, alcoholism, and sexually transmitted diseases (especially HIV/AIDS). 	<ul style="list-style-type: none"> • As a contractual obligation, contractors should be required to have an HIV/AIDS policy and a framework (responsible staff, action plan, etc) to implement it during project execution. • Contractor to curb thefts and misbehaviour through a code of conduct. • Contractor to manage any of its waste properly.

2.0 Fodder/Crop Production

- Fodder production.
- Basic seed multiplication and sale.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
1.	Soil erosion (furrow, surface)	<ul style="list-style-type: none"> • Proper design and layout of furrows or fields avoiding too steep a gradient. • Land levelling. • Design of terraces on hillside minimizing surface erosion hazard.
2.	Pollution, environmental disruption and health hazards from Diseases and pest control measures	<ul style="list-style-type: none"> • Choice of chemical that is species-specific, short residence time (active period), and has low impact on other biologic resources. • Protective measures for field workers. • Spraying methods and timing to minimize potential of water pollution. • Selection of disease-resistant crop varieties.
3.	Reduction of genetic variability due to selective breeding	Conservation of genetic diversity in-site (protection of wild relatives in natural Habit, maintaining variability within populations by breeding) and ex-situ (e.g., preservation of genetic material in 'banks').
4.	Negative effects of uncontrolled burning for brush control on soil and vegetation (deterioration of soil fertility and soil structure, altered wildlife habitat, destruction of vegetation)	Implementation of well-planned and controlled burning programs.
5.	Conflicts over water supply and inequalities in water Distribution throughout service area.	Means to ensure equitable distribution among users and monitor to assure adherence.
6.	Siting of project to less vulnerable area (marginal areas).	<ul style="list-style-type: none"> • Siting of project to less vulnerable area. • Limitation and regulation of water take-off to minimize problems to extent possible.
7.	Encroachment on swamps and other ecologically sensitive Areas (fragile ecosystems).	Siting of projects to avoid or minimize encroachment on critical areas.
8.	Disease and health problems from use of wastewater in Irrigation.	<ul style="list-style-type: none"> • Wastewater treatment (e.g., settling ponds) prior to use. • Establishment and enforcement standards for wastewater use.
15.	Threat to historic, cultural or aesthetic features.	<ul style="list-style-type: none"> • Siting of project to prevent loss. • salvage or protection of cultural sites.
16.	<p>Occupational Health Safety risks</p> <ul style="list-style-type: none"> • The movement of trucks to and from the site, the operation of various equipment and machinery and the actual agricultural activities will expose the workers to work-related accidents and injuries. <p>Pollutants such as dust and noise could also have negative implications for the health of workers.</p>	<ul style="list-style-type: none"> • All safety precautions must be enforced. • Provide PPE to all workers. • institute dust and noise suppression measures.
17.	<p>Social misdemeanour by construction workers</p> <p>Impacts associated with the contractor's camp include:</p> <ul style="list-style-type: none"> • disposal of liquid and solid wastes. • theft, alcoholism, and sexually transmitted diseases (especially HIV/AIDS). 	<ul style="list-style-type: none"> • As a contractual obligation, contractors should be required to have an HIV/AIDS policy and a framework (responsible staff, action plan, etc) to implement it during project execution. • Contractor to curb thefts and misbehaviour through a code of conduct. • Contractor to manage any of its waste properly.

3.0 Milk Processing

- Feed production.
- Milk Processing.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
1.	Soil erosion	<ul style="list-style-type: none"> • Proper design and layout of structures avoiding too steep a gradient. • Land levelling. • Design of terraces on hillside minimizing surface erosion hazard.
2.	<ul style="list-style-type: none"> • Increased soil erosion due to clearing of vegetation and trampling. • Increased siltation of surface waters. 	<ul style="list-style-type: none"> • Restriction of construction activities to good ground. • Soil erosion control measures (e.g., reforestation, terracing).
3.	Siting of plant or facility complex on/near sensitive habitats	<ul style="list-style-type: none"> • Location of plant in rural area away from estuaries, wetlands, or other sensitive or ecologically important habitats, or in industrial estate to minimize or concentrate the stress on local environment and Services. • Involvement of natural resource agencies in review of siting alternatives.
4.	Siting of agro-industry along water courses leading to their eventual degradation.	<ul style="list-style-type: none"> • Site selection examining alternatives which minimize environmental effects and not preclude beneficial use of the water body using the following siting guidelines: <ul style="list-style-type: none"> ○ on a watercourse having a maximum dilution and waste absorbing capacity ○ in an area where wastewater can be reused with minimal treatment for agricultural or industrial purposes ○ within a municipality which is able to accept the plant wastes in their sewage treatment system ○ Improved water management; improved agricultural practices and control of inputs. ○ Proper handling of waste. ○ Imposition of water quality criteria.
5.	Siting of agro-industry so that air pollution problems are aggravated.	Location of plant at a high elevation above local topography, in an area not subject to air inversions, and where prevailing winds are away from populated areas.
6.	Environmental deterioration (erosion, contamination of water and soil loss of soil fertility, disruption of wildlife habitat, etc.) from intensification of agricultural land use.	Control of agricultural inputs and cropping/grazing practices to minimize environmental problems.
7.	Aggravation of solid waste problems in the area	<ul style="list-style-type: none"> • For facilities producing large volumes of waste, incorporation of the following guidelines in site selection: <ul style="list-style-type: none"> ○ plot size sufficient to provide a landfill or on-site disposal ○ proximity to a suitable disposal site ○ convenient for public/private contractors to collect and haul solid wastes for final disposal
8.	<p>Water pollution from discharge of liquid effluents</p> <ul style="list-style-type: none"> • Plant: TSS; temperature; pH • Materials storage piles runoff: TSS; pH • Most agricultural, livestock, agro-industries, packaging, and marketing operations produce solid waste. <ul style="list-style-type: none"> - Steam and hot water boilers produce ash - Fresh food and processed food markets, waste from canning. 	<ul style="list-style-type: none"> • Laboratory analysis of liquid effluent (including cooling water runoff from waste piles) in O/G, TDS, TSS, BOD, COD and in-situ temperature monitoring. • Seek guidance of local environmental officers to identify acceptable disposal sites. • Waste from agricultural activities can be further processed into other uses, e.g., organic manure. Reuse and recycling must be preferred over disposal of the waste.
9.	Particulate emissions to the atmosphere from all plant operations.	Control of particulates by fabric filter collectors or electrostatic precipitators.
10.	Gaseous and odour emissions to the atmosphere from processing operations.	Control by natural scrubbing action of alkaline materials; an analysis of raw materials during feasibility stage of project can determine levels of sulphur to properly design emission control equipment.
11.	Accidental release of potentially hazardous solvents, acidic and alkaline materials.	Maintenance of storage and disposal areas to prevent accidental release; provide spill mitigation equipment.

No.	POTENTIAL NEGATIVE IMPACTS	MITIGATING MEASURE
12.	Occupational health effects on workers due to fugitive dust, materials handling, noise, or other process operations. Accidents occur at higher than normal frequency because of level of knowledge and skill.	Development of a Safety and Health Program in the facility designed to identify, evaluate, and control safety and health hazards at a specific level of detail to address the hazards to worker health and safety and procedures for employee protection, including any or all of the following: <ul style="list-style-type: none"> • site characterization and analysis • site control • training • medical surveillance • engineering controls, work practices and personal protective equipment • monitoring • information programs • handling raw and process materials • decontamination procedures • emergency response • illumination • regular safety meetings • sanitation at permanent and temporary facilities
13.	Disease and health problems from use of wastewater to irrigate crops.	<ul style="list-style-type: none"> • Wastewater treatment (e.g., settling ponds) prior to use. • Establishment and enforcement standards for wastewater use in crop production.
14.	Threat to historic, cultural, or aesthetic features.	<ul style="list-style-type: none"> • Siting of project to prevent loss. • salvage or protection of cultural sites.
15.	Temporary Visual Intrusions <ul style="list-style-type: none"> • Rehabilitation and upgrading of agricultural facilities like small irrigation schemes, small dams and other possible facilities will change the characteristics of the area and leave a marred landscape. 	<ul style="list-style-type: none"> • Contractor should ensure minimum footprint of construction activities and provide decent accommodation for workers. • All altered landscapes (Sand pits, borrow pits etc) should be rehabilitated by the contractor.
13.	Noise <ul style="list-style-type: none"> • Noise and vibration caused by machines, site vehicles, pneumatic drills etc • Noise from the chicken, pigs or whatever animals which are being raised. • Noise from the processing of agricultural produce. 	<ul style="list-style-type: none"> • Contractor to avoid old equipment. • Heavy duty equipment to be minimized. • Noisy operations to be limited to certain times. • Noise levels to be limited to within acceptable levels. • Animal raising to be in designated areas to avoid being a nuisance to the public. • Processing plants should be sited away from residential areas.
14.	Social misdemeanour by construction workers <ul style="list-style-type: none"> • Impacts associated with the contractor's camp include: • disposal of liquid and solid wastes. • theft, alcoholism, and sexually transmitted diseases (especially HIV/AIDS). 	<ul style="list-style-type: none"> • As a contractual obligation, contractors should be required to have an HIV/AIDS policy and a framework (responsible staff, action plan, etc) to implement it during project execution. • Contractor to curb thefts and misbehaviour through a code of conduct. • Contractor to manage any of its waste properly.

APPENDIX 4 PROOF OF PUBLIC CONSULTATION AND DISCLOSURE.

APP 4.1 CONSULTED STAKEHOLDER

The following is the lists of the stakeholders who were consulted during the ESCMF study.

1.0 GENERAL TABLE

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
1	30/01/24	Denis Mugagga	Head – Climate Finance Unit Ministry of Finance, Planning and economic development.	Crested Towers – Short Tower 5 th Floor Plot 17 Hannington road Kampala +256 702 440 655 +256 782 805 422 Denis.mugagga@finance.go.ug mugagga@gmail.com
2	30/01/24	Patriciah Roy Akullo	Social Safeguards and Gender Expert Climate Finance Unit Ministry of Finance, Planning and economic development.	Crested Towers – Short Tower 5 th Floor Plot 17 Hannington road Kampala +256 782 958 475 PatriciahRoy.Akullo@finance.go.ug Patrciahroy@gmail.com
3	30/01/24	Caleb Kangye	Farmers Kangye Farm	Nakaseke District Chirinda Parish Wakyato Sub- County Kaina Village +256 772 632 232
4	30/01/24	Mr. Byaruhanga	Farmer Byaruhanga Farm	Kabale Village Kironondo Parish Wakyato Sub-County

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
				Nakaseke District +256 751 726 122
5	30/01/24	Vincent and Grace Gahima	Farmer Gahima Farm	Butalongu village Butalongu Town Council Nakaseke District +256 772 433 004
6	01/02/24	Tumwine Nathan	Chairman Ntooma Dairy Farmers Cooperative Society.	+256 775 762 727
7	01/02/24	George Kato	Member Farmer Ntooma Dairy Farmers Cooperative Society.	Katakunyurwa Village Ntooma +256 774 448 992
8	01/02/24	Isingoma Didan	Animal Husbandry Officer MAAIF Masindi	+256 776 011 020 isingomadidan@gmail.com
9	01/02/24	Bbira Johnson	Veterinary Officer MAAIF	Kimengo Sub-County Kimengo Parish Karangwe Village +256 787 429 007
10	01/02/24	Luwede Solomon	Animal Husbandry Officer MAAIF	Kimengo Sub-County Kimengo Parish Karangwe Village +256 771 616 758
11	01/02/24	Kiiry Wilson Mwebe	Farmer Kiiry Farm	Karangwe Village Kimengo Parish Karangwe Village Masindi District +256 782 013 063
12	01/02/24	Kamuhondo fred	Chairman Karangwe Village	Karangwe Village Kimengo Parish Karangwe Village

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
				Masindi District +256 787 156 292
13	01/02/24	Amanyire Scovia	Beef farmer Amanyire Farm	Karangwe Village Kimengo Parish Kimengo Sub-County Karangwe Village Masindi District +256 787 598 698
14	02/02/24	Magambo Jumah	Senior Farm Manager Maruzi Farm	Akororo Sub-County Maruzi County APAC District +256 779 399 990 +256 752 399990
15	02/02/24	Kato Hussein Walusimbi	Research Officer Livestock, Nutrition and Production National Livestock Resources Research Institute (NaLIRRI)	National Livestock Resources Research Institute (NaLIRRI) +256 702 484 734 Kwalusimbih@gmail.com
16	02/02/24	Dr. James Ngu	District Veterinary Officer Apac District	+256 772 648 994
17	05/02/24	Jennifer Auma	Chairperson Oderai Soroti Women Corporative.	Oderai Soroti Women Corporative Soroti City Soroti District +256 771 425 699
18	05/02/24	Dr. Wafula Egesa	Regional Manager. DDA. Northeastern Region.	Soroti City Soroti District +256 759 841 258 egesa.david@gmail.com
19	05/02/24	Dr. David Achoroi	District Veterinary Officer. Soroti District Soroti	Soroti District Soroti +256 774 292 151 achoroi@gmail.com

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
20	05/02/24	Ezimu Deasis	Secretary Oderai Soroti Women Corporative.	Oderai Soroti Women Corporative Soroti City Soroti District +256 787 659 201 +256 757 900 770 corpdeno@gmail.com
21	05/02/24	Samuel Odonyu	Farmer Odonyu Farm	Soroti City Soroti District +256 788 002 565
22	05/02/24	Jacob Omwola	Farmer Omwola Farm	Amen B Village Soroti City Soroti District +256 782 479 326 jacobomwola@gmail.com
	05/02/24	Moreen Omwola	Farmer Omwola Farm	Amen B Village Soroti City Soroti District +256 750 053 418.
	05/02/24	Takan Nicholas	Revenue Collector Arakai Market Traders Association	Soroti City Abattoirs Soroti City. Soroti District +256 788 250 594
	05/02/24	David Oonyu	Senior Revenue Collector Arakai Market Traders Association	Soroti City Abattoirs Soroti City. Soroti District +256 772 309 811
	06/02/24	Roseline Luhoni Adongo	Chief administrative Officer Kumi District	+256 772 370 348
	06/02/24	Elungat Nelson Lakol	District chairman Kumi District	+256 772 916 171
	06/02/24	Washaki Ahamada	Resident District Commissioner (RDC)	+256 772 424 109

No.	DATE	NAME	DESINATION/ORGANISATION	CONTACT DETAILS
			Kumi District	
	06/02/24	Dr. Amaido Edward	SVO Kumi District	+256782 716 578
	06/02/24			

2.0 MEETING WITH MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES (MAAIF)

Date: 29/01/2024

Time: 10:00am – 12:00pm

In Attendance:

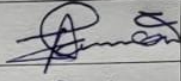
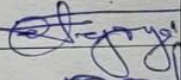
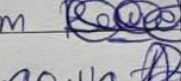
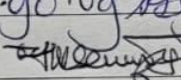
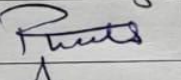
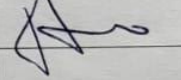

ATTENDANCE LIST

DRAFT SCHEDULE FOR THE RELIV DESIGN MISSION 29TH JANUARY TO 9TH FEBRUARY, 2024 AT AGRICULTURAL PLANNING BOARD ROOM AT 9.00 A.M

S/NO	NAME	DESIGNATION/ WORK STATION	TELEPHONE	E-MAIL ADDRESS	SIGNATURE
	Mohamed El Ghazaly	CD/IFAD			
	Anne Plotict	IFAD PI			
	Albau BELLINGUER	IFAD Consultant		albau.bellinguer@qaad.com	
	Marjan Leneman	IFAD Consultant		jm.leneman@gmail.com	
	James Mutwiri	IFAD Fin.		Jimmutwiri@gmail.com	
	Sibekile Mtetwa	IFAD Env.		mikemtetwa@live.com	
	BARBARA JORDAN-VICENTE	IFAD Consultant		barbarajordanvicente@gmail.com	
	Namin	IFAD		n.bayasgalambat@ifad.org	

ATTENDANCE LIST

DRAFT SCHEDULE FOR THE RELIV DESIGN MISSION 29TH JANUARY TO 9TH FEBRUARY, 2024 AT AGRICULTURAL PLANNING BOARD ROOM AT 9.00 A.M


S/NO	NAME	DESIGNATION/ WORK STATION	TELEPHONE	E-MAIL ADDRESS	SIGNATURE
	AKANKIZA Samson	Ag. ED DDA	0772692200	Samson.akaakira@ dda.go.ug	
	Dr. Jon Ssenyonyo	Ag. I M. P. NARO	0982504448	sseyonyo@yahoo.com	
	Dr. Katali K. Banda	Program Officer	0782799753	katalibanda@gmail.com	
	Agnes Audax Begum	Ag. DTS	0772448776	agnesbeguma@dda.go.ug	
	Dr. Jimmy Semakula	SRO. NARO	0779606083	jynsemakula@yahoo.com	
	Richard Kabuleza	CPA - IFAD	0701670714	r.kabuleza@ifad.org	
	ERICA DORO	IFAD	/	e.doro@ifad.org	

3.0 RELIV PROJECT TECHNICAL CONSULTATIONS


Date: 30/01/2024

Time: 09:00 to 13:00

In Attendance:



MAAIF
Ministry of Agriculture,
Animal Industry & Fisheries
REPUBLIC OF UGANDA



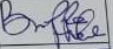

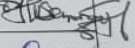



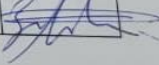
IFAD
Investing in rural people

ATTENDANCE SHEET

Activity: RELIV PROJECT TECHNICAL CONSULTATIONS

Date: 30/01/2024

Location: NOSP Board Room

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
1	BABIGUMIRA BRIAN	✓		SRO	NARO	0779632672 bbabigumi@gmail.com	
2	ROGERS AZABO	✓		SRO	NARO	0778316873 rogkazabo@gmail.com	
3	SEMAKULA JIMMY	✓		SRO	NARO	0779606083 jimsemakula@yahoo.com	
4	ROBERT WAIGANJO	✓		IFAD CONSULTANT	IFAD	r.waiganjo@ifad.org	
5	JAMES WUTURI	✓		IFAD FM CONSULTANT	IFAD	Jameswuturi@gmail.com +26651925623	
6	SIBEKILE MTEWA	✓		IFAD ENV. CONSULTANT	IFAD	mikemtetwa@live.com	
7	BARBARA JORDAN- VICENTE		✓	IFAD consultant	IFAD	barbarajordanvicente@gmail.com	



ATTENDANCE SHEET

Activity:

Date:

Location:


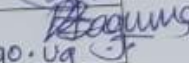

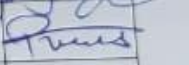

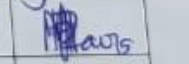
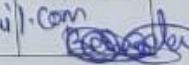
No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	Marijan Leneema		X		Ifad	jm.leneema@cgair.com	
	Nomin Bayasgalanbat		X	IFAD	ifad	n.bayasgalanbat@ifad.org	
	EMICA Doro		X	u	u	e.doro@ifad.org	
	Colin Agabalinda	X		u Animal Fin Consultant		agaba.colin@gmail.com	
	Alban Belluguz	X		IFAD Consultant	IFAD	alban.belluguz@gmail.com	
	Anne Mollet		X	IFAD Livestock Lead	IFAD	a.mollet@ifad.org	
	Dr. Joseph Agaba	X		Senior Dairy Dev't Officer	BDA	joseph.agaba@dda.go.ug	

ATTENDANCE SHEET

Activity:

Date:

Location:

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	SEBINA CHRISTOPHER	✓		Senior Dairy Dev officer	DDA	christopher.sebina@dda- go.ug	
	Agnes Judith Baguma		✓	Ag. Director Technical Services (DTS)	DDA	agnes.baguma@dda-go.ug	
	STEPHENE ONYALI	✓		Senior Planning Officer	DDA	stephene.onyali@dda-go.ug	
	Richard Kabukata	✓		Country Programme Analyst	IFAD	r.kabukata@ifad.org	
	Preston Muhwezi	✓		Country Programme Coordinator	IFAD	p.muhwezi@ifad.org	
	Nakanjato Mawin Flawis		✓	Senior veterinary officer	MAAIF	mfnakanjato@gmail.com	
	Katali K. Benda	✓		Program Officer	NAGRCSP	katalibenda@gmail.com	



ATTENDANCE SHEET

Activity:

Date:

Location:

No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	Dr. Wonekha Namisamo Deograciano	✓		Senior Veterinary Officer	MAAIF	0772488686 dwonekha@gmail.com	
	Dr. Kwalusimbi Kato Hussein	✓		PVO - Dairy Dept	MAAIF	077281315 rob.kwalusimbic@yaleu.edu	
	Nakanyike Gladys		✓	Quality Assurance Officer - NABDAC	MAAIF	0702484734 kwalusimbic@gmail.com	
	Dr. Gordon Senguya	✓		GMP - NACRE/AB	NACRE/AB	ssenguya@yahoo.com	
	Dr. Tashorora B. Opiato	✓		principal veterinary inspector	MAAIF	tashopato@gmail.com	
	Dr. Isingoma Samuel	✓		SNO	MAAIF	isingomae@gmail.com	



ATTENDANCE SHEET

Activity:

Date:

Location:


No	Name	Gender		Designation	Institution	Contact/ Email	Signature
		Male	Female				
	Dr. Lumu Paul	✓		SVD	MAAIF	0772828689 paul.lumu@gmail.com	

2.0 MEETING WITH KUMI DISTRICT LOCAL GOVERNMENT.)

Date: 06/02/2024

Time: 10:00am – 12:000pm

In Attendance:


 THE REPUBLIC OF UGANDA
 KUMI DISTRICT LOCAL GOVERNMENT
ATTENDANCE SHEET.

Activity: RELIV PROJECT DEVELOPMENT MISSION.
 Date: Feb 10th / 2024

S/NO.	NAME	SEX	TITLE	CONTACT	SIGNATURE
01	NELSON ELLINGAT LAKOL	M	Pol. Head	0772916171	[Signature]
02	ADONGO ROSENEK	F	CHO	072370348	[Signature]
03	AMANO LUCH	F	Planner	976252982	[Signature]
04	ASIANDI RICHARD	M	DISO	0772906840	[Signature]
05	WASHAKI AHAMBA	M	RDC	0772424109	[Signature]
06	CHRISTIA I-bon	m	etc	0772199898	[Signature]
07	ALUPO CAROLINE	F	SFO	0770621308	[Signature]
08	Dr. Ogoola Emmanuel	M	DTD	0775405935	[Signature]
09	OPCO MOSES	M	IA	0776233868	[Signature]
10	Dr. Omairi Edward	M	SVO	0782716578	[Signature]
11	APEDD MOSES	m	S/O	0772554038	[Signature]
12	Ogogol Rafab	M	BPO	0782151884	[Signature]
13	ADONGO SARAH	F	DEO	0782810081	[Signature]
14	ERICA BORO	F	IFAD CLIMATE		[Signature]
15	BARBARA JORAN - KENTE	F	IFAD consultant	bbarbarajordan@ifad.org	[Signature]
16	Nomin	F	IFAD	n.bayasgalambak@ifad.org	[Signature]
17	Dr. Mwanja Moses	M	MAA	drmwanzajm@ifad.org	[Signature]
18	Dr. Wonekha N. Degiaciano	M	MASTIF	chwonekha@gmail.com	[Signature]
19	Pontiam Muhwezi	M	EPC	IFAD	[Signature]
20	Anne NOTRET	F	IFAD	"	[Signature]



THE REPUBLIC OF UGANDA
KUMI DISTRICT LOCAL GOVERNMENT

ATTENDANCE SHEET.

Activity... RELIV. PROJECT DEVELOPMENT MEETING.

Date... 06-02-24

S/NO.	NAME	SEX	TITLE	CONTACT	SIGNATURE
	Amiro Luzan	F	SCD	0782257969	<i>[Signature]</i>
	Eng. Mawanga Peter P	M	DWO	0772696818	<i>[Signature]</i>
	ALEX OKIRIKI	M	DCEO	0782458280	<i>[Signature]</i>
	Opio Moses	M	DWO	0782362155	<i>[Signature]</i>
	OKELLO MARTIN	M	DATO	078791611	<i>[Signature]</i>
	Okachi Joseph	M	DIP	0775789802	<i>[Signature]</i>
	Okuli John Michael	M	PHO	0772881580	<i>[Signature]</i>
	Nandam Peter	M	CFO	0772445938	<i>[Signature]</i>
	Okuli Samuel	M	SOW	0782427887	<i>[Signature]</i>
	Sibekile Mtetwa	M	Enviro.	+266519256 23	<i>[Signature]</i>
	Nakanuzigi Hamet	F	PVO	0774561209	<i>[Signature]</i>
	Kato Hussein W.	M	P.O.	0702484739	<i>[Signature]</i>
	Dr. Rogers Ayabo	M	SRO	0778316873	<i>[Signature]</i>
	OKILLAN HENRY	M	P.P.O.	0772514747	<i>[Signature]</i>
	Candy Namatovu K	F	GLNDEF	0782 844 777	<i>[Signature]</i>

APPENDIX 5: GRIEVANCE REDRESS MECHANISM

1.0 GENERAL

A grievance redress mechanism (GRM) is a process for receiving, evaluating and addressing project related concerns of, and complaints by, project affected communities or persons.

IFAD's Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. IFAD's GRM requires i) working proactively with the affected parties to resolve complaints; ii) ensuring that the complaints procedure is responsive and operates effectively; and iii) maintaining records of all complaints and their resolutions.

The principles of a good GRM are⁶:

- A mechanism scaled to risk and adverse impact on affected communities.
- Designed to take into account culturally appropriate ways of handling community concerns.
- A clear and understandable mechanism that is accessible to all segments of the affected communities at no cost.
- Transparency and accountability to all stakeholders.
- A mechanism that prevents retribution and does not impede access to other remedies.

The key steps for grievance management are⁷:

- i. Publicising grievance management procedures so that the mechanism is accessible to everyone.
- ii. Receiving (i.e., collecting, recording, and registering) and keeping track of grievances.
- iii. Reviewing and investigating grievances to assess the nature of the grievance, its severity and legitimacy.
- iv. Developing resolution options commensurate with the nature of grievances and preparing and communicating a clear response and closing out cases when agreement with the complainants is reached.
- v. Monitoring grievances through tracking to ascertain effectiveness, adapting the mechanism to correct inefficiencies, using the results of monitoring for feedback and lessons learned.

2.0 OPERATION OF THE GRIEVANCE REDRESS MECHANISM

The grievance redress mechanism (GRM) is a system by which queries or clarifications about the project will be responded to, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively.

2.1 PURPOSE OF THE GRM

The GRM will serve the following purpose:

- 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 project's legitimacy among stakeholders.
- to promote transparency and accountability.
- to deter fraud and corruption and mitigate project risks.

2.2 STRUCTURE OF THE GRM

The GRM consists of a small number of components:

⁶ IFC (2009); Good Practice Note – Addressing Grievances from Project-Affected Communities, Guidance for Projects and Companies on Designing Grievance Mechanisms

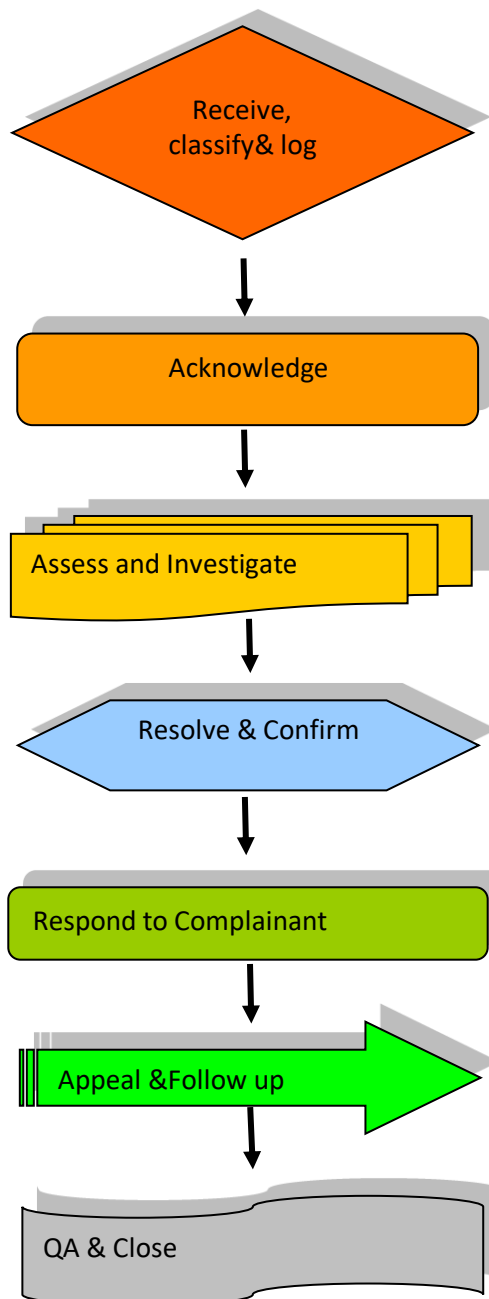
⁷ *ibid*

- The access point for impacted/concerned people
- Grievance log
- Acknowledgement stage
- Assessment stage
- Passing of resolution
- Response
- Room for appeal
- Case closure

The components are summarized in the process flow diagram below.

2.2.1 Process Overview

The following key steps must be followed for all complaints received by RRELIV staff:



The requirements for each of these steps is detailed below

2.2.2 The Process of the GRM

i) Receive, classify & log

All potential issues must be captured and classified for escalation, review and action as required.

a) 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 RELIV Offices so that it will be seen as credible and accessible. 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 RELIV 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.

b) 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 and all complaints must be prioritized as follows:

- **Priority 1 – urgent**, potential high health and high business impact. **This require 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 RELIV 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 RELIV 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.
- Discretion and flexibility should be exercised in prioritizing all complaints
 - The staff member logging the complaint should review the complaint and its priority with the Sub-project/ RELIV Project Manager before proceeding to the next step.
 - The Sub-project/ RELIV Project Manager 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 RELIV Project Manager.**

ii) Acknowledge

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.

- All complaints, regardless of priority, should receive a pro forma acknowledgement sent out 1st class mail on the day of receipt.

iii) Assess & Investigate

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).
- All areas of interaction and communication should be established (who, what, where, when, why etc.) and documented where possible.

iv) Resolve & Confirm

Ensure that the final resolution is clear and fair. Also confirm the proposed action and resolution with another senior person (RELIV Management).

- Ensure that the proposed resolution meets corporate guidelines and does not prejudice RELIV in any unnecessary legal or financial manner.
- Document the proposed action and discuss and agree with the RELIV Project Manager.
- 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.
- This should then be reviewed as part of the bi-monthly quality assurance reviews.

v) Respond to Complainant

Provide the Complainant with the resolution within the timescales promised.

- 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.

vi) Appeal & Follow

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

- All Priority 1 complaints and 95% of priority 2 complaints must be followed up within a reasonable timescale.
- This will be carried out by RELIV Administration team / RELIV Project Manager'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 RELIV Project Managers for action and direct follow up with the complainant.
- The complainant is given room for appealing to the MAAIF or Courts of Law, if he is not satisfied.

vii) QA & Close

Ensure that the RELIV 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 RELIV.

APPENDIX 6: IFAD’S ENVIRONMENTAL AND SOCIAL STANDARDS.

Table APP 6-1 Summery IFAD’s Environmental and Social Standard.

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 1: Biodiversity conservation	<p>-Maintain and conserve biodiversity.</p> <p>-Ensure the fair and equitable sharing of benefits from the utilization of genetic resources. -Respect, preserve, maintain, and encourage knowledge, innovations and practices of indigenous peoples and local communities relevant for the conservation and sustainable use.</p> <p>of biodiversity, and their customary use of biological resources. and</p> <p>-Adopt a precautionary approach to natural resource conservation and management to ensure opportunities for environmentally sustainable development.</p>	<p>This Standard and its associated requirements apply to all IFAD-supported projects that are:</p> <ul style="list-style-type: none"> -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. <p>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.</p>
Standard 2: Resource efficiency and pollution prevention	<p>Avoid, minimize, and manage the risks and impacts associated with hazardous substances and materials, including pesticides.</p> <p>Avoid or minimize project-related emissions of short- and long-lived climate pollutants.</p> <p>Promote more sustainable use of resources, including energy, land, and water. and</p> <p>Identify opportunities for improving resource efficiency.</p> <p>This Standard applies to any IFAD-supported projects that:</p> <ul style="list-style-type: none"> -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 	<p>This Standard applies to any IFAD-supported projects that:</p> <ul style="list-style-type: none"> -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.

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 3: Cultural heritage	<ul style="list-style-type: none"> -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. 	<p>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.</p> <p>Intangible cultural heritage can be defined as practices, representations, expressions, 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.</p> <p>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.</p> <p>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 cultural heritage site involved in or potentially affected by an IFAD-supported project is identified and adequately protected.</p>

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 4: Indigenous peoples	<p>Support indigenous peoples to determine priorities and strategies for exercising their right to development.</p> <p>Ensure that each project is designed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC.</p> <p>Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project supported activities in a culturally appropriate and inclusive manner. and</p> <p>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.</p>	<p>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:</p> <p>Priority in time, with respect to occupation and use of a specific territory.</p> <p>The voluntary perpetuation of cultural distinctiveness, which may include aspects of language, social organization, religion and spiritual values, modes of production, laws, and institutions.</p> <p>Self-identification, as well as recognition by other groups, or by state authorities, as a distinct collective and</p> <p>An experience of subjugation, marginalization, dispossession, exclusion, or discrimination</p>
Standard 5: Labour and working conditions	<p>Promote direct action to foster decent rural employment.</p> <p>Promote, respect, and realize fundamental principles and rights by:</p> <p>Preventing discrimination and promoting equal opportunities for workers.</p> <p>Supporting freedom of association and the right to collective bargaining. and</p> <p>Preventing the use of child labour and forced labour.</p> <p>Protect and promote the safety and health of workers.</p> <p>Ensure that projects comply with national employment and labour laws, and international commitments.</p> <p>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.</p>	<p>- 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.</p> <p>-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 intermediaries) to perform work essential to a project.⁶¹</p> <p>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.</p> <p>-Government civil servants working in connection with IFAD-supported projects remain subject to the terms and conditions of their existing public sector employment arrangements</p>
Standard 6: Community health and safety	<p>Ensure quality and safety in the design and construction of programming-related infrastructure, preventing and minimizing potential safety risks and accidents.</p> <p>Avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with project activities.</p> <p>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.</p> <p>Have in place effective measures to address emergency events, whether human-made or natural hazards.</p>	<p>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.</p>

ENVIRONMENTAL AND SOCIAL STANDARDS	OBJECTIVES	SCOPE OF APPLICATION
Standard 7: Physical and economic resettlement	<p>Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring alternative project designs and sites.</p> <p>Avoid forced eviction.</p> <p>Ensure that resettlement activities are planned and implemented collaboratively with the meaningful participation of affected people.</p> <p>Enhance and restore the livelihoods- of all displaced people. And provide explicit guidance to borrowers/recipients/partners on the conditions that need to be met regarding involuntary resettlement.</p>	<p>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 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.</p> <p>Application of this Standard must 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.</p>
Standard 8: Financial intermediaries and direct investments	<p>Promote sound environmental, social and climate practices, and sound human resource management with FIs and direct investees.</p> <p>Ensure that FIs and direct investees access and manage any environmental and social risks and impacts of subprojects. and</p> <p>Promote good environmental and social management practices by direct investees and in the subprojects financed by FIs.</p>	<p>This Standard applies to FIs and direct investees that receive financial support from IFAD, guided by its Rural Finance Policy and NSO Framework.</p> <p>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.</p> <p>If a direct investee implements other projects, subprojects or sub-activities concurrently, the investee should ensure that this Standard is applied.</p>
Standard 9: Climate change	<p>Ensure alignment of IFAD supported projects with the Nationally Determined Contributions of countries and the goals of the Paris Agreement and other international frameworks.</p> <p>Ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts, including both impacts of projects and on them.</p> <p>Apply the mitigation hierarchy in project design.</p> <p>Strengthen the resilience of communities to address the risk of climate change impacts and climate-related disasters. and</p> <p>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.</p>	<p>The requirements of this Standard apply to all IFAD-supported projects that:</p> <p>Have development outcomes that may be threatened by climate change or related disaster risks.</p> <p>May contribute to increased exposure or vulnerability to climate change and related disaster risks. or may produce significant GHG emissions.</p>

APPENDIX 7: ARCHAEOLOGICAL CHANCE FINDS PROCEDURE.

1.0 INTRODUCTION

The purpose of the Archaeological Chance Finds Procedure is to address the possibility of archaeological deposits, finds and features becoming exposed during earthmoving and ground altering activities that will be associated with the **Resilient Livestock Value Chain Project (ReLIV)** and to provide procedures to follow in the event of a chance archaeological find.

The objectives of these procedures, are to identify and promote the preservation and recording of any archaeological material that may be discovered and notify the relevant District Authority, the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery, to resolve any archaeological issue that may arise.

2.0 ARCHAEOLOGICAL CHANCE FINDS PROCEDURE

During the project induction meeting/training, all contractors/construction teams will be made aware of the need to be on the lookout for objects of archaeological interest as they carry out their earthmoving and excavation activities.

Generally, the following procedure is to be executed in the event that archaeological material is discovered:

- All construction activity in the vicinity of the find/feature/site will cease immediately.
- The discovered find/ feature/ site will be delineated immediately.
- Record the find location, and make sure all remains are left in place.
- Secure the area to prevent any damage or loss of removable objects.
- Contact, inform and notify the District Administrator (DA), District Environmental Officer (DEO), the Environment Management Authority and the Institution responsible for Museums in the particular country of the discovery,
- The Authorities so notified will avail an archaeologist.
- The archaeologist will assess, record and photograph the find/feature/ site.
- The archaeologist will undertake the inspection process in accordance with all project health and safety protocols under the direction of the District Health and Safety Officer.
- In consultation with the DA, DEO, the Environment Management Authority and the Institution responsible for Museums, the Archaeologist will determine the appropriate course of action to take.

Finds retrieval strategy:

- All investigation of archaeological soils will be undertaken by hand, all finds, osteological remains and samples will be kept and submitted to the National Museum as required. In the event that any artefacts need to be conserved, the relevant license (License to Alter) will be sought from the National Museum Department.
- An on-site office and finds storage area will be provided, allowing storage of any artefacts or other archaeological material recovered during the monitoring process.
- In the case of human remains, in addition to the above, the Local Leadership will be contacted and the guidelines for the treatment of human remains will be adhered to. If skeletal remains are identified, an osteoarchaeologist will be available to examine the remains.

Conservation:

- A conservator should be made available to the project, if required.
- The on-site archaeologist will complete a report on the findings as part of the licensing agreement in place with the Department of Culture.
- Once authorization has been given by the responsible statutory authorities, the client will be informed when works can resume.

APPENDIX 8: THE INTEGRATED PEST MANAGEMENT PLAN (IPMP).

The following is an outline of the integrated pest management and monitoring plan for the RELIV. 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/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
1.	PHYSICAL AND BIOLOGICAL CONTROLS						
1.1	Fodder crops and livestock damage by pests	Low crop yields	Use healthy seed and resistant varieties. Train farmers on importance of using healthy seed	Farm management & farmers	IPM practices	MAAIF - DAR RELIV PMU	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	MAAIF - DAR RELIV PMU	quarterly
			Provide information to farmers on appropriate planting times	Extension workers.	Recommended agricultural practices, IPM practices	Min. of Agriculture RELIV PMU	Half yearly
			Crop rotation, diversity and inter-cropping	Extension workers	Recommended agricultural practices	MAAIF - DAR RELIV PMU	Half yearly
			Train farmers in enhancement of biological control of pests. Research in IPM methods	Extension workers Agricultural Research, NGO's	IPM practices	MAAIF - DAR RELIV PMU	Half yearly
			Make farm inputs and information on pests, pesticides and pest resistant seeds available to farmers	Micro-credit institutions, Extension workers, seed suppliers and NGO's	IPM	MAAIF - DAR RELIV PMU	Half yearly
2.	CHEMICAL CONTROLS (PESTICIDES)						
2.1	Issues / Concerns During Pesticide Transportation						
2.1.1	Adulteration	Lack of controls	Inspection, sampling and testing	Transporters	-Packaging and storage standards -Product specifications –Environment Act Agricultural Chemicals (Control) Act, No.1 of 2006.	RELIV PMU	Half yearly

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
2.1.2	Accidents / spillages	-Vehicle condition, -Road condition, -Poor driving skills	Ensure that roadworthy vehicles are used. Ensure drivers are properly instructed.	RELIV	-Road traffic regulations. - Vehicle maintenance requirements	- Environment Department	As need arises
2.1.3	Accidental Contamination	Using same vehicle for different purposes	Ensure vehicles are inspected and cleaned when changing use	Transporters	- (pesticide transport regulations).	- Environment Department MAAIF - DAR	As need arises
2.2	Issues/Concerns During Pesticide Storage						
2.2.1	Pesticide loss, degradation and contamination.	-Inappropriate building for storage of pesticides.	-Suitable warehouse	Transporters Agro dealers	- regulations	- Environment Department - RELIV PMU	Before approval of storage facilities for pesticides
		Wrong shelving or stacking	-Routine inspection and inventory checks	Agro-dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly
		-Inadequate storage space. --Bad housekeeping -multi-purpose use of warehouse	-Provide adequate and separate storage space for pesticides	Agro dealers	- regulations, - manufacturer's guidelines	- RELIV PMU	Half yearly
		Theft and vandalism	Restrict entry to pesticide areas. Check pesticides records regularly	Farm management	Farm security policy	Farm management	quarterly
		Over-stocking	Buying the required quantities only	Agro dealers	Agricultural Chemicals (Control) Act, No.1 of 2006.	Farm management	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. Factories Act	Ministry Of Labour, RELIV PMU	Annually
2.2.3	Occupational Health	Exposure to pesticides	-Provide protective clothing and ensure it is used. -Train farmers in proper pesticides handling. -Routine medical examination	Agro dealers Ministry of Agriculture RELIV PMU	labour regulations, regulations	-Min. of labour. - RELIV PMU	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 RELIV PMU	Pesticide manufacturers regulations	- , RELIV PMU -DEO	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 Act	- -Min of labour - RELIV PMU	Annually

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
2.3.3	Accidental poisoning	lack of knowledge of pesticide potency and negligence	Training	Ministry of Agriculture RELIV PMU	Pesticides Act	- -DEO	Annually
		-Equipment malfunction -Wrong type of equipment. - Time and method of application (spraying)	-Regular maintenance of equipment. -Use recommended equipment. -Use approved methods of application. -Use recommended protective clothing. -Training seminars -Integrated Pesticide Management	-Ministry of Agriculture RELIV PMU	-Manufacturer's recommendations. -Equipment maintenance policy	- - RELIV PMU	Annually
		-Improper cleaning of equipment.	-Clean equipment and dispose equipment as recommended by manufacturer.	Ministry of Agriculture RELIV PMU	-Manufacturer's recommendations.	- RELIV PMU	Annually
		-Improper disposal of cleaning water and old equipment	-Use bio-beds and draining dams to dispose cleaning and drainage waters -Integrated Pesticide Management		- regulations. Water resources regulations	- RELIV PMU	
		Multi-purpose use of equipment or pesticides	Control use of equipment and pesticides. -Thorough cleaning of equipment -Training -Integrated Pesticide Management	Ministry of Agriculture	Pesticides Act	- - RELIV PMU	Annually
2.4. Issues / Concerns during disposal of pesticides containers and equipment							
2.4.1	Water and Environmental pollution	-Cleaning of equipment, -Disposal of remains of pesticides -Disposal of containers and equipment	-Use of bio-beds, draining channels and draining dams. -Use chemical remains to re-spray. -Clean equipment in one place. -Use plants such as water lilies to absorb waste pesticides. -Take stock of pesticide containers -Integrated Pesticide Management	--- RELIV PMU -Department of Environmental -Water resources Board	-Pesticides and equipment - manufacturer's recommendations. -Water pollution standards.	Department of Environment.	Annually

Item No	Potential Issues / Concerns	Cause of Concern	Control/Mitigation Measure	Responsible Person/institution	Standards/Regulation/Practices	Monitoring Institution	Monitoring Frequency
2.4.2	Post Application Monitoring	Pesticides residues in the food chain	<ul style="list-style-type: none"> -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 	-- RELIV PMU	<ul style="list-style-type: none"> -Environmental standards -Wastewater standards 	<ul style="list-style-type: none"> -Department of Environment -Water Resources Board - RELIV PMU 	Annually

APPENDIX 9: THE LABOUR, COMMUNITY HEALTH, AND SAFETY MANAGEMENT PLAN.

1.0 RELEVANT POLICIES AND PROCEDURES

The engagement and treatment of program staff will be made on the basis of characteristics related to inherent job requirements. It will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.

Contractors will be responsible for mitigating all environmental and social impacts of subprojects resulting from activities directly under their control. The RELIV PMU SECAP Specialist will incorporate standardized environmental and social clauses in the tender and contract documents in order for potential bidders to be aware of environmental and social performance requirements that will be expected from them and are able to reflect that in their bids and required to implement the clauses for the duration of the contract.

The contractor will be required to ensure that all documentation related to environmental and social management, including the LMP, is available for inspection at any time by the respective Labour Ministries or their appointed agents in the different countries. The contractual arrangements with each project worker must be clearly defined in accordance with each local Legislation. All environmental and social requirements will be included in the bidding documents and contracts in addition to any additional clauses, which are contained, in the Projects environmental and social instruments.

The RELIV PMU, Contractors, suppliers or sub-contractors will never engage forced labour. Forced labour includes bonded labour (working against an impossible debt), excessive limitations of freedom of movement, excessive notice periods, retaining the worker's identity or other government-issued documents or personal belonging, imposition of recruitment or employment fees payable at the commencement of employment, loss or delay of wages that impede the workers' right to end employment within their legal rights, substantial or inappropriate fines, physical punishment, use of security or other personnel to force or extract work from project workers, or other restrictions that compel a project worker to work on a non-voluntary basis.

2 LABOUR INFLUX AND GENDER BASED VIOLENCE

Contractors will need to maintain labour relations with local communities through a code of conduct (CoC). The CoC commits all persons engaged by the contractor, including sub-contractors and suppliers, to acceptable standards of behaviour. The CoC must include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and sexual harassment (e.g., termination). The CoC should be written in plain language and signed by each worker to indicate that they have:

- Received a copy of the CoC as part of their contract.
- Had the CoC explained to them as part of induction process.
- Acknowledged that adherence to this CoC is a mandatory condition of employment.
- Understood that violations of the CoC can result in serious consequences, up to and

including dismissal, or referral to legal authorities.

A copy of the CoC shall be displayed in a location easily accessible to the community and project affected people. It shall be provided in English and the local language.

Contractors must address the risk of gender-based violence, through: Mandatory training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. Training may be repeated.

- Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted.
- Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
- Developing a system to capture gender-based violence, sexual exploitation and workplace sexual harassment related complaints/issues.

This process will be under the portfolio of the SECAP Specialist to be recruited under the PMU and shall identify and engage the relevant stakeholders on GBV and HIV and Aids related issues.

3 OCCUPATIONAL, HEALTH AND SAFETY

RELIV is committed to:

- Complying with the Uganda Governments' legislation and other applicable requirements which relate to the occupational health and safety hazards.
- Enabling active participation in OH&S risks elimination through promotion of appropriate skills, knowledge and attitudes towards hazards.
- Continually improving the OH&S management system and performance.
- Communicating this policy statement to all persons working under the control of RELIV with emphasis on individual OH&S responsibilities.
- Availing this policy statement to all interested parties at all participating educational facilities and institutions.

The RELIV SECAP Specialist will be responsible for overseeing the workplace Safety, Health and Environmental issues. He/she must:

- Identify potential hazards.
- In collaboration with the employer, investigate the cause of accidents at the workplace.
- Attend meetings of the safety and health committee to which that safety and health representative is a member.
- Make recommendations to the employer in respect of safety and health matters affecting employees.

Further to avoid work related accidents and injuries, the contractor will:

- Provide occupational health and safety training to all employees involved in RELIV works.
- Ensure availability of first aid box.
- Provide employees with access to toilets and potable drinking water.

- Provide safety and occupational safety measures to workers with Personal Protection Equipment (PPE) when installing solar systems to prevent accidents during replacement and installation and follow safety measures in installing them.
- Properly dispose of solid waste at designated permitted sites landfill allocated by the local authorities.

Further to enforcing the compliance of environmental management, contractors are responsible and liable of safety of site equipment, labours and daily workers attending to the site installations and safety of citizens for each sub-project site, as mandatory measures.

APPENDIX 10: THE TARGETED ADAPTATION DECISION MATRIX TABLE

Table APP 10.1 Adaptation decision matrix table

PRIORITY ADAPTATION OPTIONS	NAME	RATIONALE									
1	Introduce new varieties of fodder, e.g., with greater drought or flood resistance.	New varieties of fodder 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 and enhance livestock feed security.									
2	Promote livestock 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 integrated systems involving dairy and beef livestock and/or aquaculture to improve resilience.	The farmers have to diversify their livelihoods so that if the income from dairy fails, the other income source will come in handy.									
4	Improve pest and disease control practices	The improvement of pest and disease control practices will ensure healthy animals which translates to higher dairy productivity.									
5	Make contingency plans to deal with loss of fodder crops due to drought or flood	contingency plans to deal with loss of fodder crops due to drought or flood will ensure that the animals have adequate feed even during difficult times.									
Select Sector	Adaptation options	Technical feasibility	Cost-benefit ratio	Addresses climate risks	Accessibility for smallholders	Flexibility (i.e. avoids lock-in)	Mitigation co-benefits	Transformative potential	Completeness to IFAD themes	Suitability	Total Score
DAIRY	Introduce new varieties of fodder, 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 livestock.	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 / dams to cope with drought	2	2	2	2	1	2	1	1	Suitable	13
	Identify alternative sources of water supply during drought	2	2	2	2	3	1	2	2	Suitable	16
	Promote livestock 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 of agro-forestry systems	2	2	2	2	2	3	2	2	Suitable	17
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, check dams, contour bunds and vetiver)	2	2	2	2	1	2	1	1	Suitable	13
Promote flood control structures and river flood defences near vulnerable farming areas	2	2	1	1	1	2	2	2	Not Suitable	0
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 flood plains where flood sediments increase productivity of pastures)	1	2	1	2	2	2	2	2	Not Suitable	0
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 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 fodder crops, new breeds and opportunities/ risks of introduction.	1	2	1	2	2	2	2	2	Not Suitable	0
Expand agricultural areas to regions with lower climate risk	1	1	1	1	1	2	1	2	Not Suitable	0
Make contingency plans to deal with loss of fodder crops due to drought or flood	3	3	2	3	2	2	2	2	Not Suitable	19
Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	2	2	2	1	2	1	1	Suitable	13
Make use of integrated systems involving dairy and beef livestock and/or aquaculture 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 fodder cropping strategies.	2	1	2	2	2	2	3	3	Not Suitable	0
	Assume a lower life expectancy and plan for more frequent infrastructure replacement activities.	1	1	1	1	1	1	1	1	Not Suitable	0
	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